

Weatherly Index No. 002

CATALOG NO.

**CA0030**

JANUARY 2011



# **CUMMINS ENGINES**

## **Replacement Parts Catalog**

**GLOBAL TECHNOLOGY** behind every part

**FEDERAL MOGUL**

# FP DIESEL® "OPEN GALLERY" DESIGN FOR M11 PISTONS OFFERS A COOLER REPLACEMENT SOLUTION FOR THESE HARD WORKING ENGINES.

Today's diesel engines burn fuel more completely and efficiently. That means they're running hotter. And that requires an advanced design to keep pistons cool.

The new FP Diesel® replacement piston for the Cummins® M11 engine features a breakthrough "open gallery" design that circulates fresh oil, nonstop, to the piston crown.

The FP Diesel open cooling gallery replacement solution gives you several advantages over the "closed gallery" design:



THE NEW "OPEN GALLERY" DESIGN - ONLY FROM FP DIESEL.

## FP DIESEL® DESIGN

### PROPRIETARY CROWN MATERIAL & MANGANESE PHOSPHATE COATING

High-strength forging combined with an exclusive coating improves break-in performance, reduces pin bore scuffing and enhances service life.

## CLOSED GALLERY DESIGN

### COVER PLATE

Keeps oil inside gallery until it drains out through metered holes. Oil stays in gallery longer and becomes hotter in a "closed gallery" design. Cover plate can also dislodge over time.

### OPEN COOLING GALLERY

Cool oil contacts the oil gallery and falls back into crankcase or skirt tray. At TDC the oil is thrown fully upward into gallery, where it absorbs additional heat.

### OIL TRAY IN SKIRT

Holds warm oil, allowing it to contact edge of gallery and transfer heat. Oil in tray is thrown upward into gallery at TDC.

### PROPRIETARY SKIRT MATERIAL

Stronger than the industry standard.

### NO OIL TRAY IN SKIRT

Oil is lifted into the gallery via pressure. This is less efficient than the oil tray design.

### EXCLUSIVE DESIGN OFFERS:

No cover plate to fall off and cause engine failure | Smooth surfaces resulting in better stress distribution | More robust to oil cooling jet alignment/wear

**This innovative FP Diesel design is proven to be a better and more efficient replacement piston in today's hardest working engines.**

## FLEETS RETHINK REPLACEMENT

More and more fleets are rethinking their engine and equipment replacement cycles as new engines become increasingly expensive. In a challenging business environment, rebuilding a commercial engine is a smart choice — if you have the right replacement technologies.

The FP Diesel approach isn't just to return the engine to service, but to increase power and performance.

To that end, our dedicated FP Diesel engineers reviewed the closed gallery articulated piston design and developed a better, more efficient solution.

FP Diesel eliminates the oil gallery cover plates and adds an oil tray to the skirt. This design creates an open cooling gallery on the underside of the piston crown — providing cooling of the piston crown and heat transfer capabilities.

In addition, fleet operators tell us the cover plates may fall out during operation. This can lead to failure of internal engine components and, ultimately, engine failure. This problem is eliminated with the FP Diesel M11 replacement piston, since it has no cover plate.

Dynamometer test results prove the FP Diesel replacement piston design removes significant amounts of heat from the piston crown, providing improved durability without sacrificing engine performance.

All FP Diesel pistons are designed using the latest in computer-aided design (CAD) and computer-aided engineering (CAE) technology, and are thoroughly researched to ensure the proper dimensional and metallurgical requirements. When installed with FP Diesel cylinder liners and piston rings, these components develop optimum performance as part of the "power-cylinder" system.





# Table of Contents

*Global Technology Behind Every Part*

## Catalog and Product Information

|   |     |                                    |         |
|---|-----|------------------------------------|---------|
| Table of Contents .....   | I   | Governor Plungers .....            | 281     |
| How to use this catalog .....                                       | II  | Numerical Index .....              | 310     |
| Abbreviations .....   | III | Piston Ring Set Instructions ..... | 414-416 |
| CPL Number List – All engine models ...                             | 284 | Products and Catalogs .....        | II      |
| Engine Models – In-Frame and<br>Overhaul Kits Quick Reference ..... | V   | Warranty .....                     | VII-IX  |
| Fuel Injection Components –<br>all engine models .....              | 276 |                                    |         |

## Coverage: Section I

|  |     |  |     |
|--|-----|--|-----|
| B Series engines .....                             | 2   | KT & KTA Series engines .....  | 190 |
| ISB/QSB Series engines .....                       | 18  | QSK19 Series engines .....   | 226 |
| ISB 5.9L & 6.7L Valve Seal<br>Identification ..... | 413 | C464, N743, NH, NT855,<br>Small and Medium Vee .....                     | 247 |
| C Series engines .....                             | 40  | 743 & 855 Natural Gas<br>engine components .....                         | 283 |
| ISC/QSC Series engines .....                       | 59  | 855 Series engines –<br>piston supersession list .....                   | 303 |
| L10 & M11 Series engines .....                     | 76  | 855 Series engines – 4 ring piston list.....                             | 304 |
| L10 Engine Piston Ring Set<br>Instructions .....   | 416 | 855 Series engines – 3 ring piston list.....                             | 306 |
| ISL/QSL Series engines .....                       | 104 | 855 Series engines – cylinder kit list .....                             | 309 |
| ISM/QSM Series engines .....                       | 120 | C464, N743, NH, NT855, Small and Medium<br>Vee – cylinder kit list ..... | 310 |
| N14 Series engines .....                           | 140 |  |     |
| ISX/QSX Series engines .....                       | 172 |  |     |

## Vintage Coverage: Section II

|   |         |   |         |
|---|---------|---|---------|
| How to use the Cummins<br>Vintage Catalog Section ..... | 331     | Vintage Engine Kit BOM List .....             | 406-407 |
| Vintage Engine/Model Index.....                         | 332-340 | Vintage Engine Section<br>Numerical List..... | 408-412 |
| Vintage Engine Applications.....                        | 340-405 |   |         |





## How to use this catalog

### Global Technology Behind Every Part

The FP Diesel catalog for Cummins replacement components is divided into two distinct sections. The first section includes the most current and popular Cummins® engine families. The second section includes Cummins Vintage engines; engines not as popular as those listed in the front section, but those that FP Diesel continues to supply coverage for. Also included in the Vintage section are engines sold under the Cummins badge but manufactured by another engine manufacturer.

Part numbers listed with an FP prefix, indicate that they are currently available in the FP Diesel product offering. Part numbers without an FP prefix are currently being added and are listed for reference. Check with FP Diesel customer service for the most

up-to-date availability on these components.

To assure you get the right parts for your particular engine, you must have the engine serial number or the Control Parts List (CPL) number. If you do not have this information, you may need the piston number, block casting number, connecting rod casting number, cylinder head casting number or crankshaft casting number to identify specific parts for your particular engine.

This catalog is not intended to replace the Cummins parts books, CPL book, micro-fiche or service manuals. If in doubt about the parts for your particular application, consult your Cummins OE publications.

## Catalogs and Products

### Caterpillar

Replacement Caterpillar products cover 3200, 3300, 3400, 3500, D Series and G Series engines. This coverage extends from cylinder heads, fuel injection, cam and crankshafts, cylinder kits, valvetrain and electrical to engine bearings, transmission, hydraulic gasket sets and more. **Refer to FP Diesel catalog No. CA0010 (parts) and CA0020 (gaskets).**

### Cummins

FP Diesel provides replacement parts coverage for V378, V504, V555, Small Vee Engines, V/VT 903, 855 Series, N14, L10, B Series, C Series, V/VT1710, N743 and K/KTA 18-, 38and 50-liter engines, as well as components for Jacobs® brakes.

**Refer to FP Diesel catalog No. CA0030.**

### Detroit Diesel

FP Diesel offers the most complete coverage in the replacement parts industry for Detroit Diesel, with an extensive line of components and kits for the 8.2-liter, 53 Series, 60 Series, 71 Series, 92 Series and 149 Series engines. **Refer to FP Diesel catalog No. CA0040 for 2-cycle engines or FP Diesel catalog No. CA0045 for 4-cycle engines.**

### John Deere

FP Diesel offers a broad range of in-frame and complete overhaul kits and related components for 300 Series, 400 Series, 500 Series and Powertech engines is available from FP Diesel.

**Refer to FP Diesel catalog No. CA0085.**

### Komatsu

Extensive coverage for Komatsu S6D155 and SA6D155 engines, as well as a full line of replacement parts for Komatsu machines using Cummins N743, KT/KTA 19-, 38and 50-liter engines, and the Cummins 855.

**Refer to FP Diesel catalog No. CA0085.**

### Mack

FP Diesel has a broad line for Mack, early ENDT 675 and 676 engines, as well as parts for later EM6 with both twoand four-valve head configurations.

**Refer to FP Diesel catalog No. CA0060.**

### International/Navistar

International coverage extends from the 6.9 and 7.3 liter, DT-360 and DT-466 through the 9.0 liter engine.

**Refer to FP Diesel catalog No. CA0050.**

For agricultural applications, FP Diesel also services the DT-414 and DT-436 Case/I.H. engines. **For industrial and agricultural applications, refer to FP Diesel catalog No. CA0188.**

### Case

FP Diesel has a complete range of kits and components for the 188, 207, 301, 366, 451 and 504-Case engines along with the 4-390 & 4T-390, 6-590 & 6T-590, 6T-830 & 6TA-830, LTA 10 and 855 B/C III Cummins engines.

**Refer to FP Diesel catalog No. CA0095.**

### Commercial, Ag, Industrial Engines

The FP Diesel CA0188 catalog includes all the engine manufacturers not covered in the FP Diesel name-plate specific catalogs. Replacement engine components for Allis-Chalmers, Bedford, Bendix-Westinghouse, Briggs & Stratton, Buda, Case Tractor, Chevrolet MD Truck, Climax, Continental, Dodge MD Truck, Ford Tractor, GMC MD Truck, Hercules, IHC Tractor, Isuzu Forklift, KHD, Kohler, LeRoi, Massey Ferguson, Mercedes, Mazda Forklift, Minneapolis-Moline, Mitsubishi, Novo, Oliver, Perkins, Superior, Thermo-King, Volvo, Waukesha, White and Wisconsin are included in the **FP Diesel CA0188 catalog.**

### www.FMe-cat.com

FMe-cat is the online solution that offers fast, easy access to virtual catalog pages covering the thousands of FP Diesel® replacement components for the commercial vehicle category. This user-interactive catalog experience helps ease locating components for medium and heavy-duty applications and enables users to accurately navigate in a virtual catalog environment.







## Abbreviations Used

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### ABBREVIATION ..... DESCRIPTION

|              |                           |
|--------------|---------------------------|
| &            | And                       |
| 2WD          | Two Wheel Drive           |
| 4WD          | Four Wheel Drive          |
| A.I.R.       | Air Injector Reactor      |
| A/C          | Air Conditioning          |
| A/R          | As Required               |
| A/T          | Automatic Transmission    |
| ABS          | Anti-lock Brake System    |
| AC           | Alternating Current       |
| Acc.         | Accessory                 |
| Adj.         | Adjustable                |
| Adv.         | Advance                   |
| Aft.         | After                     |
| Alt.         | Altitude                  |
| Alum.        | Aluminum                  |
| Amp.         | Ampere                    |
| AOD          | Automatic Overdrive       |
| Appl.        | Application               |
| Approx.      | Approximately             |
| Asst.        | Assist                    |
| Assy.        | Assembly                  |
| ATV          | All Terrain Vehicle       |
| Auto.        | Automatic                 |
| Auto. Trans. | Automatic Transmission    |
| Aux.         | Auxiliary                 |
| Avail.       | Available                 |
| Avg.         | Average                   |
| AWD          | All Wheel Drive           |
| Bal.         | Balance                   |
| Batt.        | Battery                   |
| Bbl.         | Barrel                    |
| Bbl. Carb.   | Barrel Carburetor         |
| Bef.         | Before                    |
| Brg.         | Bearing                   |
| Brkt.        | Bracket                   |
| C            | Celsius                   |
| C.I.         | Cast Iron                 |
| C.R.         | Compression Ratio         |
| C/L          | Centerline                |
| Calib.       | Calibration               |
| Calif.       | California                |
| Cam          | Camshaft                  |
| Can.         | Canada                    |
| Carb.        | Carburetor                |
| Cat          | Catalytic                 |
| cc           | Cubic Centimeter          |
| CCW          | Counter Clockwise         |
| CD           | Compression Distance      |
| CFFI         | Cross Fire Injection      |
| CFI          | Central Fuel Injection    |
| CFM          | Cubic Feet per Minute     |
| CID          | Cubic Inch (Displacement) |
| Cld.         | Cooled                    |
| Clg.         | Cooling                   |
| Clr.         | Cooler                    |
| cm           | Centimeter                |
| Cntr. Bore   | Counter Bore              |
| Compl.       | Complete                  |
| Con. Rod     | Connecting Rod            |
| Cruise       | Cruise Control            |

### ABBREVIATION ..... DESCRIPTION

|           |                             |
|-----------|-----------------------------|
| Ctr.      | Center                      |
| CW        | Clockwise                   |
| Cyl.      | Cylinder                    |
| Cyl. Hd.  | Cylinder Head               |
| DC        | Direct Current              |
| Deg.      | Degree                      |
| DFI       | Digital Fuel Injection      |
| DI        | Direct Injection            |
| Dia.      | Diameter                    |
| Dim.      | Dimension                   |
| Dir. Inj. | Direct Injection            |
| Disc.     | Discontinued                |
| Dist.     | Distributor                 |
| DOHC      | Dual Overhead Camshaft      |
| Dr.       | Door or Drive               |
| E.E.C.    | Electronic Engine Control   |
| E.I.S.    | Electronic Ignition System  |
| Ea.       | Each                        |
| Ecc.      | Eccentric                   |
| ECM       | Electronic Computer Module  |
| ECM       | Electronic Control Module   |
| ECM       | Engine Control Module       |
| Econ.     | Economy                     |
| ECS       | Electronic Controlled Spark |
| EFI       | Electronic Fuel Injection   |
| Elec.     | Electric                    |
| Emis.     | Emission                    |
| Eng.      | Engine                      |
| Equip.    | Equipment                   |
| Etc.      | Et Cetera                   |
| Exc.      | Except                      |
| Exh.      | Exhaust                     |
| Exp.      | Export                      |
| Ext.      | Exterior                    |
| Ext.      | External                    |
| F         | Fahrenheit                  |
| Fed.      | Federal                     |
| FI        | Fuel Injection              |
| Flex.     | Flexible                    |
| Flg.      | Flange                      |
| Flwr.     | Follower                    |
| Frg.      | Forged or Forging           |
| Frt.      | Front                       |
| FWD       | Front Wheel Drive           |
| Gal.      | Gallon                      |
| Gas       | Gasoline                    |
| GPH       | Gallons Per Hour            |
| GPM       | Gallons Per Minute          |
| Grv(s)    | Groove(s)                   |
| Gskt.     | Gasket                      |
| GVW       | Gross Vehicle Weight        |
| H/D       | Heavy Duty                  |
| Hd.       | Head                        |
| HEI       | High Energy Ignition        |
| Hi        | High                        |



## Abbreviations Used

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### ABBREVIATION ..... DESCRIPTION

|                 |                                 |
|-----------------|---------------------------------|
| Hi Alt.....     | High Altitude                   |
| Hi-Perf.....    | High Performance                |
| Hi-Temp.....    | High Temperature                |
| HO.....         | High Output                     |
| Horiz.....      | Horizontal                      |
| HP.....         | Horsepower                      |
| HSC.....        | High Swirl Combustion           |
| Hyd.....        | Hydraulic                       |
| I/C.....        | Intercooler                     |
| I.D.....        | Identification                  |
| ID.....         | Inside Diameter                 |
| IDI.....        | Indirect Injection              |
| In. Frm.....    | In Frame                        |
| in.....         | Inch                            |
| Incl.....       | Includes                        |
| Ind.....        | Industrial                      |
| Inj.....        | Injection                       |
| Int.....        | Intake                          |
| Inter.....      | Intermediate                    |
| L.....          | Liter                           |
| L.H.....        | Left Hand                       |
| L/D.....        | Light Duty                      |
| Lgth.....       | Length                          |
| LPG.....        | Liquid Propane Gas              |
| M/D.....        | Medium Duty                     |
| M/T.....        | Manual Transmission             |
| Man.....        | Manual                          |
| Man. Trans..... | Manual Transmission             |
| Max.....        | Maximum                         |
| Mech.....       | Mechanical                      |
| MFI.....        | Multi-Port Fuel Injection       |
| Min.....        | Minimum                         |
| mm.....         | Millimeters                     |
| MPH.....        | Miles Per Hour                  |
| Mtl.....        | Material                        |
| N/A.....        | Not Available                   |
| N/R.....        | Not Required                    |
| Nat.....        | Natural                         |
| Nat. Asp.....   | Naturally Aspirated             |
| Neg.....        | Negative                        |
| Neut.....       | Neutral                         |
| No.....         | Number                          |
| Nom.....        | Nominal                         |
| Norm.....       | Normal                          |
| O.A.L.....      | Overall Length                  |
| O.E.....        | Original Equipment              |
| O/D.....        | Overdrive                       |
| O/S.....        | Oversize                        |
| Obs.....        | Obsolete                        |
| OD.....         | Outside Diameter                |
| OEM.....        | Original Equipment Manufacturer |
| OHC.....        | Overhead Cam                    |
| OHV.....        | Overhead Valve                  |
| Opt.....        | Optional                        |
| Orig.....       | Original                        |

### ABBREVIATION ..... DESCRIPTION

|                  |                                |
|------------------|--------------------------------|
| oz.....          | Ounce                          |
| P. T.O.....      | Power Take Off                 |
| P/S.....         | Power Steering                 |
| Pass.....        | Passenger                      |
| Pc(s).....       | Piece(s)                       |
| PCV.....         | Positive Crankcase Ventilation |
| Perf.....        | Performance                    |
| Pkg.....         | Package                        |
| Pos.....         | Positive                       |
| Prem.....        | Premium                        |
| Pri.....         | Primary                        |
| PSI.....         | Pound Per Square Inch          |
| Pwr.....         | Power                          |
| Qtr.....         | Quarter                        |
| Qty.....         | Quantity                       |
| R.B.P.....       | Ring Below Pin                 |
| R.H.....         | Right Hand                     |
| Ref.....         | Reference                      |
| Reg.....         | Regular                        |
| Reman.....       | Remanufactured                 |
| Req'd.....       | Required                       |
| Rev.....         | Revision                       |
| Rev. Rot.....    | Reverse Rotation               |
| Rlr.....         | Roller                         |
| RMB.....         | Rear Main Bearing              |
| Rot.....         | Rotatovn                       |
| RPM.....         | Revolutions Per Minute         |
| Rr.....          | Rear                           |
| RWD.....         | Rear Wheel Drive               |
| S/C.....         | Supercharged                   |
| Seal. Rings..... | Sealing Rings                  |
| Ser.....         | Serial or Series               |
| Ser. No.....     | Serial Number                  |
| SFI.....         | Sequential Fuel Injection      |
| Slv.....         | Sleeve                         |
| SOHC.....        | Single Overhead Cam            |
| Spd.....         | Speed                          |
| Spec.....        | Special                        |
| Sta.....         | Station                        |
| Std.....         | Standard                       |
| Sys.....         | System                         |
| T/C.....         | Turbocharged                   |
| Tach.....        | Tachometer                     |
| TBI.....         | Throttle Body Injection        |
| Temp.....        | Temperature                    |
| TPI.....         | Tuned Port Injection           |
| Trans.....       | Transmission                   |
| Trk.....         | Truck                          |
| TTY.....         | Torque-to-Yield                |
| TURBO.....       | Turbocharged                   |
| U/S.....         | Under Size                     |
| Veh.....         | Vehicle                        |
| VIN.....         | Vehicle Identification Number  |
| VIV.....         | Valve                          |
| VSS.....         | Valve Stem Seal                |
| w/.....          | With                           |
| w/o.....         | Without                        |
| Wagon.....       | Station Wagon                  |
| Wt.....          | Weight                         |





# Engine Models – In-Frame and Overhaul Kits Quick Review

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## In-Frame Engine Kits

| Engine          | Part Number     | In-Frame Kit Description                                |
|-----------------|-----------------|---|
| 4B,4BT3.9       | FP-4B39PREM     | w/upper gasket set & oil pan gasket                     |
| 4B,4BT3.9       | FP-4B39PREML    | w/upper gasket set & oil pan gasket (late)              |
| 4B,4BT3.9       | FP-IFK4B39PREM  | w/upper gasket set & oil pan gasket                     |
| 4B,4BT3.9       | FP-IFK4B39PREML | w/upper gasket set & oil pan gasket (late)              |
| 6B,6BT5.9       | FP-3356970      | contains FP-3802160 Piston Kit                          |
| 6B,6BT5.9       | FP-3356971      | contains FP-3802248 Piston Kit                          |
| 6B,6BT5.9       | FP-6B59PREM     | w/upper gasket set & oil pan gasket                     |
| 6B,6BT5.9       | FP-6B59PREML    | w/upper gasket set & oil pan gasket (late)              |
| 6B,6BT5.9       | FP-IFK6B59PREM  | w/upper gasket set & oil pan gasket                     |
| 6B,6BT5.9       | FP-IFK6B59PREML | w/upper gasket set & oil pan gasket (late)              |
| 6C,6CT8.3       | FP-3356824      | contains FP-3802403 Cyl Kit                             |
| 6C,6CT8.3       | FP-3356825      | contains FP-3802404 Cyl Kit                             |
| 6C,6CT8.3       | FP-3356826      | contains FP-3802406 Cyl Kit                             |
| 6C,6CT8.3       | FP-3356827      | contains FP-LK92479937 Cyl Kit                          |
| 6C,6CT8.3       | FP-3357573      | contains FP-3802263 Piston Kit                          |
| 6C,6CT8.3       | FP-3357574      | contains FP-3802601 Piston Kit                          |
| 6C,6CT8.3       | FP-3357803      | contains FP-3802344 Piston Kit                          |
| 6C,6CT8.3       | FP-6C83PREM     | w/upper gasket set & oil pan gasket                     |
| 6C,6CT8.3       | FP-IFK6C83PREM  | w/upper gasket set & oil pan gasket                     |
| ISB             | FP-IFKISB624V   | w/upper gasket set & oil pan gasket                     |
| ISC/QSC         | FP-IFKISCQSC    | w/upper gasket set & oil pan gasket                     |
| KT19            | FP-IFKKT19      | w/upper gasket set & oil pan gasket                     |
| KTA19           | FP-IFKTA19      | w/upper gasket set & oil pan gasket                     |
| L10/M11         | FP-IFKL10PREM   | w/upper gasket set & oil pan gasket                     |
| L10/M11         | FP-L10PREM      | Premium Cylinder Kits                                   |
| L10/M11         | FP-L10PREMDNA   | Premium Cylinder Kits, Dual-NI, Anodized                |
| L10/M11         | FPL10PREMDNAOH  | Premium Cylinder Kits, Dual-NI, Anodized                |
| M11 articulated | FP-4025297      | contains FP-4025162 Cyl Kit                             |
| M11 articulated | FP-IFKM11AR     | w/upper gasket set & oil pan gasket Articulated Pistons |
| N14             | FP-IFKN14PRPDN  | Premium Plus, Dual-NI, Below 370HP                      |
| N14             | FP-IFKN14PRPDNA | Premium Plus, Dual-NI, Anodized, 370HP & Above          |
| N14             | FP-N14PREMPDN   | Premium Plus, Dual-NI, Below 370HP                      |
| N14             | FP-N14PREMPDNAN | Premium Plus, Dual-NI, Anodized, 370HP & Above          |
| N14 articulated | FP-IFKN14AR     | w/upper gasket set & oil pan gasket Articulated Pistons |
| N743,NH220      | FP-IFKNH220     | w/upper gasket set & oil pan gasket                     |
| N743,NH220      | FP-NH220        | w/upper gasket set & oil pan gasket                     |

| Engine          | Part Number     | In-Frame Kit Description                               |
|-----------------|-----------------|--|
| NG743,220       | FP-IFKNH220NG   | N743,220 Natural Gas                                   |
| NG743,220       | FP-NH220NG      | N743,220 Natural Gas                                   |
| NG855           | FP-IFKNG855PREM | 855 Natural Gas 12.0:1 C.R.                            |
| NG855           | FP-NG855PREM    | 855 Natural Gas 12.0:1 C.R.                            |
| NH,NT855        | FP-855PREM      | Premium Cylinder Kits                                  |
| NH,NT855        | FP-IFK855PREM   | Premium Cylinder Kits                                  |
| NH,NT855        | FP-KS12621C     | contains FP-CK31025099 Cyl Kit Std Head Gask Grommets  |
| NH,NT855        | FP-KS12621C7    | contains FP-CK31025099 Cyl Kit .010 Head Gask Grommets |
| NH,NT855        | FP-KS12622A     | w/upper gasket set & oil pan gasket                    |
| NH,NT855        | FP-KS12622C     | w/upper gasket set & oil pan gasket                    |
| NH,NT855        | FP-KS12622C7    | w/upper gasket set & oil pan gasket                    |
| NH,NT855        | FP-KS12622D     | w/upper gasket set & oil pan gasket                    |
| NT,NTC855       | FP-855PREMP     | Premium Plus Cylinder Kits                             |
| NT,NTC855       | FP-IFK855PREMP  | Premium Plus Cylinder Kits                             |
| NT,NTC855       | FP-IFK855PREMPD | Premium Plus Cylinder Kits Dual-NI Pistons             |
| NT855           | FP-855TT        | Premium 3-Ring Cylinder Kits                           |
| NT855           | FP-855TTDN      | Premium 3-Ring Cylinder Kits Dual-NI Pistons           |
| NT855           | FP-855TTP       | Premium Plus 3-Ring Cylinder Kits                      |
| NT855           | FP-855TTPDN     | Premium Plus 3-Ring Cylinder Kits Dual-NI Pistons      |
| NT855           | FP-IFK855TT     | Premium 3-Ring Cylinder Kits                           |
| NT855           | FP-IFK855TTDN   | Premium 3-Ring Cylinder Kits Dual-NI Pistons           |
| NT855           | FP-IFK855TTP    | Premium Plus 3-Ring Cylinder Kits                      |
| NT855           | FP-IFK855TTPDN  | Premium Plus 3-Ring Cylinder Kits Dual-NI Pistons      |
| NT855 w/o rings | FP-IFK855NR     | Cylinder Kits w/ no piston rings                       |
| NTC855          | FP-855PREMPDN   | Premium Plus Cylinder Kits Dual-NI Pistons             |
| NTC855          | FP-IFK855PRMPDN | Premium Plus Cylinder Kits Dual-NI Pistons             |
| V,VT,VTB903     | FP-VTB903PREM   | w/upper gasket set & oil pan gasket                    |
| V,VT903         | FP-IFKVTB903PRE | w/upper gasket set & oil pan gasket                    |
| V,VT903         | FP-IFKVTB903PRM | w/upper gasket set & oil pan gasket                    |
| V378,VT378      | FP-IFK378PREM   | Premium Cylinder Kits                                  |



# Engine Models – In-Frame and Overhaul Kits Quick Review

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## Complete Overhaul Engine Kits

| Engine          | Part Number             | Description  |
|-----------------|-------------------------|--|
| 4B,4BT3.9       | <b>FP-4B39PREMOH</b>    | Complete Overhaul Kit  |
| 4B,4BT3.9       | <b>FP-4B39PREMOHL</b>   | Complete Overhaul Kit - (late)   |
| 4B,4BT3.9       | <b>FP-0H4B39PREM</b>    | Complete Overhaul Kit  |
| 4B,4BT3.9       | <b>FP-0H4B39PREML</b>   | Complete Overhaul Kit - (late)   |
| 6B,6BT5.9       | <b>FP-6B59PREMOH</b>    | Complete Overhaul Kit (pre-1991)                                       |
| 6B,6BT5.9       | <b>FP6B5.9PREM-OHL</b>  | Complete Overhaul Kit (1991- up) (late)                                |
| 6B,6BT5.9       | <b>FP-0H6B59PREM</b>    | Complete Overhaul Kit (pre-1991)                                       |
| 6B,6BT5.9       | <b>FP-0H6B59PREML</b>   | Complete Overhaul Kit (1991- up) (late)                                |
| 6BT5.9          | <b>FP-0H6B59T</b>       | Complete Overhaul Kit  |
| 6BT5.9          | <b>FP-0H6B59TA</b>      | Complete Overhaul Kit  |
| 6C,6CT8.3       | <b>FP-6C83PREMOH</b>    | Complete Overhaul Kit  |
| 6C,6CT8.3       | <b>FP-0H6C83PREM</b>    | Complete Overhaul Kit  |
| ISC/QSC         | <b>FP-0HISCQSC</b>      | Complete Overhaul Kit  |
| KT19            | <b>FP-0HK19</b>         | Complete Overhaul Kit  |
| KTA19           | <b>FP-0HKTA19</b>       | Complete Overhaul Kit  |
| L10/M11         | <b>FP-L10PREMOH</b>     | Complete Overhaul Kit  |
| L10/M11         | <b>FP-0HL10PREM</b>     | Complete Overhaul Kit  |
| M11 articulated | <b>FP-0HM11AR</b>       | Complete Overhaul Kit - Articulated Pistons                            |
| N14             | <b>FPN14PREMDNANOHL</b> | Complete Overhaul Kit - Premium Plus, Dual-NI, Anodized, 370HP & Above |
| N14             | <b>FP-N14PREMPDNOH</b>  | Complete Overhaul Kit - Premium Plus, Dual-NI, Below 370HP             |
| N743,NH220      | <b>FP-NH220OH</b>       | Complete Overhaul Kit  |
| NG743,220       | <b>FP-NH220NGOH</b>     | Complete Overhaul Kit - N743,220 Natural Gas                           |
| NG855           | <b>FP-NG855PREMOH</b>   | Complete Overhaul Kit - 855 Natural Gas - 12.0:1 C.R.                  |
| NH,NT855        | <b>FP-855PREMOH</b>     | Complete Overhaul Kit  |
| NT,NTC855       | <b>FP-855PREMPOH</b>    | Complete Overhaul Kit  |
| NT,NTC855       | <b>FP-KS22621C</b>      | Complete Overhaul Kit  |
| NT,NTC855       | <b>FP-KS22621C7</b>     | Complete Overhaul Kit  |
| NT,NTC855       | <b>FP-KS22724A</b>      | Complete Overhaul Kit  |

| Engine      | Part Number            | Description   |
|-------------|------------------------|---|
| NT,NTC855   | <b>FP-0H855PREMP</b>   | Complete Overhaul Kit   |
| NT855       | <b>FP-855TTDNOH</b>    | Complete Overhaul Kit   |
| NT855       | <b>FP-855TTOH</b>      | Complete Overhaul Kit   |
| NT855       | <b>FP-855TTPDNOH</b>   | Complete Overhaul Kit   |
| NT855       | <b>FP-855TTPOH</b>     | Complete Overhaul Kit   |
| NT855       | <b>FP-0H855PREM</b>    | Complete Overhaul Kit   |
| NT855       | <b>FP-0H855TT</b>      | Complete Overhaul Kit - Premium 3 Ring Cylinder Kits                        |
| NT855       | <b>FP-0H855TTDN</b>    | Complete Overhaul Kit - Premium 3-Ring Cylinder Kits - Dual-NI Pistons      |
| NT855       | <b>FP-0H855TTP</b>     | Complete Overhaul Kit - Premium Plus 3 Ring Cylinder Kits                   |
| NT855       | <b>FP-0H855TTPDN</b>   | Complete Overhaul Kit - Premium Plus 3-Ring Cylinder Kits - Dual-NI Pistons |
| NTC855      | <b>FP-855PREMPDNOH</b> | Complete Overhaul Kit   |
| NTC855      | <b>FP-0H855PREMPDN</b> | Complete Overhaul Kit   |
| V,VT,VTB903 | <b>FP-VTB903PREMOH</b> | Complete Overhaul Kit   |
| V378,VT378  | <b>FP-378PREM</b>      | Complete Overhaul Kit   |
| V378,VT378  | <b>FP-0H378PREM</b>    | Complete Overhaul Kit   |
| V504,VT504  | <b>FP-504PREM</b>      | Complete Overhaul Kit   |
| V504,VT504  | <b>FP-IFK504PREM</b>   | Complete Overhaul Kit   |
| V504,VT504  | <b>FP-KS22423A</b>     | Complete Overhaul Kit   |
| V555,VT555  | <b>FP-555PREM</b>      | Complete Overhaul Kit   |
| V555,VT555  | <b>FP-IFK555PREM</b>   | Complete Overhaul Kit   |
| V555,VT555  | <b>FP-KS22506A</b>     | Complete Overhaul Kit   |
| VT1710      | <b>FP-IFK1710OHE</b>   | Complete Overhaul Kit   |
| VT1710      | <b>FP-0H1710E</b>      | Complete Overhaul Kit - (early)   |
| VTA28       | <b>FP-IFKVTA28OHL</b>  | Complete Overhaul Kit (late)  |





## Warranty

*Global Technology Behind Every Part*

The products listed in this catalog are warranted to be free from defects in material and workmanship, under normal use and service, for two years from date of installation in an engine, without mileage or hour qualification in accordance with the following limited warranty. This warranty is the sole and exclusive warranty for failure of the above parts. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as Federal-Mogul is willing and able to provide the remedy provided below.

### **WARRANTY LIMITATIONS**

Federal-Mogul agrees to only pay for parts and labor needed to repair engine damages that result from the defined warranty failure. The costs are limited to parts and labor necessary for restoring the engine to its condition immediately prior to the failure. Labor costs are determined by current published rates and standards in the geographic area in which repairs are performed. Overtime or holiday rate charges are not allowed. We will also pay for maintenance products such as oil, antifreeze, belts, hoses and filter elements that are damaged because of a defined warranty failure.

Federal-Mogul is not responsible for engine failure resulting from owner, operator or third party neglect or abuse, improper installation or repair procedures, alteration or misapplication of parts, failure to properly service or maintain the engine and vehicle in accordance with applicable OEM operation and maintenance manuals or use in engine modified for competition purposes or used in competition.

OTHER THAN AS EXPRESSLY PROVIDED HEREBY, FEDERAL-MOGUL SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, TRANSPORTATION AND TOWING COSTS, COST OF PURCHASED OR REPLACED GOOD, OR CLAIMS OF CUSTOMERS OF THE PURCHASER, WHICH MAY ARISE OR RESULT FROM THE SALE, INSTALLATION, OR USE OF THESE PARTS. Some jurisdictions do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the limitations or exclusions contained herein may or may not apply to you. This warranty gives you specific legal rights. You may also have other rights depending on the state or province in which you reside.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS AND/OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE AND THEY ARE EXCLUDED TO THE EXTENT THEY EXCEED THE WARRANTY COVERAGE DESCRIBED BY THIS WARRANTY.

This warranty and remedy apply to new FP Diesel engine parts from Federal-Mogul sold directly to our authorized aftermarket customers as evidenced by completed claim documentation.

No agent or sales representative of Federal-Mogul Corporation has the authority to modify this warranty. Other Federal-Mogul parts may carry different warranties.

Federal-Mogul must be notified by the customer: (i) before filing a warranty claim, (ii) within one year of the date that the claim accrues, and (iii) before any work has been performed. All claims must be submitted in writing and Federal-Mogul reserves the right to examine all parts, systems and related information associated with the claim. (Note all shipping charges are the responsibility of the end-user or distributor, Federal-Mogul will not accept collect shipments). See your sales representative for detailed claim submission procedures and forms.

Use parts only for applications and interchanges in this catalog.

Failure to heed this warning could result in reduced life or failure of the part. All parts listed in this catalog are not for use in space program, atomic energy/nuclear reactor equipment, medical or aircraft applications. Federal-Mogul reserves the right to make product improvements/changes, with respect to similar products previously manufactured, without notice and without incurring liability.





## Warranty

### **Global Technology Behind Every Part**

Les produits indiqués dans ce catalogue sont garantis contre toute défectuosité de matériel et de fabrication, dans des conditions d'utilisation et d'entretien normales, sur une période de deux ans à partir de la date d'installation dans un moteur, sans qualification de kilométrage ou horaire, conformément à la garantie limitée suivante.

Cette garantie est la garantie unique et exclusive pour la défaillance des pièces précitées. Ce recours exclusif ne doit pas être présumé comme ayant échoué à son objectif essentiel, tant que Federal-Mogul approuve et est capable de fournir le recours fourni ci-dessous.

### **LIMITATIONS DE GARANTIE**

Federal-Mogul accepte uniquement de payer les pièces et la main-d'œuvre nécessaires pour réparer les dommages de moteur qui résultent de la défaillance de la garantie définie. Les coûts sont limités aux pièces et à la main-d'œuvre nécessaires pour la restauration du moteur à l'état auquel il se trouvait juste avant la défaillance.

Les frais de main-d'œuvre sont déterminés par les prix et normes publiés à l'heure actuelle dans la zone géographique dans laquelle les réparations sont effectuées. Les heures supplémentaires ou les frais de jours fériés ne sont pas permis. Nous payons également les produits d'entretien, tels que l'huile, l'antigel, les courroies, les tuyaux et les éléments de filtre qui sont endommagés en raison d'une défaillance de garantie définie.

Federal-Mogul décline toute responsabilité pour une défaillance de moteur découlant d'une négligence ou d'un abus infligés par le propriétaire, l'opérateur ou une tierce partie, de procédures d'installation ou de réparations incorrectes, de l'altération ou d'une application incorrecte de pièces, d'un manque de réparation ou d'entretien adéquat du moteur et du véhicule conformément aux manuels d'utilisation et d'entretien OEM applicables, ou de l'utilisation dans un moteur modifié à des fins de compétition ou utilisé en compétition.

**SAUF SUR SPÉCIFICATION EXPRESSE DANS LA PRÉSENTE, FEDERAL-MOGUL NE SERA RESPONSABLE, EN AUCUNE CIRCONSTANCE, POUR DES DOMMAGES SPÉCIAUX, INDIRECTS, ACCESSOIRES OU CONSÉCUTIFS, Y COMPRIS, SANS S'Y LIMITER, DES DOMMAGES OU LA PERTE D'UNE AUTRE PROPRIÉTÉ OU D'UN AUTRE ÉQUIPEMENT, LA PERTE DE PROFITS OU DE REVENUS, LES FRAIS DE TRANSPORT ET DE REMORQUAGE, LES FRAIS DE BIENS ACHETÉS OU REMPLACÉS, OU LES DEMANDES DE CLIENTS DE L'ACHETEUR, QUI PEUVENT SE PRÉSENTER OU RÉSULTER DE LA VENTE, DE L'INSTALLATION OU DE L'UTILISATION DE CES PIÈCES.**

Certaines juridictions ne permettent pas les limites sur la durée d'une garantie implicite, ni l'exclusion ou la limitation de dommages accessoires ou consécutifs, et, par conséquent, les limitations ou exclusions ci-incluses peuvent s'appliquer ou non pour votre cas. Cette garantie vous octroie des droits légaux spécifiques.

Vous disposez également d'autres droits en fonction de l'état ou de la province de votre résidence.

**LA PRÉSENTE GARANTIE REMPLACE TOUTES AUTRES GARANTIES, EXPRESSES ET/OU IMPLICITES, Y COMPRIS, SANS S'Y LIMITER, LES GARANTIES DE QUALITÉ MARCHANDE OU D'ADAPTATION À UN USAGE PARTICULIER, ET ELLES SONT EXCLUES SI ELLES DEVAIENT DÉPASSER LA COUVERTURE DE GARANTIE DÉCRITE PAR LA PRÉSENTE GARANTIE.**

Cette garantie et le recours s'appliquent aux nouvelles pièces du moteur diesel FP de Federal-Mogul vendu directement à nos clients de pièces de rechange autorisés, tel qu'attesté par les documents de demande dûment remplis. Aucun agent ou représentant de ventes de Federal-Mogul Corporation ne dispose du droit de modifier la présente garantie. D'autres pièces de Federal-Mogul peuvent être couvertes par des garanties différentes.

### **PROCÉDURES DE DEMANDE**

Le client doit notifier Federal-Mogul : (i) avant de remplir une demande au titre de la garantie, (ii) en l'espace d'un an à partir de la date à laquelle la demande est exercée, et (iii) avant l'exécution d'un travail quelconque.

Toutes les demandes doivent être soumises par écrit et Federal-Mogul se réserve le droit d'examiner toutes les pièces, tous les systèmes et toutes les informations associées à la demande.

(Veuillez noter que l'utilisateur final ou le distributeur est responsable pour tous les frais d'expédition; Federal-Mogul n'accepte aucun envoi en port-dû). Veuillez consulter votre représentant des ventes pour les formulaires et les procédures de soumission de demande détaillés.

### **AVERTISSEMENT**

Utilisez uniquement les pièces pour les applications et les échanges de ce catalogue.

Un manque de respect de cet avertissement pourrait résulter en une durée de vie réduite ou une défaillance de la pièce. Aucune des pièces indiquées dans ce catalogue n'est destinée à être utilisée dans un programme d'espace, pour du matériel de réacteur nucléaire/d'énergie atomique, ou des applications médicales ou d'aéronefs.

Federal-Mogul se réserve le droit d'effectuer des améliorations/changements de produits, en ce qui concerne des produits similaires fabriqués auparavant, sans avis et sans assumer de responsabilité.





Se garantiza que todos los productos presentados en este catálogo no presentaran defecto alguno, ya sea en su material ni en su fabricación, bajo condiciones de uso y servicio normales. La garantía es de dos años de la fecha de la instalación en el motor, sin límites en el kilometraje o en las horas de funcionamiento. Esta es la única y exclusiva garantía si alguna de las partes listadas fuese a fallar. Este recurso exclusivo no se tomará como una falta, siempre y cuando Federal Mogul pueda remediarlo con las provisiones enumeradas mas abajo.

### LIMITACIONES DE LA GARANTIA

Federal-Mogul pagará solo por las partes y la mano de obra necesarias para reparar daños al motor que resulten de una falla definida sobre la parte vendida. Los costos quedarán limitados a las partes y la mano de obra necesarias para restaurar el motor a la condición en la cual se encontraba inmediatamente antes de la falla. Los costos de la mano de obra se determinarán por medio de precios publicados y estándares del área geográfica en la cual las reparaciones se lleven a cabo. No se permitirá agregar costos de tiempo extra ni por trabajo durante días festivos. Pagaremos por productos de mantenimiento tales como aceite, anti-congelantes, correas, mangueras y filtros dañados debido a alguna falla definida del producto vendido.

Federal-Mogul no se hará responsable por una falla de motor causada por el dueño, operador o un tercero, ya sea por su propia negligencia, abuso o instalación inadecuada o procedimientos de reparación inadecuados, por alteración o aplicación incorrecta de las partes, falta de servicio necesario o mantenimiento del motor o de el vehiculo de acuerdo a los manuales de operación y mantenimiento de acuerdo fabricante original, o por la modificación de un motor para su uso en competencias o por haber sido usado en competencias.

FEDERAL-MOGUL NO SERÁ RESPONSABLE, BAJO NINGUNA CIRCUNSTANCIA, OTRO QUE NO SEA LO QUE SE HA MENCIONADO EXPLÍCITAMENTE EN ÉSTA GARANTÍA, POR CUALQUIER DAÑO INDIRECTO, ESPECIAL, ACCIDENTAL O CÓMO CONSECUENCIA DE OTROS DAÑOS, INCLUYENDO, PERO SIN QUE QUÉDE LIMITADO A DAÑOS O PÉRDIDAS DE BIENES O DE EQUIPO, PÉRDIDA DE GANANCIAS O INGRESOS, COSTOS DE GRÚA O TRANSPORTACIÓN, DE PARTES REEMPLAZADAS, O RECLAMOS DE CLIENTES DEL COMPRADOR, QUE PUEDAN RESULTAR DE LA VENTA, INSTALACIÓN, O USO DE ÉSTAS PARTES.

Algunas jurisdicciones no permiten limitaciones con respecto a la duración de garantías implícitas, o a la exclusión o limitación de daños accidentales, por lo tanto puede que las limitaciones o exclusiones contenidas en el presente no le apliquen a Ud. Esta garantía le ofrece derechos específicos. Ud. puede gozar de derechos adicionales dependiendo del estado o provincia en la cual viva.

ÉSTA GARANTIA REEMPLAZARA CUALQUIER Y TODA OTRA GARANTÍA, YA SEA EXPLÍCITA U IMPLÍCITA, INCLUYENDO, PERO NO LIMITANDOSE A GARANTÍAS PARA LA MERCANCÍA Y USO DE LA MISMA CON UN PROPÓSITO EN PARTICULAR, Y ESAS MISMAS QUEDARAN EXCLUIDAS SI EXCEDEN LA COBERTURA DESCRITA EN ÉSTA GARANTÍA.

Ésta garantía y recurso aplican a partes nuevas de motores de FP Diésel, vendidas directamente a nuestros clientes autorizados del mercado de reposición, lo cual será corroborado por medio de documentación usada en el reclamo.

Ningún agente o representante de la empresa Federal-Mogul tiene autoridad para modificar ésta garantía.

Otras partes de Federal-Mogul pueden tener garantías diferentes.

### PROCEDIMIENTO PARA PRESENTAR UN RECLAMO

Federal-Mogul debe ser notificado por el cliente: (i) antes de presentar un reclamo cubierto en la garantía, (ii) dentro del plazo de un año de ocurrida la falla, y (iii) antes de que se haya hecho algún trabajo.

Todo reclamo debe ser entregado por escrito y Federal-Mogul reserva el derecho a examinar todas las partes, sistemas e información relacionados y asociados al reclamo. (Todo cargo de envío será responsabilidad del usuario final o distribuidor, Federal-Mogul no aceptará envíos a cobrar). Contacte a su representante de ventas para conseguir el formulario de reclamos con el procedimiento detallado.

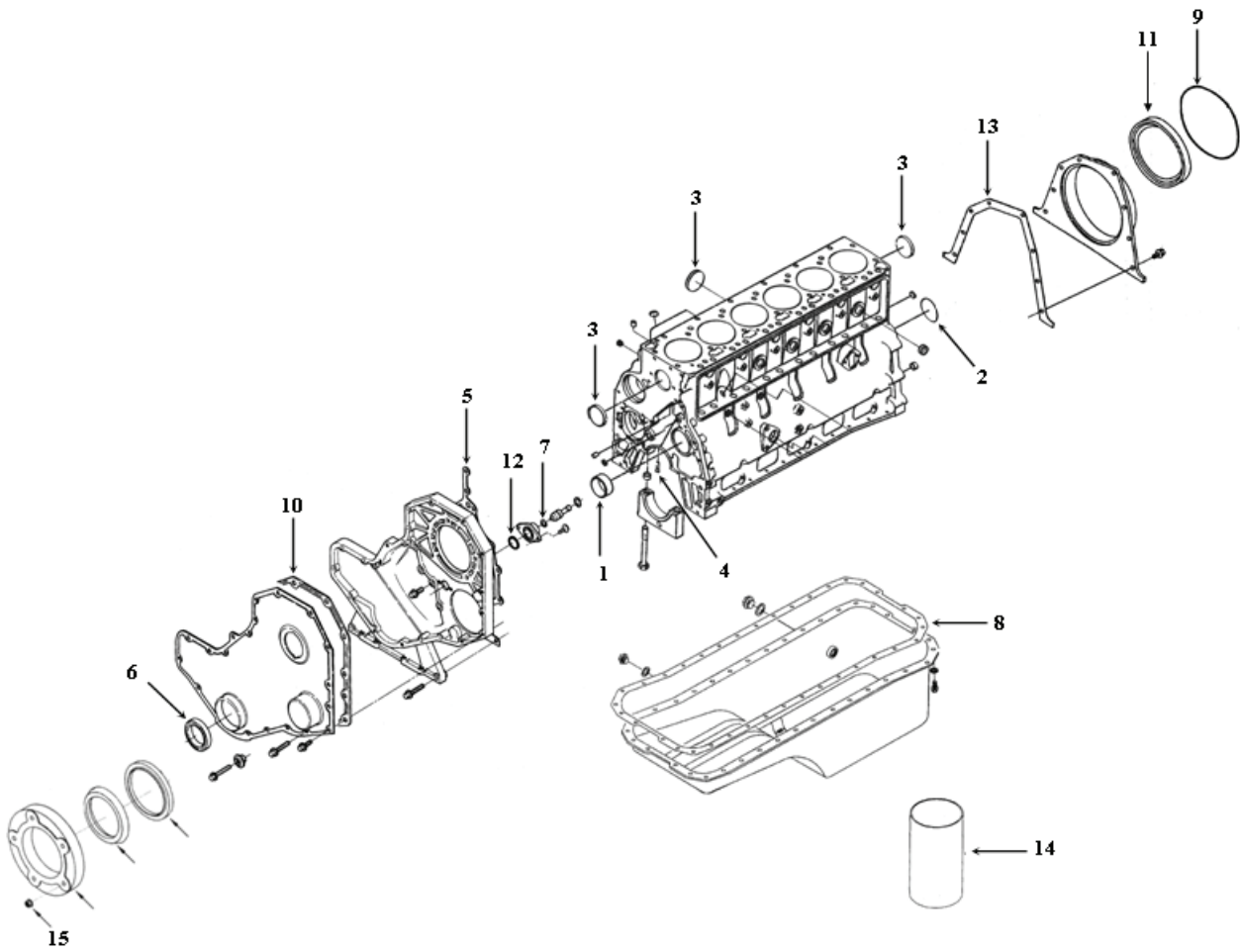
### ADVERTENCIA

Las partes deben ser usadas sólo para las aplicaciones mencionadas en éste catálogo. El no seguir ésta advertencia puede que resulte en que le falle la parte o a que su vida quede reducida. Todas las partes listadas en éste catálogo no están hechas para el uso en programas espaciales, para equipos de energía atómica, o reactores nucleares, o para aplicaciones médicas ni en naves aéreas. Federal-Mogul se reserva el derecho de hacerle mejoras y cambios a los productos, con respecto a productos similares que se hayan fabricado previamente, sin notificación o responsabilidad legal alguna.

# B Series



## Engine Block





# B Series



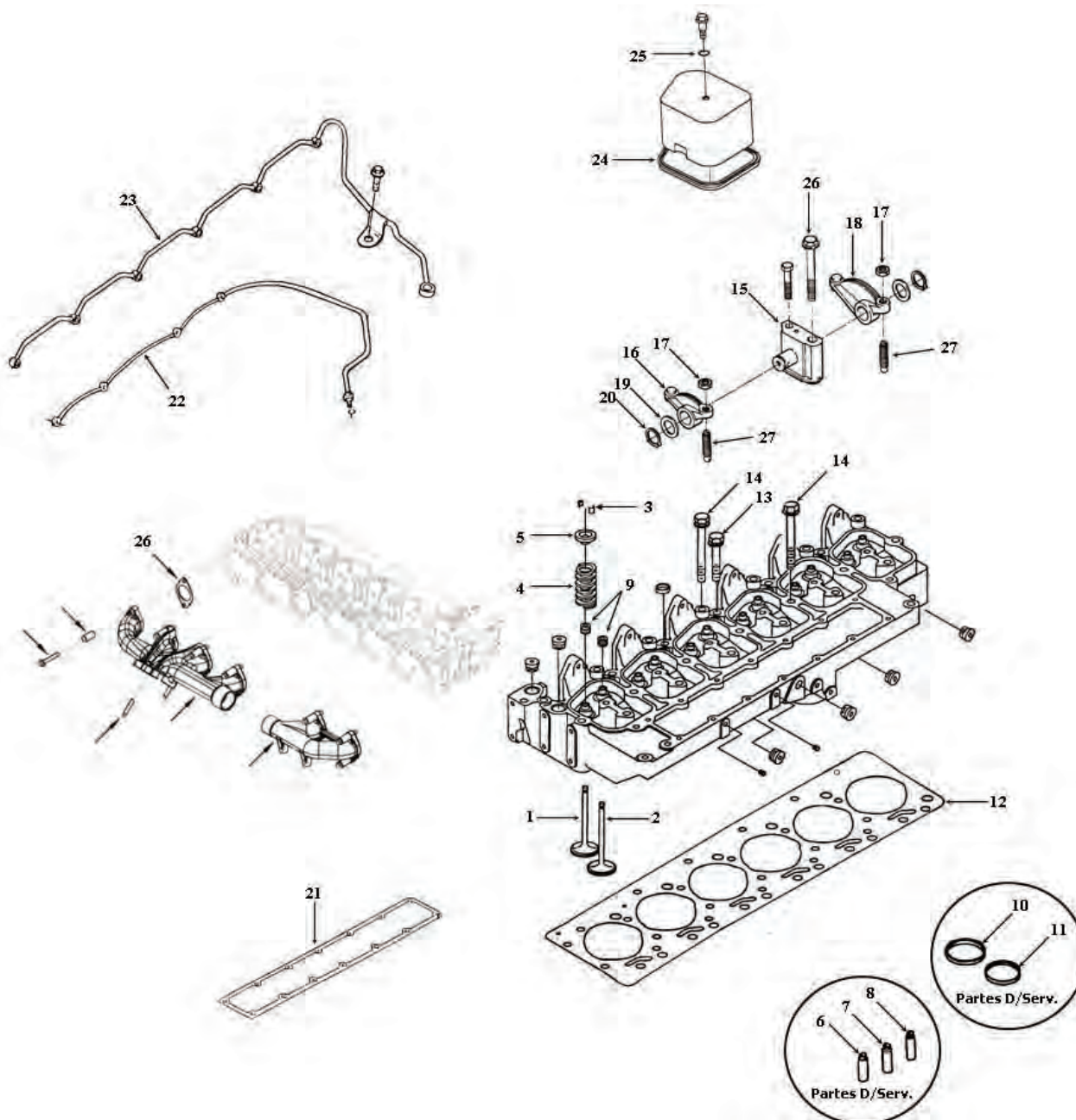
## Cylinder Block

| Ref | Part Number       | Description  | 4BT3.9 | 6BT5.9 |
|-----|-------------------|--|--------|--------|
| 00  | FP-3900267        | Seal, Grommet, Cam Follower Cover  | 2      | 6      |
| 00  | FP-3903475        | Ring, Rectangular (Tach Drive Cover)   | 1      | 1      |
| 00  | FP-3906080        | Sleeve, Front Crankshaft Seal  | 1      | 1      |
| 00  | FP-3906081        | Sleeve, Rear Crankshaft Seal   | 1      | 1      |
| 00  | FP-3926126        | Seal Kit W/Sleeve  | 1      | 1      |
| 00  | FP-3802362        | Gasket Set, Upper (.25mm O.S. Head Gasket)                                     | 1      |        |
| 00  | FP-3802375        | Gasket Set, Lower  | 1      |        |
| 00  | FP-3804896S       | Gasket Set, In-Frame (Standard Head Gasket)                                    | 1      |        |
| 00  | FP-3283767        | Gasket, Push Rod Cover   | 1      |        |
| 00  | FP-3802362S       | Gasket Set, In-Frame (.25mm O.S. Head Gasket)                                  | 1      |        |
| 00  | FP-3804896        | Gasket Set, Upper (Standard Head Gasket)                                       | 1      |        |
| 00  | FP-4B3.9PREM      | In-Frame Kit-W/Upper Gasket Set & Pan Gasket                                   | 1      |        |
| 00  | FP-4B3.9PREM-L    | In-Frame Kit-W/Upper Gasket Set & Pan Gasket (Late)                            | 1      |        |
| 00  | FP-4B3.9PREM-OH   | O/H Engine Kit-W/Front & Rear Seals  | 1      |        |
| 00  | FP-4B3.9PREM-OH-L | O/H Engine Kit-W/Front & Rear Seals (Late)                                     | 1      |        |
| 00  | FP-3284623        | Gasket, Push Rod Cover (Previously FP-3928832)                                 |        | 1      |
| 00  | FP-3802245        | Gasket Set, Upper (.50mm O.S. Head Gasket)                                     |        | 1      |
| 00  | FP-3802245S       | Gasket Set, In-Frame (.50mm O.S. Head Gasket)                                  |        | 1      |
| 00  | FP-3802363        | Gasket Set, Upper (Standard Head Gasket)                                       |        | 1      |
| 00  | FP-3802363S       | Gasket Set, In-Frame (Standard Head Gasket)                                    |        | 1      |
| 00  | FP-3802364        | Gasket Set, Upper (.25mm O.S. Head Gasket)                                     |        | 1      |
| 00  | FP-3802364S       | Gasket Set, In-Frame (.25mm O.S. Head Gasket)                                  |        | 1      |
| 00  | FP-3802376        | Gasket Set, Lower  |        | 1      |
| 00  | FP-3804897        | Gasket Set, Upper (Standard Head Gasket), (Engines Built Before April 2003)    |        | 1      |
| 00  | FP-3804897S       | Gasket Set, In-Frame (Standard Head Gasket), (Engines Built Before April 2003) |        | 1      |
| 00  | FP-4089649        | Gasket Set, Upper (Standard Head Gasket), (Engines Built After April 2003)     |        | 1      |
| 00  | FP-4089649S       | Gasket Set, In-Frame (Standard Head Gasket), (Engines Built After April 2003)  |        | 1      |
| 00  | FP-6B5.9PREM      | In-Frame Kit-W/Upper Gasket Set & Pan Gasket                                   |        | 1      |
| 00  | FP-6B5.9PREM-L    | In-Frame Kit-W/Upper Gasket Set & Pan Gasket (Late)                            |        | 1      |
| 00  | FP-6B5.9PREM-OH   | O/H Engine Kit-W/Front & Rear Seals (Pre 1991)                                 |        | 1      |
| 00  | FP-6B5.9PREM-OH-L | O/H Engine Kit-W/Front & Rear Seals (1991 to Present), (Late)                  |        | 1      |
| 01  | FP-3901306        | Bushing, Cam (Front Only)  | 1      | 1      |
| 02  | FP-3900687        | Plug, Expansion  | 1      | 1      |
| 03  | FP-3007635        | Plug, Expansion (1")   | 2      | 4      |
| 04  | FP-3901020        | Nozzle, Piston Cooling (Pre 1991)  | 4      | 6      |
| 04  | FP-3937214        | Nozzle, Piston Cooling (1991 - up) (Formerly FP-3930139)                       | 4      | 6      |
| 05  | FP-3938156        | Gasket, Gear Front Cover   | 1      | 1      |
| 06  | FP-3937111        | Seal, Front Service Kit  | 1      | 1      |
| 07  | FP-3913994        | Seal, O-Ring   | 1      | 1      |
| 08  | FP-3911535        | Gasket, Oil Pan  | 1      |        |
| 08  | FP-3959052        | Gasket, Oil Pan  |        | 1      |
| 09  | FP-3912473        | Seal, Rectangular Ring   | 1      | 1      |
| 10  | FP-3914385        | Gasket, Front Gear Cover   | 1      |        |
| 10  | FP-3918673        | Gasket, Front Gear Cover   |        | 1      |
| 11  | FP-3909410        | Seal, Rear Service Kit (Dry Clutch Housing)                                    | 1      | 1      |
| 12  | FP-3915772        | Seal, Rectangular Ring   |        | 1      |
| 13  | FP-3928493        | Gasket, Rear Cover   | 1      | 1      |
| 14  | FP-3904166        | Sleeve, Salvage (To Return Block To Standard)                                  | 4      | 6      |
| 15  | FP-4946714        | Nut, Seal Carrier  | 5      | 5      |

# B Series



## Cylinder Head





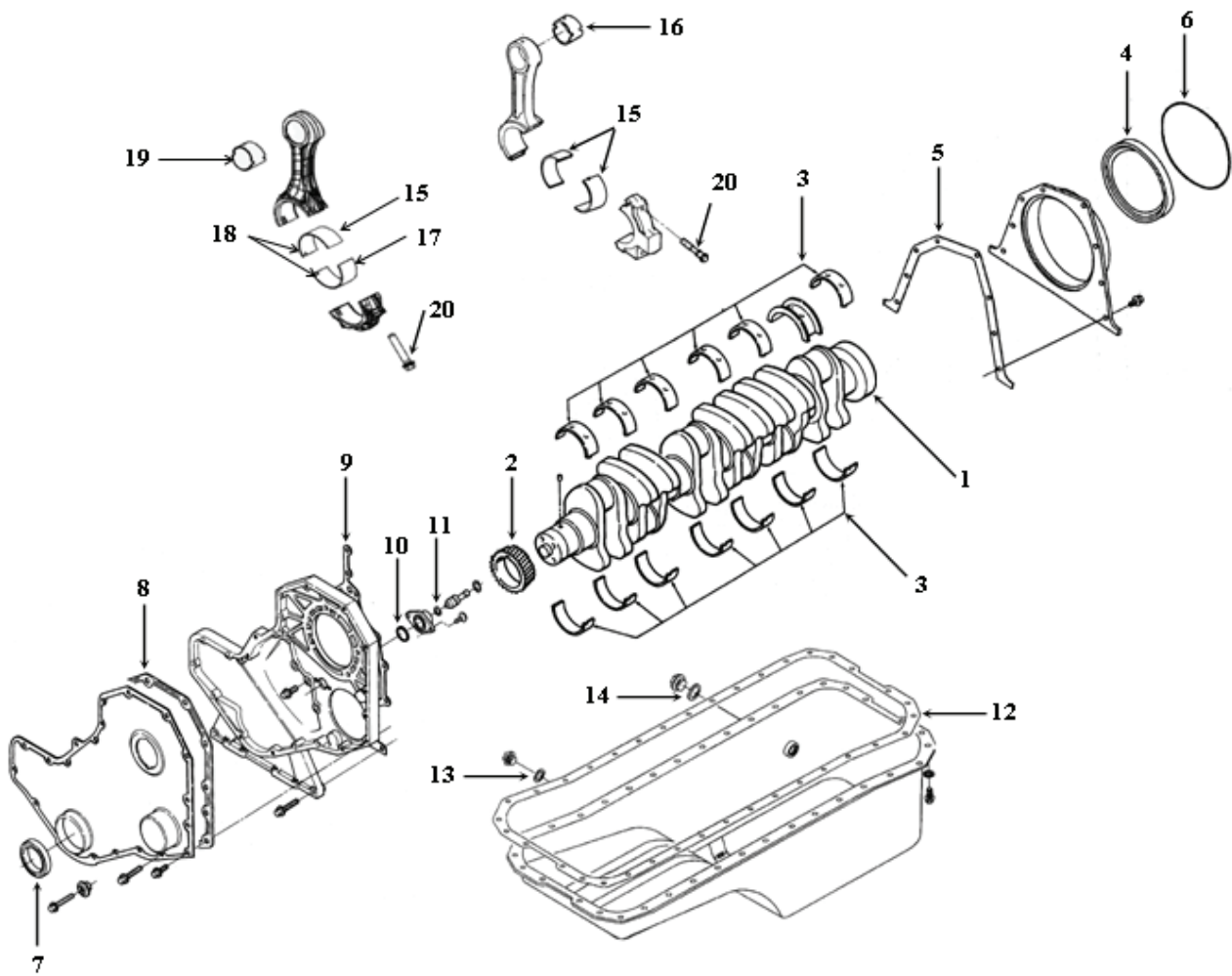
## Cylinder Head, Valve Mechanism & Upper Gasket Sets

| Ref | Part Number       | Description  | 4BT3.9 | 6BT5.9 |
|-----|-------------------|--|--------|--------|
| 00  | FP-3903380        | Seal, Banjo Connector (Fuel Manifold)  | 4      | 6      |
| 00  | FP-3802362        | Gasket Set, Upper (.25mm O.S. Head Gasket)   | 1      |        |
| 00  | FP-3804896        | Gasket Set, Upper (Standard Head Gasket)   | 1      |        |
| 00  | FP-3918188        | Washer, Sealing (Fuel Supply Tube)   |        | 2      |
| 00  | FP-3802245        | Gasket Set, Upper (.50mm O.S. Head Gasket)   |        | 1      |
| 00  | FP-3802363        | Gasket Set, Upper (Standard Head Gasket)   |        | 1      |
| 00  | FP-3802364        | Gasket Set, Upper (.25mm O.S. Head Gasket)   |        | 1      |
| 00  | FP-3804897        | Gasket Set, Upper (Standard Head Gasket), (Late 6BT5.9)  |        | 1      |
| 04  | FP-3900276        | Spring, Valve (30 PSI)   | 8      | 12     |
| 04  | FP-3932453        | Spring, Valve (36 PSI) (Previously FP-3926700)   | 8      | 12     |
| 04  | FP-4936080        | Spring, Valve (Previously FP-3943161)  | 8      | 12     |
| 05  | FP-3900299        | Retainer, Valve Spring   | 8      | 12     |
| 06  | FP-3904408        | Guide, Intake (Thick Wall 60.50mm Long)  | 4      | 6      |
| 07  | FP-3904409        | Guide, Exhaust (Thick Wall 51.75mm Long)   | 4      | 6      |
| 08  | FP-3906206        | Guide, Valve (Thin Wall Can Be Used For Intake & Exhaust)                                      | 4      | 6      |
| 09  | FP-3921640        | Seal, Valve Stem (Intake & Exhaust) (Formerly FP3901097) (For Engines Built Before April 2003) | 8      | 12     |
| 09  | FP-3957912        | Seal, Valve Stem (For Engines Built After April 2003)  | 8      | 12     |
| 10  | FP-3906854        | Insert, Valve (Intake)   | 4      | 6      |
| 11  | FP-3904105        | Insert, Valve (Exhaust)  | 4      | 6      |
| 12  | FP-3283336        | Gasket, Cylinder Head (.25mm O.S.)   | 1      |        |
| 12  | FP-3283569        | Gasket, Cylinder Head (Standard)   | 1      |        |
| 12  | FP-3283337        | Gasket, Cylinder Head (.25mm O.S.)   |        | 1      |
| 12  | FP-3283339        | Gasket, Cylinder Head (.50mm O.S.)   |        | 1      |
| 12  | FP-3283570        | Gasket, Cylinder Head (Standard)   |        | 1      |
| 13  | FP-3920779        | Cap Screw, Cylinder Head (M12 x 1.75 x 70)   | 4      | 6      |
| 14  | FP-3920780        | Cap Screw, Cylinder Head (M12 x 1.75 x 120)  | 10     | 14     |
| 15  | FP-3922488        | Support, Rocker Lever Shaft  | 4      | 6      |
| 16  | FP-3910811        | Lever, Rocker  | 4      | 6      |
| 17  | FP-203131         | Nut, Adjusting Screw   | 8      | 12     |
| 18  | FP-3910810        | Lever, Rocker  | 4      | 6      |
| 19  | FP-3900245        | Washer, Plain  | 8      | 12     |
| 20  | FP-3900242        | Ring, Retaining  | 8      | 12     |
| 21  | FP-3914028        | Gasket, Intake Manifold Cover  | 1      |        |
| 21  | FP-3914029        | Gasket, Intake Manifold Cover  |        | 1      |
| 22  | FP-3909695        | Manifold, Fuel   | 1      |        |
| 23  | FP-3926103        | Manifold, Fuel   |        | 1      |
| 24  | FP-3930906        | Gasket, Valve Cover  | 4      | 6      |
| 25  | FP-3910824        | Seal, O-Ring (Valve Cover Screw) (For Engines Built Before April 2003)                         | 4      | 6      |
| 25  | FP-3935449        | Seal, O-Ring (Valve Cover Screw) (For Engines Built After April 2003)                          | 4      | 6      |
| 26  | FP-3905443        | Gasket, Exhaust Manifold   | 4      | 6      |
| 26  | FP-3920781        | Screw, Rocker Lever Support  | 4      | 6      |
| 27  | FP-3937438        | Screw, Rocker Adjusting  | 8      | 12     |
| 00  | <b>FP-3802355</b> | <b>Valve Kit, Intake (W/Locks)</b>   | 4      | 6      |
| 01  | FP-3920867        | Valve, Intake (Bare)   | 4      | 6      |
| 03  | FP-3900250        | Lock Half, Valve   | 8      | 12     |
| 00  | <b>FP-3802356</b> | <b>Valve Kit, Exhaust (W/Locks)</b>  | 4      | 6      |
| 02  | FP-3920868        | Valve, Exhaust (Bare)  | 4      | 6      |
| 03  | FP-3900250        | Lock Half, Valve   | 8      | 12     |

# B Series



## Crankshaft





## Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Cover

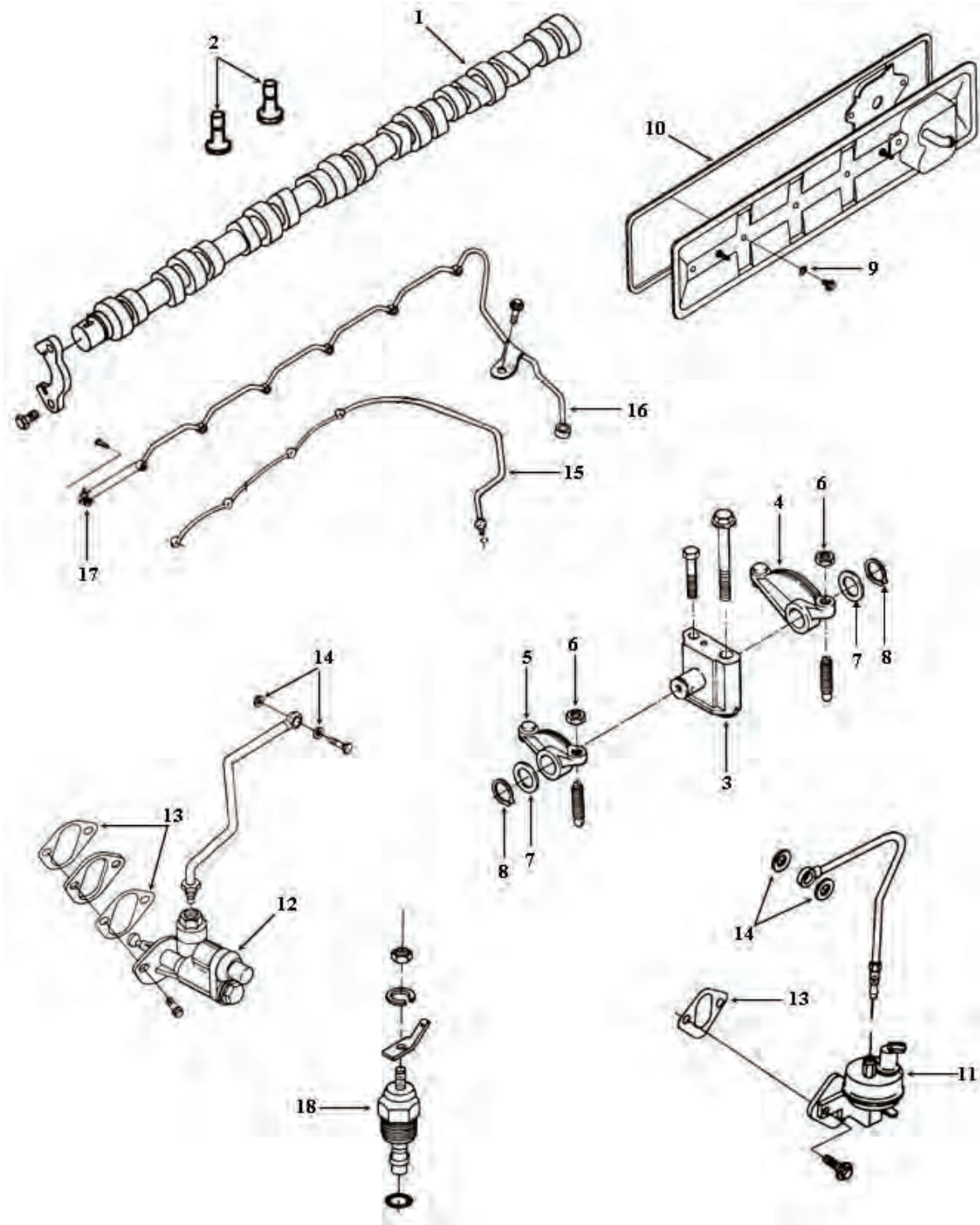
| Ref | Part Number              | Description  | 4BT3.9 | 6BT5.9 |
|-----|--------------------------|--|--------|--------|
| 00  | FP-3906080               | Sleeve, Front Crankshaft Seal  | 1      | 1      |
| 00  | FP-3906081               | Sleeve, Rear Crankshaft Seal   | 1      | 1      |
| 00  | FP-3926126               | Seal Kit W/Sleeve  | 1      | 1      |
| 00  | FP-3938157               | Gasket, Pick-Up Tube   | 1      | 1      |
| 01  | FP-3929036               | Crankshaft W/Gear  | 1      |        |
| 01  | FP-3929037               | Crankshaft W/Gear  |        | 1      |
| 02  | FP-3929027               | Gear, Crankshaft   | 1      | 1      |
| 03  | FP-3802010               | Main Bearing Set (Std.)  | 1      |        |
| 03  | FP-3802011               | Main Bearing Set (.25MM)   | 1      |        |
| 03  | FP-3802012               | Main Bearing Set (.50MM)   | 1      |        |
| 03  | FP-3802013               | Main Bearing Set (.75MM)   | 1      |        |
| 03  | FP-3802014               | Main Bearing Set (1.00MM)  | 1      |        |
| 03  | FP-3802070               | Main Bearing Set (Std.)  |        | 1      |
| 03  | FP-3802071               | Main Bearing Set (.25MM)   |        | 1      |
| 03  | FP-3802072               | Main Bearing Set (.50MM)   |        | 1      |
| 03  | FP-3802073               | Main Bearing Set (.75MM)   |        | 1      |
| 03  | FP-3802074               | Main Bearing Set (1.00MM)  |        | 1      |
| 04  | FP-3909410               | Seal, Rear Crankshaft Service Kit  | 1      | 1      |
| 05  | FP-3928493               | Gasket, Rear Cover   | 1      | 1      |
| 06  | FP-3912473               | Seal, Rectangular Ring   | 1      | 1      |
| 07  | FP-3937111               | Seal, Front Crankshaft Service Kit   | 1      | 1      |
| 08  | FP-3914385               | Gasket, Gear Cover   | 1      | 1      |
| 09  | FP-3938156               | Gasket, Cover of Gears   | 1      | 1      |
| 10  | FP-3915772               | Seal, Rectangular Ring   | 1      | 1      |
| 11  | FP-3913994               | Seal, O-Ring   | 1      | 1      |
| 12  | FP-3911535               | Gasket, Oil Pan  | 1      |        |
| 12  | FP-3959052               | Gasket, Oil Pan  |        | 1      |
| 13  | FP-3920773               | Washer, Sealing  | 1      | 1      |
| 14  | FP-3902425               | Washer, Sealing  | 1      | 1      |
| 15  | FP-3901171 <sup>36</sup> | Bearing, Connecting Rod (.25MM)  | 8      | 12     |
| 15  | FP-3901172 <sup>36</sup> | Bearing, Connecting Rod (.50MM)  | 8      | 12     |
| 15  | FP-3901173 <sup>36</sup> | Bearing, Connecting Rod (.75MM)  | 8      | 12     |
| 15  | FP-3901174 <sup>36</sup> | Bearing, Connecting Rod (1.00MM)   | 8      | 12     |
| 15  | FP-3939859 <sup>36</sup> | Bearing, Connecting Rod (Std.) Changes to the (Previously FP-3901170)                          | 8      | 12     |
| 16  | FP-4891178               | Bushing, Connecting Rod (Previously FP-3901085, FP-3941476)                                    | 4      | 6      |
| 17  | FP-4892795               | Bearing, Lower Connecting Rod (0.25 mm) (For Fracture Split Rods Only)                         | 4      | 6      |
| 17  | FP-4892796               | Bearing, Lower Connecting Rod (0.50 mm) (For Fracture Split Rods Only)                         | 4      | 6      |
| 17  | FP-4892797               | Bearing, Lower Connecting Rod (0.75 mm) (For Fracture Split Rods Only)                         | 4      | 6      |
| 17  | FP-4892798               | Bearing, Lower Connecting Rod (1.00 mm) (For Fracture Split Rods Only)                         | 4      | 6      |
| 17  | FP-4893693               | Bearing, Lower Connecting Rod (Std.) (For Fracture Split Rods Only)                            | 4      | 6      |
| 18  | FP-3967060               | Connecting Rod Bearing Kit (Includes Upper and Lower) (Std.) (For Fracture Split Rods Only)    | 4      | 6      |
| 18  | FP-3967061               | Connecting Rod Bearing Kit (Includes Upper and Lower) (0.25 mm) (For Fracture Split Rods Only) | 4      | 6      |
| 18  | FP-3967062               | Connecting Rod Bearing Kit (Includes Upper and Lower) (0.50 mm) (For Fracture Split Rods Only) | 4      | 6      |
| 18  | FP-3967063               | Connecting Rod Bearing Kit (Includes Upper and Lower) (0.75 mm) (For Fracture Split Rods Only) | 4      | 6      |
| 18  | FP-3967064               | Connecting Rod Bearing Kit (Includes Upper and Lower) (1.00 mm) (For Fracture Split Rods Only) | 4      | 6      |
| 19  | FP-4891178               | Bushing, Connecting Rod  | 4      | 6      |
| 20  | FP-3900919               | Connecting Rod Bolt (M11 x 1.25 x 59.25mm)   | 8      | 12     |

<sup>36</sup>Upper And Lower Bearing For Engines Except Fracture Split Rods. Used As Upper Bearing For Fracture Split Rods.

# B Series



## Camshaft & Fuel Components





## Camshaft & Fuel Components

| Ref | Part Number | Description   | 4BT3.9 | 6BT5.9 |
|-----|-------------|---|--------|--------|
| 01  | FP-3929039  | Camshaft (CPL's 591-595, 690, 696, 725, 727, 730, 741, 762, 763, 793, 826, 843, 895, 937, 971, 981) (Previously FP-3925582)   | 1      |        |
| 01  | FP-3929041  | Camshaft (CPL's 987, 1261, 1422, 1527, 1582)  |        | 1      |
| 01  | FP-3929042  | Camshaft (CPL's 596-600, 691, 697, 698, 713, 714, 716, 728, 729, 742, 761, 766, 791, 792, 802, 834, 845, 912, 938, 940, 947, 949, 953, 961, 962, 970, 983, 994, 998, 999, 1160, 1163, 1165, 1168, 1174, 1189, 1207, 1245, 1246, 1247, 1266, 1279, 1288, 1289, 1313, 1322, 1351, 1403, 1408, 1433, 1440, 1554, 1570, 1578, 1579, 1581, 1601, 1605, 1613, 1694) |        | 1      |
| 01  | FP-3929042  | Camshaft (CPL's 804, 856)   |        | 1      |
| 01  | FP-3929734  | Camshaft (CPL 2023, 2174, 2175, 2252, 2253), Gas, LPG Applications  |        | 1      |
| 02  | FP-3931623  | Tappet, Valve   | 8      | 12     |
| 03  | FP-3922488  | Shaft, Rocker Lever   | 4      | 6      |
| 04  | FP-3910810  | Lever, Rocker   | 4      | 6      |
| 05  | FP-3910811  | Lever, Rocker   | 4      | 6      |
| 06  | FP-203131   | Nut, Heavy Hexagon  | 8      | 12     |
| 07  | FP-3900245  | Washer, Plain   | 8      | 12     |
| 08  | FP-3900242  | Ring, Retaining   | 8      | 12     |
| 09  | FP-3900267  | Seal, Grommet Fuel Drain Tube   | 2      | 4      |
| 10  | FP-3283767  | Gasket, Push Rod Cover  | 1      |        |
| 10  | FP-3284623  | Gasket, Push Rod Cover  |        | 1      |

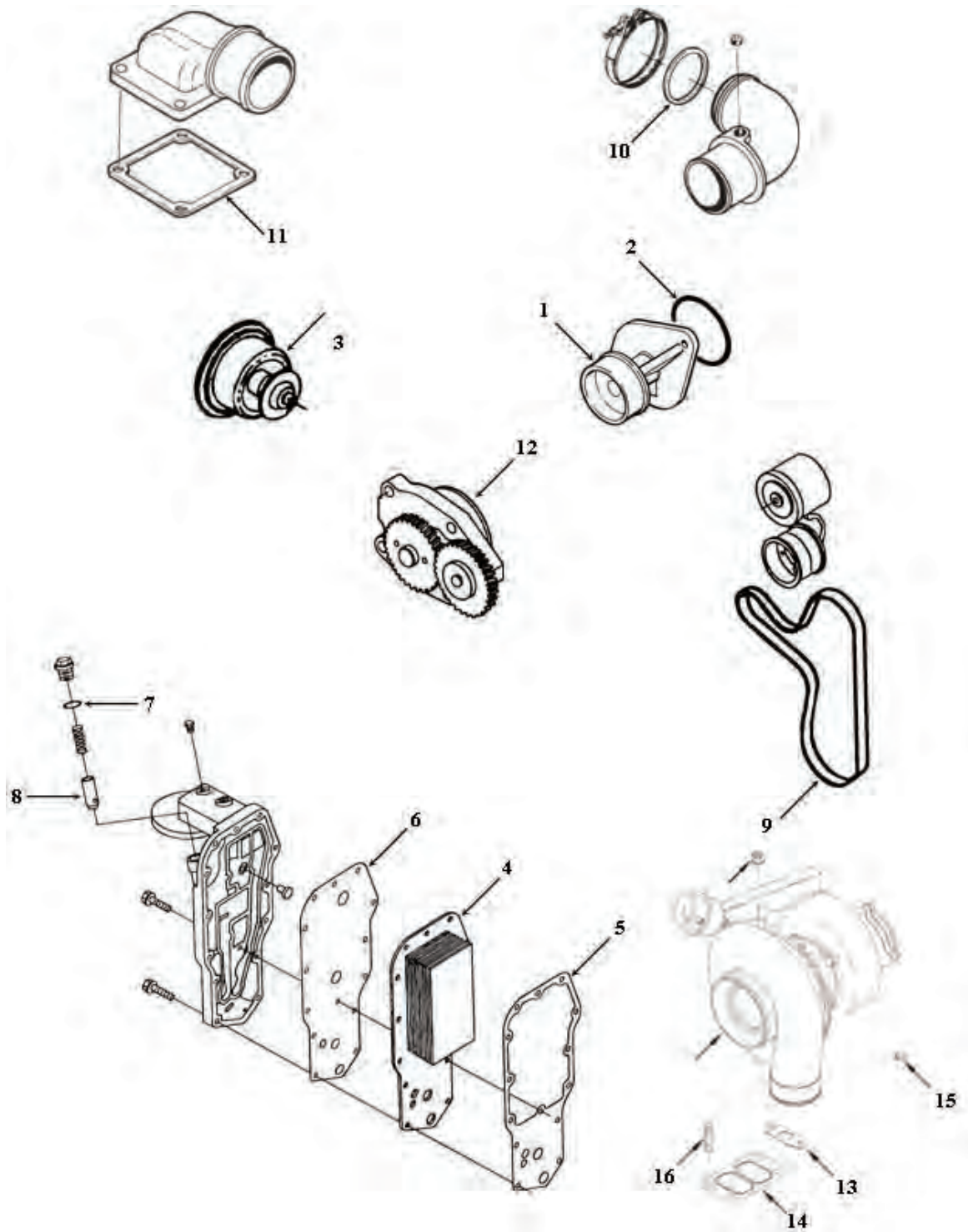
## Fuel Transfer Pump & Plumbing

| Ref | Part Number | Description   | 4BT3.9 | 6BT5.9 |
|-----|-------------|---|--------|--------|
| 00  | FP-3900808  | Seal, Injector  | 4      | 6      |
| 00  | FP-3906659  | Seal, Injector  | 4      | 6      |
| 00  | FP-3909356  | Seal, Injector  | 4      | 6      |
| 00  | FP-3900267  | Seal, Grommet Fuel Drain Tube                           | 2      | 4      |
| 00  | FP-3906694  | Seal, Rectangular Ring (Large) (Fuel Filter)            | 1      | 1      |
| 00  | FP-3906695  | Seal, Rectangular Ring (Small) (Fuel Filter)            | 1      | 1      |
| 00  | FP-3918188  | Washer, Sealing (Fuel Supply Tube)                      |        | 2      |
| 11  | FP-3928143  | Pump, Fuel Transfer                                     | 1      |        |
| 12  | FP-3970880  | Pump, Fuel Transfer                                     | 1      | 1      |
| 12  | FP-4947710  | Pump, Fuel Transfer (Previously FP-3933252, FP-3936316) | 1      | 1      |
| 12  | FP-4947712  | Pump, Fuel Transfer (Previously FP-3933254, FP-3936318) | 1      | 1      |
| 12  | FP-4947714  | Pump, Fuel Transfer (Previously FP-3933256, FP-3936320) | 1      | 1      |
| 12  | FP-3936323  | Pump, Fuel Transfer                                     | 1      |        |
| 12  | FP-3936321  | Pump, Fuel Transfer                                     |        | 1      |
| 12  | FP-3936324  | Pump, Fuel Transfer                                     |        | 1      |
| 12  | FP-4947711  | Pump, Fuel Transfer (Previously FP-3933253, FP-3936317) |        | 1      |
| 12  | FP-4947713  | Pump, Fuel Transfer (Previously FP-3933255, FP-3936319) |        | 1      |
| 12  | FP-4947713  | Pump, Fuel Transfer (Previous Models 1991)              |        | 1      |
| 13  | FP-3939258  | Gasket, Fuel Transfer Pump Mounting                     | 1      | 1      |
| 14  | FP-3918191  | Washer, Sealing (Fuel Supply Tube)                      | 2      |        |
| 15  | FP-3909695  | Manifold, Fuel  | 1      |        |
| 16  | FP-3926103  | Manifold, Fuel  |        | 1      |
| 17  | FP-3903380  | Seal, Banjo Connector (Fuel Manifold)                   | 4      | 6      |
| 18  | FP-3903575  | Kit, Solenoid 12 Volt                                   | 1      | 1      |
| 18  | FP-3903576  | Kit, Solenoid 24 Volt                                   | 1      | 1      |

# B Series



## Cooling Components





# B Series



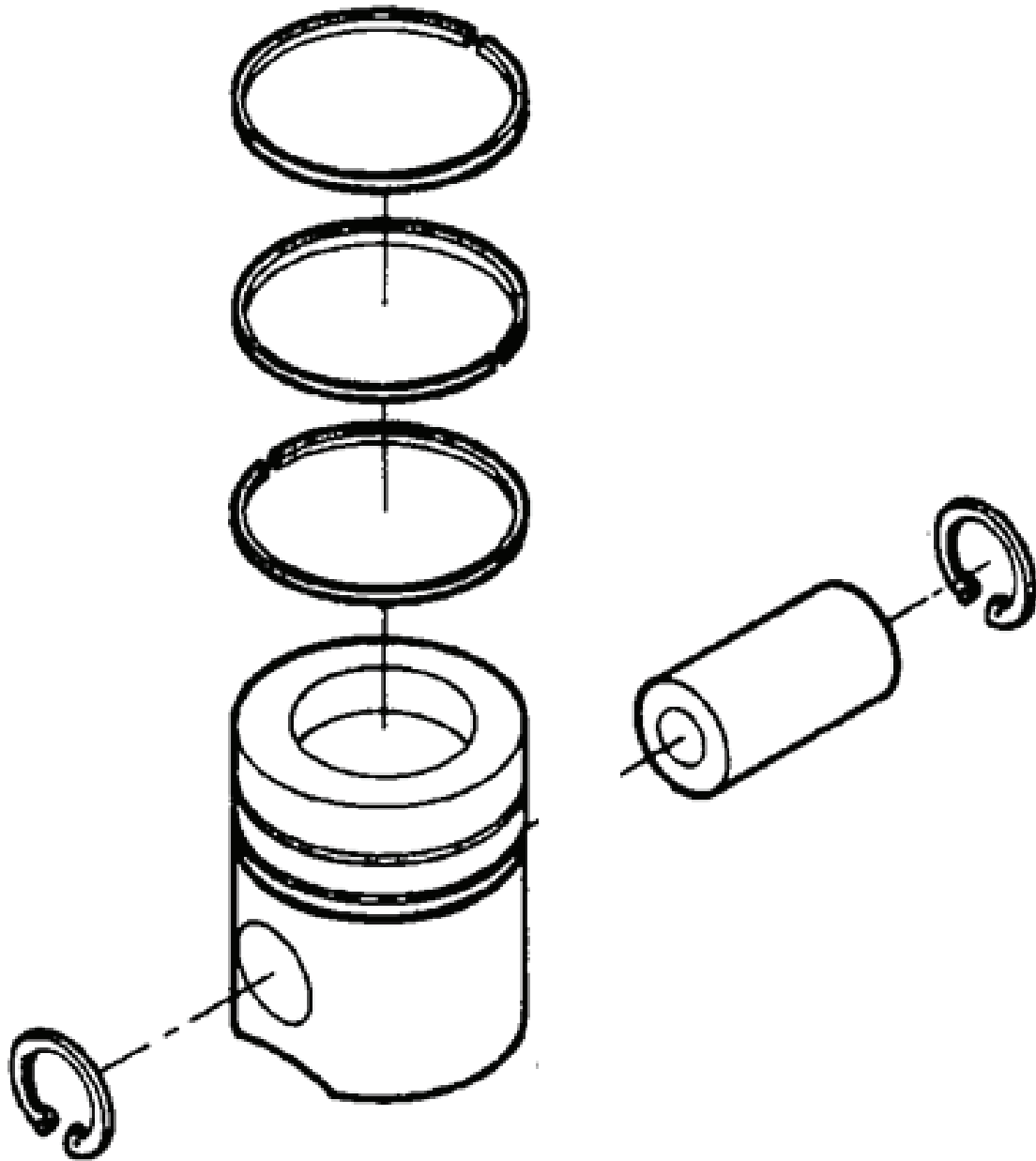
## Water Pump, Oil Cooler Core & Cooling Components

| Ref | Part Number | Description  | 4BT3.9 | 6BT5.9 |
|-----|-------------|--|--------|--------|
| 00  | FP-3802273  | Kit, Thermostat (83° C), (181° F)                  | 1      | 1      |
| 00  | FP-3903475  | Seal, Rectangular Ring Mechanical Tach Drive       | 1      | 1      |
| 00  | FP-3910739  | Bearing, Ball (Fan Drive)                          | 1      | 1      |
| 00  | FP-3923331  | Gasket, Thermostat Housing Cover                   | 1      | 1      |
| 00  | FP-3923517  | Shaft & Bearing                                    | 1      | 1      |
| 01  | FP-3286277  | Water Pump   | 1      | 1      |
| 02  | FP-3906698  | Seal, Rectangular Ring                             | 1      | 1      |
| 03  | FP-3917324  | Assembly, Thermostat (83° C), (181° F)             | 1      | 1      |
| 04  | FP-3957543  | Element, Oil Cooler (Previously FP-3921557)        | 1      |        |
| 04  | FP-3957544  | Element, Oil Cooler (Previously FP-3921558)        |        | 1      |
| 05  | FP-3926760  | Gasket, Oil Cooler Core                            | 1      | 1      |
| 06  | FP-3929792  | Gasket, Filter Head                                | 1      | 1      |
| 07  | FP-3909397  | Seal, O-Ring                                       | 1      | 1      |
| 08  | FP-3918428  | Plunger, Pressure Regulator                        | 1      | 1      |
| 09  | FP-3034946  | Multi-Groove Fan Belts (Ribbed 8) (62.5" X 1.125") | 1      | 1      |
| 09  | FP-3911557  | Multi-Groove Fan Belts (Ribbed 8)                  | 1      | 1      |
| 09  | FP-3911558  | Multi-Groove Fan Belts (Ribbed 8) (59" X 1.125")   | 1      | 1      |
| 09  | FP-3911559  | Multi-Groove Fan Belts (Ribbed 8)                  | 1      | 1      |
| 09  | FP-3911563  | Multi-Groove Fan Belts (Ribbed 8) (60.5" X 1.125") | 1      | 1      |
| 09  | FP-3911568  | Multi-Groove Fan Belts (Ribbed 8) (57" X 1.125")   | 1      | 1      |
| 09  | FP-3911572  | Multi-Groove Fan Belts (Ribbed 8) (61.5" X 1.125") | 1      | 1      |
| 09  | FP-3911575  | Multi-Groove Fan Belts (Ribbed 8) (63" X 1.125")   | 1      | 1      |
| 09  | FP-3911582  | Multi-Groove Fan Belts (Ribbed 8) (70" X 1.125")   | 1      | 1      |
| 09  | FP-3911587  | Multi-Groove Fan Belts (Ribbed 8) (53.5" X 1.125") | 1      | 1      |
| 09  | FP-3911588  | Multi-Groove Fan Belts (Ribbed 8) (56" X 1.125")   | 1      | 1      |
| 10  | FP-3883284  | Seal, O-Ring, Air Intake Connection                | 1      | 1      |
| 11  | FP-3938158  | Gasket, Air Intake Connection                      | 1      | 1      |
| 12  | FP-4939585  | Pump, Lubricating Oil                              | 1      |        |
| 12  | FP-4939587  | Pump, Lubricating Oil                              |        | 1      |
| 13  | FP-3937706  | Turbocharger Oil Drain Gasket (H x 35)             | 1      | 1      |
| 14  | FP-3901356  | Turbo Charger Mounting Gasket                      | 1      | 1      |
| 15  | FP-3931824  | Seal, O-Ring, Turbo Oil Line                       | 1      | 1      |
| 16  | FP-3818823  | Turbocharger Mounting Stud                         | 4      | 4      |

# B Series



## Piston Kits - Early



## Piston Kits - Early

| Avail | Engine        | Piston Kit   | Piston Body | Piston Pin   | Retainers  | Ring Set     | C/R    | Comments        |
|-------|---------------|--------------|-------------|--------------|------------|--------------|--------|-----------------|
| ✓     | 4BT3.9/6BT5.9 | FP-3802060   | FP-3906223  | Not Included | FP-3920691 | FP-3802040   | 17.3:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3802062   | FP-3906209  | Not Included | FP-3920691 | FP-3802042   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3802064   | FP-3906208  | Not Included | FP-3920691 | FP-3802044   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3802100   | FP-3907156  | Not Included | FP-3920691 | FP-3802230   | 16.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3802102   | FP-3907157  | Not Included | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3802104   | FP-3907158  | Not Included | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3802132   | FP-3908815  | Not Included | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3802134   | FP-3908816  | Not Included | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3802160   | FP-3907163  | Not Included | FP-3920691 | FP-3802230   | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3802170   | FP-3911400  | Not Included | FP-3920691 | FP-3802230   | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3802172   | FP-3912049  | Not Included | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3802174   | FP-3912050  | Not Included | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3802711   | FP-3907156  | FP-3934048   | FP-3920691 | FP-3802230   | 16.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3802712   | FP-3907163  | FP-3934048   | FP-3920691 | FP-3802230   | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3906208WP | FP-3906208  | FP-3934048   | FP-3920691 | Not Included |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3906209WP | FP-3906209  | FP-3934048   | FP-3920691 | Not Included |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3906223WP | FP-3906223  | FP-3934048   | FP-3920691 | Not Included | 17.3:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3907156WP | FP-3907156  | FP-3934048   | FP-3920691 | Not Included | 16.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3907157WP | FP-3907157  | FP-3934048   | FP-3920691 | Not Included |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3907158WP | FP-3907158  | FP-3934048   | FP-3920691 | Not Included |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3907163WP | FP-3907163  | FP-3934048   | FP-3920691 | Not Included | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3908815WP | FP-3908815  | FP-3934048   | FP-3920691 | Not Included |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3908816WP | FP-3908816  | FP-3934048   | FP-3920691 | Not Included |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-3911400WP | FP-3911400  | FP-3934048   | FP-3920691 | Not Included | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-3912049WP | FP-3912049  | FP-3934048   | FP-3920691 | Not Included |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-3912050WP | FP-3912050  | FP-3934048   | FP-3920691 | Not Included |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-PK1400    | FP-3911400  | FP-3934048   | FP-3920691 | FP-3802230   | 17.5:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-PK2049    | FP-3912049  | FP-3934048   | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-PK2050    | FP-3912050  | FP-3934048   | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-PK6208    | FP-3906208  | FP-3934048   | FP-3920691 | FP-3802044   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-PK6209    | FP-3906209  | FP-3934048   | FP-3920691 | FP-3802042   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-PK6223    | FP-3906223  | FP-3934048   | FP-3920691 | FP-3802040   | 17.3:1 | Standard        |
| ✓     | 4BT3.9/6BT5.9 | FP-PK7157    | FP-3907157  | FP-3934048   | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-PK7158    | FP-3907158  | FP-3934048   | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |
| ✓     | 4BT3.9/6BT5.9 | FP-PK8815    | FP-3908815  | FP-3934048   | FP-3920691 | FP-3802232   |        | .50MM Oversize  |
| ✓     | 4BT3.9/6BT5.9 | FP-PK8816    | FP-3908816  | FP-3934048   | FP-3920691 | FP-3802234   |        | 1.00MM Oversize |

Check For New Pistons

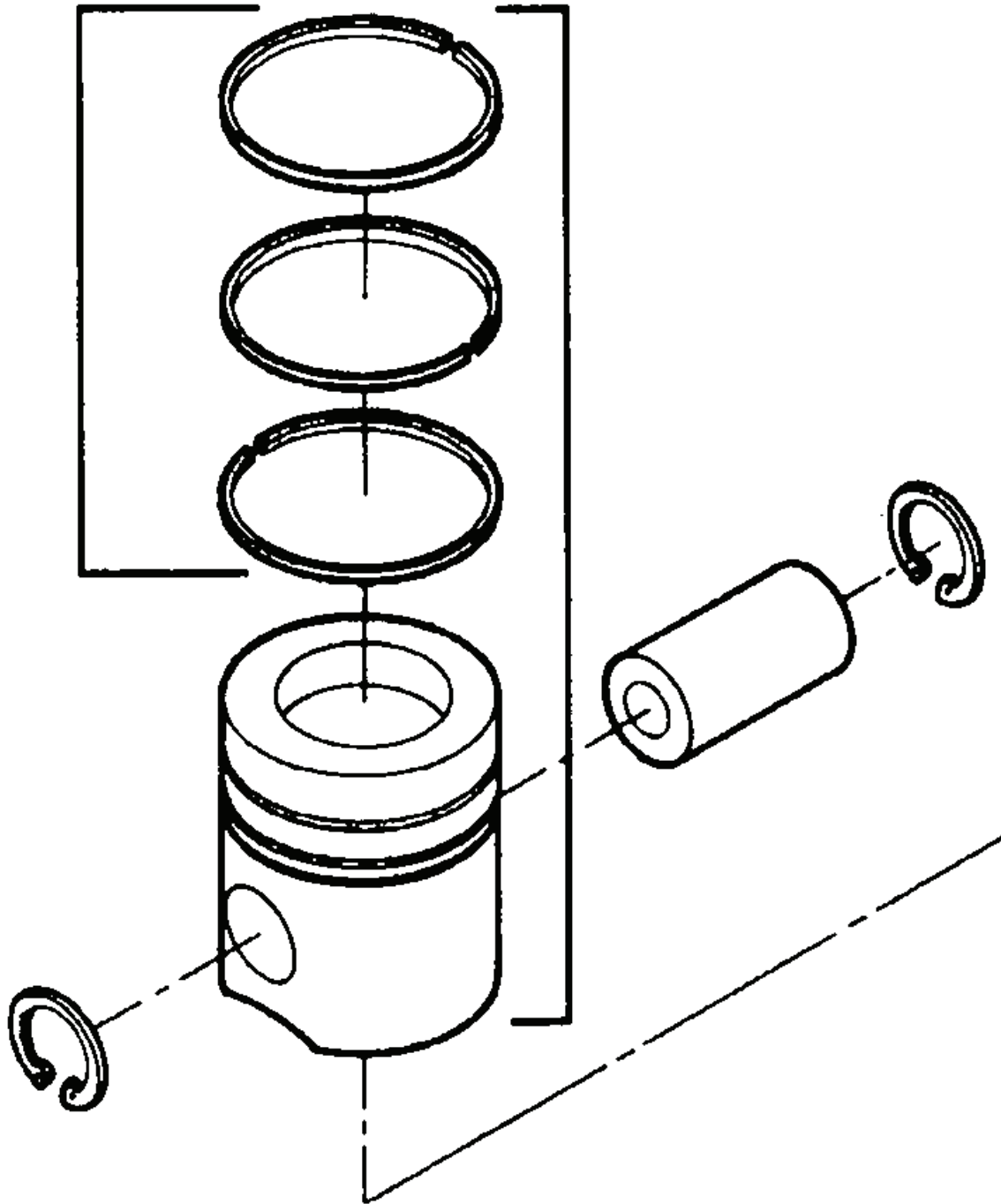
Note: Above piston kits include items in shaded area.



# B Series



## Piston Kits - Late



## Piston Kits - Late

| Avail | Engine          | Piston Kit                | Piston Body | Piston Pin   | Retainers  | Ring Set     | C/R       | Comments                               |
|-------|-----------------|---------------------------|-------------|--------------|------------|--------------|-----------|--|
| ✓     | 4BT3.9/6BT5.9   | FP-3802030                | FP-3903579  | Not Included | FP-3920691 | FP-3802230   | 17.2:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3802032 <sup>1</sup>   | FP-3903656  | Not Included | FP-3920691 | FP-3802232   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802034 <sup>1</sup>   | FP-3903655  | Not Included | FP-3920691 | FP-3802234   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9NG | FP-3802090                | FP-3903582  | Not Included | FP-3920691 | FP-3802230   | 18.5:1    | Std; CPL No.593, 598, 728, 766, 767    |
| ✓     | 4BT3.9/6BT5.9NG | FP-3802092                | FP-3908035  | Not Included | FP-3920691 | FP-3802232   |           | 0.50mm; CPL No.593, 598, 728, 766, 767 |
| ✓     | 4BT3.9/6BT5.9NG | FP-3802094                | FP-3908036  | Not Included | FP-3920691 | FP-3802234   |           | 1.00mm; CPL No.593, 598, 728, 766, 767 |
| ✓     | 4BT3.9/6BT5.9   | FP-3802248                | FP-3919041  | Not Included | FP-3920691 | FP-3802421   | 17.5:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3802249 <sup>1</sup>   | FP-3919044  | Not Included | FP-3920691 | FP-3802422   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802250 <sup>1</sup>   | FP-3919045  | Not Included | FP-3920691 | FP-3802423   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802251                | FP-3917619  | Not Included | FP-3920691 | FP-3802230   | 17.3:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3802252 <sup>1</sup>   | FP-3919047  | Not Included | FP-3920691 | FP-3802232   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802253 <sup>1</sup>   | FP-3919048  | Not Included | FP-3920691 | FP-3802234   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802487                | FP-3922571  | Not Included | FP-3920691 | FP-3802421   | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802489                | FP-3922572  | Not Included | FP-3920691 | FP-3802421   | 8 mm TRL  | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802490                | FP-3922573  | Not Included | FP-3920691 | FP-3802421   | 8 mm TRL  | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802493 <sup>1</sup>   | FP-3922574  | Not Included | FP-3920691 | FP-3802422   | 8 mm TRL  | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802495 <sup>1</sup>   | FP-3922575  | Not Included | FP-3920691 | FP-3802423   | 8 mm TRL  | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802561                | FP-3926631  | Not Included | FP-3920691 | FP-3802230   | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802562                | FP-3926632  | Not Included | FP-3920691 | FP-3802230   | 10 mm TRL | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802563                | FP-3926633  | Not Included | FP-3920691 | FP-3802230   | 10 mm TRL | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3802564 <sup>1</sup>   | FP-3926634  | Not Included | FP-3920691 | FP-3802232   | 10 mm TRL | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802565 <sup>1</sup>   | FP-3926635  | Not Included | FP-3920691 | FP-3802234   | 10 mm TRL | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9NG | FP-3802630                | FP-3922687  | Not Included | FP-3920691 | FP-3802951   |           | Std; CPL No.8714, 8737                 |
| ✓     | 4BT3.9/6BT5.9   | FP-3802757                | FP-3930187  | Not Included | FP-3920691 | FP-3802750   | 17.3:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3802758 <sup>1</sup>   | FP-3930188  | Not Included | FP-3920691 | FP-3802863   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3802759 <sup>1</sup>   | FP-3930189  | Not Included | FP-3920691 | FP-3802864   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3903579WP              | FP-3903579  | FP-3934048   | FP-3920691 | Not Included | 17.2:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3903655WP <sup>1</sup> | FP-3903655  | FP-3934048   | FP-3920691 | Not Included |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3903656WP <sup>1</sup> | FP-3903656  | FP-3934048   | FP-3920691 | Not Included |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3917619WP              | FP-3917619  | FP-3934047   | FP-3920691 | Not Included | 17.3:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3919041WP              | FP-3919041  | FP-3934047   | FP-3920691 | Not Included | 17.5:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-3919044WP <sup>1</sup> | FP-3919044  | FP-3934047   | FP-3920691 | Not Included |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3919045WP <sup>1</sup> | FP-3919045  | FP-3934047   | FP-3920691 | Not Included |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3919047WP <sup>1</sup> | FP-3919047  | FP-3934047   | FP-3920691 | Not Included |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3919048WP <sup>1</sup> | FP-3919048  | FP-3934047   | FP-3920691 | Not Included |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3922571WP              | FP-3922571  | FP-3934047   | FP-3920691 | Not Included | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3922572WP              | FP-3922572  | FP-3934047   | FP-3920691 | Not Included | 8 mm TRL  | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3922573WP              | FP-3922573  | FP-3934047   | FP-3920691 | Not Included | 8 mm TRL  | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3922574WP <sup>1</sup> | FP-3922574  | FP-3934047   | FP-3920691 | Not Included | 8 mm TRL  | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3922575WP <sup>1</sup> | FP-3922575  | FP-3934047   | FP-3920691 | Not Included | 8 mm TRL  | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3922631WP              | FP-3926631  | FP-3934047   | FP-3920691 | Not Included | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3922632WP              | FP-3926632  | FP-3934047   | FP-3920691 | Not Included | 10 mm TRL | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3922633WP              | FP-3926633  | FP-3934047   | FP-3920691 | Not Included | 10 mm TRL | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-3926634WP <sup>1</sup> | FP-3926634  | FP-3934047   | FP-3920691 | Not Included | 10 mm TRL | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3926635WP <sup>1</sup> | FP-3926635  | FP-3934047   | FP-3920691 | Not Included | 10 mm TRL | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3930187WP              | FP-3930187  | FP-3934047   | FP-3920691 | Not Included | 17.3:1    | Std                                    |

<sup>1</sup>On Measure

Check For New Pistons

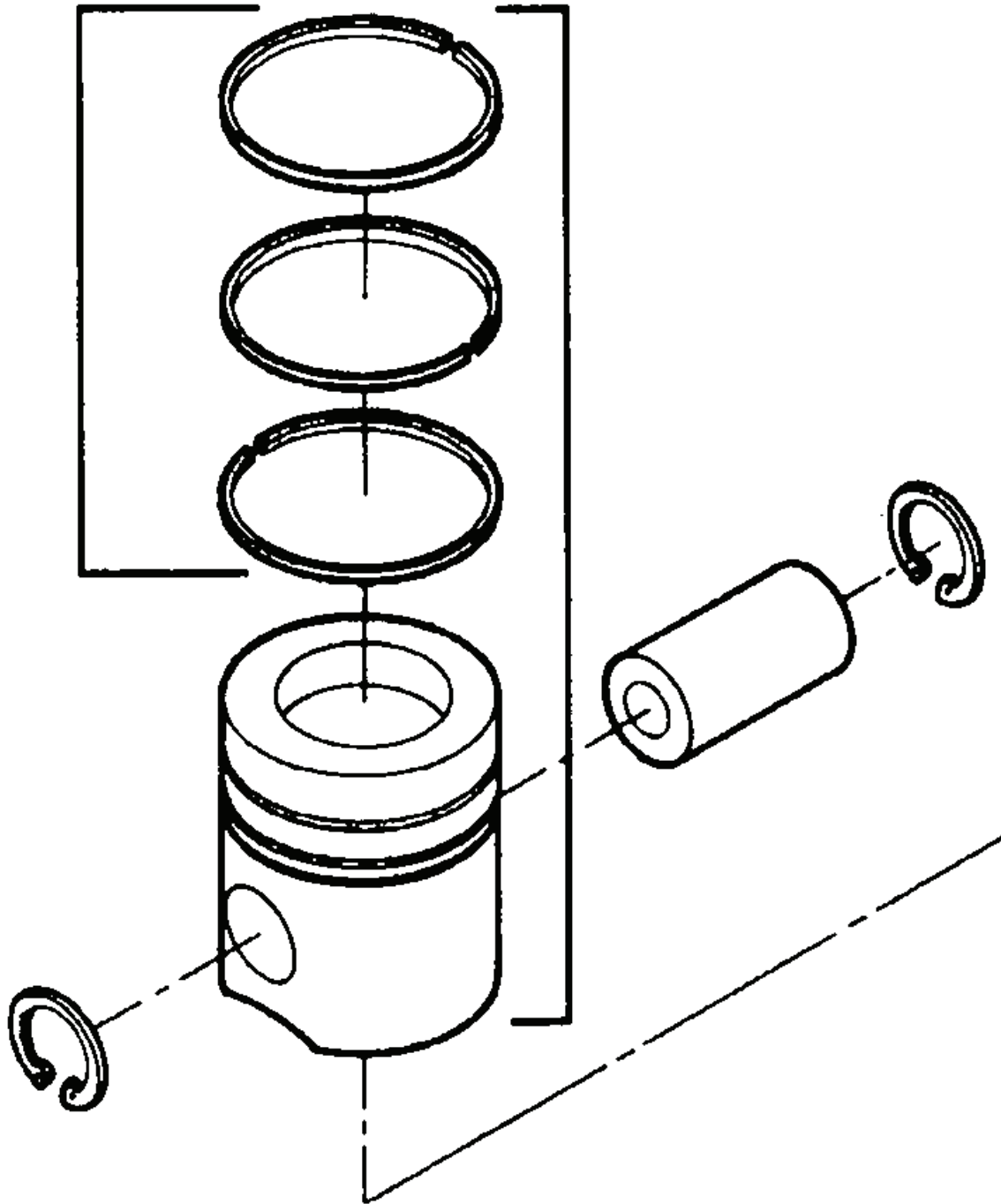
Note: Above piston kits include items in shaded area.



# B Series



## Piston Kits - Late



## Piston Kits - Late (Cont.)

| Avail | Engine          | Piston Kit                | Piston Body | Piston Pin | Retainers  | Ring Set     | C/R       | Comments                               |
|-------|-----------------|---------------------------|-------------|------------|------------|--------------|-----------|--|
| ✓     | 4BT3.9/6BT5.9   | FP-3930188WP <sup>1</sup> | FP-3930188  | FP-3934047 | FP-3920691 | Not Included |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-3930189WP <sup>1</sup> | FP-3930189  | FP-3934047 | FP-3920691 | Not Included |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK0187                 | FP-3930187  | FP-3934047 | FP-3920691 | FP-3802750   | 17.3:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-PK0188 <sup>1</sup>    | FP-3930188  | FP-3934047 | FP-3920691 | FP-3802863   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK0189 <sup>1</sup>    | FP-3930189  | FP-3934047 | FP-3920691 | FP-3802864   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9NG | FP-PK2090                 | FP-3903582  | FP-3934048 | FP-3920691 | FP-3802230   | 18.5:1    | Std; CPL No.593, 598, 728, 766, 767    |
| ✓     | 4BT3.9/6BT5.9NG | FP-PK2092                 | FP-3908035  | FP-3934048 | FP-3920691 | FP-3802232   |           | 0.50mm; CPL No.593, 598, 728, 766, 767 |
| ✓     | 4BT3.9/6BT5.9NG | FP-PK2094                 | FP-3908036  | FP-3934048 | FP-3920691 | FP-3802234   |           | 1.00mm; CPL No.593, 598, 728, 766, 767 |
| ✓     | 4BT3.9/6BT5.9   | FP-PK2571                 | FP-3922571  | FP-3934047 | FP-3920691 | FP-3802421   | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK2572                 | FP-3922572  | FP-3934047 | FP-3920691 | FP-3802421   | 8 mm TRL  | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK2573                 | FP-3922573  | FP-3934047 | FP-3920691 | FP-3802421   | 8 mm TRL  | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK2574 <sup>1</sup>    | FP-3922574  | FP-3934047 | FP-3920691 | FP-3802422   | 8 mm TRL  | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK2575 <sup>1</sup>    | FP-3922575  | FP-3934047 | FP-3920691 | FP-3802423   | 8 mm TRL  | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9NG | FP-PK2630                 | FP-3922687  | FP-3934047 | FP-3920691 | FP-3802951   |           | Std; CPL No.8714, 8737                 |
| ✓     | 4BT3.9/6BT5.9   | FP-PK3579                 | FP-3903579  | FP-3934048 | FP-3920691 | FP-3802230   | 17.2:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-PK3655 <sup>1</sup>    | FP-3903655  | FP-3934048 | FP-3920691 | FP-3802234   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK3656 <sup>1</sup>    | FP-3903656  | FP-3934048 | FP-3920691 | FP-3802232   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK6631                 | FP-3926631  | FP-3934047 | FP-3920691 | FP-3802230   | N.A.      | Std A Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK6632                 | FP-3926632  | FP-3934047 | FP-3920691 | FP-3802230   | 10 mm TRL | Std B Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK6633                 | FP-3926633  | FP-3934047 | FP-3920691 | FP-3802230   | 10 mm TRL | Std C Grade                            |
| ✓     | 4BT3.9/6BT5.9   | FP-PK6634 <sup>1</sup>    | FP-3926634  | FP-3934047 | FP-3920691 | FP-3802232   | 10 mm TRL | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK6635 <sup>1</sup>    | FP-3926635  | FP-3934047 | FP-3920691 | FP-3802234   | 10 mm TRL | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK7619                 | FP-3917619  | FP-3934047 | FP-3920691 | FP-3802230   | 17.3:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-PK9041                 | FP-3919041  | FP-3934047 | FP-3920691 | FP-3802421   | 17.5:1    | Std                                    |
| ✓     | 4BT3.9/6BT5.9   | FP-PK9044 <sup>1</sup>    | FP-3919044  | FP-3934047 | FP-3920691 | FP-3802422   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK9045 <sup>1</sup>    | FP-3919045  | FP-3934047 | FP-3920691 | FP-3802423   |           | 1.00 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK9047 <sup>1</sup>    | FP-3919047  | FP-3934047 | FP-3920691 | FP-3802232   |           | 0.50 mm                                |
| ✓     | 4BT3.9/6BT5.9   | FP-PK9048 <sup>1</sup>    | FP-3919048  | FP-3934047 | FP-3920691 | FP-3802234   |           | 1.00 mm                                |

<sup>1</sup>On Measure

Check For New Pistons

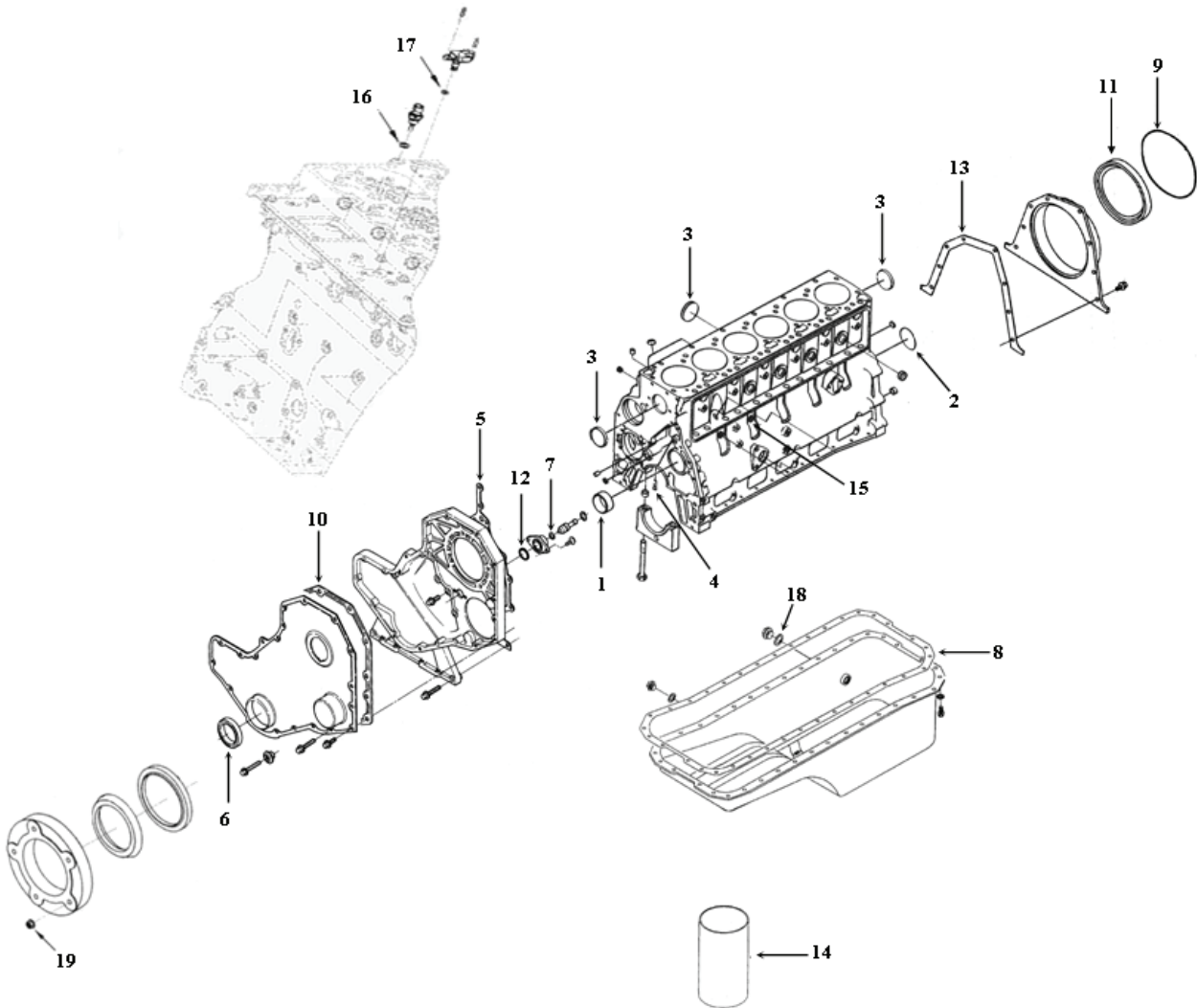
Note: Above piston kits include items in shaded area.



# ISB-QSB Series



## Engine Block



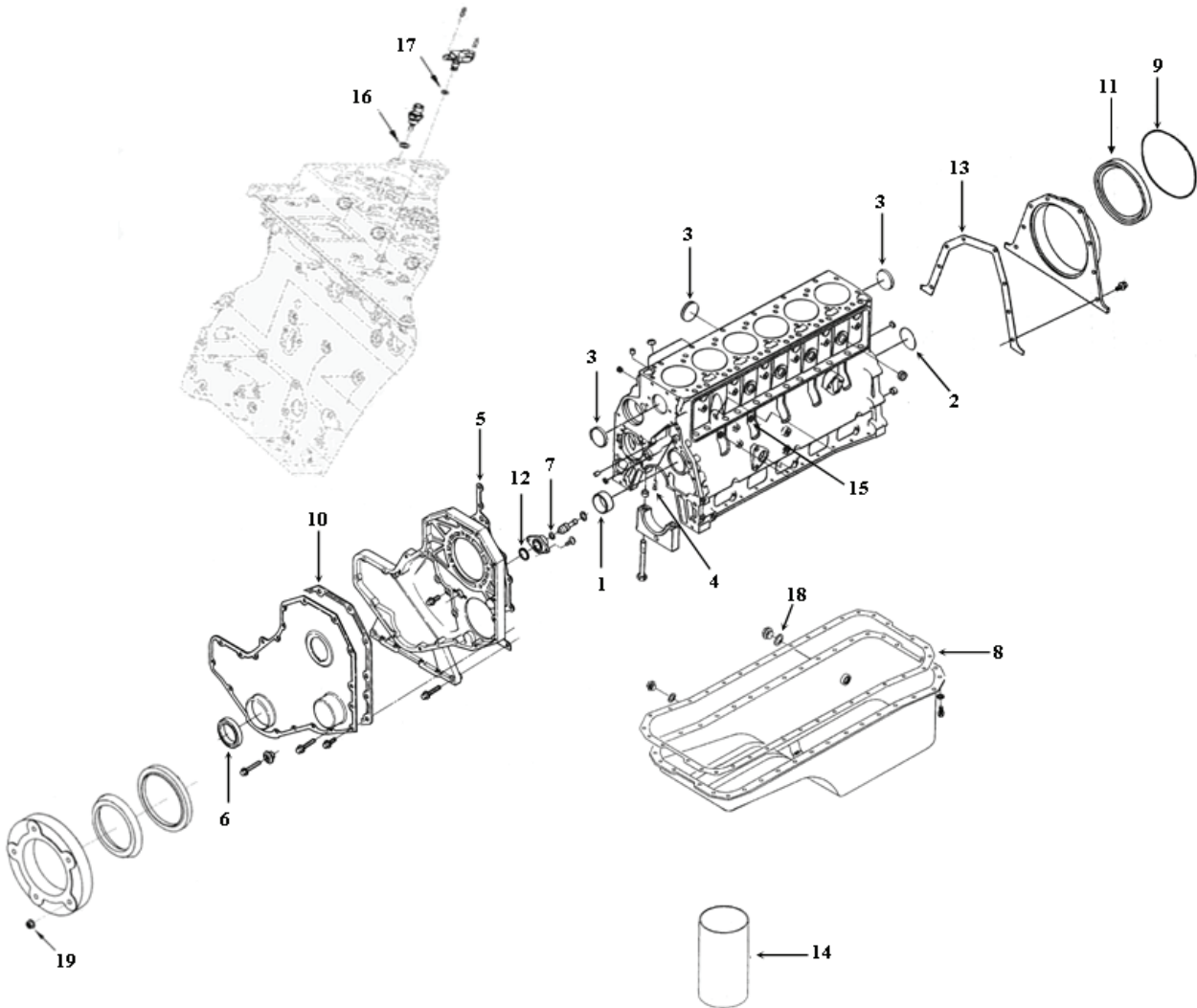
## Cylinder Block

| Ref | Part Number   | Description   | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|---------------|---|------|------|------|------|
| 00  | 4025138       | Gasket Set, Upper ISB (Standard Head Gasket)(ISBE185 22)              | -    | -    | 1    | -    |
| 00  | 4025139       | Gasket Set, Lower ISB (ISBE185 22)                                    | -    | -    | 1    | -    |
| 00  | 4089173       | Gasket Set, Upper ISB (Standard Head Gasket)                          | -    | -    | 1    | -    |
| 00  | FP-3800487    | Gasket Set, Lower ISB   | -    | -    | 1    | 1    |
| 00  | FP-4089819    | Gasket Set, Upper ISB/QSB (Standard Head Gasket) (Previously 4089172) | -    | -    | 1    | 1    |
| 00  | FP-4090035    | Gasket Set, Upper ISB (Standard Head Gasket) (Automotive)             | -    | -    | 1    | 1    |
| 00  | FP-IFKISB624V | Inframe Kit   | -    | -    | 1    | 1    |
| 00  | 4025107       | Gasket Set, Upper ISB (Standard Head Gasket)                          | 1    | 1    | -    | -    |
| 00  | 4025108       | Gasket Set, Lower ISB   | 1    | 1    | -    | -    |
| 00  | 3008468       | Plug, Pipe (1/2" NPT)   | 1    | 1    | 1    | 1    |
| 00  | 3008469       | Plug, Pipe (3/4" NPT)   | 1    | 1    | 1    | 1    |
| 00  | 3678921       | Plug, Threaded  | 1    | 1    | 1    | 1    |
| 00  | 3678922       | Plug, Threaded  | 1    | 1    | 1    | 1    |
| 00  | 3678924       | Plug, Threaded  | 1    | 1    | 1    | 1    |
| 00  | 3900629       | Screw, Hex Flange Head Cap  | 1    | 1    | 1    | 1    |
| 00  | 3900958       | Plug, Expansion   | 1    | 1    | 1    | 1    |
| 00  | 3921992       | Connection, Oil Suction   | 1    | 1    | 1    | 1    |
| 00  | 3924147       | Plug, Threaded (M18 x 1.50)   | 1    | 1    | 1    | 1    |
| 00  | 3924148       | Plug, Threaded  | 1    | 1    | 1    | 1    |
| 00  | 3929751       | Gasket, Accessory Drive   | 1    | 1    | 1    | 1    |
| 00  | 3932290       | Plug, O-Ring  | 1    | 1    | 1    | 1    |
| 00  | 3941910       | Cover, Gear   | 1    | 1    | 1    | 1    |
| 00  | 3944816       | Screw, Hex Flange Head Cap  | 1    | 1    | 1    | 1    |
| 00  | 3966976       | Screw, Hex Flange Head Cap  | 1    | 1    | 1    | 1    |
| 00  | FP-3008400    | Gasket, Accessory Drive   | 1    | 1    | 1    | 1    |
| 00  | FP-3902425    | Washer, Sealing (M22) (Lower Drain Plug)                              | 1    | 1    | 1    | 1    |
| 00  | FP-3938157    | Gasket, Oil Pickup Flange   | 1    | 1    | 1    | 1    |
| 00  | 3927948       | Screw, Hex Flange Head Cap  | 14   | 14   | 14   | 14   |
| 00  | 3900068       | Dowel, Ring   | 2    | 2    | 2    | 2    |
| 00  | 3900257       | Dowel, Pin  | 2    | 2    | 2    | 2    |
| 00  | 3902343       | Dowel, Ring   | 2    | 2    | 2    | 2    |
| 00  | 3920706       | Plug, Expansion   | 2    | 2    | 2    | 2    |
| 00  | 3932296       | Plug, O-Ring  | 2    | 2    | 2    | 2    |
| 00  | 3678923       | Plug, Threaded  | 3    | 3    | 3    | 3    |
| 00  | 3900955       | Plug, Expansion   | 3    | 3    | 3    | 3    |
| 00  | 3900956       | Plug, Expansion   | 3    | 3    | 3    | 3    |
| 00  | 3920400       | Screw, Hex Flange Head Cap  | 36   | 36   | 36   | 36   |
| 00  | 3921816       | Screw, Hex Flange Head Cap  | 4    | 4    | 4    | 4    |
| 00  | 3975796       | Plug, Expansion   | 5    | 5    | -    | -    |
| 00  | 3926846       | Screw, Hex Flange Head Cap  | 5    | 5    | 5    | 5    |
| 00  | 3913638       | Screw, Hex Flange Head Cap  | 6    | 6    | 6    | 6    |
| 00  | 3924962       | Screw, Hex Flange Head Cap  | 7    | 7    | 7    | 7    |
| 01  | FP-3940059    | Bushing, Camshaft   | 1    | 1    | 1    | 1    |
| 01  | FP-3903242    | Bushing, Camshaft OS (#2-5)   | AR   | AR   | AR   | AR   |
| 01  | FP-3904369    | Bushing, Camshaft OS (#1)   | AR   | AR   | AR   | AR   |
| 02  | FP-3900687    | Plug, Expansion   | 1    | 1    | 1    | 1    |
| 02  | FP-3926047    | Seal, O-Ring (For 3900687 Expansion Plug)                             | 1    | 1    | 1    | 1    |
| 02  | 3975796       | Plug, Expansion   | 5    | 5    | -    | -    |
| 03  | FP-3007635    | Plug, Expansion   | 4    | 4    | 4    | 4    |

# ISB-QSB Series



## Engine Block





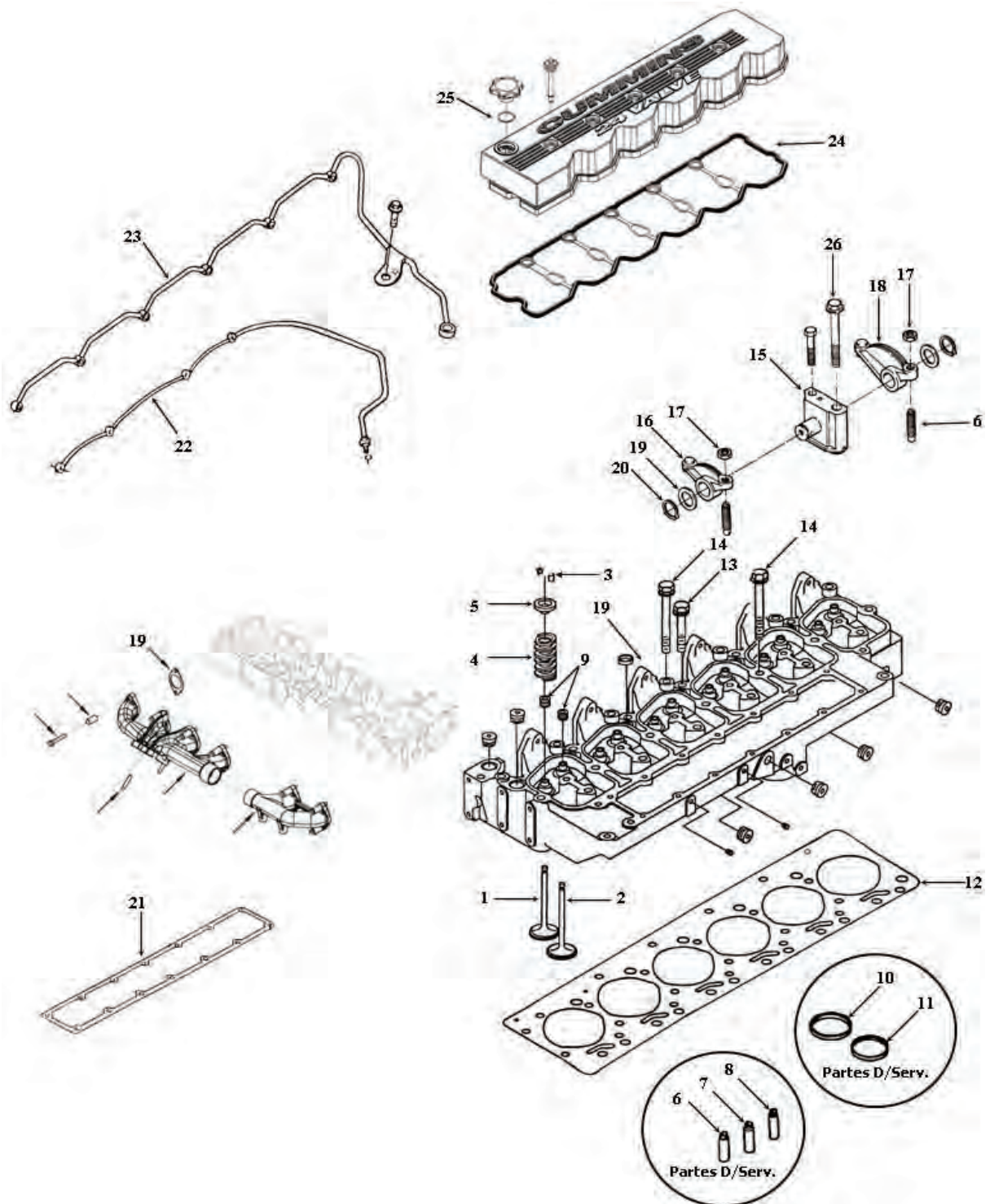
## Cylinder Block

| Ref | Part Number | Description   | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------|---|------|------|------|------|
| 04  | FP-3937214  | Nozzle, Piston Cooling                                    | 4    | 4    | 6    | 6    |
| 05  | FP-3938156  | Gasket, Gear Housing                                      | 1    | 1    | 1    | 1    |
| 06  | FP-3804899  | Seal Kit, Front Cranshaft                                 | 1    | 1    | 1    | 1    |
| 06  | FP-3937111  | Seal Kit, Front Cranshaft                                 | 1    | 1    | 1    | 1    |
| 08  | FP-3958165  | Gasket, Oil Pan (Stamped Steel Pan, drain on bottom)      | -    | -    | 1    | 1    |
| 08  | FP-3959052  | Gasket, Oil Pan   | -    | -    | 1    | 1    |
| 09  | 3957492     | Gasket, Rear Cover (For 3949415 Cover) (Wet Applications) | 1    | 1    | 1    | 1    |
| 09  | FP-3912473  | Seal, Rectangular Ring                                    | 1    | 1    | 1    | 1    |
| 10  | 3938706     | Gasket, Cover Plate                                       | 1    | 1    | 1    | 1    |
| 11  | FP-4089342  | Seal Kit, Rear Cranshaft                                  |      |      |      |      |
| 11  | 3970548     | Seal, Oil (Available In FP-4089342)                       | 1    | 1    | 1    | 1    |
| 12  | FP-3915772  | Seal, Rectangular Ring (Timing Pin Housing)               | 1    | 1    | 1    | 1    |
| 13  | 4947667     | Gasket, Rear Cover  | 1    | 1    | 1    | 1    |
| 14  | FP-3904166  | Sleeve, Salvage   | 4    | 4    | 6    | 6    |
| 15  | FP-3678912  | Seal, O-Ring  | 1    | 1    | 1    | 1    |
| 15  | FP-3679139  | Seal, O-Ring (For Coolant Plug 3089568)                   | 1    | 1    | 1    | 1    |
| 16  | FP-3957440  | Seal, O-Ring  | 1    | 1    | 1    | 1    |
| 16  | FP-3678925  | Seal, O-Ring (Oil Pressure Switch)                        | 2    | 2    | 2    | 2    |
| 17  | FP-3330478  | Seal, O-Ring (FP193734)                                   | 1    | 1    | 1    | 1    |
| 18  | FP-3920773  | Washer, Sealing (Sump Drain Plug)                         | 1    | 1    | 1    | 1    |
| 19  | FP-4946714  | Nut, Seal Carrier   | 5    | 5    | 5    | 5    |

# ISB-QSB Series



## Cylinder Head



## Cylinder Head, Valve Mechanism & Upper Gasket Sets

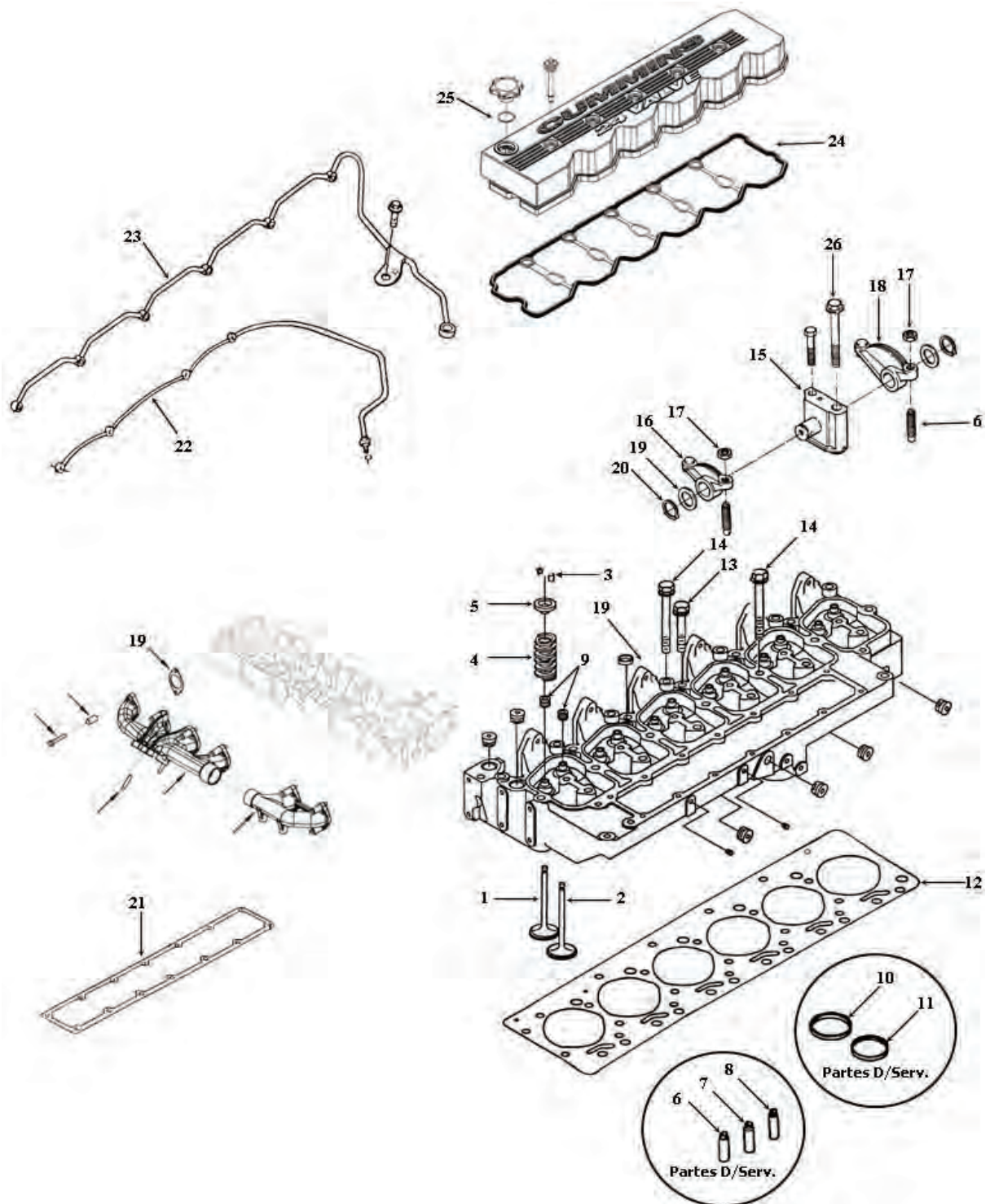
| Ref | Part Number       | Description   | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------------|---|------|------|------|------|
| 00  | FP-4090035        | Gasket Set, Upper ISB (Standard Head Gasket)          | -    | -    | 1    | -    |
| 00  | FP-4089819        | Gasket Set, Upper QSB (Standard Head Gasket)          | -    | -    | -    | 1    |
| 00  | 3935945           | Retainer, Socket                                      | 1    | 1    | 1    | 1    |
| 00  | 3920706           | Plug, Expansion                                       | 11   | 11   | 11   | 11   |
| 00  | FP-3007635        | Plug, Expansion                                       | 14   | 14   | 14   | 14   |
| 00  | 3935892           | Shaft, Rocker Lever                                   | 2    | 2    | 2    | 2    |
| 00  | 3945094           | Plug, Expansion                                       | 2    | 2    | 2    | 2    |
| 00  | 3945095           | Plug, Expansion                                       | 2    | 2    | 2    | 2    |
| 00  | 3941253           | Rod, Push   | 8    | 8    | 12   | 12   |
| 00  | 3943626           | Crosshead, Valve                                      | 8    | 8    | 12   | 12   |
| 01  | FP-3940734        | Valve, Exhaust  | 8    | 8    | 12   | 12   |
| 02  | FP-3940735        | Valve, Intake   | 8    | 8    | 12   | 12   |
| 03  | FP-3940123        | Collet, Valve   | 36   | 36   | 48   | 48   |
| 04  | FP-4936080        | Spring, Valve   | 16   | 16   | 24   | 24   |
| 04  | FP-3932453        | Spring, Valve (36 PSI) Industrial Applications        | 36   | 36   | 48   | 48   |
| 05  | FP-3943198        | Retainer, Valve Spring                                | 16   | 16   | 24   | 24   |
| 06  | 3959128           | Screw, rkr Lever Adjusting                            | 16   | 16   | 24   | 24   |
| 07  | 3942730           | Ball, Rocker Lever                                    | 16   | 16   | 24   | 24   |
| 08  | 3935946           | Socket, Rocker Lever                                  | 16   | 16   | 24   | 24   |
| 09  | FP-3955393        | Seal, Valve Stem (Exhaust)                            | 8    | 8    | 12   | 12   |
| 09  | FP-3955394        | Seal, Valve Stem (Intake)                             | 8    | 8    | 12   | 12   |
| 10  | 3943449           | Insert, Valve (Intake)                                | 8    | 8    | 12   | 12   |
| 11  | 3943450           | Insert, Valve (Exhaust)                               | 8    | 8    | 12   | 12   |
| 12  | FP-3977063        | Gasket, Cylinder Head                                 | -    | -    | 1    | 1    |
| 12  | 2830704           | Gasket, Cylinder Head (1.25MM OS)                     | -    | -    | AR   | AR   |
| 12  | 2830705           | Gasket, Cylinder Head (1.15MM OS)                     | -    | -    | AR   | AR   |
| 12  | 2830706           | Gasket, Cylinder Head                                 | 1    | 1    | -    | -    |
| 12  | 2830707           | Gasket, Cylinder Head                                 | 1    | 1    | -    | -    |
| 14  | FP-3927063        | Screw, Hex Flange Head Cap                            | 26   | 26   | 26   | 26   |
| 15  | 3964908           | Support, Rocker Lever                                 | 8    | 8    | 12   | 12   |
| 16  | 3941927           | Lever, Rocker (Intake)                                | 8    | 8    | 12   | 12   |
| 17  | FP-3927692        | Nut, Heavy Hexagon                                    | 16   | 16   | 24   | 24   |
| 18  | 3941928           | Lever, Rocker (Exhaust)                               | 8    | 8    | 12   | 12   |
| 19  | FP-3937479        | Gasket, Exhaust Manifold (Exc. Automotive)            | 4    | 4    | 6    | 6    |
| 19  | FP-3946275        | Gasket, Exhaust Manifold (Automotive)                 | 4    | 4    | 6    | 6    |
| 21  | 3947530           | Gasket, Air Intake Manifold Cover (For 3979766 Cover) | 1    | 1    | 1    | 1    |
| 21  | FP-3938152        | Gasket, Air Intake Manifold Cover (For 3913349 Cover) | 1    | 1    | 1    | 1    |
| 22  | 3943773           | Tube, Injector Fuel Supply                            | 1    | 1    | 1    | 1    |
| 23  | 3943775           | Tube, Injector Fuel Supply                            | 1    | 1    | 1    | 1    |
| 24  | 4939178           | Gasket, Valve Cover (Automotive)                      | -    | -    | 1    | 1    |
| 24  | FP-3935878        | Gasket, Valve Cover (Industrial)                      | -    | -    | 1    | 1    |
| 24  | FP-4899226        | Gasket, Valve Cover (For Die-Cast Valve Cover)        | -    | -    | 1    | 1    |
| 24  | FP-4897568        | Gasket, Valve Cover (For Sand-Cast Valve Cover)       | 1    | 1    | -    | -    |
| 25  | 3946168           | Screw, Captive Isolator Cap (M8 - 1.25 x 95.3)        | 5    | 5    | 5    | 5    |
| 26  | 3990127           | Screw, Hex Flange Head Cap                            | 12   | 12   | 12   | 12   |
| 00  | <b>FP-3802924</b> | <b>Kit, Intake Valve</b>                              | 8    | 8    | 12   | 12   |
| 02  | FP-3940735        | Valve, Intake   | 8    | 8    | 12   | 12   |
| 03  | FP-3940123        | Collet, Valve   | 36   | 36   | 48   | 48   |



# ISB-QSB Series



## Cylinder Head





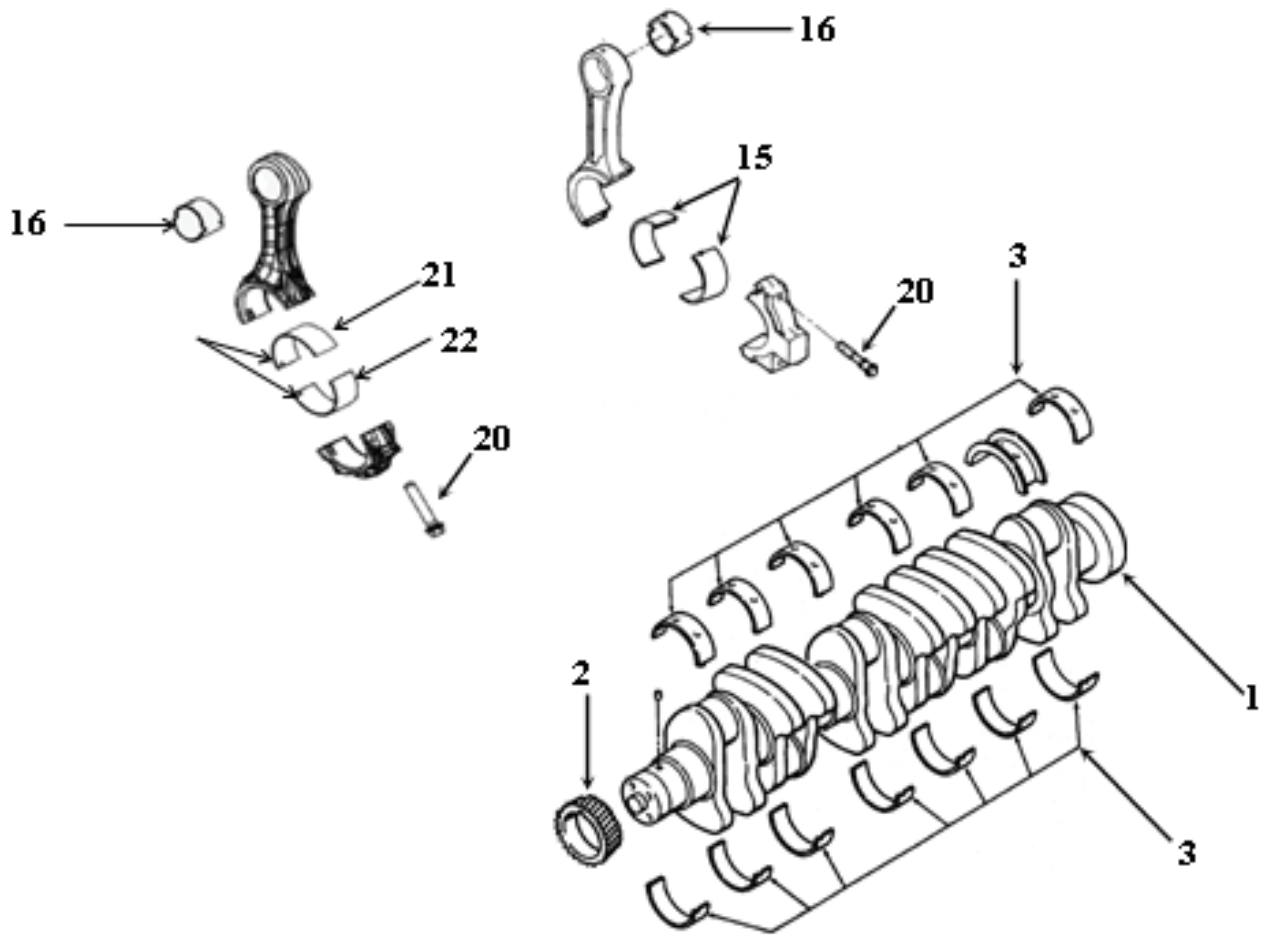
**Cylinder Head, Valve Mechanism & Upper Gasket Sets (Cont.)**

| Ref | Part Number       | Description                          | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------------|--------------------------------------|------|------|------|------|
| 00  | <b>FP-3802967</b> | Kit, Exhaust Valve                   | 8    | 8    | 12   | 12   |
| 01  | FP-3940734        | Valve, Exhaust                       | 8    | 8    | 12   | 12   |
| 03  | FP-3940123        | Collet, Valve                        | 36   | 36   | 48   | 48   |
| 00  | <b>FP-4089672</b> | Kit, Exhaust Valve w/Valve Stem Seal | 8    | 8    | 12   | 12   |
| 01  | FP-3968183        | Valve, Exhaust                       | 8    | 8    | 12   | 12   |
| 03  | FP-3940123        | Collet, Valve                        | 36   | 36   | 48   | 48   |
| 09  | FP-3955394        | Seal, Valve Stem (Green Seal)        | 8    | 8    | 12   | 12   |
| 00  | <b>FP-4955210</b> | Kit, Exhaust Valve w/Valve Stem Seal | 8    | 8    | 12   | 12   |
| 01  | FP-3968183        | Valve, Exhaust                       | 8    | 8    | 12   | 12   |
| 03  | FP-3940123        | Collet, Valve                        | 8    | 8    | 12   | 12   |
| 09  | FP-3955393        | Seal, Valve Stem (Yellow Seal)       | 8    | 8    | 12   | 12   |

# ISB-QSB Series



## Crankshaft





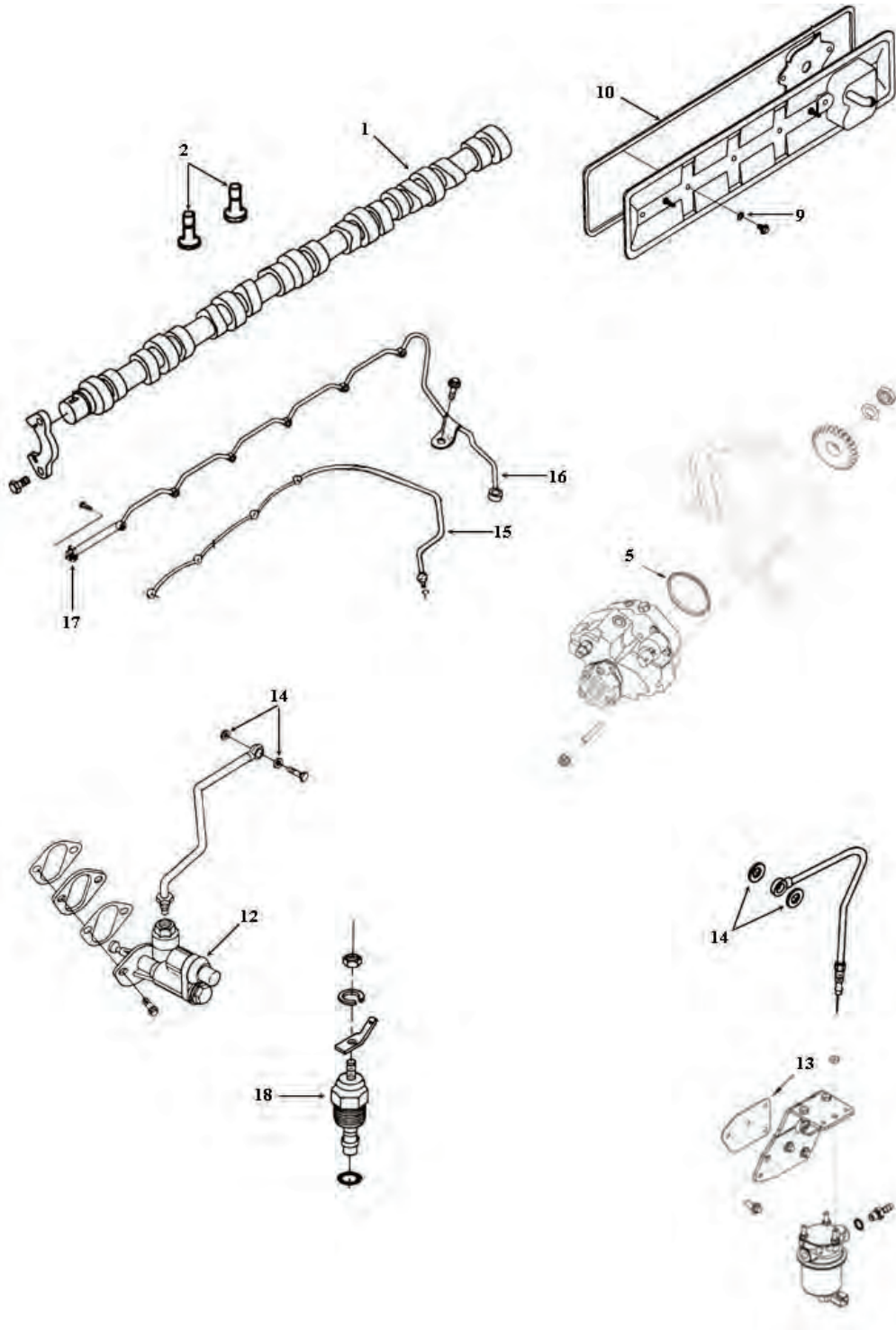
**Crankshaft, Main & Road Bearing, Oil Pan, front & Rear Cover**

| Ref | Part Number | Description  | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------|--|------|------|------|------|
| 00  | 3904483     | Dowel, Pin   | 1    | 1    | 1    | 1    |
| 00  | 3944203     | Screw, Flat Head Cap   | 5    | 5    | 5    | 5    |
| 01  | 3944204     | Crankshaft, Engine   | -    | -    | 1    | 1    |
| 01  | 3939367     | Crankshaft, Engine   | 1    | 1    | -    | -    |
| 02  | FP-3929027  | Gear, Crankshaft   | 1    | 1    | 1    | 1    |
| 03  | FP-3802070  | Main Bearing Set (Std.)  | -    | -    | 1    | 1    |
| 03  | FP-3802071  | Main Bearing Set (.25MM)   | -    | -    | 1    | 1    |
| 03  | FP-3802072  | Main Bearing Set (.50MM)   | -    | -    | 1    | 1    |
| 03  | FP-3802073  | Main Bearing Set (.75MM)   | -    | -    | 1    | 1    |
| 03  | FP-3802074  | Main Bearing Set (1.00MM)  | -    | -    | 1    | 1    |
| 03  | FP-3802010  | Main Bearing Set (Std.)  | 1    | 1    | -    | -    |
| 03  | FP-3802011  | Main Bearing Set (.25MM)   | 1    | 1    | -    | -    |
| 03  | FP-3802012  | Main Bearing Set (.50MM)   | 1    | 1    | -    | -    |
| 03  | FP-3802013  | Main Bearing Set (.75MM)   | 1    | 1    | -    | -    |
| 03  | FP-3802014  | Main Bearing Set (1.00MM)  | 1    | 1    | -    | -    |
| 15  | FP-3967060  | Connecting Rod Bearing Kit (Includes Upper And Lower) (Std.)         | 4    | 4    | 6    | 6    |
| 15  | FP-3967061  | Connecting Rod Bearing Kit (Includes Upper And Lower) (0.25mm)       | 4    | 4    | 6    | 6    |
| 15  | FP-3967062  | Connecting Rod Bearing Kit (Includes Upper And Lower) (0.50mm)       | 4    | 4    | 6    | 6    |
| 15  | FP-3967063  | Connecting Rod Bearing Kit (Includes Upper And Lower) (0.75mm)       | 4    | 4    | 6    | 6    |
| 15  | FP-3967064  | Connecting Rod Bearing Kit (Includes Upper And Lower) (1.00mm)       | 4    | 4    | 6    | 6    |
| 16  | FP-4891178  | Bushing  | 4    | 4    | 6    | 6    |
| 20  | 4891179     | Connecting Rod Bolt (For Fractured Split Rods)                       | 8    | 8    | 12   | 12   |
| 20  | FP-3900919  | Connecting Rod Bolt (M11 x 1.25 x 59.25mm) (For Machined Split Rods) | 8    | 8    | 12   | 12   |
| 21  | FP-3939859  | Bearing, Connecting Rod (Std.) (Upper)                               | 4    | 4    | 6    | 6    |
| 21  | FP-3901171  | Bearing, Connecting Rod (.25 mm oversize) (Upper)                    | A/R  | A/R  | A/R  | A/R  |
| 21  | FP-3901172  | Bearing, Connecting Rod (.50 mm oversize) (Upper)                    | A/R  | A/R  | A/R  | A/R  |
| 21  | FP-3901173  | Bearing, Connecting Rod (.75 mm oversize) (Upper)                    | A/R  | A/R  | A/R  | A/R  |
| 21  | FP-3901174  | Bearing, Connecting Rod (1.00 mm Oversize) (Upper)                   | A/R  | A/R  | A/R  | A/R  |
| 22  | FP-4893693  | Bearing, Connecting Rod (Std.) (Lower)                               | 4    | 4    | 6    | 6    |
| 22  | FP-4892795  | Bearing, Connecting Rod (.25 mm oversize) (Lower)                    | A/R  | A/R  | A/R  | A/R  |
| 22  | FP-4892796  | Bearing, Connecting Rod (.50 mm oversize) (Lower)                    | A/R  | A/R  | A/R  | A/R  |
| 22  | FP-4892797  | Bearing, Connecting Rod (.75 mm oversize) (Lower)                    | A/R  | A/R  | A/R  | A/R  |
| 22  | FP-4892798  | Bearing, Connecting Rod (1.00 mm Oversize) (Lower)                   | A/R  | A/R  | A/R  | A/R  |

# ISB-QSB Series



## Camshaft & Fuel Components



**Camshaft & Fuel Components**

| Ref | Part Number | Description                 | 4BT3.9 | 6BT5.9 |
|-----|-------------|-----------------------------|--------|--------|
| 00  | 3900227     | Screw, Hexagon Head Cap     | 2      | 2      |
| 00  | 3902332     | Key, Plain Woodruff         | 1      | 1      |
| 00  | 3927155     | Support, Camshaft Thrust    | 1      | 1      |
| 01  | 3942567     | Camshaft                    | -      | -      |
| 02  | FP-3942565  | Tappet, Valve (1998.5-2002) | 16     | 16     |
| 02  | FP-3947759  | Tappet, Valve (2003-Up)     | 16     | 16     |
| 03  | 3910960     | Washer, Plain               | 2      | 2      |
| 09  | FP-3928759  | Seal, Grommet               | 6      | 6      |
| 10  | FP-3284623  | Gasket, Push Rod Cover      | 1      | 1      |

**Fuel Transfer Pump & Plumbing**

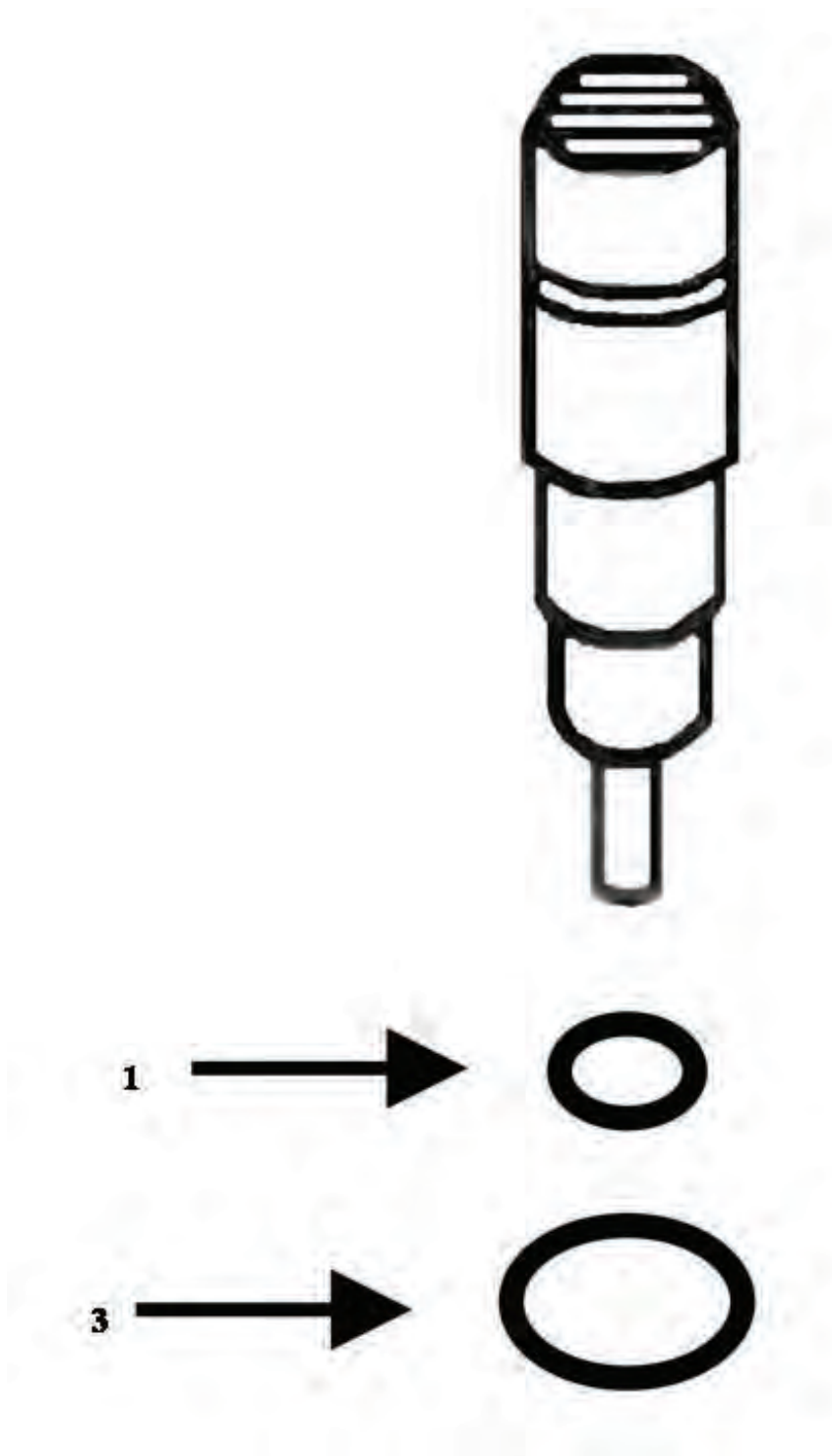
| Ref | Part Number | Description  | 4BT3.9 | 6BT5.9 |
|-----|-------------|--|--------|--------|
| 00  | 3408346     | Sensor, Temperature  | A/R    | A/R    |
| 00  | 3408438     | Seal, O-Ring Position Sensors                                      | A/R    | A/R    |
| 00  | 4010519     | Seal, O-Ring Temperature   | A/R    | A/R    |
| 00  | FP-3330202  | Seal, O-Ring Pressure Sensor                                       | A/R    | A/R    |
| 00  | 3990084     | Seal, O-Ring Oil Filler Cap  | 1      | 1      |
| 05  | FP-3949688  | Seal, Gear Driven Fuel Pump Rectangular                            | 1      | 1      |
| 11  | FP-3990105  | Pump, Fuel Transfer (With VP30, VP44 Injection Pump) 4943048 (12V) | 1      | 1      |
| 12  | FP-4089602  | Pump, Fuel Transfer (With Common Rail)                             | 1      | 1      |
| 13  | 3938706     | Gasket, Cover Plate Bracket (Electric Lift Pump)                   | 1      | 1      |
| 14  | FP-3963983  | Gasket, Fuel Inlet Fitting   | 8      | 8      |
| 15  | 3972080     | Tube, Fuel Drain   | 1      | 1      |
| 16  | 3943765     | Tube, Injector Fuel Supply (#1 Cylinder)                           | 1      | 1      |
| 16  | 3943767     | Tube, Injector Fuel Supply (#2 Cylinder)                           | 1      | 1      |
| 16  | 3943769     | Tube, Injector Fuel Supply (#3 Cylinder)                           | 1      | 1      |
| 16  | 3943771     | Tube, Injector Fuel Supply (#4 Cylinder)                           | 1      | 1      |
| 16  | 3943773     | Tube, Injector Fuel Supply (#5 Cylinder)                           | 1      | 1      |
| 16  | 3943775     | Tube, Injector Fuel Supply (#6 Cylinder)                           | 1      | 1      |
| 16  | 3943777     | Tube, Injector Fuel Supply   | 1      | 1      |
| 17  | 3944833     | Connector, Male  | 1      | 1      |
| 18  | 3348747     | Sensor, Pressure   | 1      | 1      |



# ISB-QSB Series



## Fuel Injector Parts





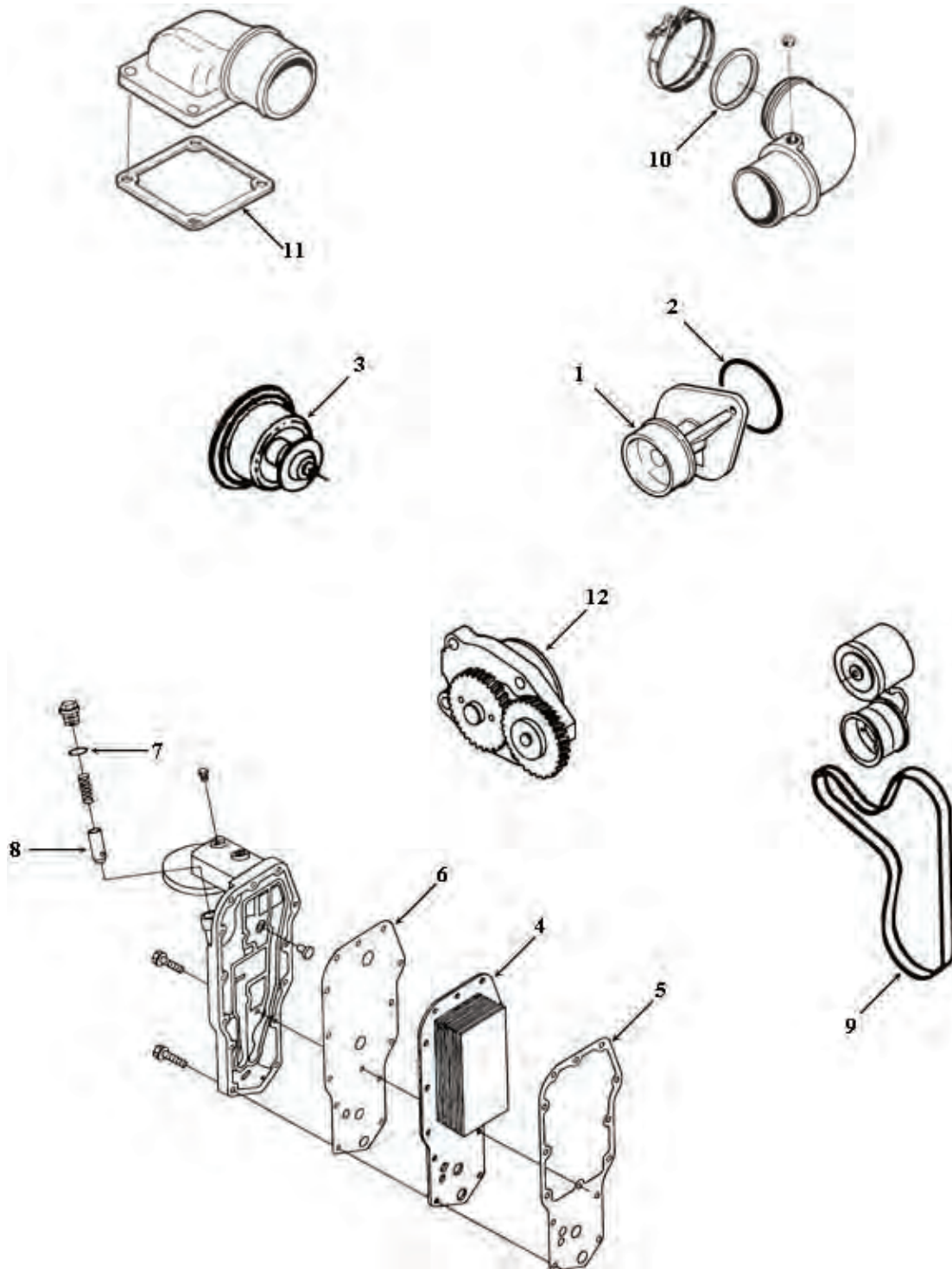
**Fuel Injector Parts**

| Ref | Part Number | Description  | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------|--|------|------|------|------|
| 00  | FP-3867043  | Fuel Connector O-Rings (3882589)                           | 8    | 8    | 12   | 12   |
| 01  | FP-3029820  | Fuel Injector O-Rings (Bosch Type Inj)                     | 8    | 8    | 12   | 12   |
| 01  | FP-3937142  | Fuel Injector O-Rings (For Engines Built After April 2003) | 8    | 8    | 12   | 12   |
| 03  | FP-3906659  | Fuel Injector Sealing Washer (Bosch Type Inj)              | 8    | 8    | 12   | 12   |

# ISB-QSB Series



## Cooling Components



**Water Pump, Oil Cooler Core & Cooling Components**

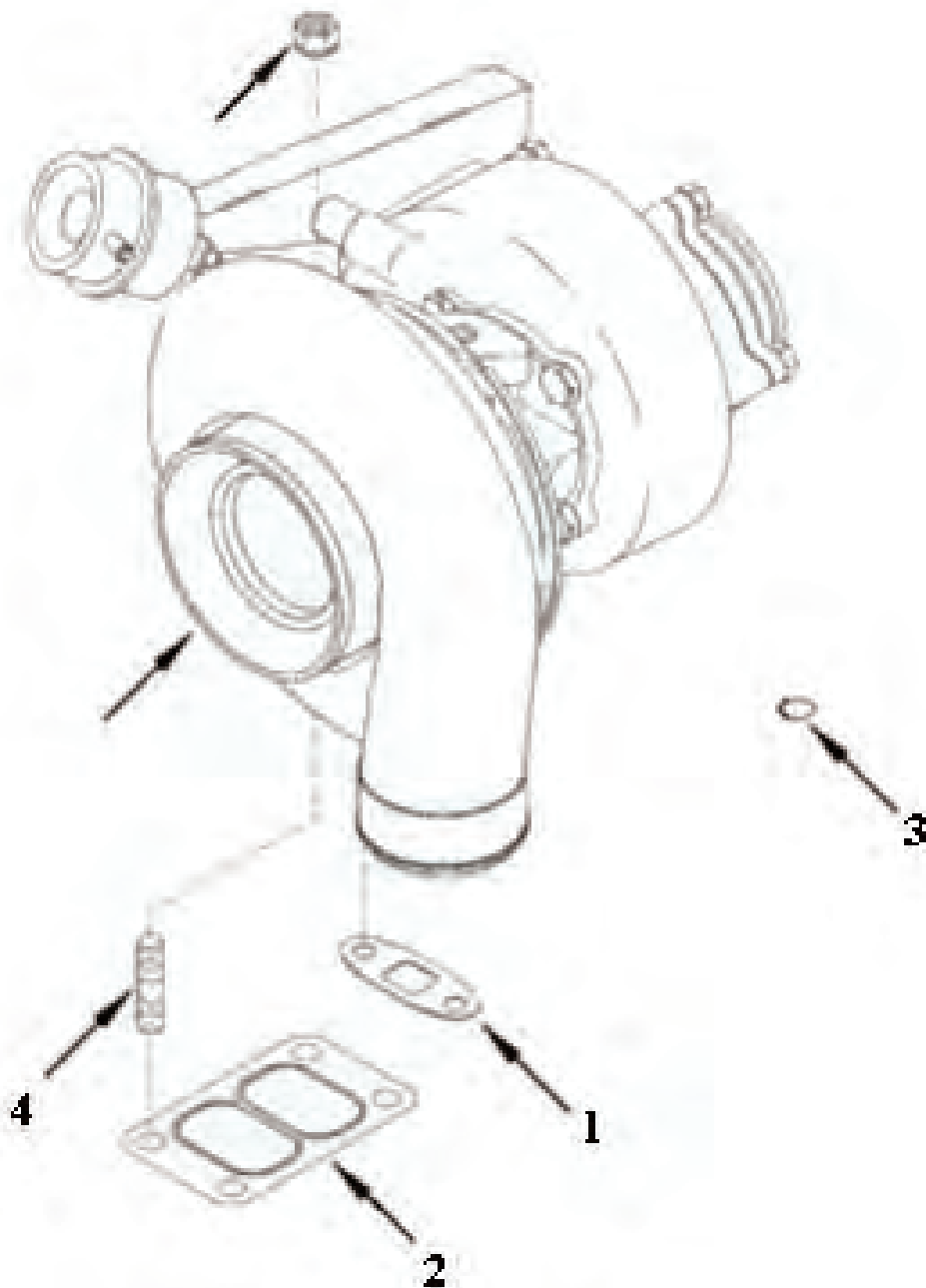
| Ref | Part Number | Description                                   | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------|---|------|------|------|------|
| 00  | 3906619     | Plug, Pipe                                    | 1    | 1    | 1    | 1    |
| 00  | 3915787     | Plug, Threaded                                | 1    | 1    | 1    | 1    |
| 00  | 3925009     | Spring, Compression                           | 1    | 1    | 1    | 1    |
| 00  | 3954829     | Seal, Thermostat                              | 1    | 1    | 1    | 1    |
| 00  | 3976831     | Tensioner, Belt                               | 1    | 1    | 1    | 1    |
| 00  | FP-3883284  | Seal, O-Ring                                  | 1    | 1    | 1    | 1    |
| 00  | 3900677     | Screw, Hexagon Head Cap (Oil Pump Mounting)   | 4    | 4    | 4    | 4    |
| 01  | FP-3286278  | Pump, Water                                   | 1    | 1    | 1    | 1    |
| 02  | FP-3906698  | Seal, Rectangular Ring                        | 1    | 1    | 1    | 1    |
| 03  | 3928499     | Thermostat                                    | 1    | 1    | 1    | 1    |
| 03  | 3967195     | Thermostat                                    | 1    | 1    | 1    | 1    |
| 04  | FP-3957544  | Core, Oil Cooler                              | -    | -    | 1    | 1    |
| 04  | FP-3957543  | Core, Oil Cooler                              | 1    | 1    | -    | -    |
| 05  | FP-3926760  | Gasket, Oil Cooler Core - FP-3942914 Replaced | 1    | 1    | 1    | 1    |
| 06  | FP-3942915  | Gasket, Filter Head                           | 1    | 1    | 1    | 1    |
| 07  | FP-3929457  | Seal, O-Ring                                  | 1    | 1    | 1    | 1    |
| 08  | FP-3918428  | Plunger, Pressure Regulator                   | 1    | 1    | 1    | 1    |
| 09  | 3289257     | Belt, V Ribbed                                | 1    | 1    | 1    | 1    |
| 10  | FP-3883284  | Seal, O-Ring Air Transfer Connection          | 1    | 1    | 1    | 1    |
| 11  | FP-3969988  | Gasket, Connection Air Intake                 | 1    | 1    | 1    | 1    |
| 12  | FP-4939587  | Pump, Lubricating Oil - (Old No. 3937404)     | -    | -    | 1    | 1    |
| 12  | FP-4939585  | Oil Pump (Old No. 3937027)                    | 1    | 1    | -    | -    |



# ISB-QSB Series



## Turbocharger





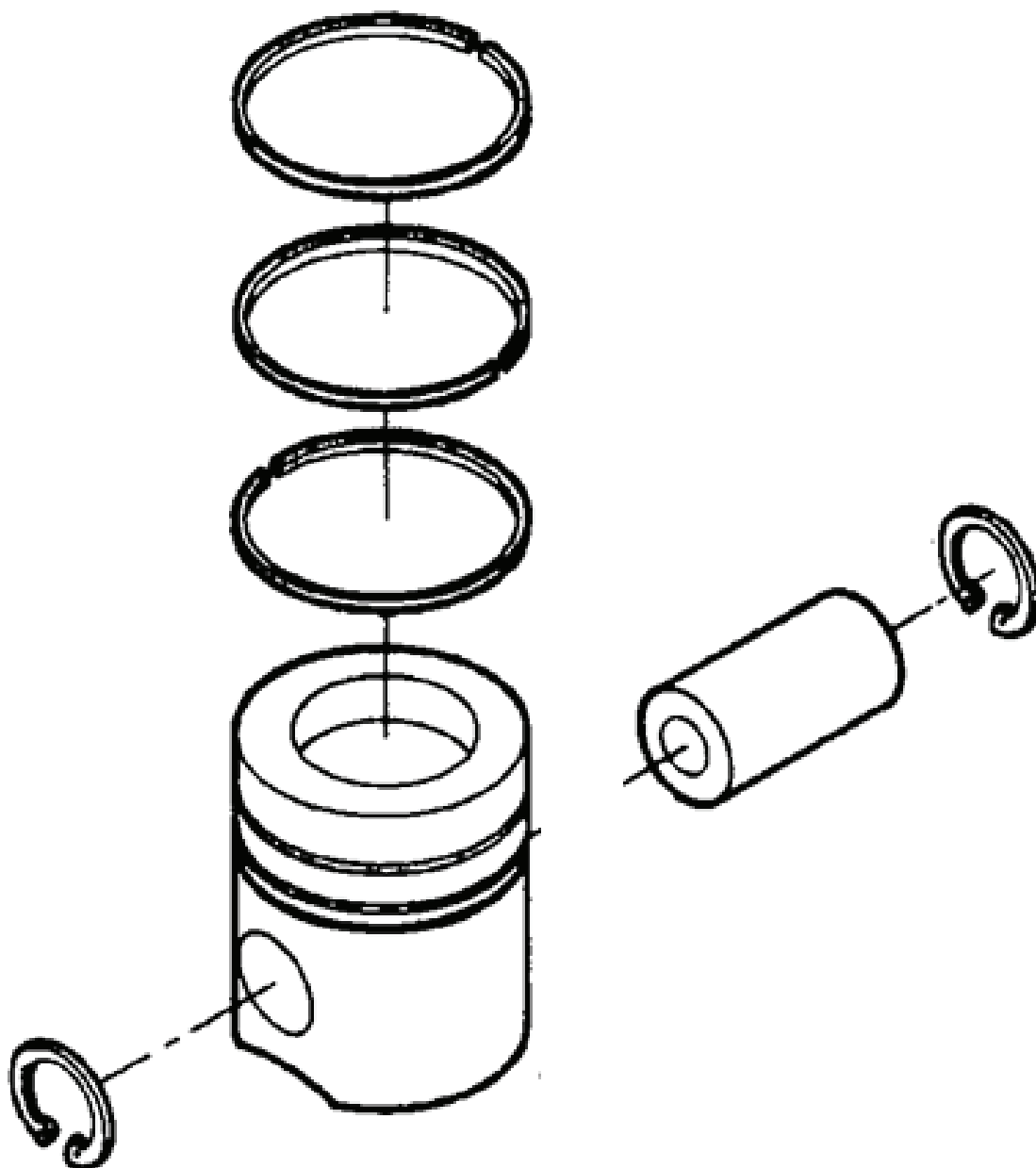
**Turbocharger**

| Ref | Part Number | Description  | ISB4 | QSB4 | ISB6 | QSB6 |
|-----|-------------|--|------|------|------|------|
| 01  | 4931365     | Gasket, Turbo Drain (6.7L Engines)                 | -    | -    | 1    | 1    |
| 01  | FP-3937706  | Gasket, Turbo Charger Oil Drain (HX35)             | 1    | 1    | 1    | 1    |
| 02  | FP-3919369  | Gasket, Turbo Mounting 3901356 (Exc. 6.7L Engines) | 1    | 1    | 1    | 1    |
| 03  | FP-3931824  | Seal, O-Ring Turbo Oil Line (Exc. 6.7L Engines)    | 1    | 1    | 1    | 1    |
| 04  | FP-3818823  | Stud, Turbocharger Mounting (Exc. 6.7L Engines)    | 1    | 1    | 1    | 1    |

# ISB-QSB Series



## Piston Kits



## Piston Kits

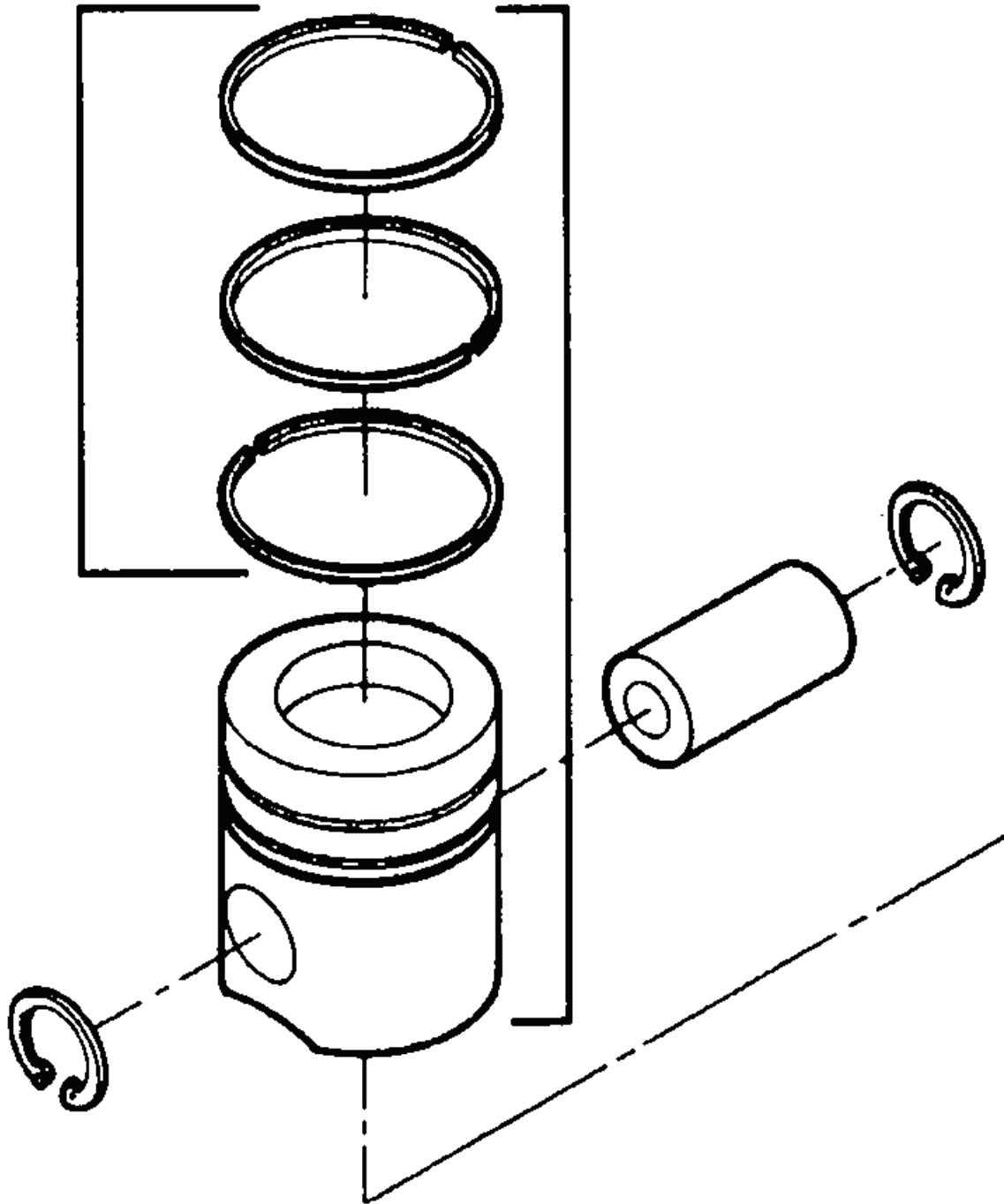
| Avail        | Engine  | Piston Kit | Piston Body | Piston Pin   | Retainers  | Ring Set   | C/R | Comments        |
|--------------|---------|------------|-------------|--------------|------------|------------|-----|-----------------|
| <sup>3</sup> | QSB     | 3802925    | 3948468     | Not Included | FP-3920691 | 3802917    |     | .50MM Oversize  |
| <sup>3</sup> | QSB     | 3802926    | 3948469     | Not Included | FP-3920691 | 3802918    |     | 1.00MM Oversize |
| <sup>3</sup> | QSB     | 3802927    | 3948465     | Not Included | FP-3920691 | 3802919    |     | STD - GRADE A   |
| <sup>3</sup> | QSB     | 3802928    | 3948466     | Not Included | FP-3920691 | 3802919    |     | STD - GRADE B   |
| <sup>3</sup> | QSB     | 3802929    | 3948467     | Not Included | FP-3920691 | 3802919    |     | STD - GRADE C   |
| <sup>3</sup> | ISB     | 3804980    | 3932514     | Not Included | FP-3920691 | 3804930    |     | Standard        |
| <sup>3</sup> | ISB     | 3804981    | 3933581     | Not Included | FP-3920691 | 3804931    |     | .50MM Oversize  |
| <sup>3</sup> | ISB     | 3804982    | 3933582     | Not Included | FP-3920691 | 3804932    |     | 1.00MM Oversize |
| ✓            | ISB/QSB | FP-3800781 | FP-3946153  | Not Included | FP-3920691 | FP-3804990 |     | Standard        |
| ✓            | ISB/QSB | FP-3800782 | FP-3946154  | Not Included | FP-3920691 | FP-3804990 |     | STD - GRADE A   |
| ✓            | ISB/QSB | FP-3800783 | FP-3946155  | Not Included | FP-3920691 | FP-3804990 |     | STD - GRADE B   |
| ✓            | ISB/QSB | FP-3800784 | FP-3946156  | Not Included | FP-3920691 | FP-3806201 |     | .50MM Oversize  |
| ✓            | ISB/QSB | FP-3800785 | FP-3946157  | Not Included | FP-3920691 | FP-3806203 |     | 1.00MM Oversize |
| ✓            | ISB/QSB | FP-3800838 | FP-3946050  | Not Included | FP-3920691 | FP-3804990 |     | Standard        |
| ✓            | ISB/QSB | FP-3800839 | FP-3946051  | Not Included | FP-3920691 | FP-3804990 |     | STD - GRADE B   |
| ✓            | ISB/QSB | FP-3800840 | FP-3946052  | Not Included | FP-3920691 | FP-3804990 |     | STD - GRADE C   |
| ✓            | ISB/QSB | FP-3800841 | FP-3946053  | Not Included | FP-3920691 | FP-3806201 |     | .50MM Oversize  |
| ✓            | ISB/QSB | FP-3800842 | FP-3946054  | Not Included | FP-3920691 | FP-3806203 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-4025011 | FP-3972884  | Not Included | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-4025072 | FP-3972880  | Not Included | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-4089183 | FP-3966675  | Not Included | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-4089184 | FP-3966676  | Not Included | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-4089185 | FP-3949843  | Not Included | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-4089186 | FP-3949844  | Not Included | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-4089259 | FP-3965497  | Not Included | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-4089260 | FP-3958675  | Not Included | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-4089420 | FP-3972885  | Not Included | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-4089421 | FP-4898821  | Not Included | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-4089422 | FP-3972881  | Not Included | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-4089423 | FP-3972882  | Not Included | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-4089669 | FP-3970192  | Not Included | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-4089670 | FP-3970126  | Not Included | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-4089671 | FP-3970127  | Not Included | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB/QSB | FP-PK0781  | FP-3946153  | FP-3934047   | FP-3920691 | FP-3804990 |     | Standard        |
| ✓            | ISB/QSB | FP-PK0782  | FP-3946154  | FP-3934047   | FP-3920691 | FP-3804990 |     | STD - GRADE A   |
| ✓            | ISB/QSB | FP-PK0783  | FP-3946155  | FP-3934047   | FP-3920691 | FP-3804990 |     | STD - GRADE B   |
| ✓            | ISB/QSB | FP-PK0784  | FP-3946156  | FP-3934047   | FP-3920691 | FP-3806201 |     | .50MM Oversize  |
| ✓            | ISB/QSB | FP-PK0785  | FP-3946157  | FP-3934047   | FP-3920691 | FP-3806203 |     | 1.00MM Oversize |
| ✓            | ISB/QSB | FP-PK0838  | FP-3946050  | FP-3934047   | FP-3920691 | FP-3804990 |     | Standard        |
| ✓            | ISB/QSB | FP-PK0839  | FP-3946051  | FP-3934047   | FP-3920691 | FP-3804990 |     | STD - GRADE B   |
| ✓            | ISB/QSB | FP-PK0840  | FP-3946052  | FP-3934047   | FP-3920691 | FP-3804990 |     | STD - GRADE C   |
| ✓            | ISB/QSB | FP-PK0841  | FP-3946053  | FP-3934047   | FP-3920691 | FP-3806201 |     | .50mm Oversize  |
| ✓            | ISB/QSB | FP-PK0842  | FP-3946054  | FP-3934047   | FP-3920691 | FP-3806203 |     | 1.00mm Oversize |
| ✓            | ISB     | FP-PK5011  | FP-3972884  | FP-3934047   | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-PK5072  | FP-3972880  | FP-3934047   | FP-3920691 | FP-4089258 |     | Standard        |
| ✓            | ISB     | FP-PK9183  | FP-3966675  | FP-3934047   | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-PK9184  | FP-3966676  | FP-3934047   | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓            | ISB     | FP-PK9185  | FP-3949843  | FP-3934047   | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓            | ISB     | FP-PK9186  | FP-3949844  | FP-3934047   | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |

<sup>3</sup>New Item Call For Availability

Note: Above piston kits include items in shaded area.



Piston Kits



## Piston Kits (Cont.)

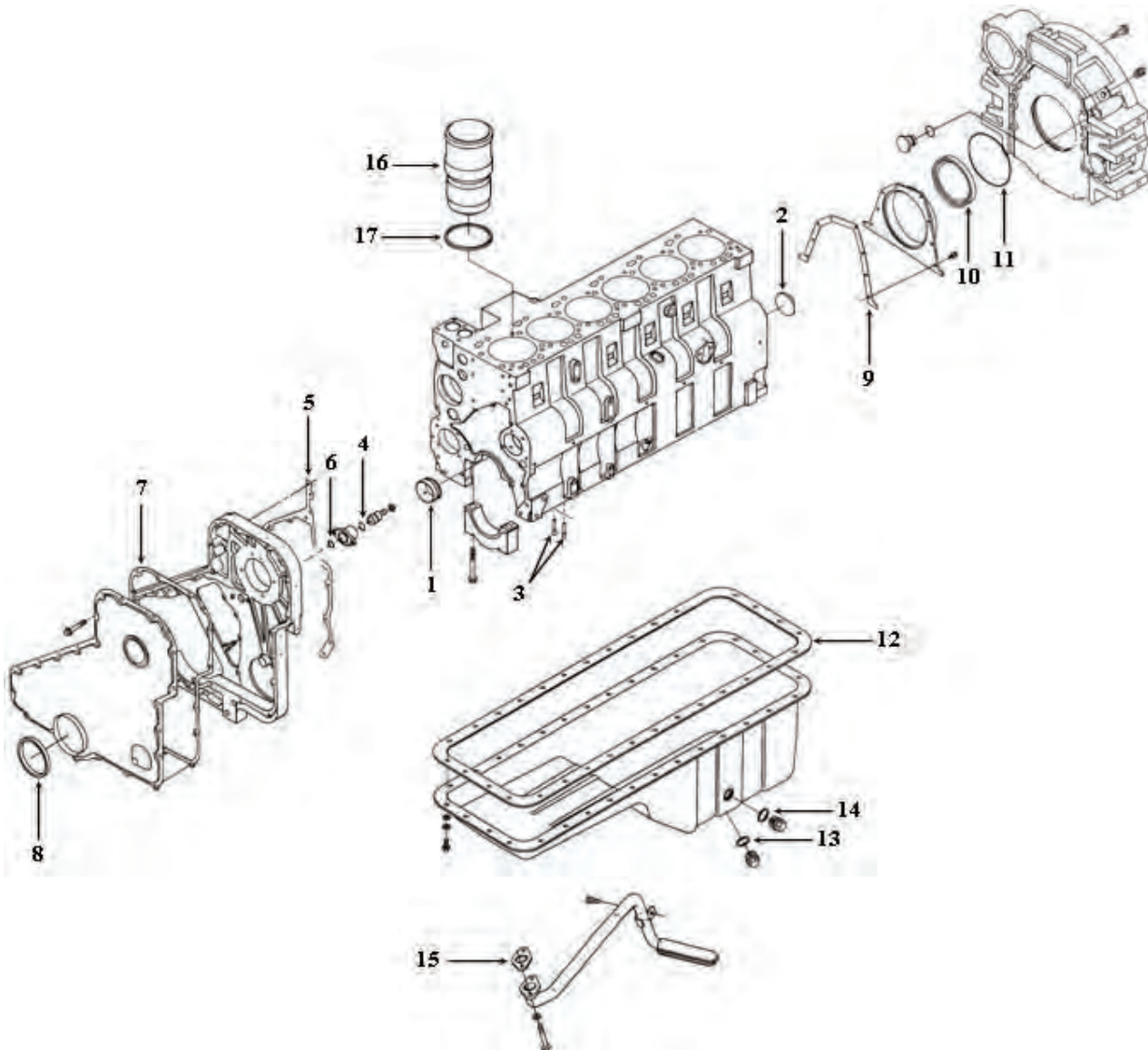
| Avail | Engine | Piston Kit | Piston Body | Piston Pin | Retainers  | Ring Set   | C/R | Comments        |
|-------|--------|------------|-------------|------------|------------|------------|-----|-----------------|
| ✓     | ISB    | FP-PK9259  | FP-3965497  | FP-3934047 | FP-3920691 | FP-4089258 |     | Standard        |
| ✓     | ISB    | FP-PK9260  | FP-3958675  | FP-3934047 | FP-3920691 | FP-4089258 |     | Standard        |
| ✓     | ISB    | FP-PK9420  | FP-3972885  | FP-3934047 | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓     | ISB    | FP-PK9421  | FP-4898821  | FP-3934047 | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓     | ISB    | FP-PK9422  | FP-3972881  | FP-3934047 | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓     | ISB    | FP-PK9423  | FP-3972882  | FP-3934047 | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |
| ✓     | ISB    | FP-PK9669  | FP-3970192  | FP-3934047 | FP-3920691 | FP-4089258 |     | Standard        |
| ✓     | ISB    | FP-PK9670  | FP-3970126  | FP-3934047 | FP-3920691 | FP-4089181 |     | .50MM Oversize  |
| ✓     | ISB    | FP-PK9671  | FP-3970127  | FP-3934047 | FP-3920691 | FP-4089182 |     | 1.00MM Oversize |

Note: Above piston kits include items in shaded area.

# 6CT8.3 Series



## Engine Block



## Cylinder Block, Front & Rear Covers & Gasket Sets

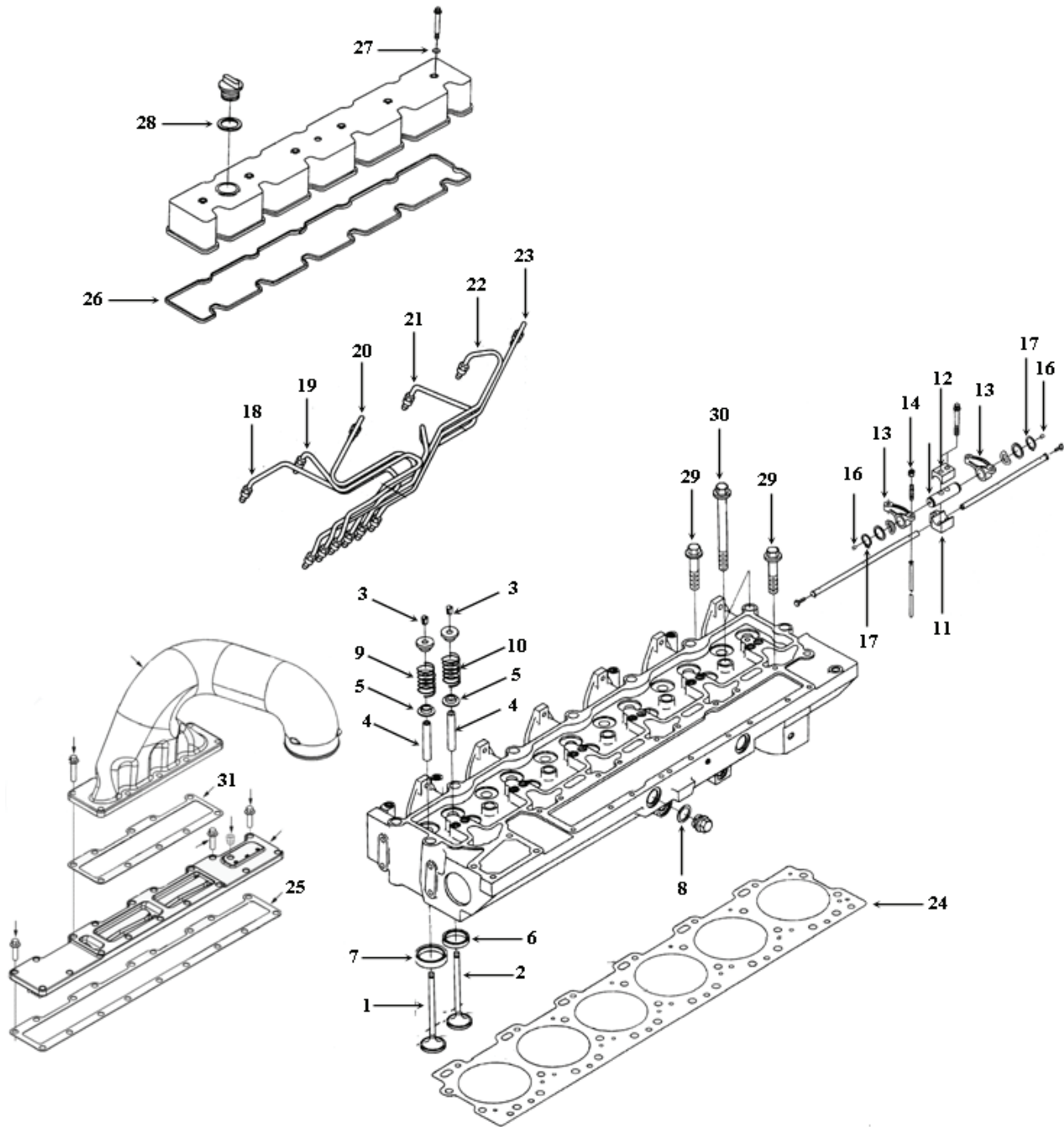
| Ref | Part Number       | Description  | 6 CT8.3 |
|-----|-------------------|--|---------|
| 00  | FP-3802389        | Gasket Set, Lower  | 1       |
| 00  | FP-3903475        | Seal, Rectangular Ring   | 1       |
| 00  | FP-3906081        | Sleeve, Wear (Rear)  | 1       |
| 00  | FP-3908096        | Gasket, Cover Plate (Bell Housing)   | 1       |
| 00  | FP-4025271        | Gasket Set, Upper (With Standard Head Gasket)  | 1       |
| 00  | FP-4025271S       | Gasket Set, In-Frame   | 1       |
| 00  | FP-6C8.3PREM      | In-Frame Kit W/Upper Gasket Set & Pan Gasket   | 1       |
| 00  | FP-6C8.3PREM OH   | O/H Engine Kit W/Front & Rear Seals  | 1       |
| 01  | FP-3945329        | Bushing, Camshaft  | 7       |
| 02  | FP-3901969        | Plug, Expansion  | 1       |
| 03  | FP-3905928        | Nozzle, Piston Cooling (Early)(Pre 91C)  | 6       |
| 03  | FP-3928031        | Nozzle, Piston Cooling (Late), (Thick-Walled Block)(91C>)                                    | 12      |
| 04  | FP-3913994        | Seal, O-Ring   | 1       |
| 05  | FP-3281721        | Gasket, Gear Housing   | 1       |
| 06  | FP-3915772        | Seal, Rectangular Ring   | 1       |
| 07  | FP-3917780        | Gasket, Gear Cover   | 1       |
| 08  | FP-3353977        | Seal, Front Service Kit (Crankshaft)   | 1       |
| 08  | FP-3925343        | Front Crankshaft Seal and Sleeve Kit (Non-Automotive Applications)                           | 1       |
| 08  | FP-3925626        | Front Crankshaft Seal and Sleeve Kit (Automotive Applications)                               | 1       |
| 09  | FP-3939353        | Gasket, Rear Cover (Formerly FP-3914301)   | 1       |
| 10  | FP-3909410        | Seal, Rear Service Kit (Crankshaft)  | 1       |
| 10  | FP-3926126        | Seal Kit W/Sleeve  | 1       |
| 11  | FP-3912473        | Seal, Rectangular Ring   | 1       |
| 12  | FP-3938160        | Gasket, Oil Pan  | 1       |
| 13  | FP-3920773        | Washer, Sealing (Oil Pan Plug)   | 1       |
| 14  | FP-3902425        | Washer, Sealing (Oil Pan Plug)   | 1       |
| 15  | FP-3914302        | Gasket, Oil Suction Connection   | 1       |
| 00  | <b>FP-3800328</b> | <b>Kit, Liner Standard (1/05/98 to Present), (Thick-Walled Block)(Previously FP-3800903)</b> | 6       |
| 16  | FP-3948095        | Liner, Cylinder (1/05/98 to Present)(Previously FP-3944344)                                  | 6       |
| 17  | FP-3907177        | Seal, Rectangular Ring (Liner), (All)  | 6       |
| 00  | <b>FP-3802370</b> | <b>Kit, Liner Standard (Early Prior to 1991)</b>   | 6       |
| 16  | FP-3907792        | Liner, Cylinder (Early Prior to 1991)  | 6       |
| 17  | FP-3907177        | Seal, Rectangular Ring (Liner), (All)  | 6       |
| 00  | <b>FP-3802407</b> | <b>Kit, Liner Standard (1991 thru 1/04/98), (Thick-Walled Block)</b>                         | 6       |
| 16  | FP-3907792        | Liner, Cylinder (Early Prior to 1991)  | 6       |
| 17  | FP-3907177        | Seal, Rectangular Ring (Liner), (All)  | 6       |



# 6CT8.3 Series



## Cylinder Head



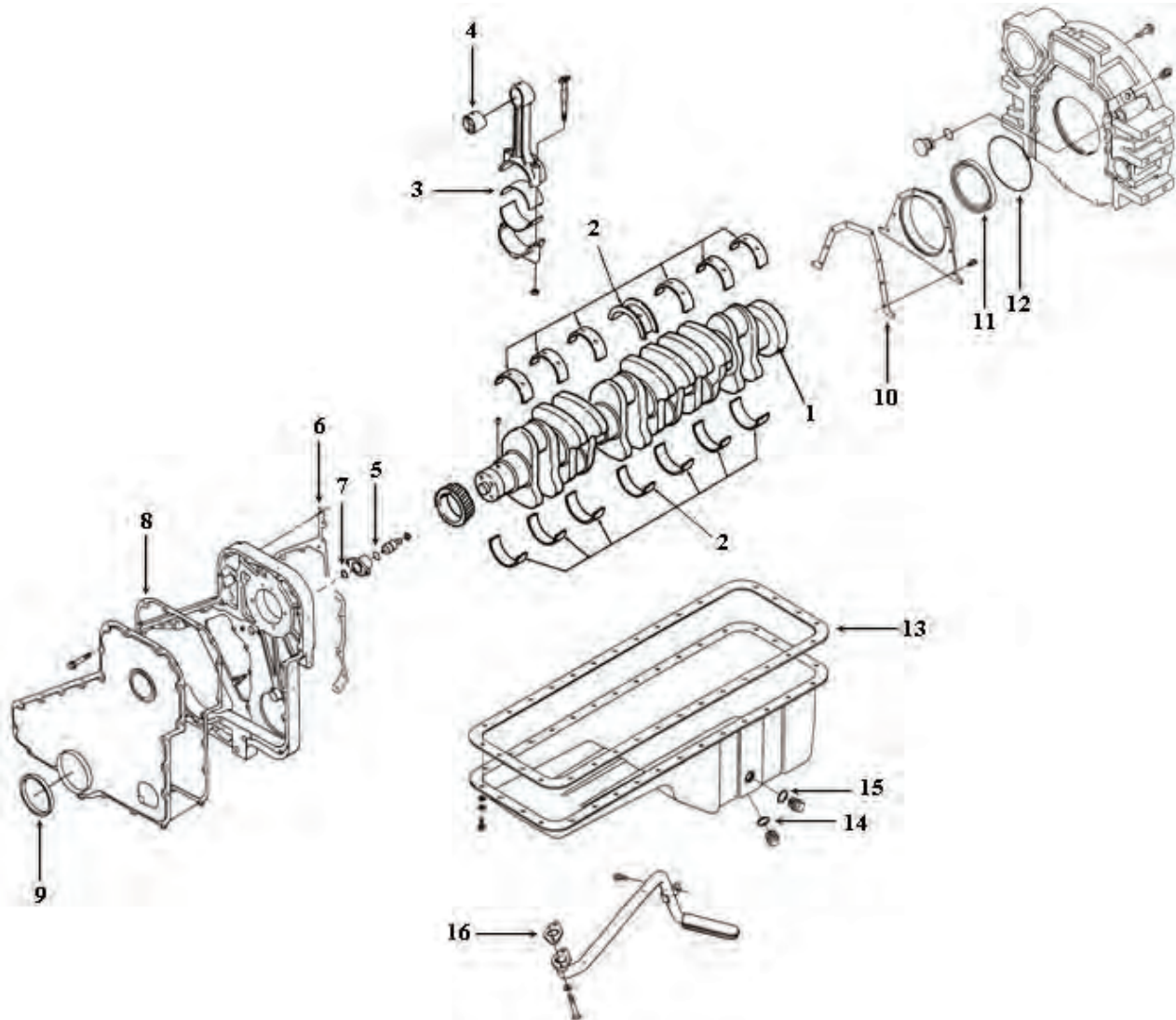
## Cylinder Head, Valve Mechanism & Upper Gasket Set

| Ref | Part Number       | Description   | 6 CT8.3 |
|-----|-------------------|---|---------|
| 00  | FP-3903380        | Seal, Banjo Connector (Fuel Manifold)                         | 6       |
| 00  | FP-3909886        | Seal, Injector  | 6       |
| 00  | FP-3932063        | Gasket, Exhaust Manifold                                      | 6       |
| 00  | FP-4025271        | Gasket Set, Upper (230 HP and Lower)                          | 1       |
| 04  | FP-3923564        | Guide, Valve Stem (Intake & Exhaust Valve)                    | 12      |
| 05  | FP-3927642        | Seal, Valve Stem (Intake & Exhaust Valve)                     | 12      |
| 06  | FP-3929005        | Insert, Valve (Exhaust) (.230 Tall)                           | 6       |
| 07  | 3928174           | Insert, Valve (Exhaust) (.250 Tall)                           | 6       |
| 07  | FP-3924582        | Insert, Valve (Intake)  | 6       |
| 08  | FP-3902425        | Washer, Sealing   | 2       |
| 09  | FP-3906412        | Spring, Valve (Intake)  | 6       |
| 10  | FP-3916588        | Spring, Valve (Exhaust)                                       | 6       |
| 11  | FP-3905870        | Support, Rocker Lever   | 12      |
| 12  | FP-3901693        | Clamp, Retaining  | 6       |
| 13  | FP-3901717        | Lever, Rocker   | 12      |
| 14  | FP-203131         | Nut, Heavy Hexagon  | 12      |
| 15  | FP-3919435        | Shaft, Rocker Lever   | 6       |
| 16  | FP-3907555        | Plug, Expansion   | 2       |
| 17  | FP-3901764        | Ring, Retaining   | 12      |
| 18  | FP-3906783        | Tube, Injector Fuel Supply                                    | 1       |
| 19  | FP-3906784        | Tube, Injector Fuel Supply                                    | 1       |
| 20  | FP-3906785        | Tube, Injector Fuel Supply                                    | 1       |
| 21  | FP-3910521        | Tube, Injector Fuel Supply                                    | 1       |
| 22  | FP-3906788        | Tube, Injector Fuel Supply                                    | 1       |
| 24  | FP-3935585        | Gasket, Cylinder Head (Standard)(230 HP & Below)              | 1       |
| 24  | FP-3935586        | Gasket, Cylinder Head (.25MM OS)                              | 1       |
| 25  | FP-3936993        | Gasket, Intake Manifold Cover                                 | 1       |
| 26  | FP-3905449        | Seal, Rocker Lever Cover                                      | 1       |
| 27  | FP-3910824        | Seal, O-Ring  | 6       |
| 28  | FP-3902466        | Seal, Rectangular Ring  | 1       |
| 29  | FP-3907234        | Screw, Hex Flange Head Cap (Prior To 91) (M14 X 2.00 X 70)    | 12      |
| 29  | FP-3917729        | Screw, Hex Flange Head Cap (91 To Current) (M14 X 2.00 X 80)  | 12      |
| 30  | FP-3907233        | Screw, Hex Flange Head Cap (Prior To 91) (M14 X 2.00 X 150)   | 14      |
| 30  | FP-3917728        | Screw, Hex Flange Head Cap (91 To Current) (M14 X 2.00 X 160) | 14      |
| 31  | FP-3992090        | Gasket, Air Intake Connection                                 | 1       |
| 00  | <b>FP-3802085</b> | <b>Valve Kit, Exhaust (12 Valve Engines)</b>                  | 6       |
| 02  | FP-3921444        | Valve, Exhaust (12 Valve Engines)                             | 6       |
| 03  | FP-3901177        | Lock Half, Valve (12 Valve Engines)                           | 24      |
| 00  | <b>FP-3802463</b> | <b>Valve Kit, Intake (12 Valve Engines)</b>                   | 6       |
| 01  | FP-3924492        | Valve, Intake (12 Valve Engines)                              | 6       |
| 03  | FP-3901177        | Lock Half, Valve (12 Valve Engines)                           | 24      |

# 6CT8.3 Series



## Crankshaft



## Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Covers

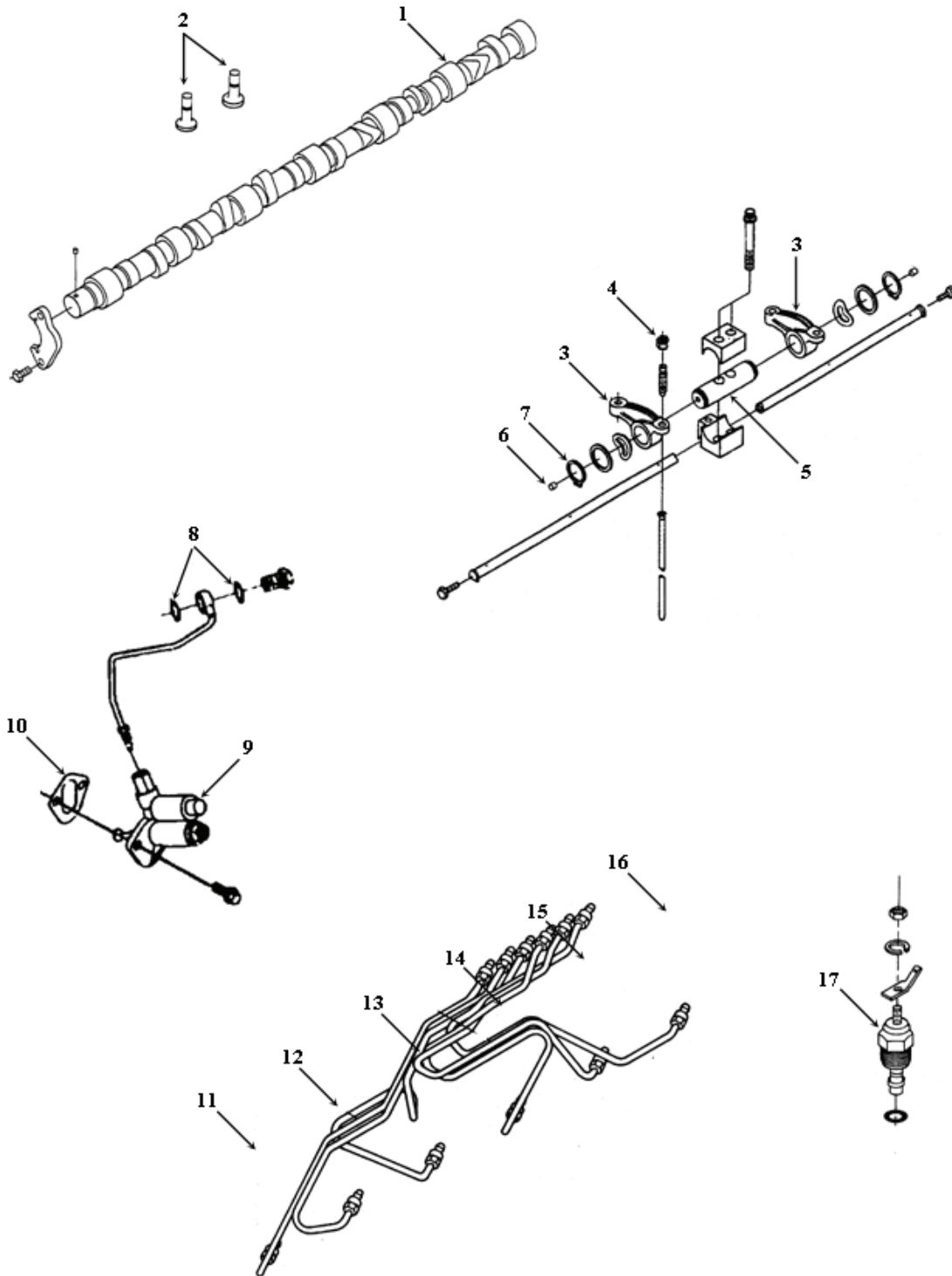
| Ref | Part Number       | Description                                    | 6 CT8.3 |
|-----|-------------------|--|---------|
| 01  | FP-3918986        | Crankshaft Assembly                            | 1       |
| 02  | FP-3802210        | Bearing Set, Main Standard                     | 1       |
| 02  | FP-3802211        | Bearing Set, Main (0.25MM U.S.)                | 1       |
| 02  | FP-3802212        | Bearing Set, Main (0.50MM U.S.)                | 1       |
| 02  | FP-3945917        | Bearing Set, Main Std. (Narrow)                | 1       |
| 02  | FP-3945918        | Bearing Set, Main .25MM (Narrow)               | 1       |
| 02  | FP-3945919        | Bearing Set, Main .50MM (Narrow)               | 1       |
| 03  | FP-3901430        | Bearing, Connecting Rod Standard               | 12      |
| 03  | FP-3901431        | Bearing, Connecting Rod (0.25MM U.S.)          | 12      |
| 03  | FP-3901432        | Bearing, Connecting Rod (0.50MM U.S.)          | 12      |
| 03  | FP-3901433        | Bearing, Connecting Rod (0.75MM U.S.)          | 12      |
| 03  | FP-3901434        | Bearing, Connecting Rod (1.00MM U.S.)          | 12      |
| 04  | FP-3913990        | Bushing, Connecting Rod                        | 6       |
| 05  | FP-3913994        | Seal, O-Ring                                   | 1       |
| 06  | FP-3281721        | Gasket, Gear Housing                           | 1       |
| 07  | FP-3915772        | Seal, Rectangular Ring                         | 1       |
| 08  | FP-3917780        | Gasket, Gear Cover                             | 1       |
| 09  | FP-3353977        | Seal, Front Service (Seal Only)                | 1       |
| 09  | FP-3925343        | Front Crankshaft Seal and Sleeve Kit           | 1       |
| 10  | FP-3939353        | Gasket, Rear Cover                             | 1       |
| 11  | FP-3909410        | Seal, Rear Service Kit (Crankshaft)            | 1       |
| 12  | FP-3912473        | Seal, Rectangular Ring                         | 1       |
| 13  | FP-3938160        | Gasket, Oil Pan                                | 1       |
| 14  | FP-3920773        | Washer, Sealing (Oil Pan Plug) (Bottom Of Pan) | 1       |
| 15  | FP-3902425        | Washer, Sealing (Oil Pan Plug) (Side Of Pan)   | 1       |
| 16  | FP-3914302        | Gasket, Oil Suction Connection                 | 1       |
| 11  | <b>FP-3926126</b> | <b>Seal Kit W/Sleeve</b>                       | 1       |
| 00  | FP-3906081        | Sleeve, Wear (Rear)                            | 1       |



# 6CT8.3 Series



## Camshaft & Fuel Components



## Camshaft & Fuel Components

| Ref | Part Number | Description   | 6CT8.3 |
|-----|-------------|---|--------|
| 01  | FP-3923478  | Camshaft CPL 601, 602, 603, 604, 605, 752, 753, 754, 755, 805, 818, 819, 828, 829, 830831, 848, 890, 892, 893, 942, 954, 959, 982, 984, 985, 1196, 1212, 1217, 1221, 1222, 1274, 1248, 1269, 1273, 1275, 1321, 1356, 1366, 1377, 1435, 1464, 1539, 1547, 1603, 1612, 1616, 1633, 1639, 1826 (Formerly FP-3924471) | 1      |
| 02  | FP-3931623  | Tappet, Valve   | 12     |
| 03  | FP-3901717  | Lever, Rocker   | 12     |
| 04  | FP-203131   | Nut, Heavy Hexagon  | 12     |
| 05  | FP-3919435  | Shaft, Rocker Lever   | 6      |
| 06  | FP-3907555  | Plug, Expansion   | 2      |
| 07  | FP-3901764  | Ring, Retaining   | 12     |

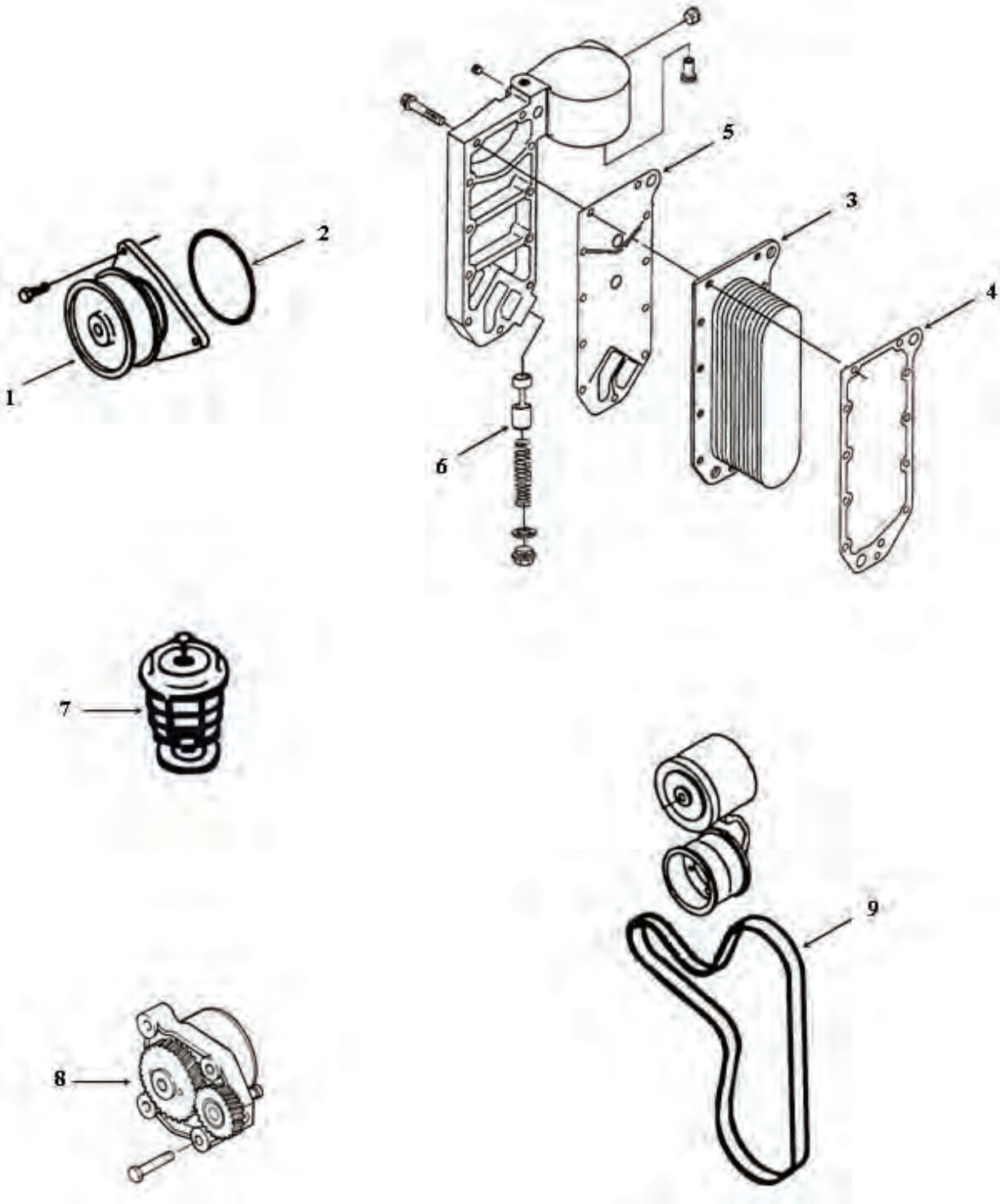
## Fuel Transfer Pump & Plumbing

| Ref | Part Number | Description   | 6CT8.3 |
|-----|-------------|---|--------|
| 00  | FP-3903380  | Seal, Banjo Connector   | 6      |
| 00  | FP-3906659  | Seal, Injector  | 6      |
| 00  | FP-3918188  | Washer, Sealing   | 2      |
| 00  | FP-3918192  | Washer, Sealing Fuel Inlet Tube                                   | 2      |
| 00  | FP-3911941  | Gasket, Turbocharger Mounting                                     | 1      |
| 00  | FP-3914388  | Gasket, Turbocharger Oil, Drain                                   | 1      |
| 08  | FP-3918191  | Washer, Sealing   | 2      |
| 08  | FP-3918191  | Washer, Sealing Fuel Filter                                       | 2      |
| 09  | FP-3936321  | Pump, Fuel Transfer   | 1      |
| 09  | FP-3936324  | Pump, Fuel Transfer   | 1      |
| 09  | FP-4944710  | Pump, Fuel Transfer (Previously FP-3933252,FP-3936316,FP-3936322) | 1      |
| 09  | FP-4944711  | Pump, Fuel Transfer (Previously FP-3933253, FP-3936317)           | 1      |
| 09  | FP-4944712  | Pump, Fuel Transfer (Previously FP-3933254, FP-3936318)           | 1      |
| 09  | FP-4944713  | Pump, Fuel Transfer (Previously FP-3918000,FP-3933255,FP-3936319) | 1      |
| 09  | FP-4944714  | Pump, Fuel Transfer (Previously FP-3936320)                       | 1      |
| 10  | FP-3939258  | Gasket, Fuel Transfer Pump Mounting                               | 1      |
| 11  | FP-3906783  | Tube, Injector Fuel Supply (No. 1 Cylinder)                       | 1      |
| 12  | FP-3906784  | Tube, Injector Fuel Supply (No. 2 Cylinder)                       | 1      |
| 13  | FP-3906785  | Tube, Injector Fuel Supply (No. 3 Cylinder)                       | 1      |
| 14  | FP-3910521  | Tube, Injector Fuel Supply (No. 4 Cylinder)                       | 1      |
| 15  | FP-3906788  | Tube, Injector Fuel Supply (No. 5 Cylinder)                       | 1      |
| 17  | FP-3921978  | Solenoid, Fuel Pump Shutoff (12 Volt)                             | 1      |
| 17  | FP-3921980  | Solenoid, Fuel Pump Shutoff (24 Volt)                             | 1      |

# 6CT8.3 Series



## Cooling Components



# 6CT8.3 Series



## Water Pump, Oil Pump, Oil Cooler Core & Cooling Components

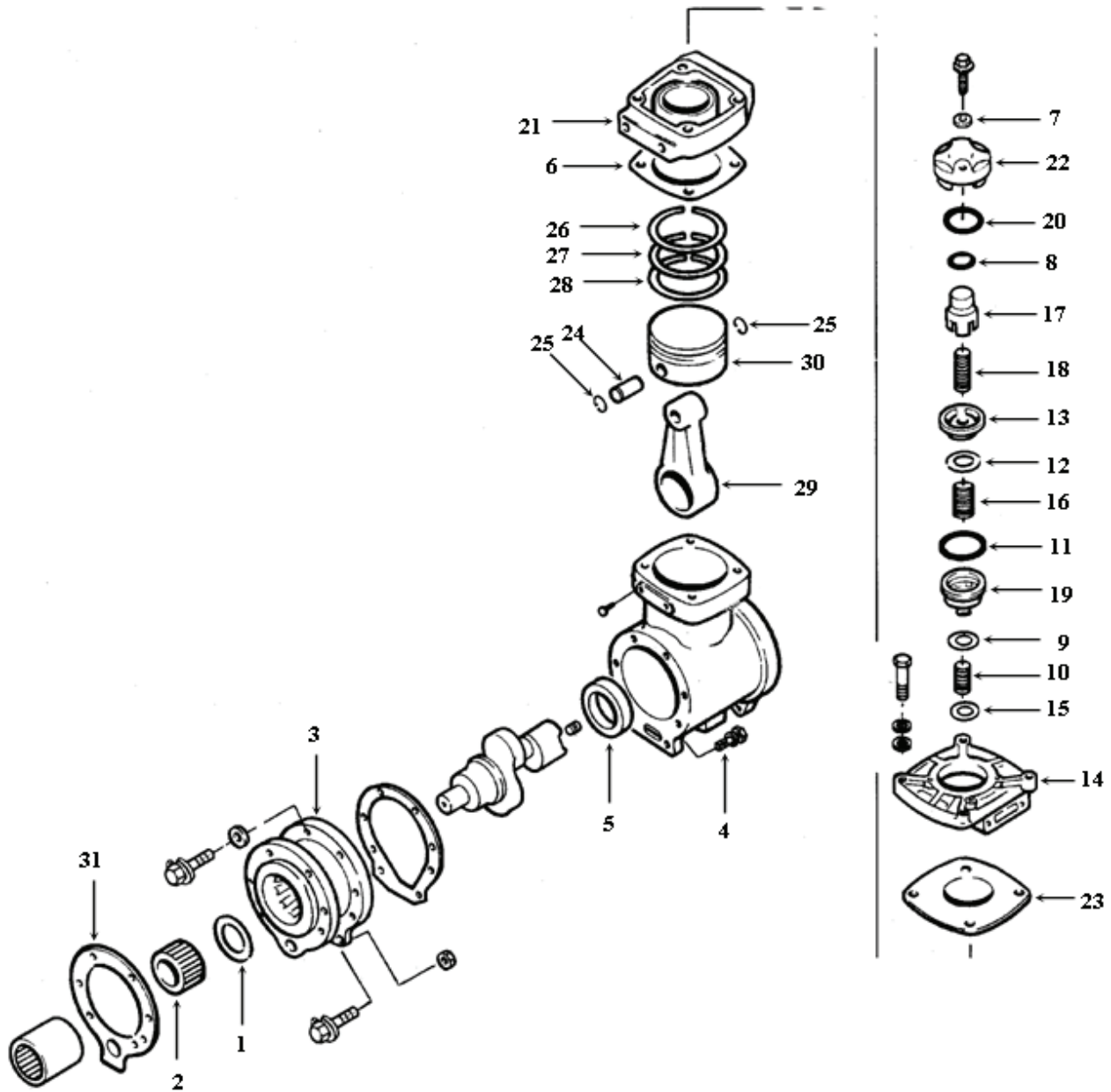
| Ref | Part Number | Description  | 6 CT8.3 |
|-----|-------------|--|---------|
| 00  | FP-101322   | Cap, Oil Filler  | 1       |
| 00  | FP-3800828  | Kit, Lube Oil Pump   | 1       |
| 00  | FP-3903787  | Shaft & Bearing, Water Pump  | 1       |
| 00  | FP-3910739  | Bearing, Ball (Fan Drive)  | 1       |
| 00  | FP-3914308  | Gasket, Oil Cooler Core Mounting   | 1       |
| 00  | FP-3914310  | Gasket, Thermostat Housing   | 1       |
| 01  | FP-3806180  | Pump, Water  | 1       |
| 02  | FP-3902089  | Gasket, Water Pump Mounting  | 1       |
| 03  | FP-3974815  | Oil Cooler Core  | 1       |
| 04  | FP-3918174  | Gasket, Oil Cooler Core  | 1       |
| 05  | FP-3918332  | Gasket, Oil Cooler Core Cover  | 1       |
| 06  | FP-3945967  | Plunger, Pressure Regulator  | 1       |
| 07  | FP-3928639  | Thermostat Assembly (83° C), (180° F)  | 2       |
| 08  | FP-3948071  | Pump, Lubricating Oil  | 1       |
| 08  | FP-3966840  | Pump, Lubricating Oil (For CPL's 2995, 2996, 2997, 8145, 8146, 8185, 8222, 8292, 8307, 8388) | 1       |
| 09  | FP-3911558  | Belt, V Ribbed (Alternator)  | 1       |
| 09  | FP-3911582  | Belt, V Ribbed (Alternator)  | 1       |



# 6CT8.3 Series



## Compressor (13.2 CFM)



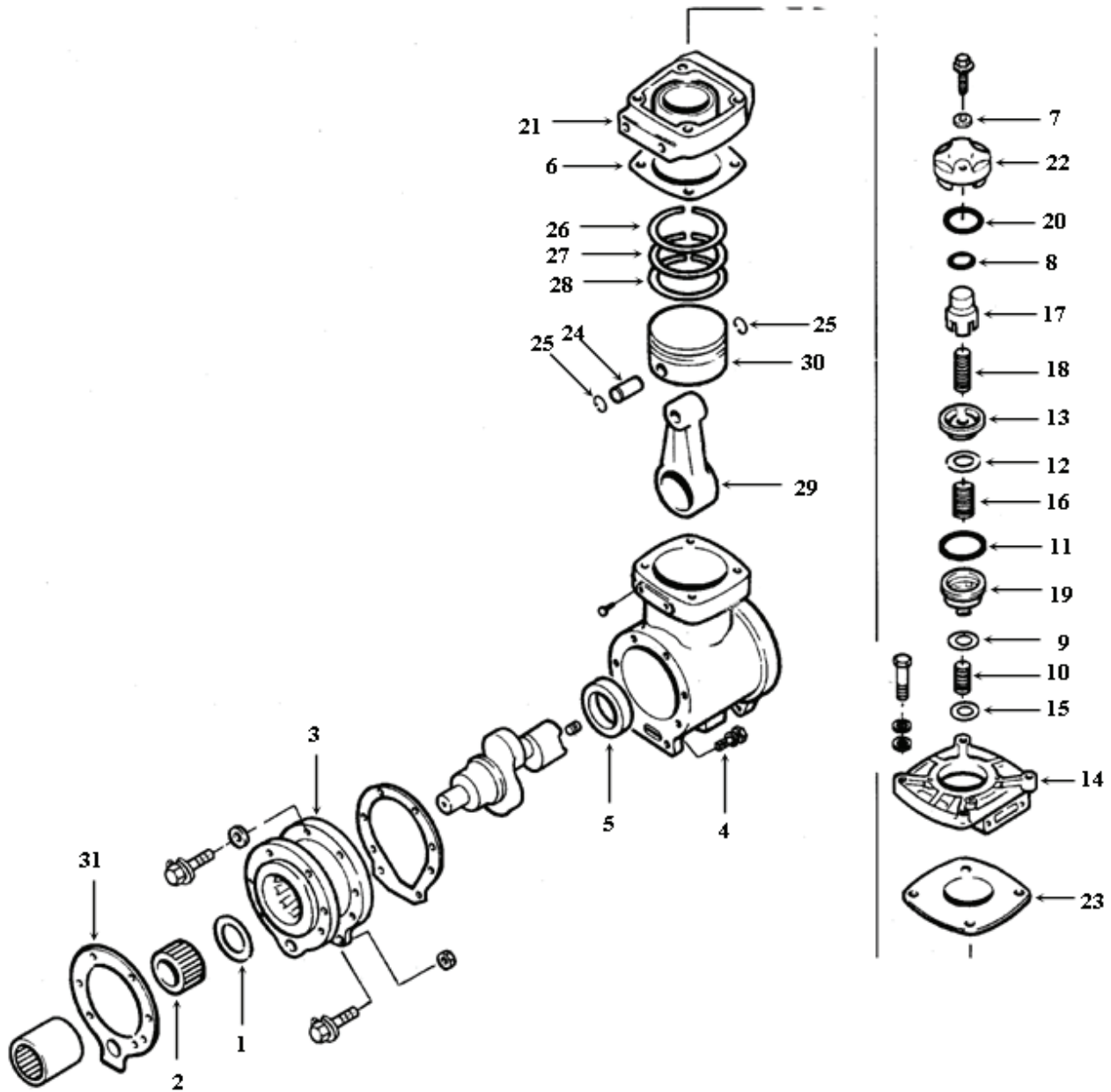
## Compressor (13.2 CFM)

| Ref | Part Number       | Description  | 6 CT8.3 |
|-----|-------------------|--|---------|
| 00  | FP-3018153        | Bushing, Connecting Rod  | 1       |
| 01  | FP-211662         | Bearing, Thrust  | 1       |
| 02  | FP-3000174        | Hub, Spline Coupling   | 1       |
| 04  | FP-3012472        | Screw, Captive Washer Cap  | 2       |
| 05  | FP-147610         | Bushing  | 1       |
| 06  | FP-154018         | Gasket, Air Compressor   | 1       |
| 07  | FP-109557         | Washer, Plain  | 2       |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1       |
| 09  | FP-127940         | Valve, Exhaust   | 1       |
| 10  | FP-128080         | Spring, Compression  | 1       |
| 11  | FP-128086         | Seal, O-Ring   | 1       |
| 12  | FP-144948         | Valve, Intake  | 1       |
| 13  | FP-145028         | Seat, Compressor Intake Valve  | 1       |
| 14  | FP-153964         | Cover, Air Compressor  | 1       |
| 15  | FP-183429         | Plate, Wear  | 1       |
| 16  | FP-190334         | Spring, Valve  | 1       |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)  | 1       |
| 18  | FP-3023101        | Spring, Compression  | 1       |
| 19  | FP-144714         | Seat, Compression Exhaust Valve  | 1       |
| 20  | FP-3043995        | Seal, O-Ring   | 1       |
| 21  | FP-3558762        | Head, Compressor   | 1       |
| 22  | FP-3046298        | Body, Unloading Valve  | 1       |
| 23  | FP-3047159        | Gasket, Air Compressor   | 1       |
| 29  | FP-3018151        | Rod, Compressor Connecting   | 1       |
| 31  | FP-3820922        | Gasket, Air Compressor Support   | 1       |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Standard)</b> | 1       |
| 30  | FP-3045670        | Body, Piston (Standard)  | 1       |
| 00  | FP-AR73350        | Ring Set, Compressor (Standard)  | 1       |
| 24  | FP-119810         | Pin, Piston  | 1       |
| 25  | FP-3558754        | Ring, Retaining  | 2       |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>     | 1       |
| 30  | FP-3045671        | Body, Piston (.010)  | 1       |
| 00  | FP-AR73351        | Ring Set, Compressor (.010)  | 1       |
| 24  | FP-119810         | Pin, Piston  | 1       |
| 25  | FP-3558754        | Ring, Retaining  | 2       |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>     | 1       |
| 30  | FP-3045672        | Body, Piston (.020)  | 1       |
| 00  | FP-AR73352        | Ring Set, Compressor (.020)  | 1       |
| 24  | FP-119810         | Pin, Piston  | 1       |
| 25  | FP-3558754        | Ring, Retaining  | 2       |
| 00  | FP-AR73353        | Ring Set, Compressor (.030)  | 1       |
| 24  | FP-119810         | Pin, Piston  | 1       |
| 25  | FP-3558754        | Ring, Retaining  | 2       |

# 6CT8.3 Series



## Compressor (13.2 CFM)



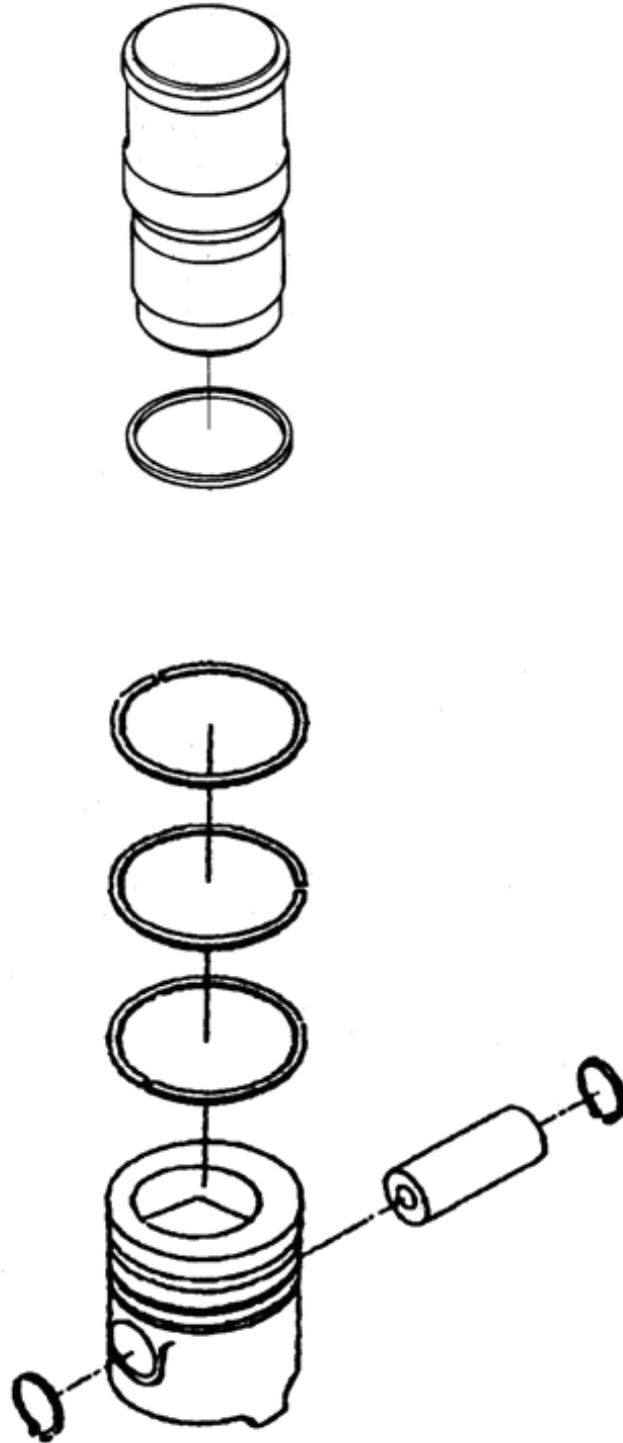
## Compressor Kits (13.2 CFM)

| Ref | Part Number       | Description                         | 6 CT8.3 |
|-----|-------------------|-------------------------------------|---------|
| 00  | <b>FP-3801728</b> | Kit, Compressor Head Repair         | 1       |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1       |
| 13  | FP-145028         | Seat, Compressor Intake Valve       | 1       |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)         | 1       |
| 19  | FP-144714         | Seat, Compression Exhaust Valve     | 1       |
| 22  | FP-3046298        | Body, Unloading Valve               | 1       |
| 00  | <b>FP-3801733</b> | Kit, Compressor Head Repair         | 1       |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1       |
| 13  | FP-145028         | Seat, Compressor Intake Valve       | 1       |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)         | 1       |
| 19  | FP-144714         | Seat, Compression Exhaust Valve     | 1       |
| 00  | <b>FP-3801808</b> | Kit, Compressor Head Repair (Major) | 1       |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1       |
| 13  | FP-145028         | Seat, Compressor Intake Valve       | 1       |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)         | 1       |
| 19  | FP-144714         | Seat, Compression Exhaust Valve     | 1       |
| 22  | FP-3558624        | Body, Unloading Valve               | 1       |
| 00  | <b>FP-AR12719</b> | Kit, Valve Repair                   | 1       |
| 07  | FP-109557         | Washer, Plain                       | 2       |
| 08  | FP-127936         | Seal, Rectangular Ring              | 1       |
| 09  | FP-127940         | Valve, Exhaust                      | 1       |
| 10  | FP-128080         | Spring, Compression                 | 1       |
| 11  | FP-128086         | Seal, O-Ring                        | 1       |
| 12  | FP-144948         | Valve, Intake                       | 1       |
| 15  | FP-183429         | Plate, Wear                         | 1       |
| 16  | FP-190334         | Spring, Valve                       | 1       |
| 18  | FP-3023101        | Spring, Compression                 | 1       |
| 20  | FP-3043995        | Seal, O-Ring                        | 1       |
| 00  | FP-128085         | Seal, O-Ring                        | 1       |
| 00  | <b>FP-AR73308</b> | Gasket Set, 13.2 C.F.M. Compressor  | 1       |
| 08  | FP-127936         | Seal, O-Ring                        | 1       |
| 00  | FP-128085         | Seal, O-Ring                        | 1       |
| 11  | FP-128086         | Seal, O-Ring                        | 1       |
| 06  | FP-154018         | Gasket                              | 1       |
| 00  | FP-176027         | Gasket                              | 1       |
| 20  | FP-3043995        | Seal, O-Ring                        | 1       |
| 23  | FP-3047159        | Gasket, Air Compressor              | 1       |
| 00  | FP-3201386        | Gasket                              | 1       |

# 6CT8.3 Series



## Cylinder & Piston Kits







**Cylinder Kits & Piston Kits**

| Cylinder Kit  | Piston Body | Liner      | Ring Set   | Piston Pin | Seal Ring  | Retainers  |
|---------------|-------------|------------|------------|------------|------------|------------|
| FP-3802372    | FP-3919566  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802388    | FP-3917707  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802399    | FP-3923165  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802400    | FP-3923163  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802401    | FP-3923164  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-4020060    | FP-4019886  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-LK92477792 | FP-3919247  | FP-3907792 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |

The above kits to be used with early standard cylinder block # FP-3802265 prior to 1991

| Cylinder Kit  | Piston Body | Liner      | Ring Set   | Piston Pin | Seal Ring  | Retainers  |
|---------------|-------------|------------|------------|------------|------------|------------|
| FP-3802402    | FP-3923165  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802403    | FP-3923163  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802404    | FP-3923164  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802405    | FP-3919566  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802406    | FP-3917707  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802609    | FP-3925878  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802610    | FP-3925879  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802743    | FP-3925878  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-3802811    | FP-3929161  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-4020061    | FP-4019886  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-4025293    | FP-3992117  | FP-3919937 | FP-4025290 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-LK92479937 | FP-3919247  | FP-3919937 | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |

The above kits to be used with early standard cylinder block # FP-3928962 1991 thru 1/04/98

| Cylinder Kit  | Piston Body | Liner                   | Ring Set   | Piston Pin | Seal Ring  | Retainers  |
|---------------|-------------|-------------------------|------------|------------|------------|------------|
| FP-3934580    | FP-3919566  | FP-3948095 <sup>7</sup> | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-4020062    | FP-4019886  | FP-3948095              | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-4025294    | FP-3992117  | FP-3948095              | FP-4025290 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-LK31648095 | FP-3923164  | FP-3948095              | FP-3802429 | FP-3934046 | FP-3907177 | FP-3920692 |
| FP-LK98868095 | FP-4016886  | FP-3948095              | FP-3802538 | FP-3934046 | FP-3907177 | FP-3920692 |

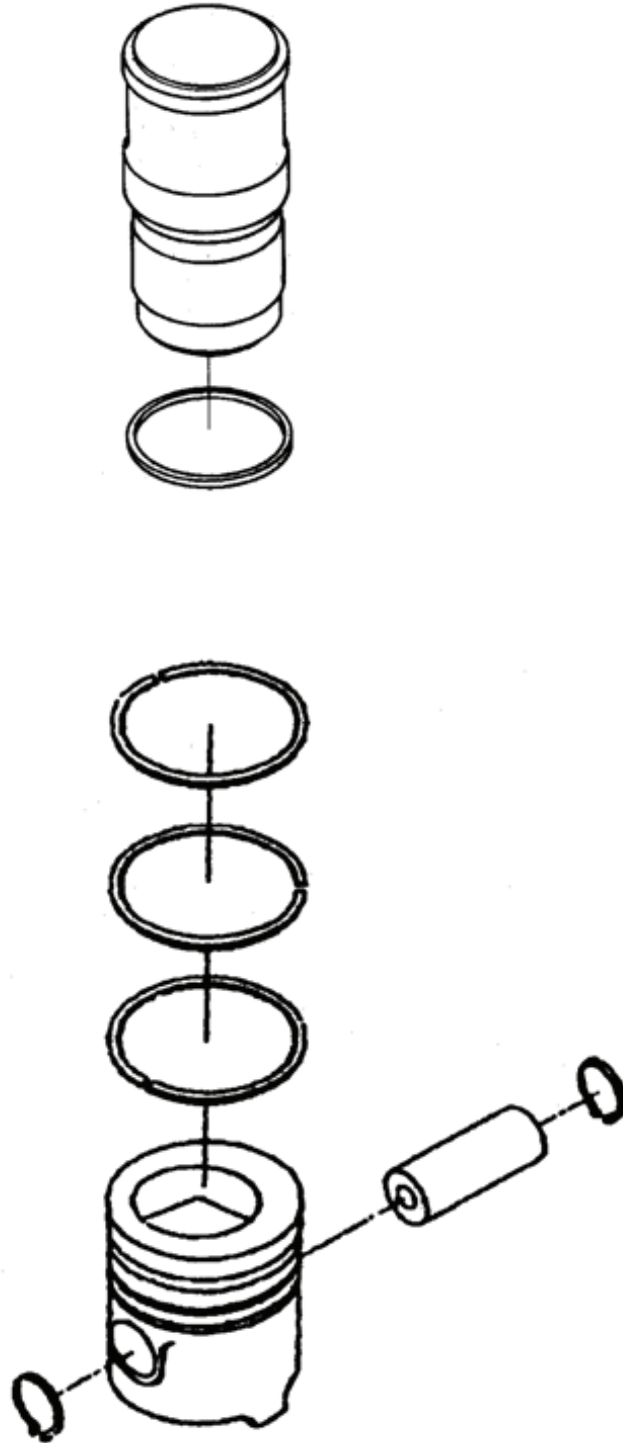
The above kits to be used with early standard cylinder block # FP-3934899 Effective 1/05/98

<sup>7</sup>This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3

# 6CT8.3 Series



## Cylinder & Piston Kits





**Cylinder Kits & Piston Kits (Cont.)**

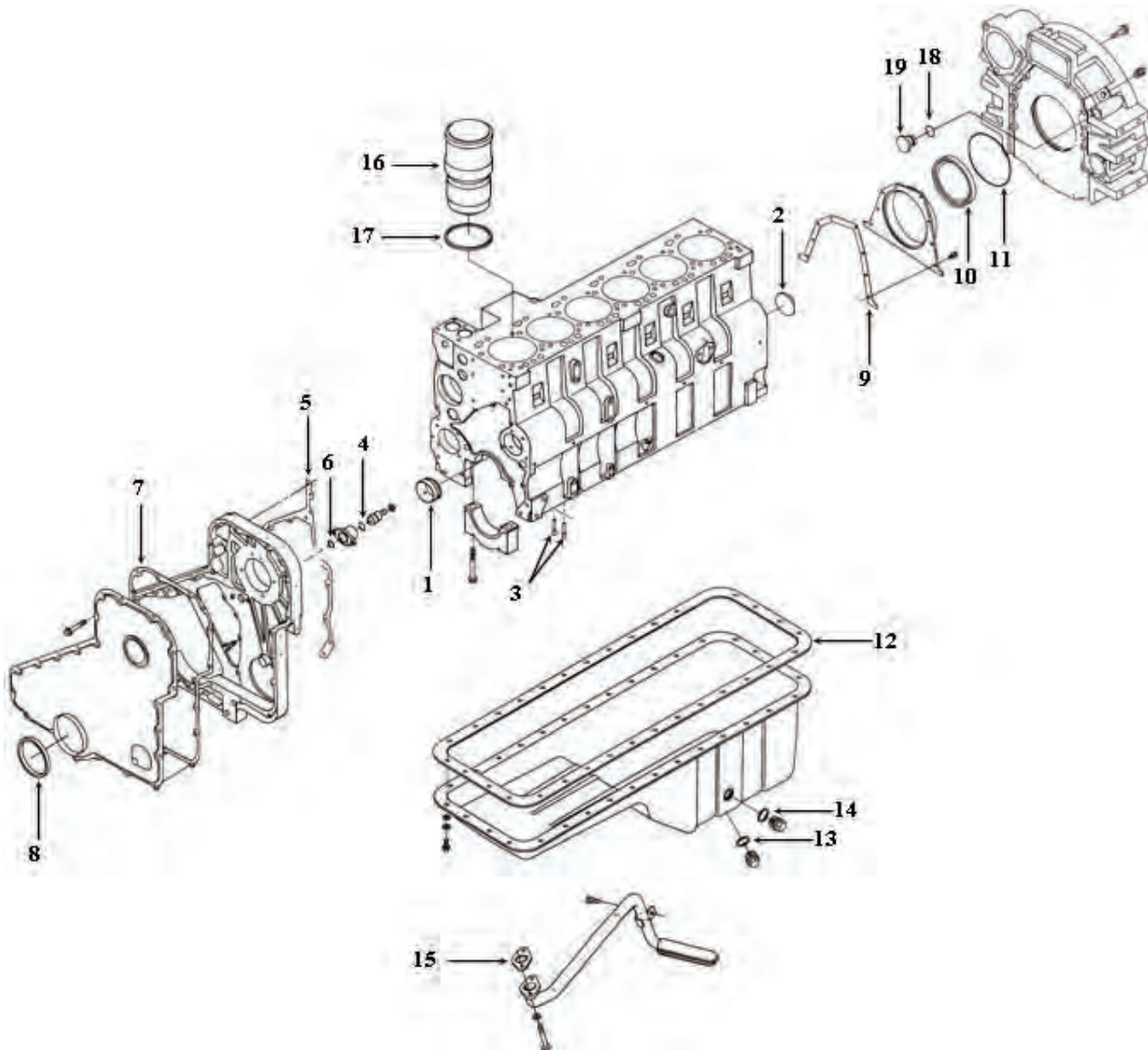
| Piston Kit   | Piston Body | Piston Pin   | Retainers  | Ring Set     | Comments               |
|--------------|-------------|--------------|------------|--------------|------------------------|
| FP-3802263   | FP-3917707  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802280   | FP-3919566  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802344   | FP-3919247  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802396   | FP-3923165  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802397   | FP-3923163  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802398   | FP-3923164  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802601   | FP-3925878  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802602   | FP-3925879  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3802657   | FP-3929161  | Not Included | FP-3920692 | FP-3802429   |                        |
| FP-3917707WP | FP-3917707  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3919247WP | FP-3919247  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3919566WP | FP-3919566  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3923163WP | FP-3923163  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3923164WP | FP-3923164  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3923165WP | FP-3923165  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3925878WP | FP-3925878  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3925879WP | FP-3925879  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-3929161WP | FP-3929161  | FP-3934046   | FP-3920692 | Not Included |                        |
| FP-4020059   | FP-4019886  | Not Included | FP-3920692 | FP-3802429   | Marine - CPL No. 1221  |
| FP-4025366   | FP-4019886  | Not Included | FP-3920692 | FP-3802538   | Marine - CPL No. 8089  |
| FP-4089348   | FP-3992117  | FP-3934046   | FP-3920692 | FP-4025290   | C8.3G Natural Gas Eng. |
| FP-PK3163    | FP-3923163  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK3164    | FP-3923164  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK3165    | FP-3923165  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK5878    | FP-3925878  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK5879    | FP-3925879  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK7707    | FP-3917707  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK9161    | FP-3929161  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK9247    | FP-3919247  | FP-3934046   | FP-3920692 | FP-3802429   |                        |
| FP-PK9566    | FP-3919566  | FP-3934046   | FP-3920692 | FP-3802429   |                        |

Above cylinder kits and piston kits include items in shaded area

# ISC/QSC Series



## Cylinder Block



**Cylinder Block, Front & Rear Covers & Gasket Sets**

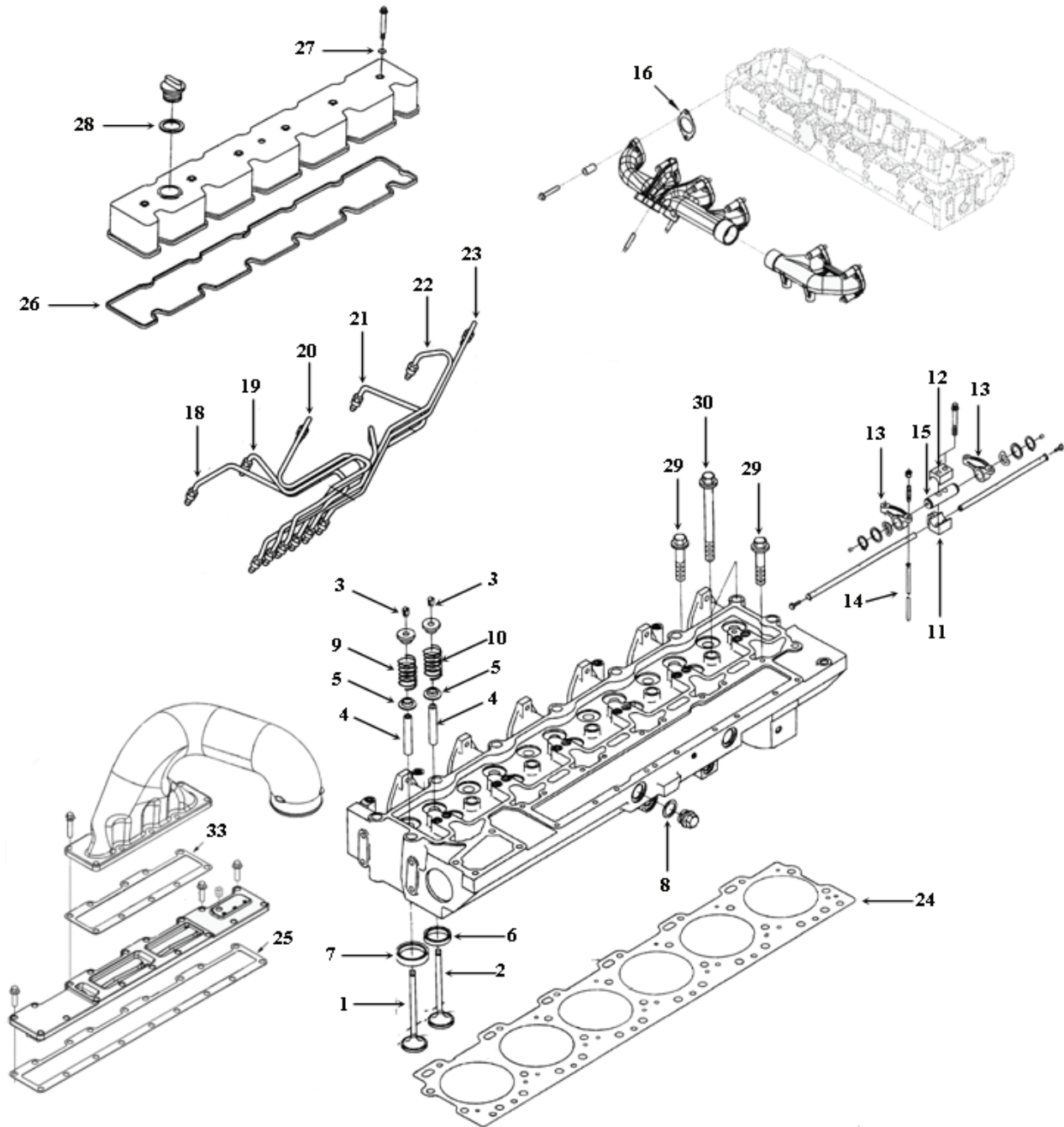
| Ref | Part Number       | Description                        | ISC      | QSC      |
|-----|-------------------|------------------------------------|----------|----------|
| 00  | 3678923           | Plug, Threaded                     | 6        | 6        |
| 00  | 4937311           | Nozzle, Piston Cooling             | 6        | 6        |
| 00  | 3004258           | Plug, Expansion                    | 4        | 4        |
| 00  | 3905401           | Plug, Expansion                    | 4        | 4        |
| 00  | 143066            | Plug, Expansion                    | 2        | 2        |
| 00  | 3900257           | Dowel, Pin                         | 2        | 2        |
| 00  | 3008468           | Plug, Pipe                         | 1        | 1        |
| 00  | 3008470           | Plug, Pipe                         | 1        | 1        |
| 00  | 3678921           | Plug, Threaded                     | 1        | 1        |
| 00  | 3678922           | Plug, Threaded                     | 1        | 1        |
| 00  | 3678924           | Plug, Threaded                     | 1        | 1        |
| 00  | 3904181           | Plug, Threaded                     | 1        | 1        |
| 00  | 3910787           | Connection, Oil Suction            | 1        | 1        |
| 00  | 3910960           | Washer, Plain                      | 1        | 1        |
| 00  | 3924147           | Plug, Threaded                     | 1        | 1        |
| 00  | 3924148           | Plug, Threaded                     | 1        | 1        |
| 00  | FP-3678912        | Seal, O-Ring                       | 1        | 1        |
| 00  | FP-3678925        | Seal, O-Ring (Oil Pressure Switch) | 1        | 1        |
| 00  | FP-3800343        | Gasket Set, Lower                  | 1        | 1        |
| 00  | FP-3901969        | Plug, Expansion                    | 1        | 1        |
| 00  | FP-3902425        | Washer, Sealing                    | 1        | 1        |
| 00  | FP-3920773        | Washer, Sealing                    | 1        | 1        |
| 00  | FP-4089958        | Gasket Set, Upper                  | 1        | 1        |
| 00  | FP-IFKISCQSC      | In-Frame Kit                       | 1        | 1        |
| 00  | FP-OHISCQSC       | Overhaul Kit                       | 1        | 1        |
| 00  | S 923 E           | Draincock                          | 1        | 1        |
| 01  | FP-3945329        | Bushing, Camshaft                  | 7        | 7        |
| 02  | FP-3901969        | Plug, Expansion                    | 1        | 1        |
| 03  | 3901846           | Dowel, Pin                         | 4        | 4        |
| 04  | FP-3926048        | Seal, O-Ring                       | 1        | 1        |
| 05  | FP-3944293        | Gasket, Gear Housing               | 1        | 1        |
| 06  | FP-3678912        | Seal, O-Ring                       | A/R      | A/R      |
| 07  | FP-3939258        | Gasket, Cover Plate                | 1        | 1        |
| 08  | FP-4025270        | Kit, Front Crankshaft Seal         | 1        | 1        |
| 09  | FP-3939353        | Gasket, Rear Cover                 | 1        | 1        |
| 10  | FP-4089342        | Kit, Rear Crankshaft Seal          | 1        | 1        |
| 11  | FP-3912473        | Seal, Rectangular Ring             | 1        | 1        |
| 12  | FP-3938160        | Gasket, Oil Pan                    | 1        | 1        |
| 13  | FP-3902425        | Washer, Sealing                    | 1        | 1        |
| 14  | FP-3920773        | Washer, Sealing                    | 1        | 1        |
| 15  | 3939352           | Gasket, Oil Suc Connection         | 1        | 1        |
| 18  | FP-3910260        | O-Ring, Flywheel Plug              | 1        | 1        |
| 19  | FP-3910248        | Plug, O-Ring                       | 1        | 1        |
| 16  | <b>FP-3800328</b> | <b>Kit, Cylinder Liner</b>         | <b>6</b> | <b>6</b> |
| 16  | FP-3948095        | Liner, Cylinder                    | 6        | 6        |
| 17  | FP-3907177        | Seal, Rectangular Ring             | 6        | 6        |



# ISC/QSC Series



## Cylinder Head



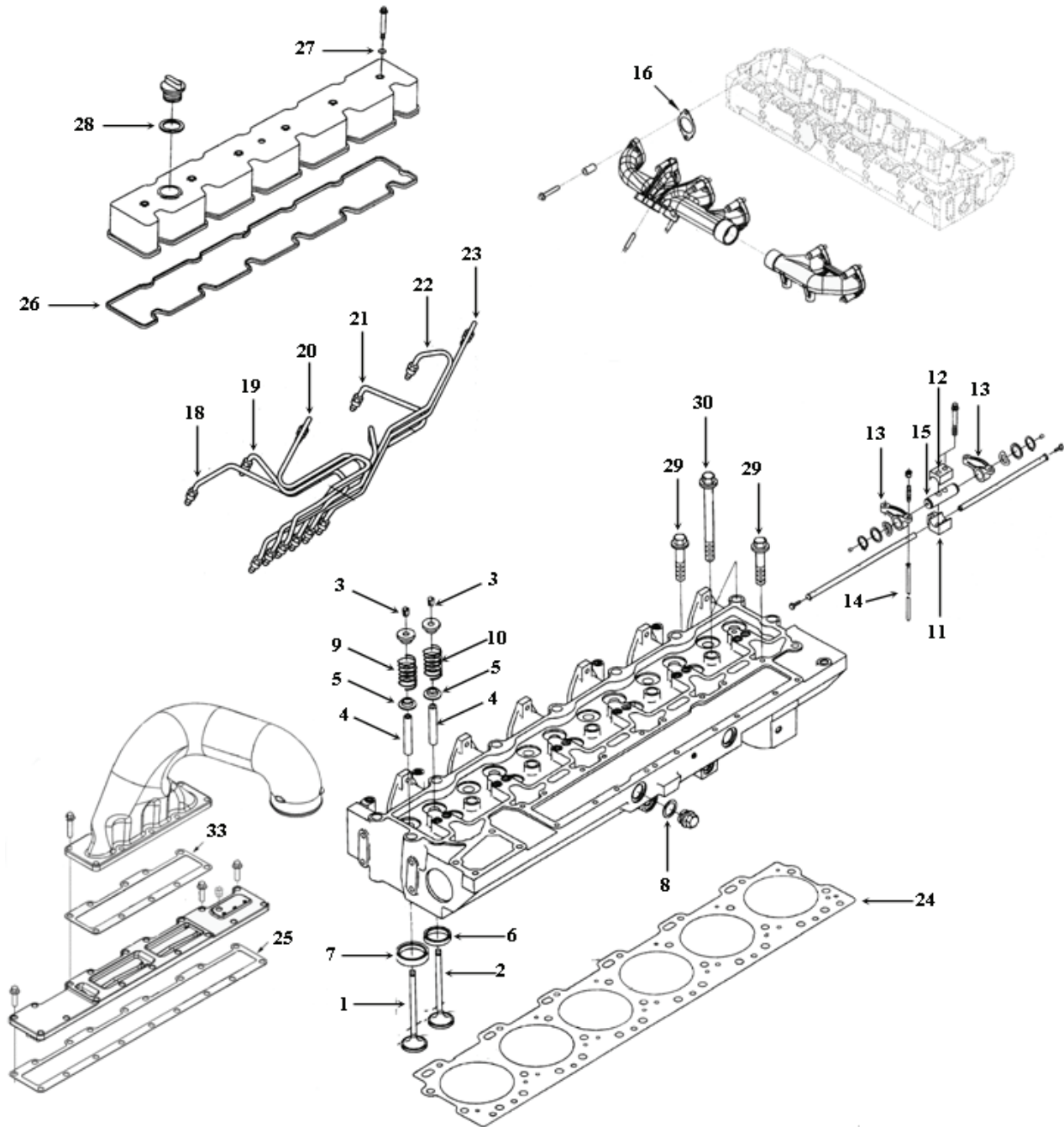
**Cylinder Head, Valve Mechanism & Upper Gasket Set**

| Ref | Part Number | Description  | ISC | QSC |
|-----|-------------|--|-----|-----|
|     | FP-4089958  | Gasket Set, Upper  | 1   | 1   |
|     | 4089978     | Gasket Set, Upper  | 1   | -   |
|     | 4955643     | Gasket Set, Upper  | 1   | -   |
| 00  | 3945098     | Plug, Expansion  | 6   | 6   |
| 00  | 3964712     | Assy, Rocker Lever   | 6   | 6   |
| 00  | 3032693     | Plug, Expansion  | 2   | 2   |
| 00  | 3943933     | Screw, Hex Flange Head Cap                                     | 2   | 2   |
| 00  | 3945094     | Plug, Expansion  | 2   | 2   |
| 00  | 3920706     | Plug, Expansion  | 18  | 18  |
| 00  | 3943445     | Crosshead, Valve   | 12  | 12  |
| 00  | 3678923     | Plug, Threaded   | 1   | 1   |
| 00  | 3678924     | Plug, Threaded   | 1   | 1   |
| 00  | 3935945     | Retainer, Socket   | 1   | 1   |
| 00  | 3941934     | Lever, Rocker  | 1   | 1   |
| 00  | 3945093     | Plug, Expansion  | 1   | 1   |
| 00  | 3945097     | Plug, Expansion  | 1   | 1   |
| 00  | 3964713     | Lever, Rocker  | 1   | 1   |
| 00  | 3964714     | Lever, Rocker  | 1   | 1   |
| 00  | 3964720     | Screw, Rocker Lever Adjusting                                  | 1   | 1   |
| 00  | 3964721     | Ball, Rocker Lever   | 1   | 1   |
| 00  | 3964722     | Socket, Rocker Lever   | 1   | 1   |
| 00  | 3964796     | Lever, Rocker  | 1   | 1   |
| 00  | 3964797     | Lever, Rocker  | 1   | 1   |
| 00  | 3967265     | Housing, Rocker Lever  | 1   | 1   |
| 04  | 4934063     | Guide, Valve Stem  | 24  | 24  |
| 05  | FP-3948578  | Valve Stem Seal, Intake And Exhaust                            | 24  | 24  |
| 06  | 3940152     | Insert, Valve, Intake  | 12  | 12  |
| 07  | 3968074     | Insert, Valve, Exhaust   | 12  | 12  |
| 08  | FP-3678925  | Seal, O-Ring   | 1   | 1   |
| 09  | FP-4936076  | Spring, Intake Valve (Some QSC Applications Exhaust Spring)    | 24  | AR  |
| 10  | FP-4936079  | Spring, Exhaust Valve (Use On Eng. w/Rotators)                 | -   | 24  |
| 11  | 3941140     | Support, Rocker Lever  | 6   | 6   |
| 13  | 3941937     | Lever, Rocker  | 1   | 1   |
| 14  | 3964715     | Rod, Push  | 2   | 2   |
| 14  | 3944174     | Rod, Push (Use w/3938163 Camshaft Only)                        | 12  | 12  |
| 15  | 3966658     | Shaft, Rocker Lever  | 12  | 12  |
| 16  | FP-3937479  | Gasket, Exhaust Manifold                                       | 6   | 6   |
| 18  | 3964141     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 19  | 3964142     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 20  | 3964142     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 21  | 3964142     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 22  | 3964142     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 23  | 3964143     | Tube, Injector Fuel Supply                                     | 1   | 1   |
| 24  | FP-4891796  | Gasket, Cylinder Head  | 1   | 1   |
| 25  | FP-3936993  | Gasket, Air Intake Manifold Cover (For 4" Dia. Air Connection) | 1   | 1   |
| 25  | FP-3944646  | Intake Manifold Gasket (For 3.5" Dia. Air Connection)          | 1   | 1   |
| 26  | 3966708     | Gasket, Rocker Lever Housing 4089978, 4955643                  | 1   | 1   |
| 26  | FP-3939264  | Gasket, Rocker Lever Housing 4089958                           | -   | 1   |

# ISC/QSC Series



## Cylinder Head



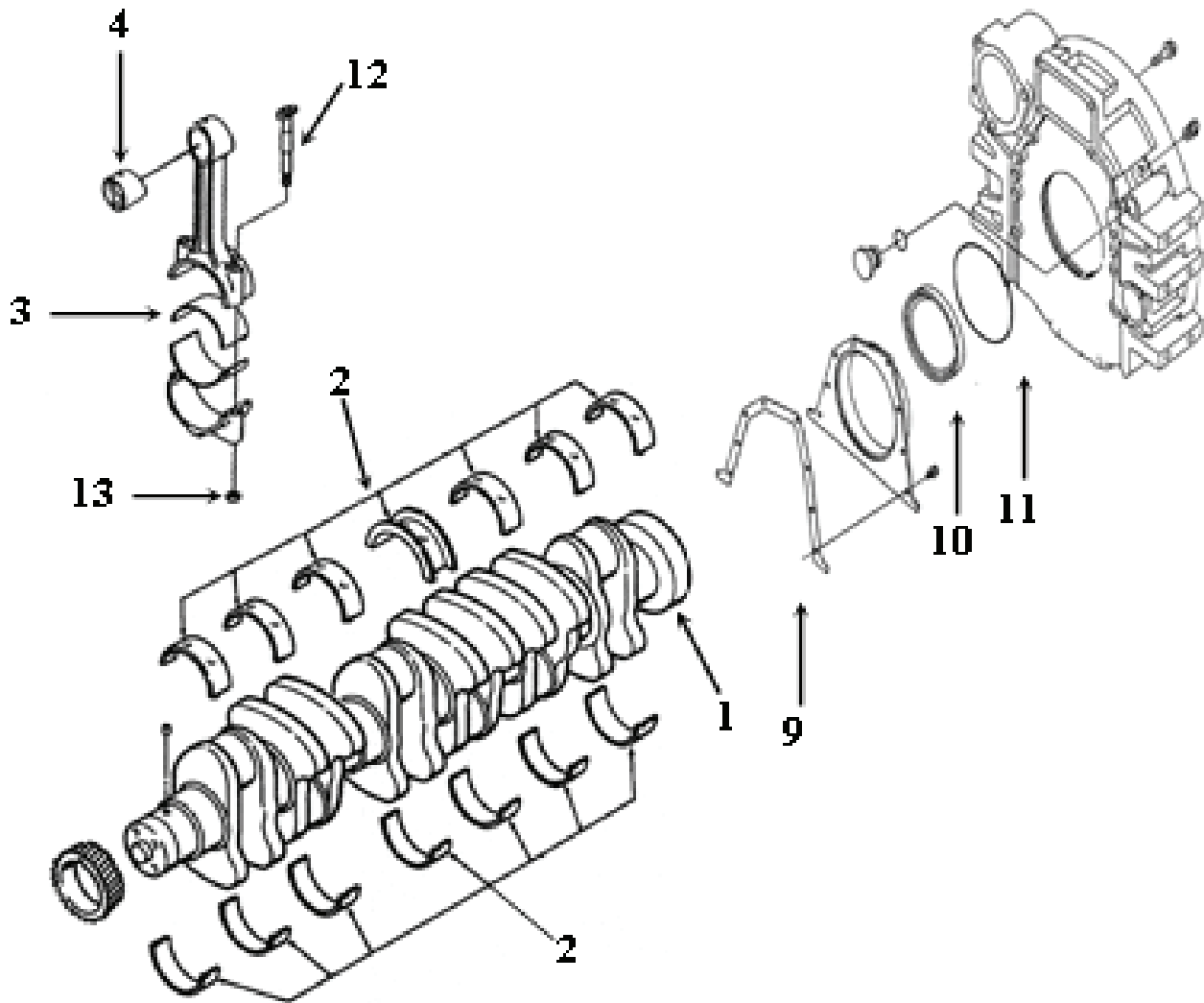
**Cylinder Head, Valve Mechanism & Upper Gasket Set (Cont.)**

| Ref | Part Number       | Description                   | ISC | QSC |
|-----|-------------------|-------------------------------|-----|-----|
| 27  | 3959799           | Isolator, Noise               | 8   | 8   |
| 28  | 3990084           | Seal, O-Ring                  | 1   | 1   |
| 29  | 3901447           | Screw, Hex Flange Head Cap    | 7   | 7   |
| 30  | 3960043           | Screw, Hex Flange Head Cap    | 26  | 26  |
| 32  | 3944452           | Retainer, Valve Spring        | 24  | 24  |
| 33  | FP-3992090        | Gasket, Air Intake Connection | 1   | 1   |
| 00  | <b>FP-3800340</b> | <b>Valve Kit, Exhaust</b>     | 12  | 12  |
| 00  | FP-3942588        | Valve, Exhaust                | 12  | 12  |
| 03  | FP-3900250        | Lock Half, Valve              | 48  | 48  |
| 00  | <b>FP-3800341</b> | <b>Valve Kit, Intake</b>      | 12  | 12  |
| 00  | FP-3942589        | Valve, Intake                 | 12  | 12  |
| 00  | FP-3900250        | Lock Half, Valve              | 48  | 48  |
| 00  | <b>FP-4089761</b> | <b>Valve Kit, Intake</b>      | 12  | 12  |
| 00  | FP-3970727        | Valve, Intake                 | 12  | 12  |
| 03  | FP-3900250        | Lock Half, Valve              | 48  | 48  |
| 00  | <b>FP-4089762</b> | <b>Valve Kit, Exhaust</b>     | 12  | 12  |
| 02  | 3969637           | Valve, Exhaust                | 1   | 1   |
| 00  | FP-3900250        | Lock Half, Valve              | 48  | 48  |

# ISC/QSC Series



## Crankshaft





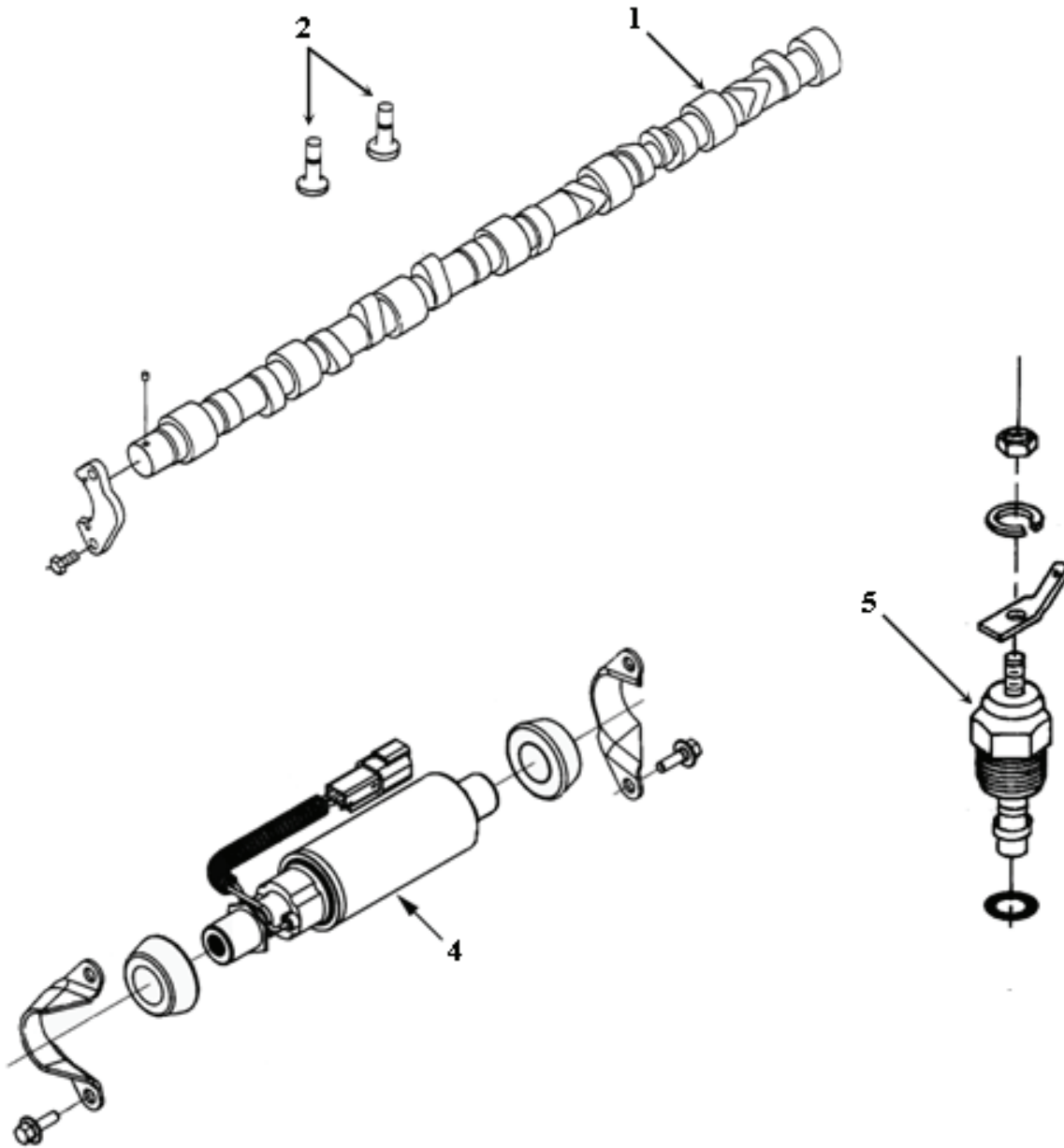
**Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Covers**

| Ref | Part Number       | Description                                      | ISC | QSC |
|-----|-------------------|--|-----|-----|
| 00  | 3904483           | Dowel, Pin                                       | 1   | 1   |
| 00  | 3918776           | Gear, Crankshaft                                 | 1   | 1   |
| 00  | FP-3925343        | Kit, Front Crankshaft Seal w/sleeve              | 1   | 1   |
| 01  | 3965006           | Crankshaft, Engine                               | 1   | 1   |
| 03  | FP-3950662        | Bearing, Connecting (.25MM)                      | A/R | A/R |
| 03  | FP-3950663        | Bearing, Connecting (.50MM)                      | A/R | A/R |
| 03  | FP-3950664        | Bearing, Connecting (.75MM)                      | A/R | A/R |
| 03  | FP-3950665        | Bearing, Connecting (1.00MM)                     | A/R | A/R |
| 03  | FP-3950661        | Bearing, Connecting Rod Standard                 | 12  | 12  |
| 04  | FP-3913990        | Bushing  | 2   | 2   |
| 09  | FP-3939353        | Gasket, Rear Cover                               | 1   | 1   |
| 10  | FP-3926126        | Kit, Rear Crankshaft Seal w/Sleeve               | 1   | 1   |
| 10  | FP-4089642        | Kit, Rear Crankshaft Seal w/Sleeve               | 1   | 1   |
| 11  | FP-3912473        | Seal, Rectangular Ring                           | 1   | 1   |
| 12  | FP-3928870        | Bolt, Connecting Rod                             | 2   | 2   |
| 13  | FP-3934864        | Nut, Connecting Rod                              | 2   | 2   |
| 02  | <b>FP-3945917</b> | <b>Main Bearing Set (standard)</b>               | 1   | 1   |
| 00  | 3944158           | Bearing, Main (Not Sold Separately)              | 6   | 6   |
| 00  | 3944163           | Bearing, Crankshaft Thrust (Not Sold Separately) | 1   | 1   |
| 00  | 3944153           | Bearing, Main (Not Sold Separately)              | 7   | 7   |
| 02  | <b>FP-3945918</b> | <b>Main Bearing Set (0.25MM oversize)</b>        | 1   | 1   |
| 00  | 3944159           | Bearing, Main (Not Sold Separately)              | 6   | 6   |
| 00  | 3944164           | Bearing, Crankshaft Thrust (Not Sold Separately) | 1   | 1   |
| 00  | 3944154           | Bearing, Main (Not Sold Separately)              | 7   | 7   |
| 02  | <b>FP-3945919</b> | <b>Main Bearing Set (0.50MM oversize)</b>        | 1   | 1   |
| 00  | 3944160           | Bearing, Main (Not Sold Separately)              | 6   | 6   |
| 00  | 3944165           | Bearing, Crankshaft Thrust (Not Sold Separately) | 1   | 1   |
| 00  | 3944155           | Bearing, Main (Not Sold Separately)              | 7   | 7   |

# ISC/QSC Series



## Camshaft & Fuel Components





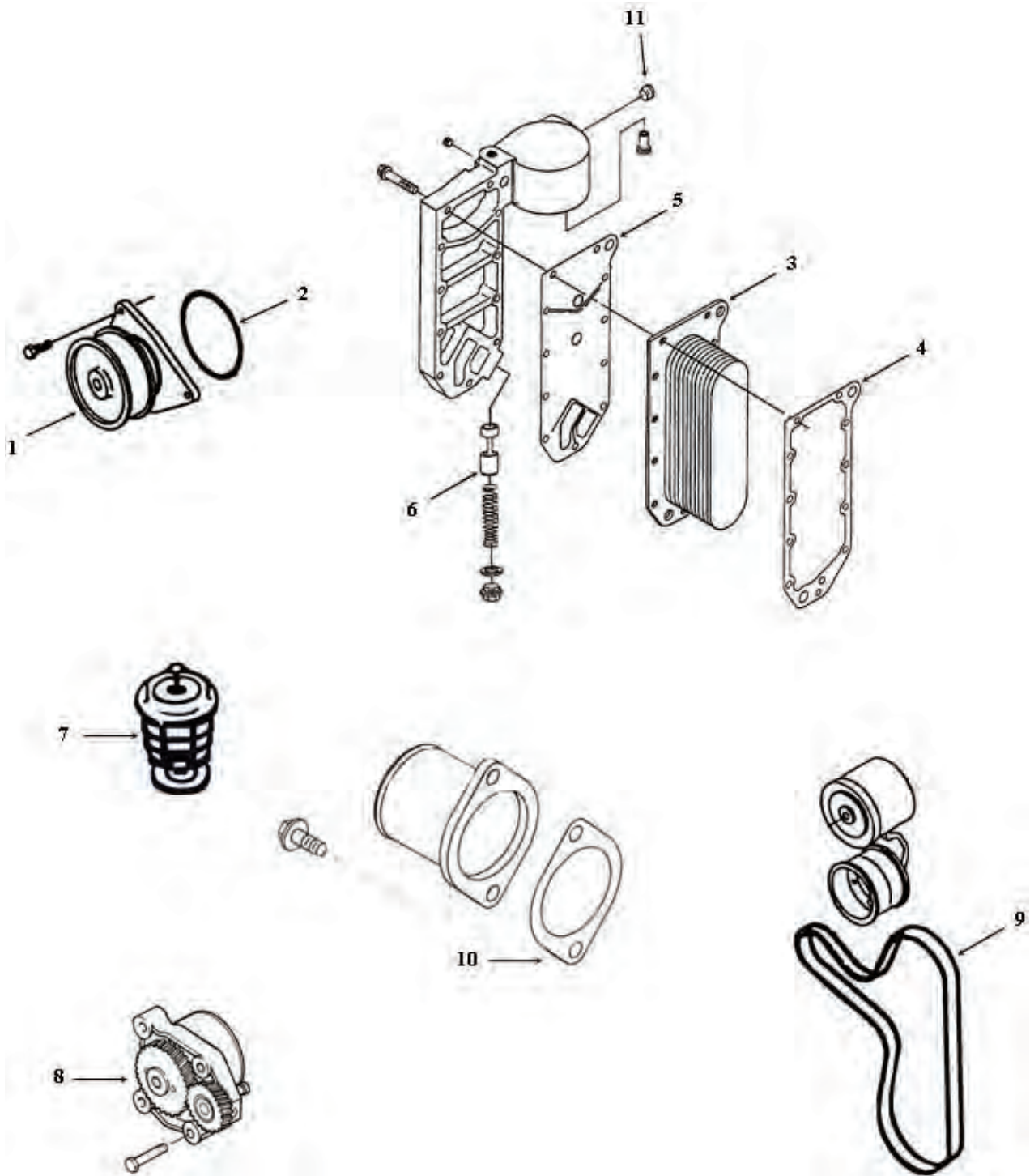
**Camshaft & Fuel Components**

| Ref | Part Number | Description                                 | ISC | QSC |
|-----|-------------|---|-----|-----|
| 00  | 3900227     | Screw, Hexagon Head Cap                     | 2   | 2   |
| 00  | 3902332     | Woodruff Key (Use w/3938163 Camshaft Only)  | 1   | 1   |
| 00  | 3917883     | Dowel, Pin                                  | 1   | 1   |
| 00  | 3944001     | Support, Camshaft Thrust                    | 1   | 1   |
| 00  | 3950135     | Gear, Camshaft                              | 1   | 1   |
| 01  | 3938163     | Camshaft, (Chilled Ductile Iron)            | 1   | 1   |
| 01  | 3966431     | Camshaft                                    | 1   | 1   |
| 02  | 3965966     | Tappet, Valve (Use w/3966431 Camshaft Only) | 12  | 12  |
| 03  | 3963990     | Washer, Sealing                             | 6   | 6   |
| 04  | 3968187     | Pump, Fuel Transfer                         | 1   | 1   |
| 05  | 4088750     | Sensor, Temperature                         | 1   | 1   |

# ISC/QSC Series



## Cooling Components



**Water Pump, Oil Pump, Oil Cooler Core & Cooling Components**

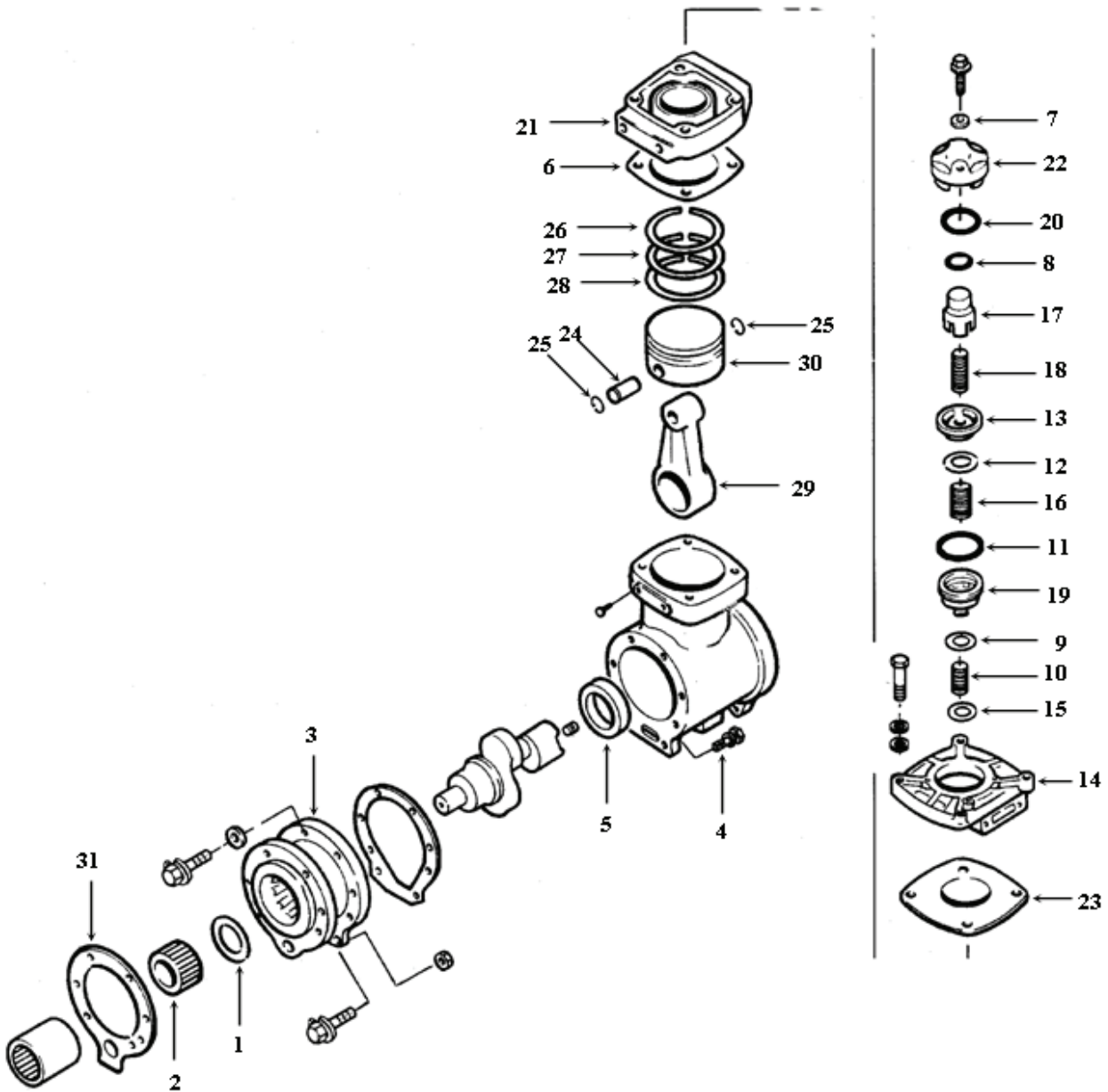
| Ref | Part Number       | Description  | ISC | QSC |
|-----|-------------------|--|-----|-----|
| 00  | 3900677           | Oil Pump Mounting Screw, Hexagon Head Cap (M8 x 1.25 x 30) | 4   | 4   |
| 00  | 3907860           | Screw, Hex Flange Head Cap                                 | 4   | 4   |
| 00  | 3906619           | Plug, Pipe   | 2   | 2   |
| 00  | 3944874           | Screw, Hex Flange Head Cap                                 | 2   | 2   |
| 00  | 3966976           | Screw, Hex Flange Head Cap                                 | 11  | 11  |
| 00  | 118227            | Dowel, Ring  | 1   | 1   |
| 00  | 3008469           | Plug, Pipe   | 1   | 1   |
| 00  | 3027232           | Plug, Pipe   | 1   | 1   |
| 00  | 3930910           | Plug, Threaded   | 1   | 1   |
| 00  | 3931077           | Cover, Lub Oil Cooler                                      | 1   | 1   |
| 00  | 3931084           | Plug, Threaded   | 1   | 1   |
| 00  | 3934278           | Valve, Bypass  | 1   | 1   |
| 00  | 3934410           | Valve Kit, Bypass  | 1   | 1   |
| 00  | 68274             | Spring, Compression  | 1   | 1   |
| 00  | FP-3201562        | Seal, O-Ring (Valve By Pass)                               | 1   | 1   |
| 00  | FP-3992092        | Gasket, Connection (To Oil Filter Head)                    | 1   | 1   |
| 02  | FP-3940386        | Seal, O-Ring   | 1   | 1   |
| 03  | 3966365           | Core, Cooler   | 1   | 1   |
| 04  | FP-3918174        | Gasket, Oil Cooler Core                                    | 1   | 1   |
| 05  | FP-3918332        | Gasket, Lub Oil clr Cover (3929011)                        | 1   | 1   |
| 06  | FP-3945967        | Plunger, Pressure Regulator                                | 1   | 1   |
| 07  | FP-3940632        | Thermostat   | 1   | 1   |
| 07  | FP-4930594        | Thermostat (Centerline Engines 180 Degree)                 | 1   | 1   |
| 08  | 3991123           | Pump, Lubricating Oil                                      | 1   | 1   |
| 09  | 3289135           | Belt, V Ribbed   | 1   | 1   |
| 10  | FP-3913032        | Gasket, Water Outlet Connection                            | 1   | 1   |
| 11  | FP-3930911        | Seal, O-Ring   | 1   | 1   |
| 00  | <b>FP-4089647</b> | <b>Kit, Water Pump</b>                                     | 1   | 1   |
| 01  | FP-3973114        | Pump, Water (Previously 3964791)                           | 1   | 1   |
| 02  | FP-3940386        | Seal, O-Ring   | 1   | 1   |



# ISC/QSC Series



## Compressor (13.2 CFM)





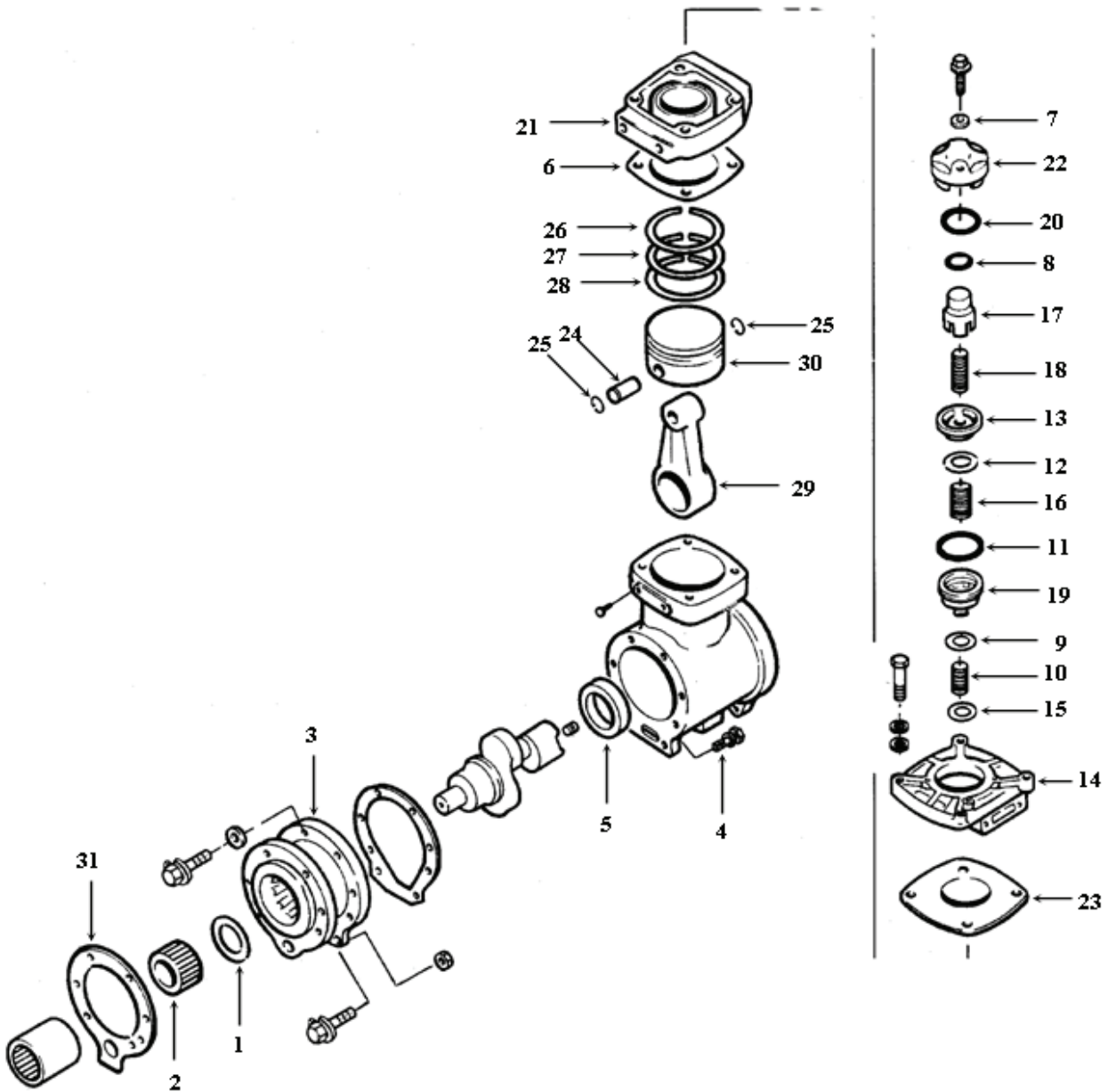
**Compressor (13.2 CFM)**

| Ref      | Part Number | Description                               | ISC | QSC |
|----------|-------------|---|-----|-----|
| 00       | 3966522     | Compressor                                | 1   | 1   |
| 02       | 199349      | Sleeve, Spline                            | 1   | 1   |
| 03       | 199349      | Sleeve, Spline                            | 1   | 1   |
| 04       | 3925344     | Screw, Hex Flange Head Cap (m10x1.50x30)  | 4   | 4   |
| 05       | FP-147610   | Bushing, Crankshaft                       | 1   | 1   |
| 06       | FP-154018   | Gasket, Cylinder                          | 1   | 1   |
| 07-23    | FP-3801728  | Major Uploader Repair Kit (Includes Body) | 1   | 1   |
| 07-23    | FP-3801733  | Major Uploader Repair Kit (Less Body)     | 1   | 1   |
| 24       | FP-119810   | Piston Pin                                | 1   | 1   |
| 25       | FP-3558754  | Piston Pin Retainer                       | 2   | 2   |
| 26-27-28 | FP-AR73350  | Set, Ring                                 | 1   | 1   |
| 29       | FP-3018151  | Connecting Rod                            | 1   | 1   |
| 30       | FP-3045670  | Piston Body w/o Pin                       | 1   | 1   |
| 31       | FP-3940245  | Gasket, Hydraulic Pump                    | 1   | 1   |

# ISC/QSC Series



## Compressor (13.2 CFM)





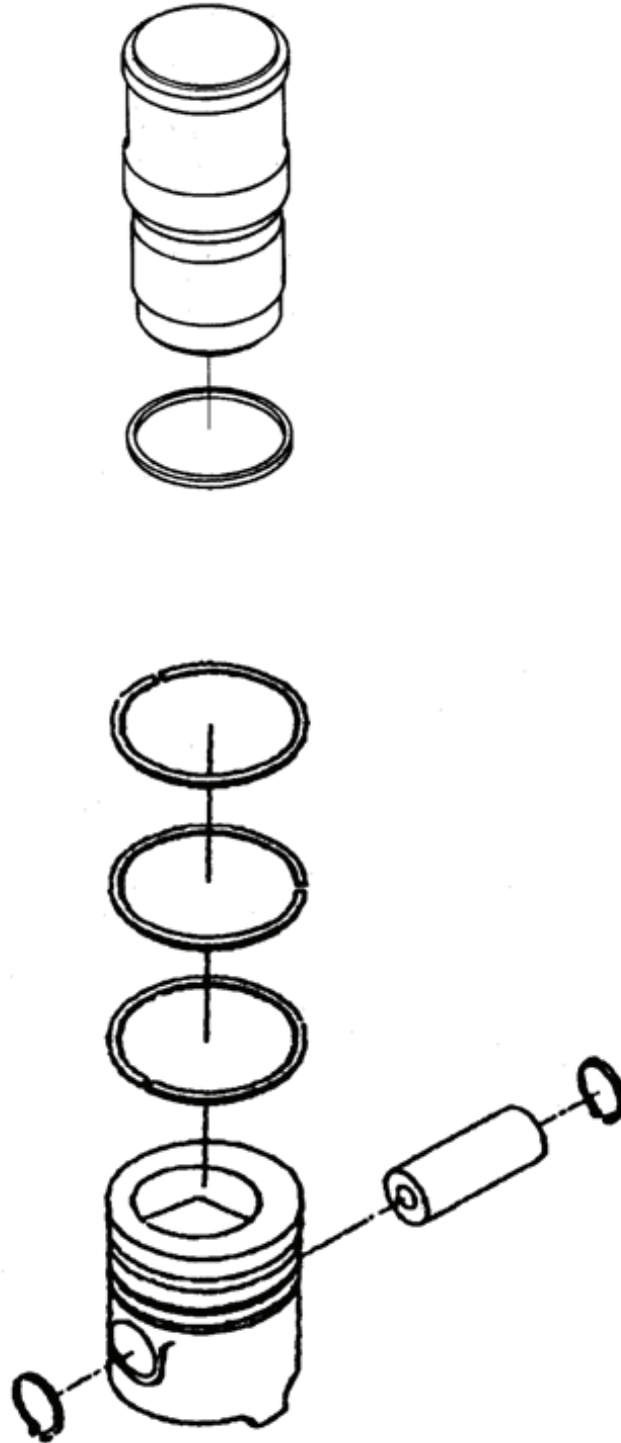
**Compressor Kits (13.2 CFM)**

| Ref      | Part Number | Description         | ISC | QSC |
|----------|-------------|---------------------|-----|-----|
| 00       | 35589549    | Kit, Cylinder Head  | 1   | 1   |
| 00       | FP-3803930  | Kit, Piston         | 1   | 1   |
| 24       | FP-119810   | Piston Pin          | 1   | 1   |
| 25       | FP-3558754  | Piston Pin Retainer | 2   | 2   |
| 26-27-28 | FP-AR73350  | Set, Ring           | 1   | 1   |
| 30       | FP-3045670  | Piston Body w/o Pin | 1   | 1   |

# ISC/QSC Series



## Cylinder & Piston Kits







## Cylinder Kits & Piston Kits

| Cylinder Kit  | Piston Body | Liner      | Ring Set   | Piston Pin | Retainer   | Comment   |
|---------------|-------------|------------|------------|------------|------------|---|
| FP-3800319    | FP-3942106  | FP-3948095 | FP-3802429 | FP-3934046 | FP-3920692 | ISC-230;ISC215;ISC275;ISC250;ISC285;ISC280;ISC250 |
| FP-LK03208095 | FP-3943367  | FP-3948095 | FP-3802538 | FP-3934046 | FP-3920692 | ISC 350; QSC (CPL 2238)                           |

| Piston Kit   | Piston Body | Piston Pin | Retainers  | Ring Set   | Comment  |
|--|-------------|------------|------------|------------|--|
| 3800316 use FP-3800318<br>4089645 use 4955204<br>4955204 | 3968404     | FP-3934046 | FP-3920692 | FP-3802429 | ISC230;ISC215;ISC275;ISC250;ISC285;ISC280;ISC250               |
| FP-3800318   | FP-3942106  | FP-3934046 | FP-3920692 | FP-3802429 |  |
| FP-3800320   | FP-3943367  | FP-3934046 | FP-3920692 | FP-3802538 | ISC350;QSC(CPL2238)  |
| FP-4955190   | FP-4933120  | 3950549    | FP-3920692 | FP-4089644 | CPL 8159, 8220, 8430, 8535, 8536, 8537, 8538, 8539, 8569, 8570 |

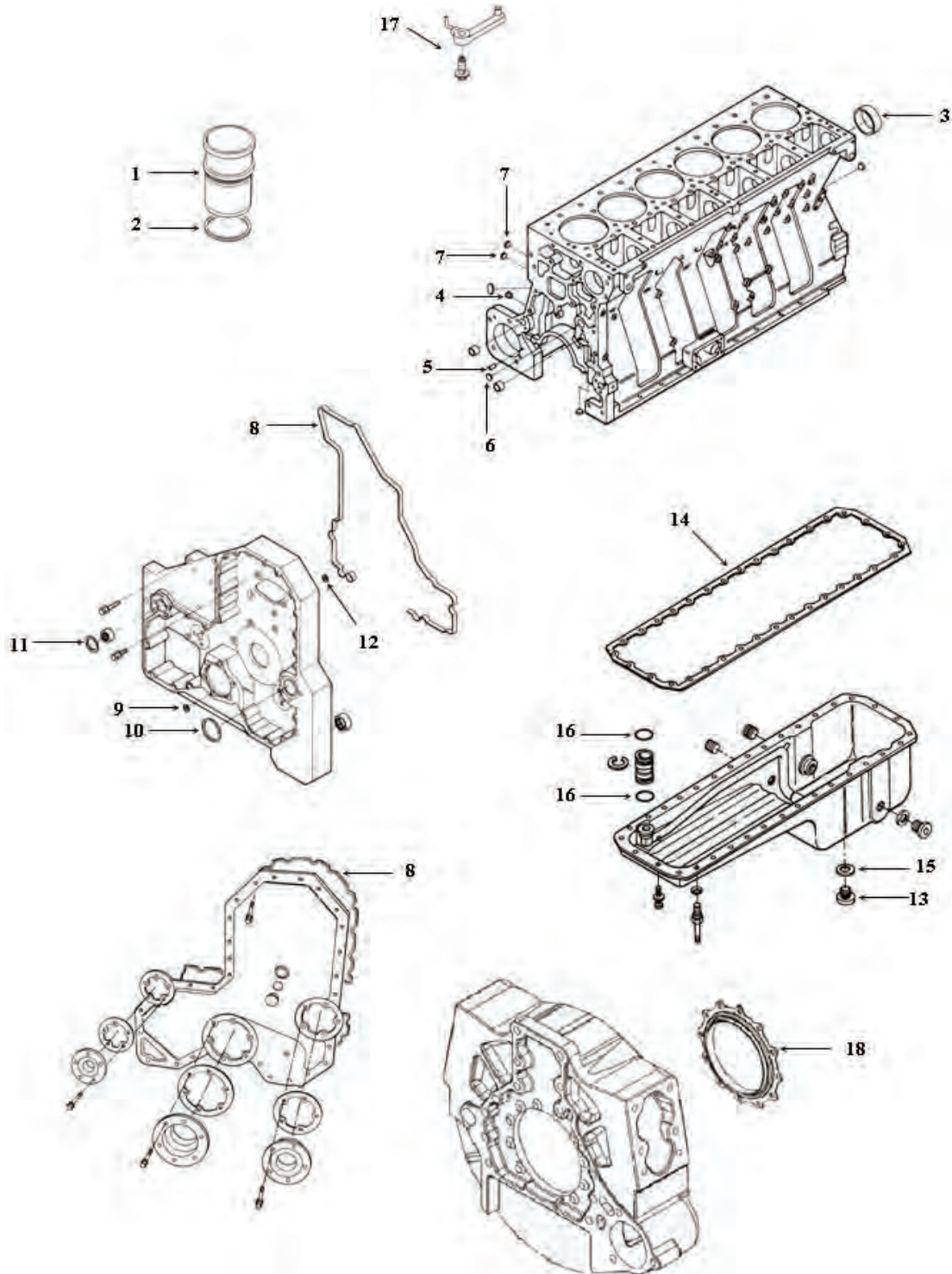
Above Cylinder Kits And Piston Kits Include Items In Shaded Area.

| Piston Ring Set | Comment |
|-----------------|---------|
| FP-4089644      | STD     |

# L10 & M11 Series



## Cylinder Block



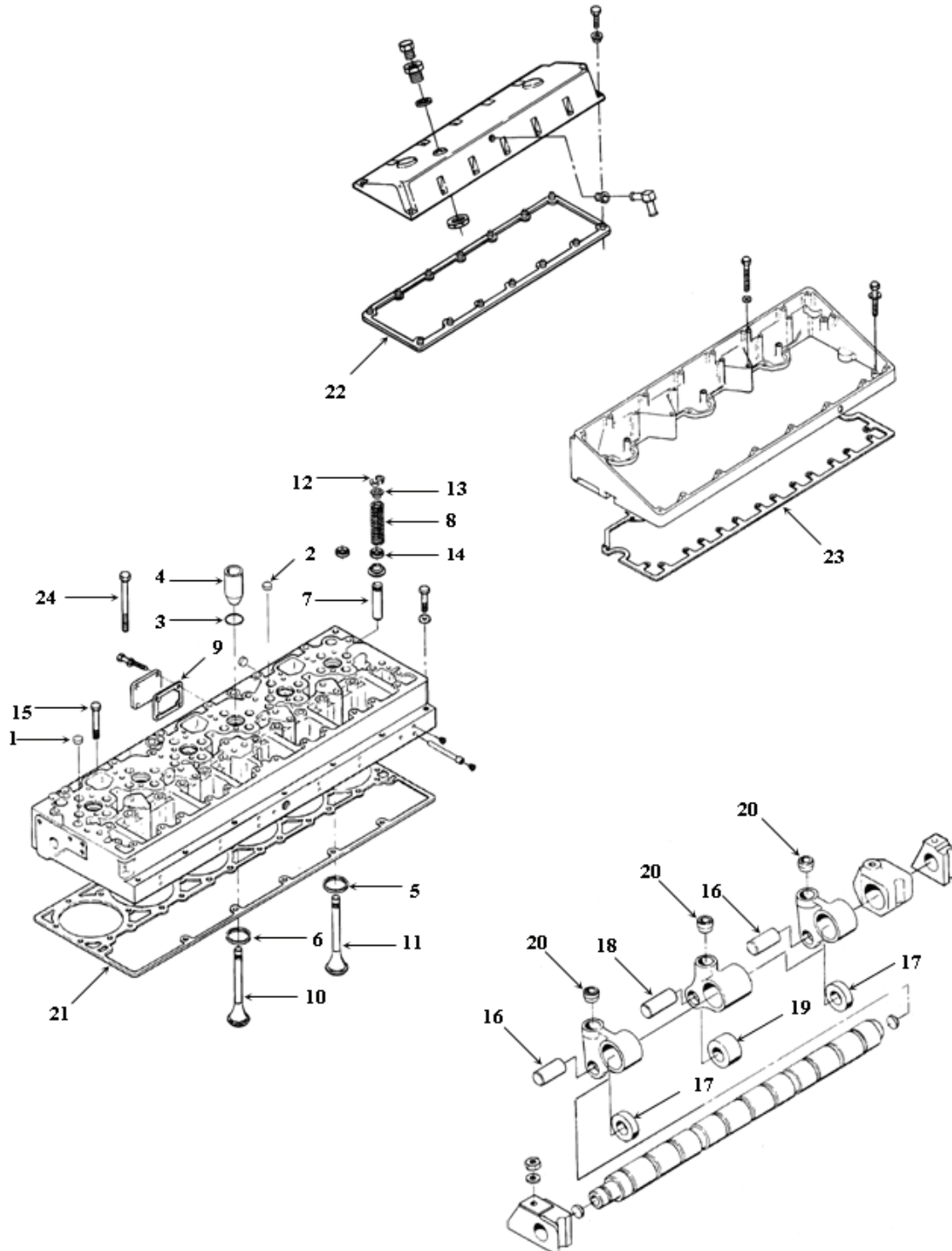
## Cylinder Block, Front & Rear Covers & Gasket Sets

| Ref | Part Number          | Description   | L10 | M11 |
|-----|----------------------|---|-----|-----|
| 00  | FP-3883472           | Gasket, Hand Hole Cover   | 3   | 3   |
| 00  | FP-216484            | Dipstick  | 1   | 1   |
| 00  | FP-2863702           | Seal, O-Ring Hydraulic Pump   | 1   | 1   |
| 00  | FP-3004242           | Gasket, Hydraulic Pump  | 1   | 1   |
| 00  | FP-3025296           | Gasket, Cover Plate   | 1   | 1   |
| 00  | FP-3037537           | Seal, O-Ring  | 1   | 1   |
| 00  | FP-3046201           | Seal, O-Ring  | 1   | 1   |
| 00  | FP-4024993S          | Gasket Set, In-Frame (Late L10/ M11)  | 1   | 1   |
| 00  | FP-4089478           | Superior Gasket Set (L10/M11 Current) (Switch to FP-4025157)  | 1   | 1   |
| 00  | FP-4089995           | Kit, Seal (Front Gear Cover)  | 1   | 1   |
| 00  | FP-4089998           | Lower Gasket Set (L10/M11 Current)(Previously FP-3802453)   | 1   | 1   |
| 00  | FP-L10PREM           | In-Frame Kit W/Upper Gasket & Pan Set   | 1   | 1   |
| 00  | FP-L10PREMDNA        | In-Frame Kit, Dual-Ni Annodized   | 1   | 1   |
| 00  | FP-L10PREM-OH        | O/H Engine Kit W/Front & Rear Seal  | 1   | 1   |
| 00  | FP-3010146           | Oil Pressure Regulator Spring   | 1   |     |
| 00  | FP-3803404           | Gasket Set, Lower (Early L10)   | 1   |     |
| 00  | FP-4025155           | Gasket Set, Upper (Early L10)   | 1   |     |
| 00  | FP-4025155S          | Gasket Set, In-Frame (Early L10)  | 1   |     |
| 00  | FP-4025297           | In-Frame Kit, For CPL's No's 1827, 1828, 1855, 1856, 1857, 1875, 1885, 1973, 2036, 2037, 2140, 2141, 2178, 2370, 2371, 2425 Only. | -   | 1   |
| 00  | FP-IFKM11AR          | In-Frame Kit, All M11 Eng's w/Articulated Pistons   | -   | 1   |
| 00  | FP-OHM11AR           | O/H Engine Kit (Articulated Piston Engines)   | -   | 1   |
| 03  | FP-2878168           | Bushing, Camshaft (Formerly FP-3820566)   | 7   | 7   |
| 03  | FP-2878168S          | Cam Bushing Set (Includes 7 FP-2878168 Bushings) (Formerly FP-3820566S)   | 1   | 1   |
| 04  | FP-3002158           | Plug, Pipe  | 2   | 2   |
| 05  | FP-70550             | Dowel, Pin  | 1   | 1   |
| 06  | FP-3007635           | Plug, Expansion   | 3   | 3   |
| 08  | FP-4920751           | Seal, Rectangular Strip (Gear Cover)  | 1   | 1   |
| 09  | FP-3201659           | Seal, Rectangular Ring  | 6   | 6   |
| 10  | FP-3820945           | Seal, Rectangular Ring  | 1   | 1   |
| 11  | FP-3820946           | Seal, Rectangular Ring  | 1   | 1   |
| 12  | FP-3883150           | Seal, O-Ring  | 1   | 1   |
| 13  | FP-3055069           | Plug, Threaded (Oil Pan)  | 2   | 2   |
| 17  | FP-3070218           | Nozzle, Piston Cooling (For Articulated Pistons Only)   | 6   | 6   |
| 17  | FP-3803495           | Nozzle, Piston Cooling (Check For Availability)   | 6   | 6   |
| 18  | FP-4089542           | Kit Seal Crankshaft Rear  | 1   | 1   |
| 00  | <b>FP-3803703</b>    | <b>Kit, Cylinder Liner (All Applications)</b>   | 6   | 6   |
| 01  | FP-3080760           | Liner, Cylinder   | 6   | 6   |
| 02  | FP-3047188           | Seal, O-Ring, Cylinder Liner  | 6   | 6   |
| 00  | <b>FP-3882433-PS</b> | <b>Gasket Set, Oil Pan (Early L10), (W/Washers &amp; Seal Rings)</b>  | 1   |     |
| 14  | FP-3882433           | Gasket, Oil Pan (Early L10)   | 1   |     |
| 15  | FP-67946             | Washer, Plain (Oil Pan Plug)  | 2   | 2   |
| 16  | FP-3032787           | Seal, O-Ring (Lube Oil Transfer/Pick Up Tube)   | 2   | 2   |
| 00  | <b>FP-3882733-PS</b> | <b>Gasket Set, Oil Pan (Late L10/M11), (W/Washers &amp; Seal Rings)</b>   | 1   | 1   |
| 14  | FP-3401290           | Gasket, Oil Pan (Current L10/M11)   | 1   | 1   |
| 15  | FP-67946             | Washer, Plain (Oil Pan Plug)  | 2   | 2   |
| 16  | FP-3032787           | Seal, O-Ring (Lube Oil Transfer/Pick Up Tube)   | 2   | 2   |

# L10 & M11 Series



## Cylinder Head



## Cylinder Head, Valve Mechanism & Upper Gasket Set

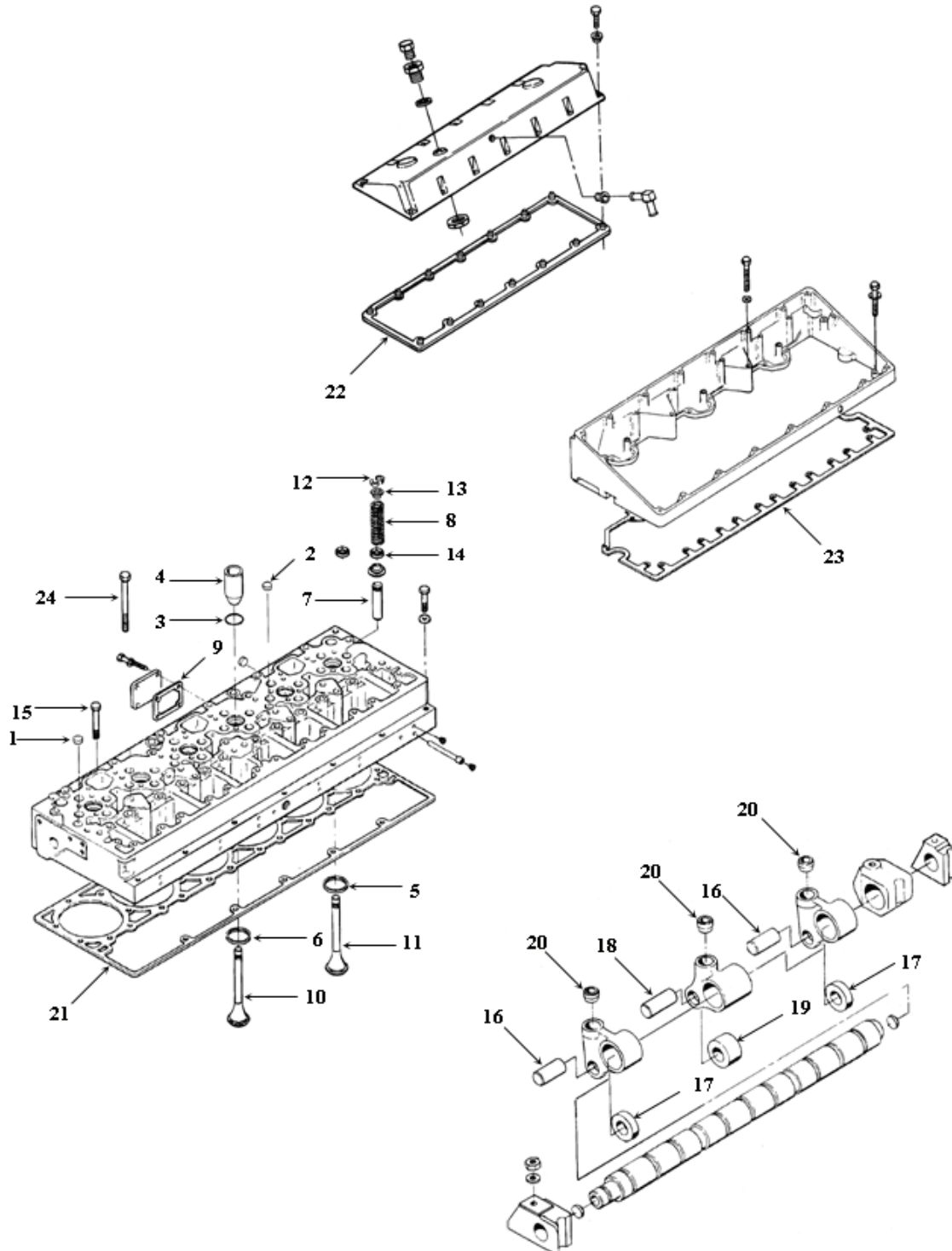
| Ref | Part Number              | Description  | L10 | M11 |
|-----|--------------------------|--|-----|-----|
| 00  | FP-3328948               | Gasket, Exhaust Manifold                                       | 6   | 6   |
| 00  | FP-S212                  | Nut, Hexagon   | 5   |     |
| 00  | FP-3033230               | Guide, Valve Spring  | 24  |     |
| 00  | FP-3033232               | Spring, Valve (Outer)  | 24  |     |
| 00  | FP-3033233               | Spring, Valve (Inner)  | 24  |     |
| 00  | FP-168306                | Screw, Slotted Set   | 18  |     |
| 00  | FP-123558                | Guide, Valve Crosshead   | 12  |     |
| 00  | FP-147389                | Screw, Slotted Set   | 12  |     |
| 00  | FP-203131                | Nut, Jam   | 12  |     |
| 00  | FP-3037537               | O-Ring (Plug)  | 1   | 1   |
| 00  | FP-4024993S              | Gasket Set, In-Frame Kit (Late L10, M11)                       | 1   | 1   |
| 00  | FP-4089478               | Superior Gasket Set (L10/M11 Current) (Previously FP-4024993)  | 1   | 1   |
| 00  | FP-4025155               | Gasket Set, Upper (Early L10)                                  | 1   |     |
| 00  | FP-4025155S              | Gasket Set, In-Frame Kit (Early L10)                           | 1   |     |
| 02  | FP-3007635               | Plug, Expansion  | 8   | 8   |
| 03  | FP-3007759               | Seal, O-Ring   | 6   | -   |
| 03  | FP-3035026               | Seal, O-Ring   | -   | 6   |
| 04  | FP-3070486               | Sleeve, Injector (Thin)  | 6   | 6   |
| 04  | FP-3417717               | Sleeve, Injector   |     | 6   |
| 05  | FP-3418044               | Insert, Valve (.25mm O.S.)                                     | 24  | 24  |
| 05  | FP-3418045               | Insert, Valve (.50mm O.S.)                                     | 24  | 24  |
| 05  | FP-3418046               | Insert, Valve (.75mm O.S.)                                     | 24  | 24  |
| 05  | FP-3418047               | Insert, Valve (1.00 mm S/M)(Previously FP-3028074)             | 24  | 24  |
| 05  | FP-3418040               | Insert, Valve (Exhaust) Changes to FP-3028070                  | 12  | 12  |
| 06  | FP-3418040               | Insert, Valve (Intake), (Check For Availability)               | 12  | 12  |
| 07  | FP-3033314               | Guide, Valve Stem  | 24  | 24  |
| 07  | FP-3328785               | Guide, Valve Stem (Previously FP-3073512)                      | 24  | 24  |
| 08  | FP-3895860               | Spring, Valve  | 24  | 24  |
| 09  | FP-3820872               | Gasket, Cover Plate  | 1   | 1   |
| 13  | FP-3883512               | Retainer, Valve Spring   | 24  | 24  |
| 14  | FP-3328781               | Seal, Valve Stem (Intake & Exhaust)                            | 24  | 24  |
| 14  | FP-4003966               | Valve Stem Seal (Intake and Exhaust) w/Steel Spring            |     | 24  |
| 15  | FP-4022907               | Screw, Hexagon Head Cap  | 3   | 3   |
| 16  | FP-3335342               | Pin, Cam Follower Roller                                       | 12  | 12  |
| 17  | FP-3895488               | Roller, Cam Follower   | 12  | 12  |
| 18  | FP-3335341               | Pin, Cam Follower Roller                                       | 6   | 6   |
| 19  | FP-3895487               | Roller, Cam Follower   | 6   | 6   |
| 20  | FP-3033292               | Socket, Tappet (Early L10)                                     | 6   |     |
| 21  | FP-2864080 <sup>38</sup> | Gasket, Cylinder Head (New ML7 Design)                         | 1   | 1   |
| 21  | FP-4022500               | Gasket, Cylinder Head (Will Supersede To FP-2864080)           | 1   | 1   |
| 22  | FP-3883220               | Gasket, Rocker Lever Cover (Late L10) (Check For Availability) | 1   | 1   |
| 22  | FP-3034855               | Gasket, Rocker Lever Cover (Early L10)                         | 1   |     |
| 23  | FP-4070529               | Gasket, Bank Rockers (Current L10/M11)(Previously FP-3896697)  | 1   | 1   |
| 24  | FP-3328379               | Screw, Hex Flange Head Cap                                     | 2   | 2   |
| 00  | <b>FP-3800638</b>        | <b>Kit, Valve w/Locks (Intake)</b>                             | 12  | 12  |
| 10  | FP-3418020               | Valve, Intake Bare   | 12  | 12  |
| 12  | FP-3275354               | Lock Half, Valve   | 48  | 48  |

<sup>38</sup>See Inside Back Cover For ML7™ Product Details.

# L10 & M11 Series



## Cylinder Head







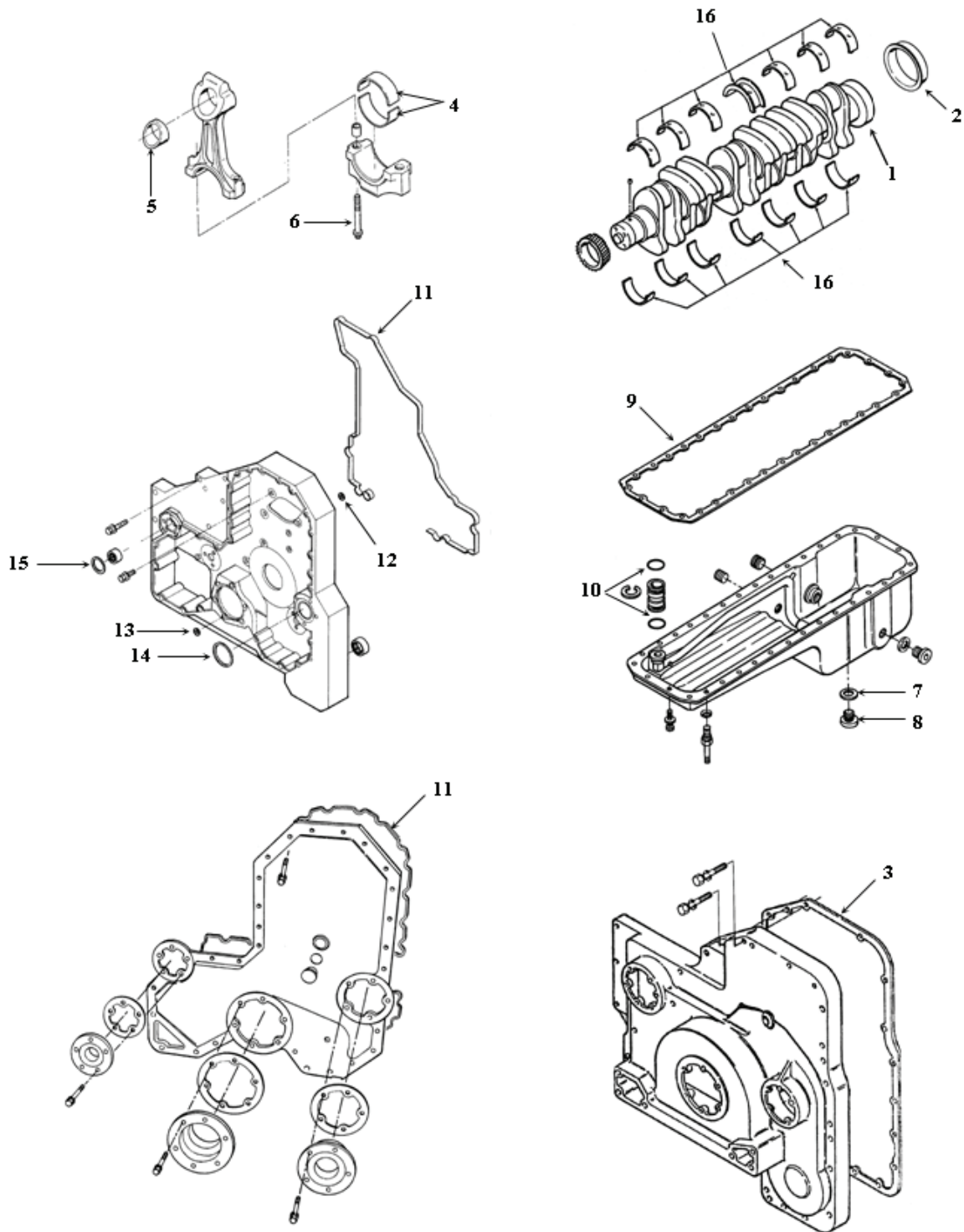
## Cylinder Head, Valve Mechanism & Upper Gasket Set (Cont.)

| Ref | Part Number       | Description  | L10 | M11 |
|-----|-------------------|--|-----|-----|
| 00  | <b>FP-3800639</b> | Kit, Valve w/Locks (Exhaust)                             | 12  | 12  |
| 11  | FP-3418021        | Valve, Exhaust (Bare)                                    | 12  | 12  |
| 12  | FP-3275354        | Lock Half, Valve   | 48  | 48  |
| 00  | <b>FP-3801356</b> | Kit, Valve w/Locks (Intake)                              | 12  |     |
| 10  | FP-3033234        | Valve, Intake Bare                                       | 12  |     |
| 12  | FP-3275354        | Lock Half, Valve   | 48  | 48  |
| 00  | <b>FP-3803995</b> | Kit, Exhaust Valve (C/Insurance) (Previously FP-3801357) | 12  |     |
| 11  | FP-3895477        | Exhaust Valve (Previously FP-3818520)                    | 12  |     |
| 12  | FP-3275354        | Lock Half, Valve   | 48  | 48  |
| 00  | <b>FP-3803996</b> | Kit, Exhaust Valve (C/Insurance) (Previously FP-3803348) | 12  | 12  |
| 11  | FP-3417713        | Exhaust Valve (Previously FP-3883287)                    | 12  | 12  |
| 12  | FP-3275354        | Lock Half, Valve   | 48  | 48  |

# L10 & M11 Series



## Crankshaft



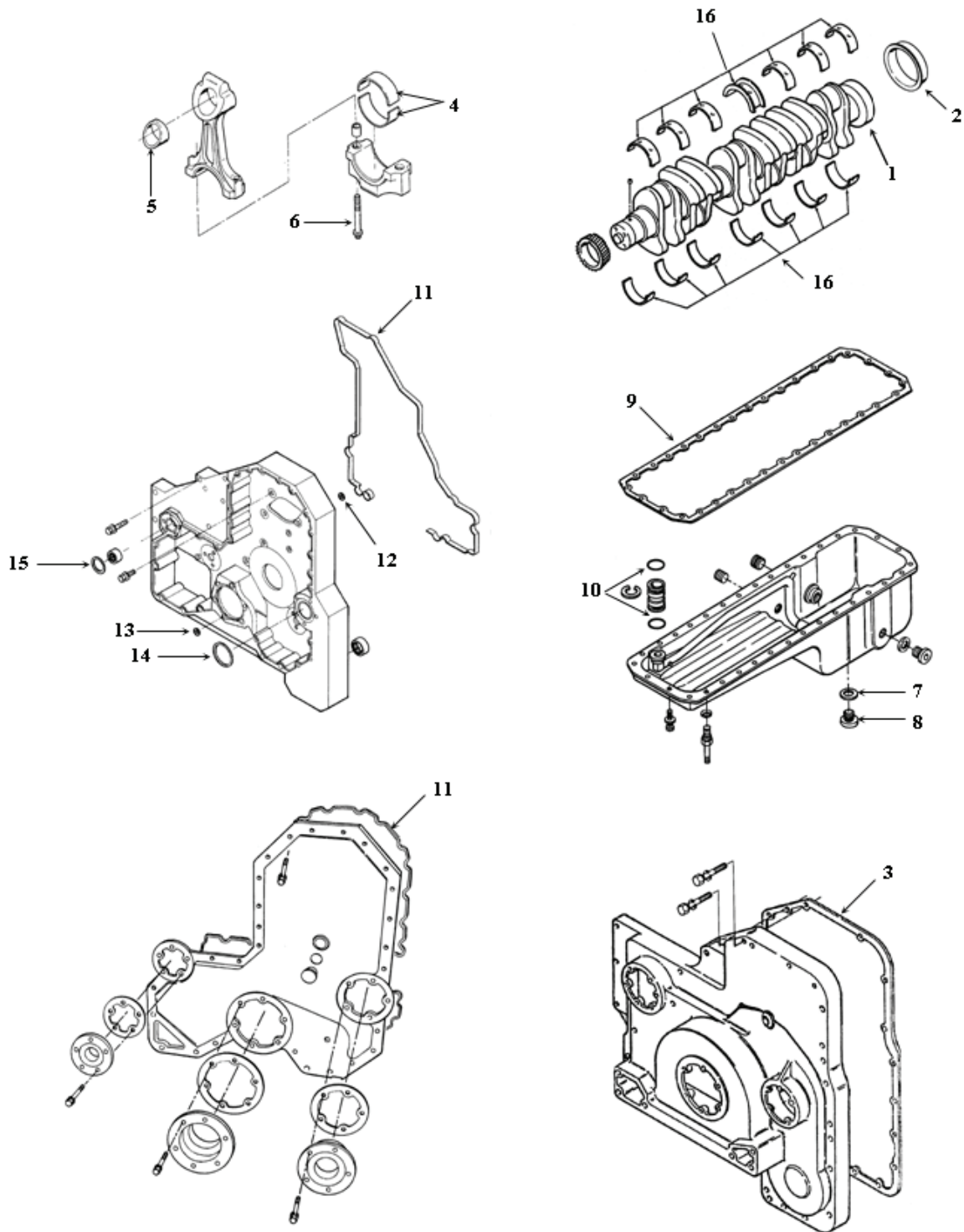
## Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover

| Ref | Part Number          | Description   | L10 | M11 |
|-----|----------------------|---|-----|-----|
| 00  | FP-4926017           | Thrust Washer, Lower (W/Tab)  | 2   | 2   |
| 00  | FP-4926019           | Thrust Washer, Upper  | 2   | 2   |
| 00  | FP-2863702           | Seal, O-Ring Hydraulic Pump   | 1   | 1   |
| 00  | FP-3004242           | Gasket, Hydraulic Pump  | 1   | 1   |
| 00  | FP-3026134           | Gasket, Cover Plate (Flywheel Housing)                                    | 1   | 1   |
| 00  | FP-3600925           | Gasket, End Plate   | 1   | 1   |
| 00  | FP-3800643           | Seal, Crankshaft Rear Dry   | 1   | 1   |
| 00  | FP-3803896           | Seal, Crankshaft (Front)  | 1   | 1   |
| 00  | FP-4089998           | Lower Gasket Kit  | 1   | 1   |
| 00  | FP-3820917           | Sleeve, Front Crankshaft Seal   | 1   |     |
| 00  | FP-3820918           | Sleeve, Front Crankshaft Seal   |     | 1   |
| 01  | FP-3819989           | Crankshaft (5 Hole, Internal Dam)   | 1   |     |
| 02  | FP-3819774           | Sleeve, Rear Crankshaft Seal  | 1   | 1   |
| 03  | FP-3058148           | Gasket, Front Cover   | 1   | 1   |
| 04  | FP-3016760           | Bearing, Connecting Rod (Std.)  | 12  | 12  |
| 04  | FP-3016761           | Bearing, Connecting Rod (.010mm)  | 12  | 12  |
| 04  | FP-3016762           | Bearing, Connecting Rod (.020mm)  | 12  | 12  |
| 04  | FP-3016763           | Bearing, Connecting Rod (.030mm)  | 12  | 12  |
| 04  | FP-3016764           | Bearing, Connecting Rod (.040mm)  | 12  | 12  |
| 05  | FP-3027105           | Bushing, Connecting Rod (Drilled Rod)                                     | 6   |     |
| 05  | FP-3896894           | Bushing, Connecting Rod (Non Drilled Rod)                                 |     | 6   |
| 06  | FP-3027108           | Screw, Connecting Rod   | 12  | 12  |
| 07  | FP-67946             | Washer, Plain (Oil Pan Plug)  | 2   | 2   |
| 08  | FP-3055069           | Plug, Threaded (Oil Pan)  | 2   | 2   |
| 12  | FP-3201659           | Seal, Rectangular Ring  | 6   | 6   |
| 13  | FP-3820945           | Seal, Rectangular Ring  | 1   | 1   |
| 14  | FP-3820946           | Seal, Rectangular Ring  | 1   | 1   |
| 15  | FP-3883150           | Seal, Rectangular Ring  | 1   | 1   |
| 16  | FP-4025120           | Bearing, Main Set (Std.) (Tab Design Thrust Bearings)                     | 1   | 1   |
| 16  | FP-4025121           | Bearing, Main Set (.010) (Tab Design Thrust Bearings)                     | 1   | 1   |
| 16  | FP-4025122           | Bearing, Main Set (.020) (Tab Design Thrust Bearings)                     | 1   | 1   |
| 16  | FP-4025123           | Bearing, Main Set (.030) (Tab Design Thrust Bearings)                     | 1   | 1   |
| 00  | <b>FP-3882433-PS</b> | <b>Gasket Set, Oil Pan (Early L10), (w/Washers &amp; Seal Rings)</b>      | 1   |     |
| 09  | FP-3882433           | Gasket, Oil Pan (Early L10)   | 1   |     |
| 07  | FP-67946             | Washer, Plain (Oil Pan Plug)  | 2   | 2   |
| 10  | FP-3032787           | Seal, O-Ring (Lube Oil Transfer/Pick-Up Tube)                             | 2   | 2   |
| 00  | <b>FP-3882733-PS</b> | <b>Gasket Set, Oil Pan (Late L10/M11), (w/Washers &amp; Seal Rings)</b>   | 1   | 1   |
| 09  | FP-3401290           | Gasket, Oil Pan (Late L10/M11)  | 1   | 1   |
| 07  | FP-67946             | Washer, Plain (Oil Pan Plug)  | 2   | 2   |
| 10  | FP-3032787           | Seal, O-Ring (Lube Oil Transfer/Pick-Up Tube)                             | 2   | 2   |
| 16  | <b>FP-4025125</b>    | <b>Main Bearing Set ( Std.) Pre 2004, Roll Pin Design Thrust Bearings</b> | 1   | 1   |
| 00  | 3016770              | Bearing Main (Upper) (Not Sold Separately)                                | 7   | 7   |
| 00  | 3016780              | Bearing Main (Lower) (Not Sold Separately)                                | 7   | 7   |
| 00  | FP-4926019           | Thrust Washer (No.4 Main) (Std.)  | 4   | 4   |
| 16  | <b>FP-4025126</b>    | <b>Main Bearing Set (.25mm) Pre 2004, Roll Pin Design Thrust Bearings</b> | 1   | 1   |
| 00  | 3016771              | Bearing Main (Upper) (Not Sold Separately)                                | 7   | 7   |
| 00  | 3016781              | Bearing Main (Lower) (Not Sold Separately)                                | 7   | 7   |
| 00  | FP-4926019           | Thrust Washer   | 4   | 4   |

# L10 & M11 Series



## Crankshaft



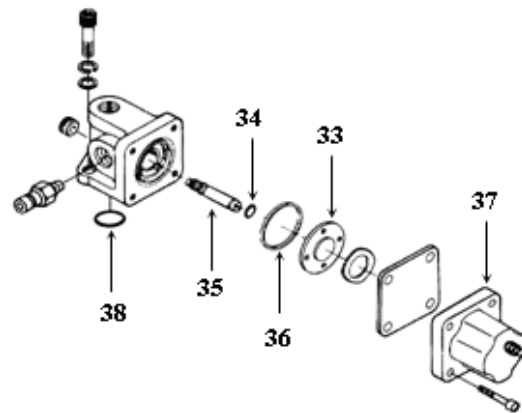
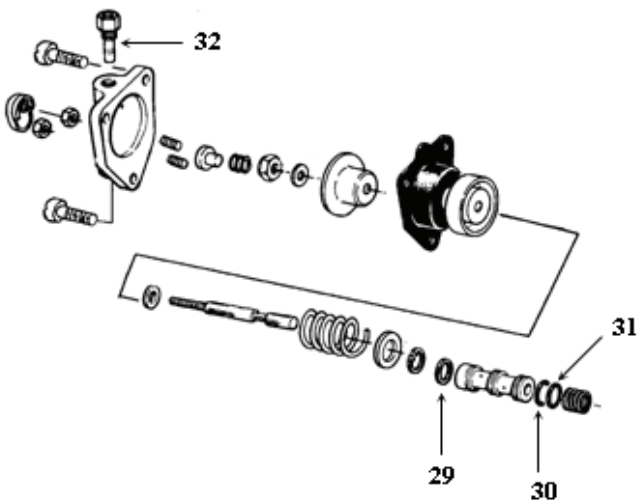
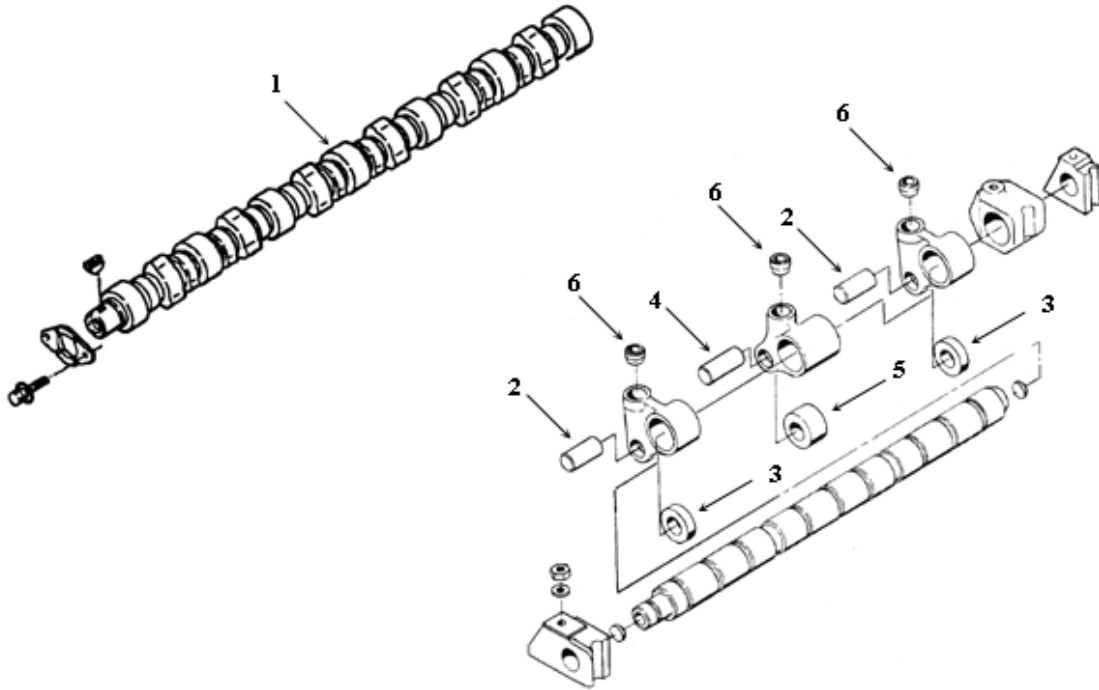
## Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover (Cont.)

| Ref | Part Number       | Description  | L10 | M11 |
|-----|-------------------|--|-----|-----|
| 16  | <b>FP-4025127</b> | Main Bearing Set (.50mm) Pre 2004, Roll Pin Design Thrust Bearings | 1   | 1   |
| 00  | 3016772           | Bearing Main (Upper) (Not Sold Separately)                         | 7   | 7   |
| 00  | 3016782           | Bearing Main (Lower) (Not Sold Separately)                         | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer  | 4   | 4   |
| 16  | <b>FP-4025128</b> | Main Bearing Set (.75mm) Pre 2004, Roll Pin Design Thrust Bearings | 1   | 1   |
| 00  | FP-3016773        | Bearing, Main (Upper)  | 7   | 7   |
| 00  | FP-3016783        | Bearing, Main (Lower)  | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer  | 4   | 4   |
| 00  | <b>FP-4089995</b> | Seal Kit, Front Gear Cover   | 1   | 1   |
| 11  | FP-4920751        | Seal, Rectangular Strip (Gear Cover)                               | 1   | 1   |
| 00  | FP-4070462        | Screw, Long (Gear Cover)   | 38  | 38  |
| 00  | FP-4070463        | Screw, Short (Gear Cover)  | 5   | 5   |

# L10 & M11 Series



## Camshaft, Fuel Shutoff Valve & AFC Assembly





# L10 & M11 Series



## Camshaft

| Ref | Part Number | Description   | L10 | M11 |
|-----|-------------|---|-----|-----|
| 00  | FP-208084   | Rivet, Blind (Rocker Lever)   | 18  | 18  |
| 00  | FP-4070529  | Gasket, Bank Rockers (Previously FP-3896697)  | 1   | 1   |
| 01  | FP-3036117  | Camshaft, Bare - CPL's 528, 638, 703, 704, 717, 770, 773, 774, 775, 776, 777, 784, 785, 786, 881, 882, 894, 919, 921, 958, 1198, 1234, 1198, 1359, 1414, 1454, 1459, 1660, 1674, 1687, 1695, 1696, 1699, 1849 | 1   |     |
| 01  | FP-3037523  | Camshaft, Bare - CPL's 652, 655, 671, 735, 748, 751, 764, 765, 780, 781, 783, 787, 788, 789, 790, 835, 836, 894, 978, 995, 1208, 1429, 1443   | 1   |     |
| 02  | FP-3335342  | Pin, Cam Follower Roller (Valve)  | 12  | 12  |
| 03  | FP-3895488  | Roller, Cam Follower (Valve)  | 12  | 12  |
| 04  | FP-3335341  | Pin, Cam Follower Roller (Injector)   | 6   | 6   |
| 05  | FP-3895487  | Roller, Cam Follower (Injector)   | 6   | 6   |
| 06  | FP-3033292  | Socket, Tappet (Early L10)  | 6   |     |

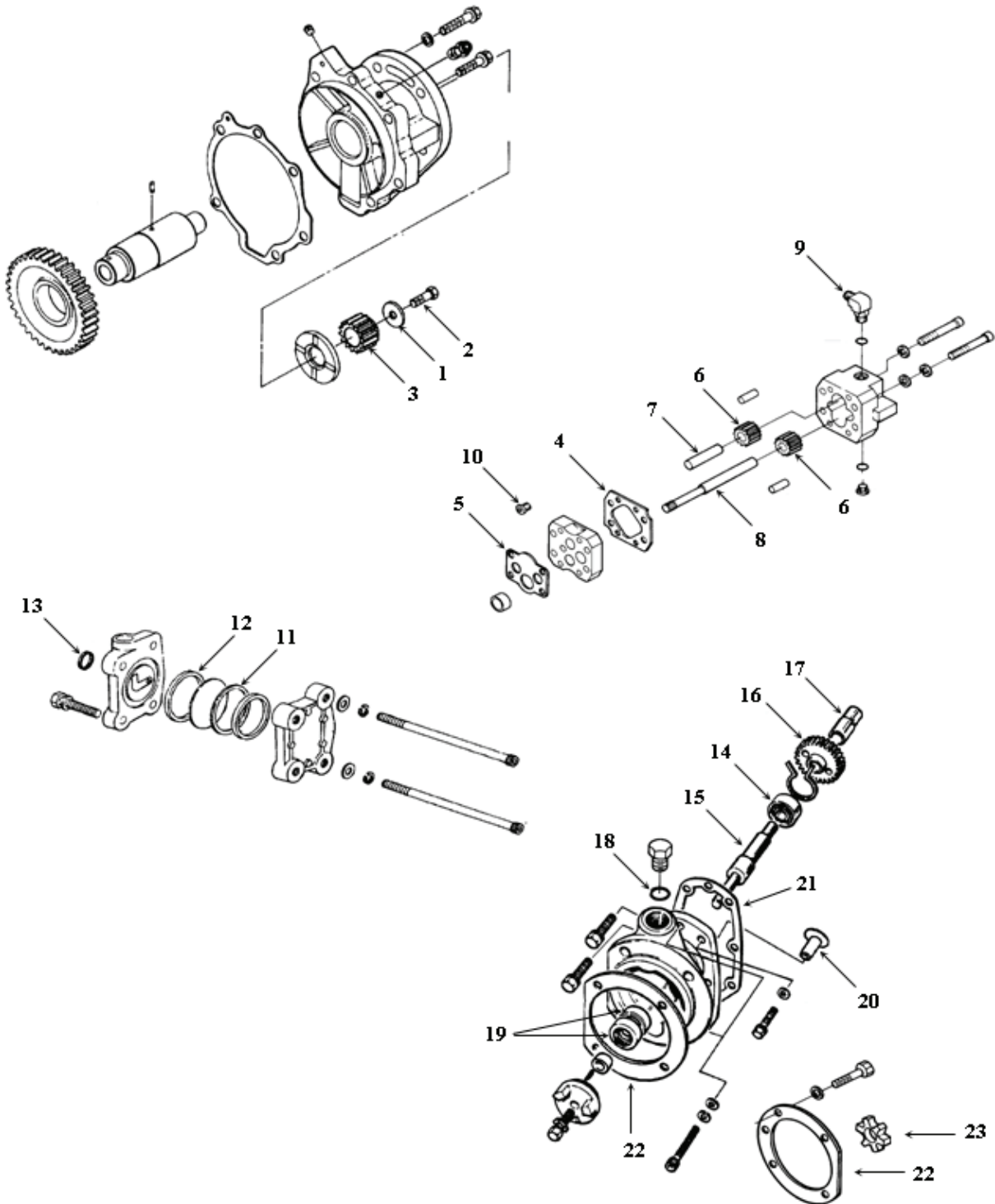
## Fuel Shutoff & AFC Assembly

| Ref | Part Number | Description                          | L10 | M11 |
|-----|-------------|--------------------------------------|-----|-----|
| 29  | FP-3042542  | Seal, O-Ring (AFC Assembly)          | 2   | 2   |
| 30  | FP-3045986  | Seal, O-Ring (AFC Assembly)          | 1   | 1   |
| 31  | FP-3069614  | Seal, O-Ring (AFC Assembly)          | 1   | 1   |
| 32  | FP-3015522  | Valve, Check (AFC Assembly)          | 1   | 1   |
| 33  | FP-3030970  | Disc, Valve (Fuel Shutoff Valve)     | 1   | 1   |
| 34  | FP-190876   | Seal, O-Ring                         | 1   | 1   |
| 35  | FP-3000266  | Shaft, Shutoff Valve                 | 1   | 1   |
| 36  | FP-129888   | Seal, Rectangular Ring               | 1   | 1   |
| 37  | FP-3054609  | Solenoid, 24V                        | 1   | 1   |
| 37  | FP-3408421  | Solenoid, 12V (Switch to FP-3054611) | 1   | 1   |
| 38  | FP-154087   | Seal, Rectangular Ring               | 1   | 1   |

# L10 & M11 Series



## Fuel Pump & Components



# L10 & M11 Series



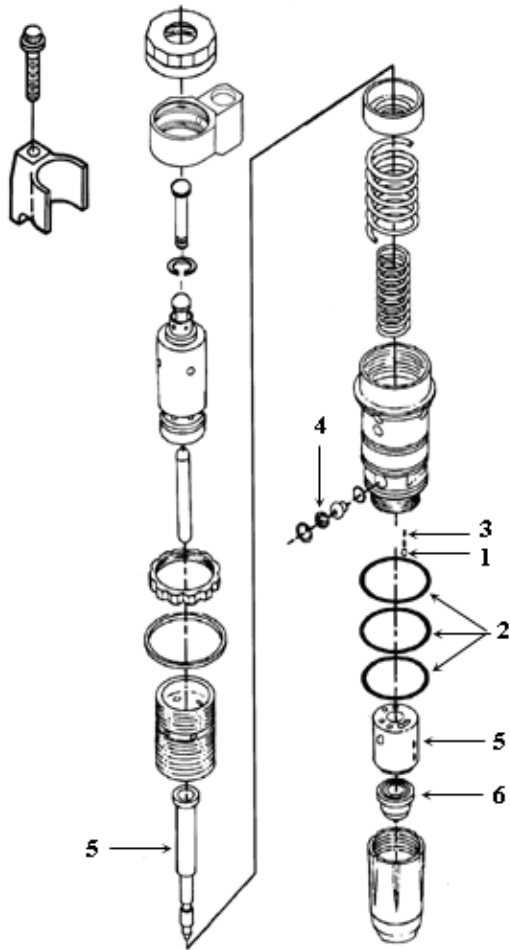
## Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover

| Ref | Part Number | Description                               | L10 | M11 |
|-----|-------------|---|-----|-----|
| 00  | FP-3034243  | Fuel Pump, Gear (3/4" RH)                 | 1   | 1   |
| 01  | FP-170664   | Washer, Plain                             | 1   | 1   |
| 02  | FP-3000173  | Screw, Hexagon Head Cap                   | 1   | 1   |
| 03  | FP-3000174  | Hub, Spline Coupling                      | 1   | 1   |
| 04  | FP-110855   | Gasket, Fuel Pump                         | 1   | 1   |
| 05  | FP-3069017  | Gasket, Fuel Pump                         | 1   | 1   |
| 06  | FP-119363   | Gear, Fuel Pump                           | 2   | 2   |
| 07  | FP-100215   | Shaft, Fuel Pump (Driven)                 | 1   | 1   |
| 09  | FP-3033740  | Valve, Check                              | 1   | 1   |
| 10  | FP-3050624  | Valve, Pressure Regulator                 | 1   | 1   |
| 11  | FP-100099   | Seal, Rectangular Ring (Fuel Pump Damper) | 1   | 1   |
| 12  | FP-139988   | Seal, Rectangular Ring (Fuel Pump Damper) | 1   | 1   |
| 13  | FP-151900   | Seal, Rectangular Ring (Fuel Pump Damper) | 1   | 1   |
| 14  | FP-S16052   | Bearing, Ball                             | 1   | 1   |
| 15  | FP-212601   | Shaft, Fuel Pump                          | 1   | 1   |
| 18  | FP-3040817  | Seal, O-Ring                              | 1   | 1   |
| 19  | FP-3062676  | Seal, Oil                                 | 2   | 2   |
| 20  | FP-163944   | Bushing                                   | 1   | 1   |
| 21  | FP-3063052  | Gasket, Fuel Pump                         | 1   | 1   |
| 22  | FP-4026171  | Gasket, Fuel Pump (Previously FP-3069103) | 1   | 1   |
| 23  | FP-3046200  | Spider, Jaw Coupling                      | 1   | 1   |

# L10 & M11 Series

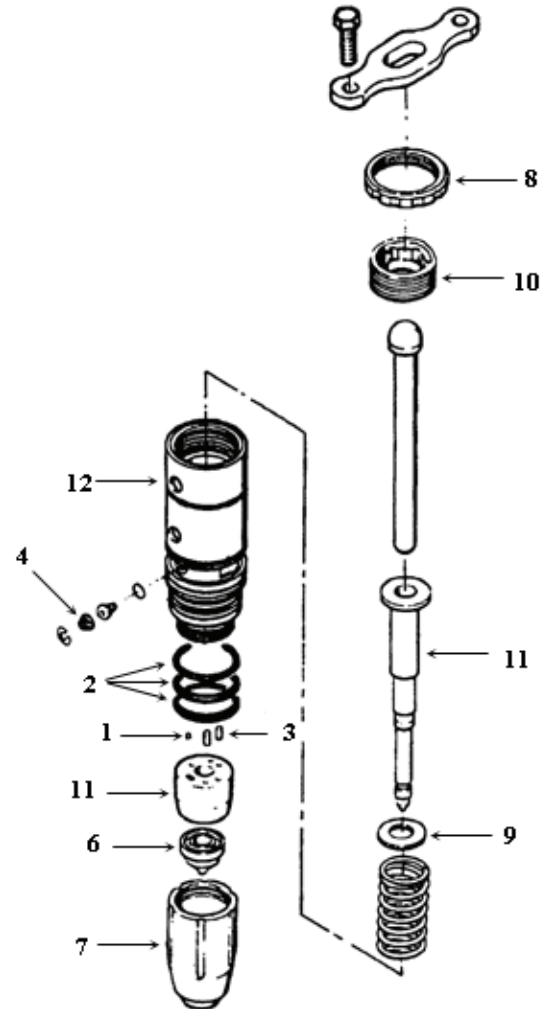


## Fuel Injectors



STC Injector

## PTD Top Stop



# L10 & M11 Series



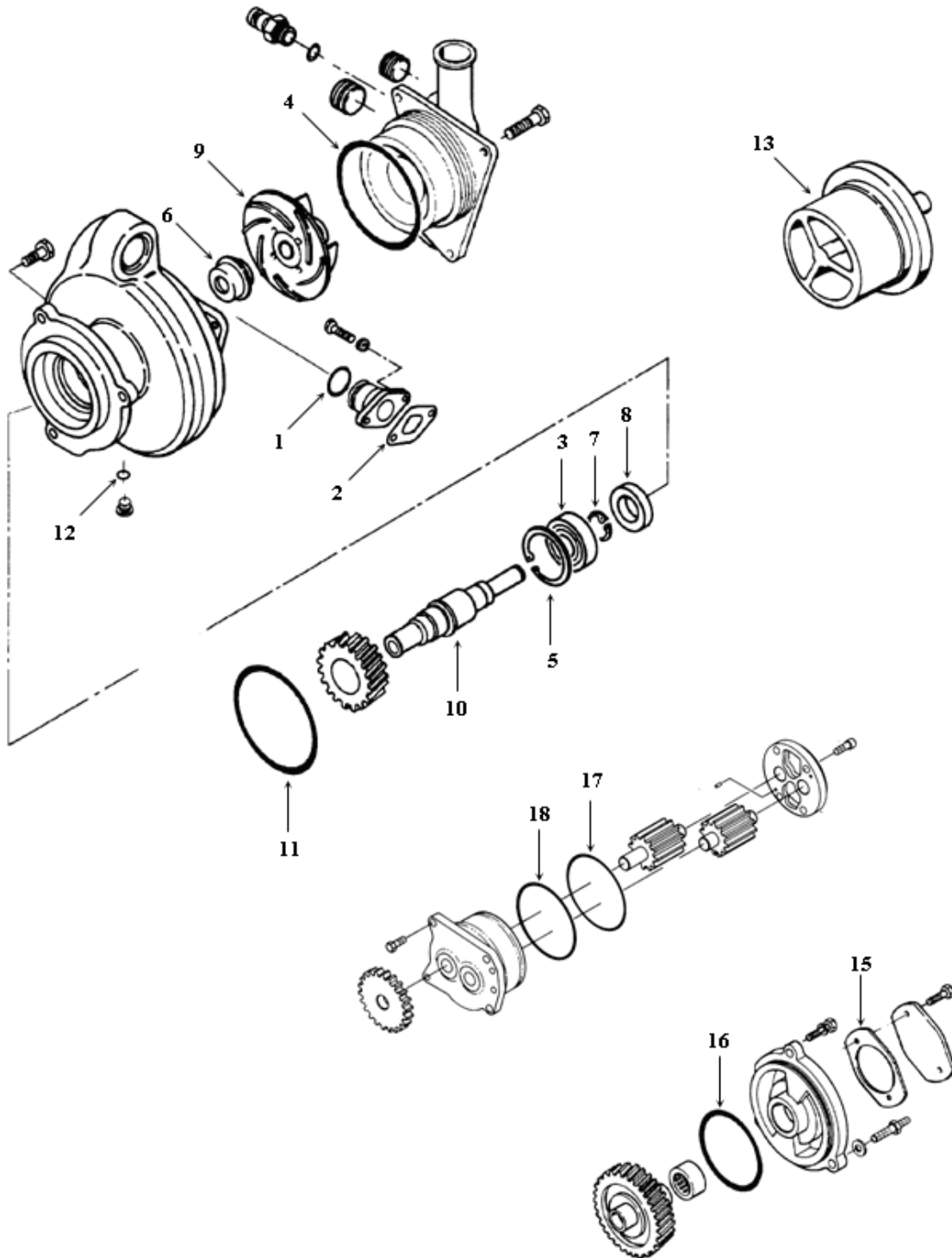
## Fuel Injectors

| Ref | Part Number | Description                                      | L10 | M11 |
|-----|-------------|--|-----|-----|
| 00  | FP-3075383  | Assy, Injector Tappet (Mushroom Design)          | 6   | 6   |
| 00  | FP-3066486  | Injector Assembly (Premium Rebuilt PTD Top Stop) | 6   |     |
| 00  | FP-3035342  | Valve, Shutdown 12V                              | 1   | 1   |
| 00  | FP-3035344  | Valve, Shutdown 24V                              | 1   | 1   |
| 00  | FP-3054609  | Solenoid, 24V (Previously FP-3054610)            | 1   | 1   |
| 00  | FP-3408421  | Solenoid, 12V (Previously FP-3054611)            | 1   | 1   |
| 01  | FP-167157   | Ball, Check                                      | 6   | 6   |
| 01  | FP-3045102  | Injector Assembly (New PTD)                      | 6   |     |
| 02  | FP-193736   | Seal, O-Ring                                     | 6   | 6   |
| 03  | FP-203426   | Pin, Roll  | 6   | 6   |
| 04  | FP-3008706  | Screen, Filter                                   | 6   | 6   |
| 05  | FP-3069718  | Barrel & Plunger Assembly (STC Injector)         | 6   | 6   |
| 06  | FP-3028068  | Cup, Injector                                    | 6   | 6   |
| 06  | FP-3069717  | Cup, Injector                                    | 6   | 6   |
| 06  | FP-3071564  | Cup, Injector                                    | 6   | 6   |
| 07  | FP-185138   | Retainer, Injector Cup (PTD TS Injector)         | 6   |     |
| 08  | FP-3009362  | Nut, Lock (PTD TS Injector)                      | 6   |     |
| 09  | FP-3049995  | Retainer, Spring (PTD TS Injector)               | 6   |     |
| 10  | FP-3018772  | Screw, Injector Stop (PTD TS Injector)           | 6   |     |
| 11  | FP-3049996  | Barrel & Plunger Assembly (PTD TS Injector)      | 6   |     |
| 12  | FP-3028066  | Adapter, Injector (PTD TS Injector)              | 6   |     |

# L10 & M11 Series



## Water Pump, Oil Pump, Thermostat





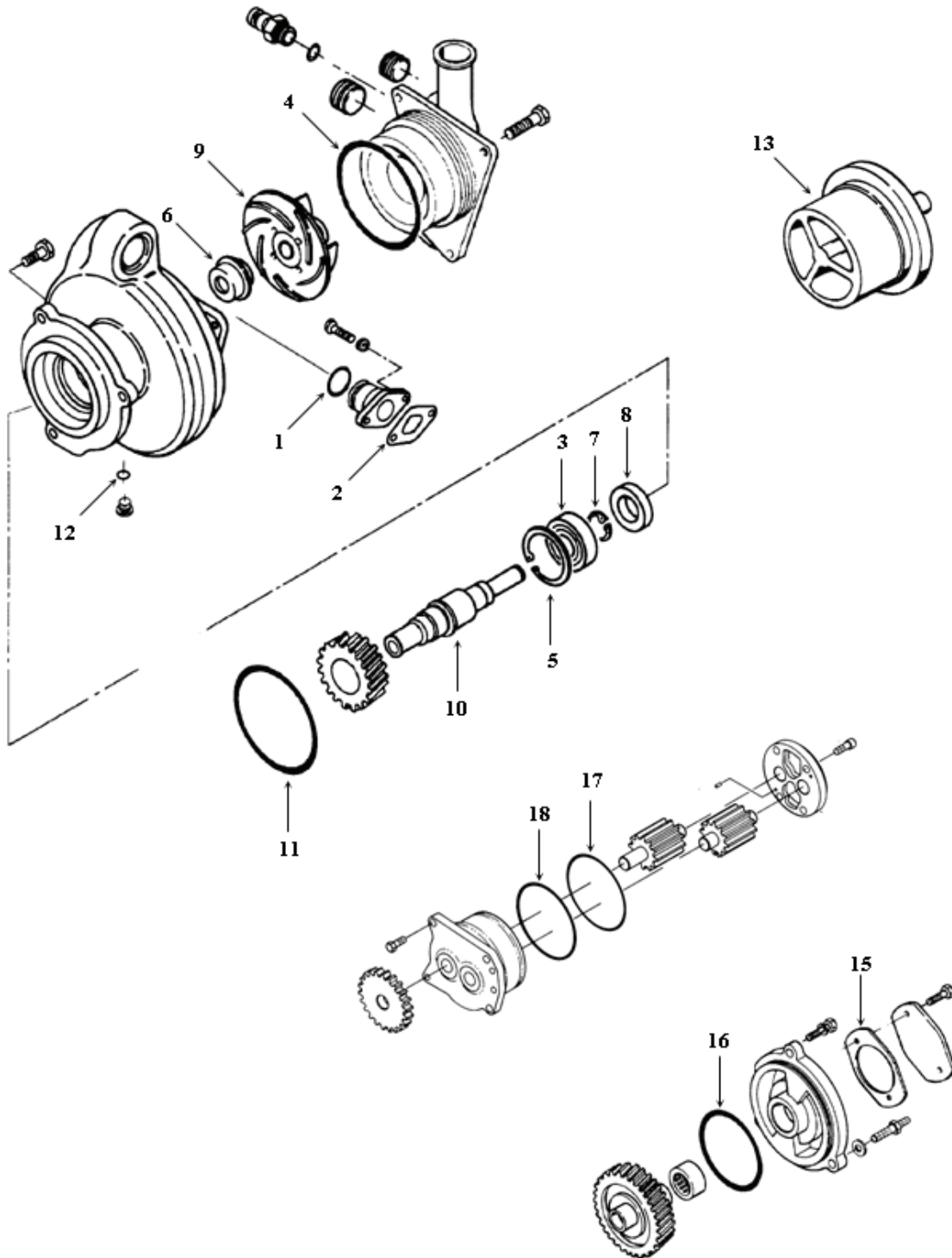
## Water Pump, Oil Pump, Thermostat

| Ref | Part Number       | Description                                  | L10 | M11 |
|-----|-------------------|--|-----|-----|
| 00  | FP-101322         | Cap, Oil Filler                              | 1   | 1   |
| 00  | FP-186780         | Seal, Thermostat                             | 1   | 1   |
| 00  | FP-3015522        | Valve, Check                                 | 1   | 1   |
| 00  | FP-3027445        | Gasket, Heater Housing                       | 1   | 1   |
| 00  | FP-3027675        | Seal, Oil (Fan Drive)                        | 1   | 1   |
| 00  | FP-3042542        | Seal, O-Ring (Oil Control Valve)             | 1   | 1   |
| 00  | FP-3045986        | Seal, O-Ring (Oil Control Valve)             | 1   | 1   |
| 00  | FP-3062602        | Assembly, Idler Pulley                       | 1   | 1   |
| 00  | FP-3066914        | Seal, O-Ring (Oil Control Valve)             | 1   | 1   |
| 00  | FP-3070100        | Gasket, Air Connection                       | 1   | 1   |
| 00  | FP-3080770        | Seal, O-Ring, Thermostat                     | 1   | 1   |
| 00  | FP-3803402        | Pump Assembly, Water (4 Hole Mount)          | 1   | 1   |
| 00  | FP-3803403        | Pump Assembly, Water (3 Hole Mount)          | 1   | 1   |
| 00  | FP-3818841        | Gasket, Thermostat Housing                   | 1   | 1   |
| 00  | FP-3820629        | Gasket, Filter Head                          | 1   | 1   |
| 00  | FP-3883284        | Seal, O-Ring (Air Connection)                | 1   | 1   |
| 01  | FP-3892095        | Seal, O-Ring                                 | 1   | 1   |
| 02  | FP-3027924        | Gasket, Connection                           | 1   | 1   |
| 03  | FP-S16002         | Bearing, Ball                                | 1   | 1   |
| 04  | FP-3820791        | Seal, O-Ring                                 | 1   | 1   |
| 05  | FP-160586         | Ring, Retaining                              | 1   | 1   |
| 06  | FP-3029099        | Seal, Water Pump                             | 1   | 1   |
| 07  | FP-112302         | Ring, Retaining                              | 1   | 1   |
| 08  | FP-3019600        | Seal, Oil                                    | 1   | 1   |
| 09  | FP-3035679        | Impeller, Water Pump                         | 1   | 1   |
| 10  | FP-3040964        | Shaft, Water Pump (For FP-3803402 Pump)      | 1   | 1   |
| 10  | FP-3819632        | Shaft, Water Pump (For FP-3803403 Pump)      | 1   | 1   |
| 11  | FP-2863701        | Seal, O-Ring                                 | 1   | 1   |
| 12  | FP-3037537        | Seal, O-Ring                                 | 1   | 1   |
| 13  | FP-3076489        | Thermostat Assembly (180° F)                 | 1   | 1   |
| 15  | FP-3004242        | Gasket, Hydraulic Pump                       | 1   | 1   |
| 16  | FP-2863702        | Seal, O-Ring                                 | 1   | 1   |
| 17  | FP-3033247        | Seal, O-Ring, Oil Pump                       | 1   | 1   |
| 18  | FP-3033248        | Seal, O-Ring, Oil Pump                       | 1   | 1   |
| 00  | <b>FP-3801179</b> | <b>Kit, Water Pump Repair (4 Hole Mount)</b> | 1   | 1   |
| 03  | FP-S16002         | Bearing, Ball                                | 1   | 1   |
| 00  | FP-S16054         | Bearing, Ball                                | 1   | 1   |
| 05  | FP-160586         | Ring, Retaining                              | 1   | 1   |
| 08  | FP-3019600        | Seal, Oil                                    | 1   | 1   |
| 06  | FP-3029099        | Seal, Water Pump                             | 1   | 1   |
| 09  | FP-3035679        | Impeller, Water Pump                         | 1   | 1   |
| 00  | FP-3064634        | Ring, Retaining                              | 1   | 1   |
| 04  | FP-3820791        | Seal, O-Ring                                 | 1   | 1   |
| 00  | FP-3883365        | Gasket, Water Pump Mounting                  | 2   | 2   |

# L10 & M11 Series



## Water Pump, Oil Pump, Thermostat



# L10 & M11 Series



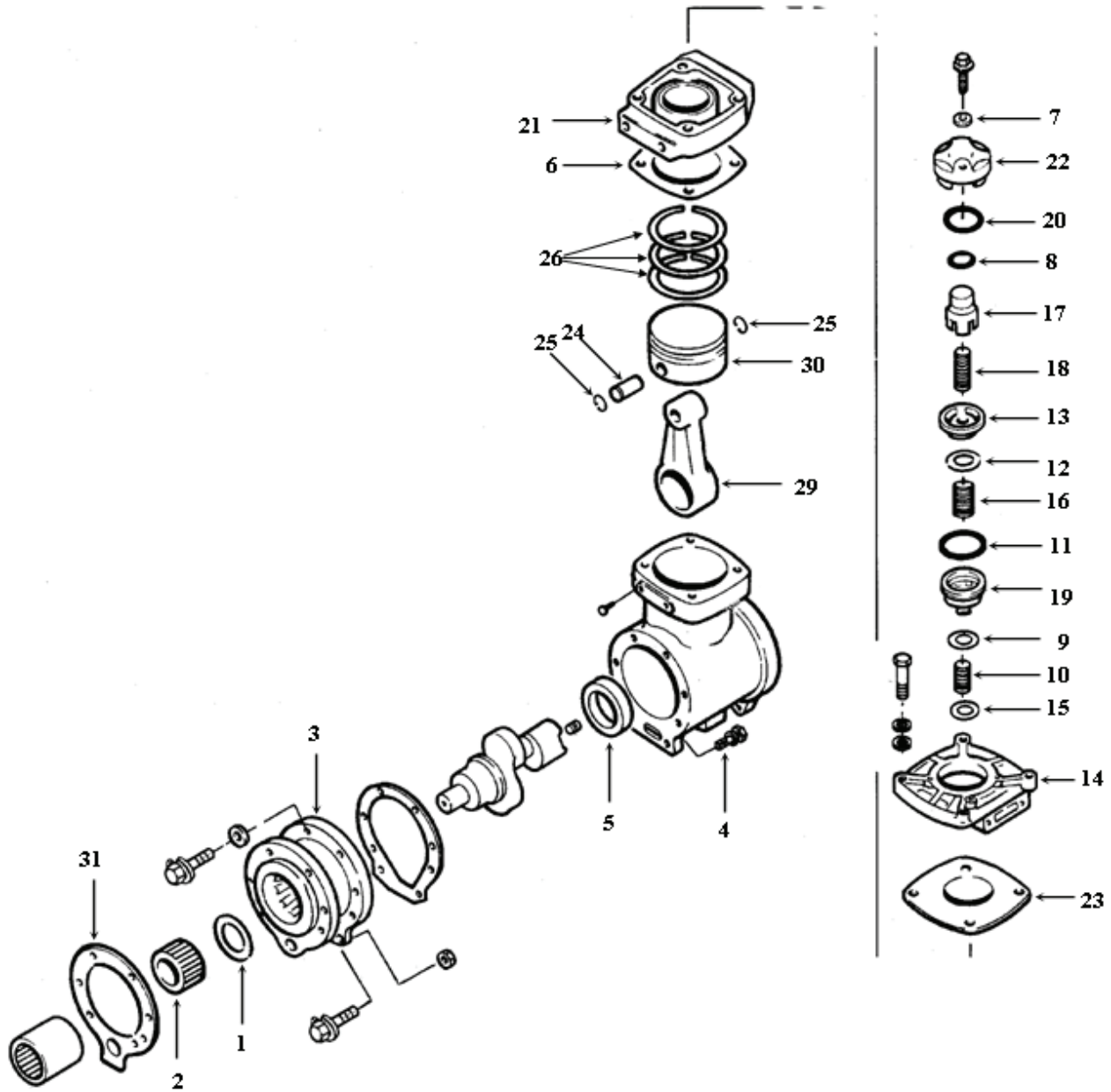
## Water Pump, Oil Pump, Thermostat (Cont.)

| Ref | Part Number       | Description                           | L10 | M11 |
|-----|-------------------|---------------------------------------|-----|-----|
| 00  | <b>FP-4024817</b> | Kit, Water Pump Repair (3 Hole Mount) | 1   | 1   |
| 03  | FP-S16002         | Bearing, Ball                         | 1   | 1   |
| 04  | FP-3820791        | Seal, O-Ring                          | 1   | 1   |
| 05  | FP-160586         | Ring, Retaining                       | 1   | 1   |
| 06  | FP-3029099        | Seal, Water Pump                      | 1   | 1   |
| 07  | FP-112302         | Ring, Retaining                       | 1   | 1   |
| 08  | FP-3019600        | Seal, Oil                             | 1   | 1   |
| 09  | FP-3035679        | Impeller, Water Pump                  | 1   | 1   |
| 11  | FP-2863701        | Seal, O-Ring                          | 1   | 1   |

# L10 & M11 Series



## Compressor (13.2 CFM)



# L10 & M11 Series



## Compressor (13.2 CFM)

| Ref | Part Number       | Description  | L10 | M11 |
|-----|-------------------|--|-----|-----|
| 00  | FP-3018153        | Bushing, Connecting Rod  | 1   | 1   |
| 01  | FP-211662         | Bearing, Thrust  | 1   | 1   |
| 02  | FP-3000174        | Hub, Spline Coupling   | 1   | 1   |
| 04  | FP-3012472        | Screw, Captive Washer Cap  | 2   | 2   |
| 05  | FP-147610         | Bushing  | 1   | 1   |
| 06  | FP-154018         | Gasket, Air Compressor   | 1   | 1   |
| 07  | FP-109557         | Washer, Plain  | 2   | 2   |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   | 1   |
| 09  | FP-127940         | Valve, Exhaust   | 1   | 1   |
| 10  | FP-128080         | Spring, Compression  | 1   | 1   |
| 11  | FP-128086         | Seal, O-Ring   | 1   | 1   |
| 12  | FP-144948         | Valve, Intake  | 1   | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve                                       | 1   | 1   |
| 14  | FP-153964         | Cover, Air Compressor  | 1   | 1   |
| 15  | FP-183429         | Plate, Wear  | 1   | 1   |
| 16  | FP-190334         | Spring, Valve  | 1   | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)  | 1   | 1   |
| 18  | FP-3023101        | Spring, Compression  | 1   | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve                                       | 1   | 1   |
| 20  | FP-3043995        | Seal, O-Ring   | 1   | 1   |
| 21  | FP-3558762        | Head, Compressor   | 1   | 1   |
| 22  | FP-3046298        | Body, Unloading Valve  | 1   | 1   |
| 23  | FP-3047159        | Gasket, Air Compressor   | 1   | 1   |
| 29  | FP-3018151        | Rod, Compressor Connecting   | 1   | 1   |
| 31  | FP-3820922        | Gasket, Air Compressor Support                                       | 1   | 1   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> | 1   | 1   |
| 30  | FP-3045670        | Body, Piston (Std.)  | 1   | 1   |
| 26  | FP-AR73350        | Ring Set, Compressor (Std.)  | 1   | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   | 1   |
| 25  | FP-3558754        | Ring, Retaining  | 2   | 2   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> | 1   | 1   |
| 30  | FP-3045671        | Body, Piston (.010)  | 1   | 1   |
| 26  | FP-AR73351        | Ring Set, Compressor (.010)  | 1   | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   | 1   |
| 25  | FP-3558754        | Ring, Retaining  | 2   | 2   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> | 1   | 1   |
| 30  | FP-3045672        | Body, Piston (.020)  | 1   | 1   |
| 26  | FP-AR73352        | Ring Set, Compressor (.020)  | 1   | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   | 1   |
| 25  | FP-3558754        | Ring, Retaining  | 2   | 2   |





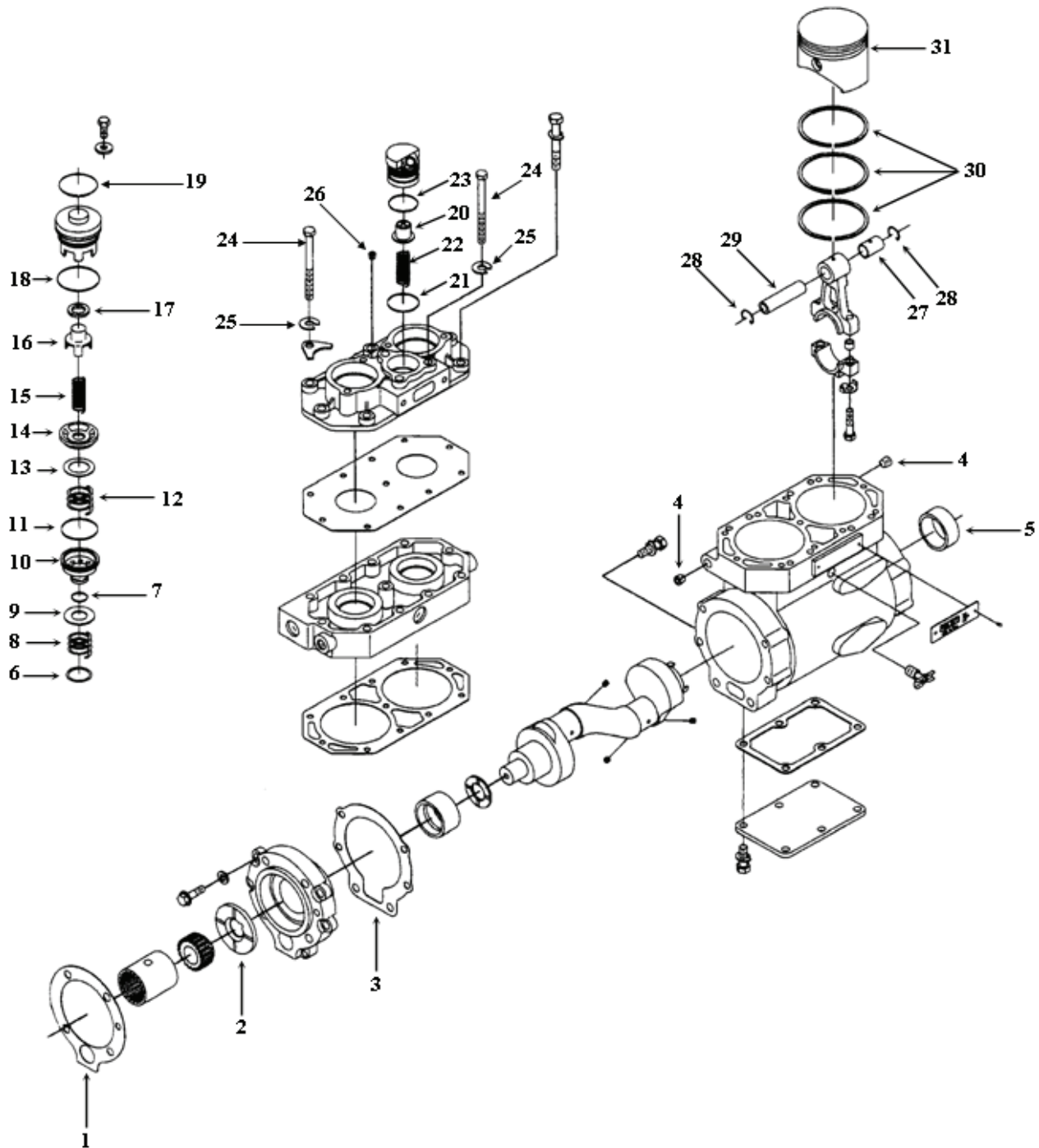
## Compressor Kits (13.2 CFM)

| Ref | Part Number       | Description                         | L10 | M11 |
|-----|-------------------|-------------------------------------|-----|-----|
| 00  | <b>FP-3801733</b> | Kit, Compressor Head Repair (Minor) | 1   | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1   | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve      | 1   | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)         | 1   | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve      | 1   | 1   |
| 00  | <b>FP-3801735</b> | Kit, Compressor Head Repair (Major) | 1   | 1   |
| 17  | FP-184240         | Cap, Unloader Valve (15.0 C.F.M.)   | 1   | 1   |
| 08  | FP-127936         | Seal, Rectangular Ring              | 1   | 1   |
| 09  | FP-127940         | Valve, Exhaust                      | 1   | 1   |
| 10  | FP-128080         | Spring, Compression                 | 1   | 1   |
| 00  | FP-128085         | Seal, O-Ring                        | 1   | 1   |
| 11  | FP-128086         | Seal, O-Ring                        | 1   | 1   |
| 12  | FP-144948         | Valve, Intake                       | 1   | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve      | 1   | 1   |
| 15  | FP-183429         | Plate, Wear                         | 1   | 1   |
| 16  | FP-190334         | Spring, Valve                       | 1   | 1   |
| 18  | FP-3023101        | Spring, Compression                 | 1   | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve      | 1   | 1   |
| 20  | FP-3043995        | Seal, O-Ring                        | 1   | 1   |
| 00  | <b>FP-3801808</b> | Kit, Compressor Head Repair (Major) | 1   | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1   | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve      | 1   | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 C.F.M.)         | 1   | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve      | 1   | 1   |
| 22  | FP-3558624        | Body, Unloading Valve               | 1   | 1   |
| 00  | <b>FP-AR12719</b> | Kit, Valve Repair                   | 1   | 1   |
| 07  | FP-109557         | Washer, Plain                       | 2   | 1   |
| 08  | FP-127936         | Seal, Rectangular Ring              | 1   | 1   |
| 09  | FP-127940         | Valve, Exhaust                      | 1   | 1   |
| 10  | FP-128080         | Spring, Compression                 | 1   | 1   |
| 11  | FP-128086         | Seal, O-Ring                        | 1   | 1   |
| 12  | FP-144948         | Valve, Intake                       | 1   | 1   |
| 15  | FP-183429         | Plate, Wear                         | 1   | 1   |
| 16  | FP-190334         | Spring, Valve                       | 1   | 1   |
| 18  | FP-3023101        | Spring, Compression                 | 1   | 1   |
| 20  | FP-3043995        | Seal, O-Ring                        | 1   | 1   |
| 00  | FP-128085         | Seal, O-Ring                        | 1   | 1   |
| 00  | <b>FP-AR73308</b> | Gasket Set, 13.2 C.F.M. Compressor  | 1   | 1   |
| 08  | FP-127936         | Seal, O-Ring                        | 1   | 1   |
| 00  | FP-128085         | Seal, O-Ring                        | 1   | 1   |
| 11  | FP-128086         | Seal, O-Ring                        | 1   | 1   |
| 06  | FP-154018         | Gasket                              | 1   | 1   |
| 00  | FP-176027         | Gasket                              | 1   | 1   |
| 20  | FP-3043995        | Seal, O-Ring                        | 1   | 1   |
| 23  | FP-3047159        | Gasket, Air Compressor              | 1   | 1   |
| 00  | FP-3201386        | Gasket                              | 1   | 1   |

# L10 & M11 Series



## Compressor Kits (30 CFM)



# L10 & M11 Series



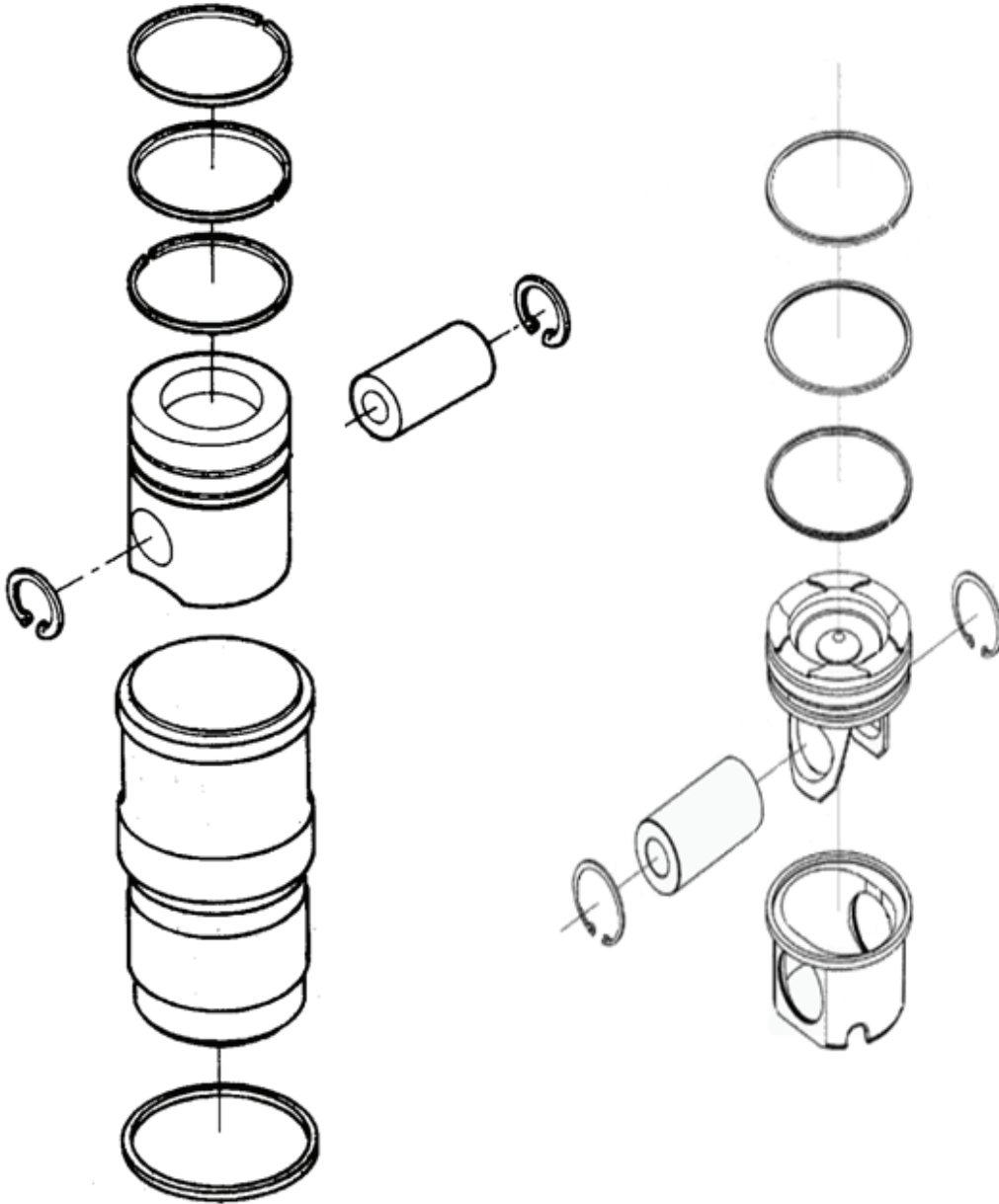
## Compressor Kits (30 CFM)

| Ref | Part Number       | Description  | L10 | M11 |
|-----|-------------------|--|-----|-----|
| 01  | FP-3820922        | Gasket, Air Compressor Support                                       |     | 1   |
| 02  | FP-211662         | Bearing, Thrust  |     | 1   |
| 03  | FP-199347         | Gasket, Air Compressor   |     | 1   |
| 04  | FP-3013786        | Plug, Pipe   |     | 3   |
| 05  | FP-147610         | Bushing  |     | 1   |
| 06  | FP-183429         | Plate, Wear  |     | 1   |
| 07  | FP-3042542        | Seal, O-Ring   |     | 1   |
| 08  | FP-128080         | Spring, Compression  |     | 1   |
| 09  | FP-127940         | Valve, Exhaust   |     | 1   |
| 10  | FP-144714         | Seat, Compressor Exhaust Valve                                       |     | 1   |
| 11  | FP-128086         | Seal, O-Ring   |     | 1   |
| 12  | FP-190334         | Spring, Valve  |     | 1   |
| 13  | FP-144948         | Valve, Intake  |     | 1   |
| 14  | FP-145028         | Seat, Compression Intake Valve                                       |     | 1   |
| 15  | FP-3023101        | Spring, Compression  |     | 1   |
| 16  | FP-191037         | Cap, Unloader  |     | 1   |
| 17  | FP-127936         | Seal, Rectangular Ring   |     | 1   |
| 18  | FP-3015068        | Seal, O-Ring   |     | 1   |
| 19  | FP-211315         | Seal, O-Ring   |     | 1   |
| 20  | FP-184420         | Cap, Unloader  |     | 1   |
| 21  | FP-3009738        | Seal, O-Ring   |     | 1   |
| 22  | FP-150631         | Spring, Compression  |     | 1   |
| 23  | FP-3009739        | Seal, O-Ring   |     | 1   |
| 26  | FP-S911B          | Plug, Pipe   |     | 1   |
| 27  | FP-3018153        | Bushing, Connecting Rod  |     | 2   |
| 28  | FP-3558754        | Ring, Retaining  |     | 4   |
| 29  | FP-119810         | Pin, Piston  |     | 2   |
| 30  | FP-AR73350        | Ring Set, Compressor (Std.)  |     | 2   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> |     | 1   |
| 31  | FP-3045670        | Body, Piston (Std.)  |     | 1   |
| 30  | FP-AR73350        | Ring Set, Compressor (Std.)  |     | 1   |
| 29  | FP-119810         | Pin, Piston  |     | 1   |
| 28  | FP-3558754        | Ring, Retaining  |     | 2   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> |     | 1   |
| 31  | FP-3045671        | Body, Piston (.010)  |     | 1   |
| 30  | FP-AR73351        | Ring Set, Compressor (.010)  |     | 1   |
| 29  | FP-119810         | Pin, Piston  |     | 1   |
| 28  | FP-3558754        | Ring, Retaining  |     | 2   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> |     | 1   |
| 31  | FP-3045672        | Body, Piston (.020)  |     | 1   |
| 30  | FP-AR73352        | Ring Set, Compressor (.020)  |     | 1   |
| 29  | FP-119810         | Pin, Piston  |     | 1   |
| 28  | FP-3558754        | Ring, Retaining  |     | 2   |

# L10 & M11 Series



## Articulated Cylinder Kits, Piston Kits, Liner



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set

| Cylinder Kit  | Piston Body | Liner      | Ring Set   | Piston Pin | Seal Ring  | Retainers  |
|---------------|-------------|------------|------------|------------|------------|------------|
| FP-3800800    | FP-3055622  | FP-3080760 | FP-3803961 | FP-4083243 | FP-3047188 | FP-3016652 |
| FP-3800800-NP |             | FP-3080760 | FP-3803961 | FP-4083243 | FP-3047188 | FP-3016652 |
| FP-3800801    | FP-3044448  | FP-3080760 | FP-3803961 | FP-4083243 | FP-3047188 | FP-3016652 |
| FP-3803963    | FP-3893751  | FP-3080760 | FP-3803961 | FP-4083244 | FP-3047188 | FP-3016652 |
| FP-3803964    | FP-3068090  | FP-3080760 | FP-3803961 | FP-4083244 | FP-3047188 | FP-3016652 |
| FP-3803974    | FP-3045907  | FP-3080760 | FP-3803961 | FP-4083243 | FP-3047188 | FP-3016652 |
| FP-3804696    | FP-3606732  | FP-3080760 | FP-3804694 | FP-4083243 | FP-3047188 | FP-3016652 |

Above cylinder kits include items in shaded area

| Piston Kit | Piston Body | Ring Set   | Piston Pin   | Retainers  | Comp Ratio | Comments |
|------------|-------------|------------|--------------|------------|------------|----------|
| FP-3803962 | FP-3893751  | FP-3803961 | FP-4083244   | FP-3016652 |            |          |
| FP-3803965 | FP-3044448  | FP-3803961 | FP-4083243   | FP-3016652 | 16.1:1     |          |
| FP-3803966 | FP-3045907  | FP-3803961 | FP-4083243   | FP-3016652 | 18.1:1     |          |
| FP-3803967 | FP-3055622  | FP-3803961 | FP-4083243   | FP-3016652 | 17.0:1     |          |
| FP-3803968 | FP-3068090  | FP-3803961 | FP-4083244   | FP-3016652 | 16.6:1     |          |
| FP-3804695 | FP-3606732  | FP-3804694 | Not Included | FP-3016652 |            | NG Eng.  |
| FP-PK6732  | FP-3606732  | FP-3804694 | FP-4083243   | FP-3016652 |            | NG Eng.  |

Above piston kits include items in shaded area

| Ring Set   | Ring, Top Comp | Ring, Comp | Ring, Oil  |
|------------|----------------|------------|------------|
| FP-3803961 | FP-3893752     | FP-3899413 | FP-3893754 |

Above ring set includes items in shaded area

| Liner Kit  | Liner      | Seal Ring  | Comments               |
|------------|------------|------------|------------------------|
| FP-3803703 | FP-3080760 | FP-3047188 | Non-Induction Hardened |
| FP-4089388 | FP-3102423 | FP-3047188 | Induction Hardened     |

Above liner kit includes items in shaded area

| Pin Kit    | Pin, Piston | Retainer   |
|------------|-------------|------------|
| FP-3800140 | FP-4083243  | FP-3016652 |
| FP-3800256 | FP-4083244  | FP-3016652 |

Above pin kits includes items in shaded area

## M11 Articulated Cylinder Kits, Piston Kits, Liner Kits & Ring Sets

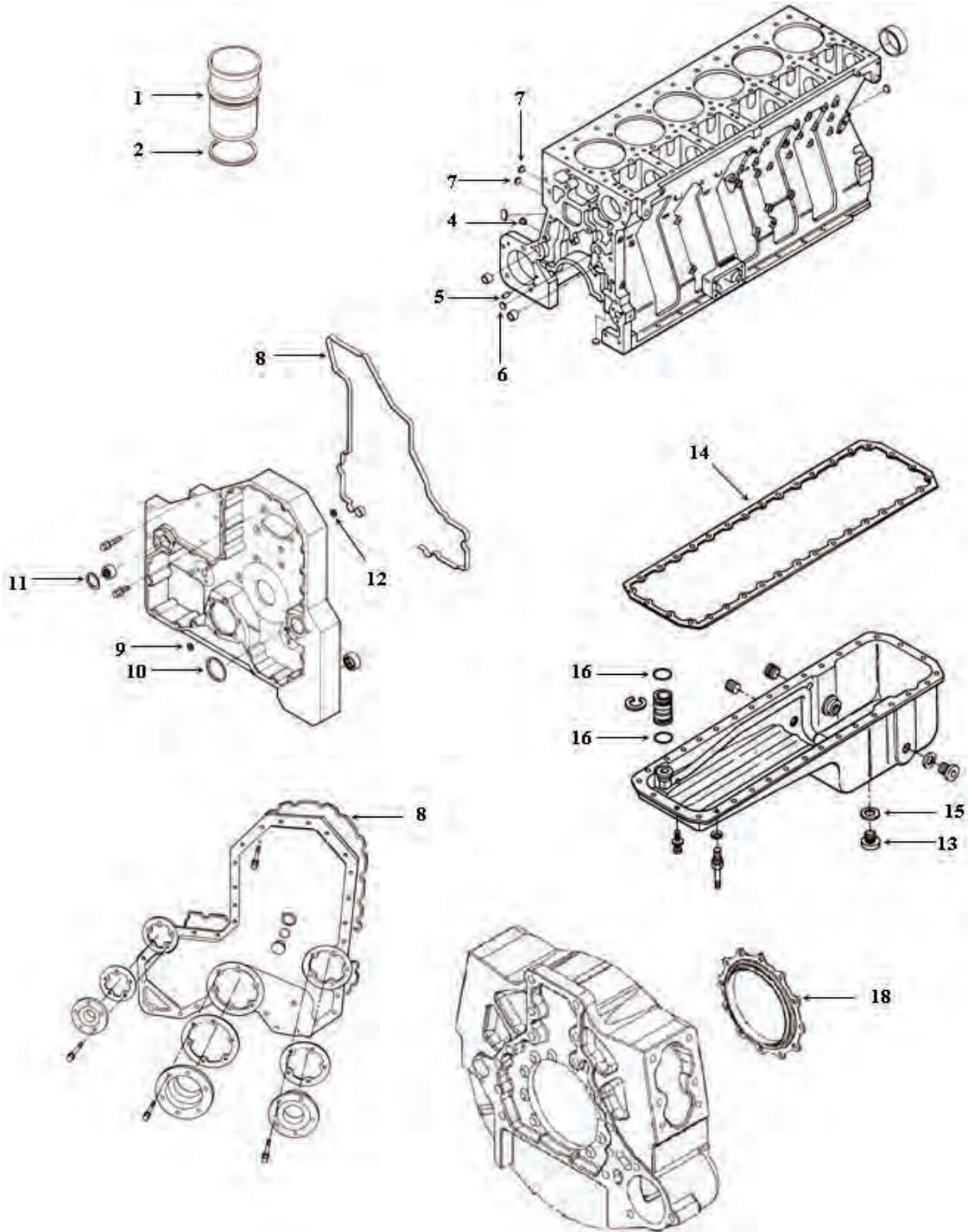
| Cylinder Kit | Piston Crown | Piston Skirt | Liner      | Ring Set   | Piston Pin | Seal Ring  | Retainers  |
|--------------|--------------|--------------|------------|------------|------------|------------|------------|
| FP-4025162   | FP-4059901T  | FP-4070653T  | FP-3080760 | FP-3803977 | FP-4083244 | FP-3047188 | FP-3016652 |
| FP-4025164   | FP-4059898T  | FP-4070653T  | FP-3080760 | FP-3803977 | FP-4083244 | FP-3047188 | FP-3016652 |

Above cylinder kits include items in shaded area

# ISL/QSL Series



## Cylinder Block





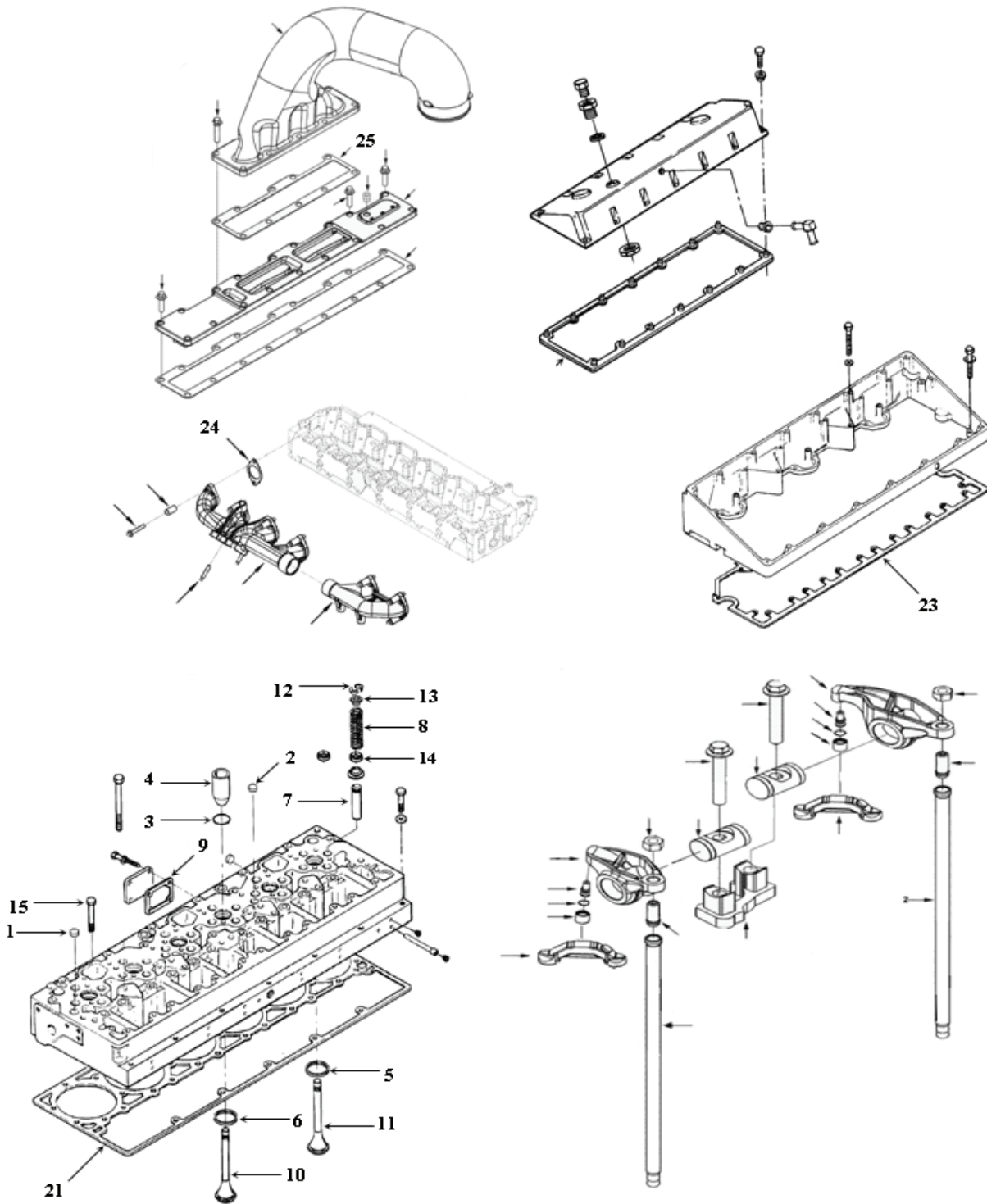
**Cylinder Block, Front & Rear Covers & Gasket Sets**

| Ref | Part Number       | Description                         | ISL      | QSL      |
|-----|-------------------|-------------------------------------|----------|----------|
| 00  | 143066            | Plug, Expansion                     | 2        | 2        |
| 00  | 3004258           | Plug, Expansion                     | 4        | 4        |
| 00  | 3008468           | Plug, Pipe                          | 1        | 1        |
| 00  | 3008470           | Plug, Pipe                          | 1        | 1        |
| 00  | 3013768           | Plug, Pipe                          | 1        | 1        |
| 00  | 3678921           | Plug, Threaded                      | 1        | 1        |
| 00  | 3678922           | Plug, Threaded                      | 1        | 1        |
| 00  | 3678923           | Plug, Threaded                      | 6        | 6        |
| 00  | 3678924           | Plug, Threaded                      | 1        | 1        |
| 00  | 3900257           | Dowel, Pin                          | 2        | 2        |
| 00  | 3900956           | Plug, Expansion                     | 3        | 3        |
| 00  | 3901846           | Dowel, Pin                          | 4        | 4        |
| 00  | 3905401           | Plug, Expansion                     | 4        | 4        |
| 00  | 3906216           | Nut, Hexagon Flange                 | 1        | 1        |
| 00  | 3910960           | Washer, Plain                       | 1        | 1        |
| 00  | 3934147           | Plug, Threaded                      | 1        | 1        |
| 00  | 3939352           | Gasket, Oil Suc Connection          | 1        | 1        |
| 00  | 3959291           | Nozzle, Piston Cooling              | 6        | 6        |
| 00  | 3964028           | Connection, Oil Suction             | 1        | 1        |
| 00  | FP-3678912        | Seal, O-Ring                        | 1        | 1        |
| 00  | FP-3678925        | Seal, O-Ring                        | 1        | 1        |
| 00  | FP-3901969        | Plug, Expansion                     | 1        | 1        |
| 00  | FP-3902425        | Washer, Sealing                     | 1        | 1        |
| 00  | FP-3926048        | Seal, O-Ring                        | 1        | 1        |
| 00  | FP-3939353        | Gasket, Rear Cover                  | 1        | 1        |
| 00  | FP-4089958        | Gasket Set, Upper                   | 1        | 1        |
| 00  | S 923 E           | Draincock (1/4 NPTF)                | 1        | 1        |
| 03  | FP-3901969        | Plug, Expansion                     | 1        | 1        |
| 03  | FP-3945329        | Bushing, Camshaft                   | 7        | 7        |
| 04  | 3678924           | Plug, Threaded (m10 x 1.00 x 9.5)   | 1        | 1        |
| 05  | 3900257           | Dowel, Pin                          | A/R      | A/R      |
| 06  | 3004258           | Plug, Expansion                     | 4        | 4        |
| 07  | 3004258           | Plug, Expansion                     | 4        | 4        |
| 08  | FP-3944293        | Gasket, Gear Housing                | 1        | 1        |
| 09  | FP-3073966        | Seal, O-Ring                        | A/R      | A/R      |
| 10  | FP-3925343        | Kit, Front Crankshaft Seal w/sleeve | 1        | 1        |
| 11  | 4010519           | Seal, O-Ring                        | A/R      | A/R      |
| 12  | 4010643           | Seal, O-Ring                        | A/R      | A/R      |
| 13  | 3924148           | Plug, Threaded (m22 x 1.50 thd)     | 1        | 1        |
| 14  | FP-3938160        | Gasket, Oil Pan                     | 1        | 1        |
| 15  | FP-3920773        | Washer, Sealing (18mm)              | 1        | 1        |
| 16  | FP-3936876        | Seal, Rectangular Ring              | 2        | 2        |
| 18  | 3941786           | Carrier, Seal                       | 1        | 1        |
| 00  | <b>FP-3800328</b> | <b>Kit, Cylinder Liner</b>          | <b>6</b> | <b>6</b> |
| 01  | FP-3948095        | Liner, Cylinder                     | 6        | 6        |
| 02  | FP-3907177        | Seal, Rectangular Ring              | 6        | 6        |

# ISL/QSL Series



## Cylinder Head



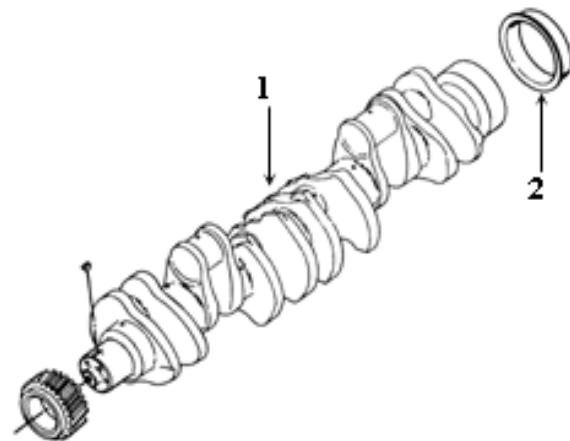
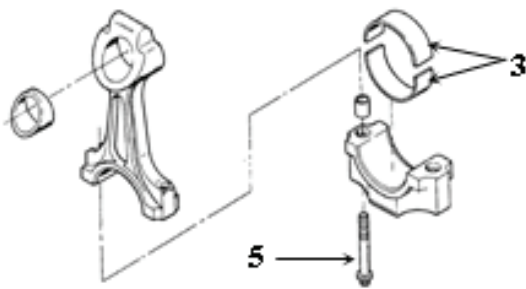
**Cylinder Head, Valve Mechanism & Upper Gasket Set**

| Ref | Part Number       | Description  | ISL | QSL |
|-----|-------------------|--|-----|-----|
| 00  | 3032693           | Plug, Expansion  | 2   | 2   |
| 00  | 3678923           | Plug, Threaded   | 1   | 1   |
| 00  | 3678924           | Plug, Threaded   | 1   | 1   |
| 00  | 3945093           | Plug, Expansion  | 1   | 1   |
| 00  | 3945094           | Plug, Expansion  | 2   | 2   |
| 00  | 3945097           | Plug, Expansion  | 1   | 1   |
| 00  | 3960043           | Screw, Hex Flange Head Cap   | 26  | 26  |
| 00  | 3990084           | Seal O-Ring Filler Cap   | 1   | 1   |
| 00  | FP-3678925        | Seal, O-Ring (Oil Pressure Switch)                                 | 1   | 1   |
| 00  | FP-4089958        | Gasket Set, Upper  | 1   | 1   |
| 00  | FP-4955643        | Gasket Set, Upper  | 1   | -   |
| 01  | 3945098           | Plug, Expansion  | 6   | 6   |
| 02  | 3920706           | Plug, Expansion  | 18  | 18  |
| 03  | FP-4890926        | Seal, O-Ring   | 6   | 6   |
| 04  | 3965721           | Injector   | 6   | 6   |
| 05  | 3940152           | Insert, Valve  | 12  | 12  |
| 06  | 3968074           | Insert, Valve  | 12  | 12  |
| 07  | 3942645           | Guide, Valve Stem  | 24  | 24  |
| 08  | FP-4936076        | Spring, Valve Intake And Exhaust (Previously FP-3944711)           | 24  | 24  |
| 08  | FP-4936079        | Spring, Valve (Only Used On QSL9 Engines w/Exhaust Valve Rotators) | -   | 12  |
| 13  | 3944452           | Retainer, Valve Spring   | 24  | 24  |
| 14  | 3945098           | Seal, Valve Stem Exhaust   | 12  | 12  |
| 14  | 3948888           | Seal, Valve Stem Intake  | 12  | 12  |
| 15  | 3960043           | Screw, Hex Flange Head Cap   | 26  | 26  |
| 16  | 3966658           | Shaft, Rocker Lever  | 12  | 12  |
| 17  | 3941937           | Lever, Rocker  | 12  | 12  |
| 18  | 3964796           | Lever, Rocker  | 12  | 12  |
| 21  | FP-4981796        | Gasket, Cylinder Head  | 1   | 1   |
| 22  | 3959798           | Gasket, Valve Cover  | 1   | 1   |
| 23  | 3966708           | Gasket, Rocker Lever Housing                                       | 1   | 1   |
| 24  | FP-3937479        | Gasket Exhaust Manifold  | 6   | 6   |
| 00  | <b>FP-4089761</b> | <b>Valve Kit, Intake</b>   | 12  | 12  |
| 10  | FP-3970727        | Valve, Intake  | 12  | 12  |
| 12  | FP-3900250        | Lock Half, Valve   | 48  | 48  |
| 00  | <b>FP-4089762</b> | <b>Valve Kit, Exhaust</b>  | 12  | 12  |
| 11  | FP-3969637        | Valve, Exhaust   | 12  | 12  |
| 12  | FP-3900250        | Lock Half, Valve   | 48  | 48  |

# ISL/QSL Series



## Crankshaft



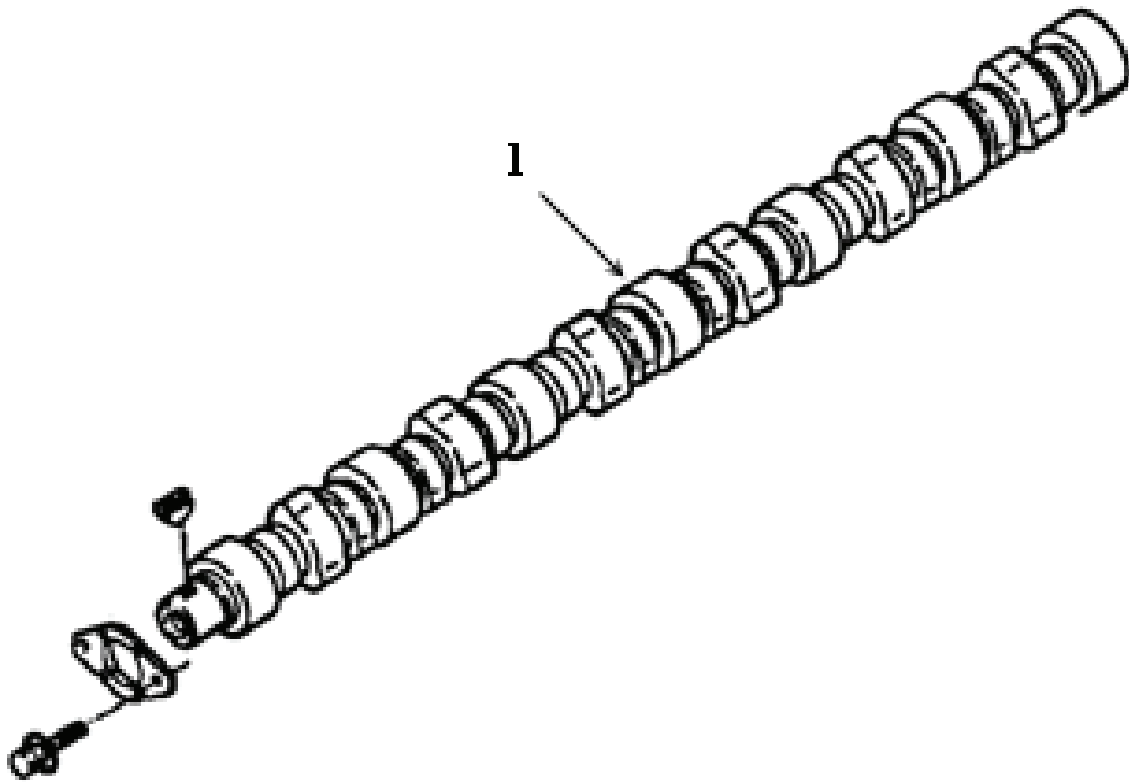
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover**

| Ref | Part Number       | Description                                 | ISL | QSL |
|-----|-------------------|---|-----|-----|
| 00  | 3904483           | Dowel, Pin                                  | 1   | 1   |
| 00  | 3918776           | Gear, Crankshaft                            | 1   | 1   |
| 00  | 3924148           | Plug, Threaded                              | 1   | 1   |
| 00  | 3942087           | Bushing                                     | 1   | 1   |
| 00  | 3967346           | Rod, Connecting                             | 6   | 6   |
| 00  | 3967347           | Rod, Engine Connecting                      | 1   | 1   |
| 00  | FP-3920773        | Washer, Sealing                             | 1   | 1   |
| 00  | FP-3925343        | Kit, Front Crankshaft Seal w/sleeve         | 1   | 1   |
| 00  | FP-3938160        | Gasket, Oil Pan                             | 1   | 1   |
| 01  | 3965010           | Crankshaft, Engine                          | 1   | 1   |
| 02  | FP-3926126        | Kit, Rear Crankshaft Seal w/sleeve          | 1   | 1   |
| 02  | FP-4089642        | Kit, Rear Crankshaft Seal w/Sleeve          | 1   | 1   |
| 03  | 3966244           | Bearing, Connecting Rod (Upper)             | 6   | 6   |
| 03  | FP-3950661        | Bearing, Connecting Rod Standard (Lower)    | 6   | 6   |
| 03  | FP-3950662        | Bearing, Connecting (.25MM) (Lower)         | A/R | A/R |
| 03  | FP-3950663        | Bearing, Connecting (.50MM) (Lower)         | A/R | A/R |
| 03  | FP-3950664        | Bearing, Connecting (.75MM) (Lower)         | A/R | A/R |
| 03  | FP-3950665        | Bearing, Connecting (1.00MM) (Lower)        | A/R | A/R |
| 04  | 3942087           | Bushing                                     | 6   | 6   |
| 05  | 3944679           | Screw, Hex Flange Head Cap                  | 12  | 12  |
| 00  | <b>3945920</b>    | <b>Set, Main Bearing (0.75 mm Oversize)</b> | 1   | 1   |
| 00  | 3944161           | Bearing, Main                               | 6   | 6   |
| 00  | 3944166           | Bearing, Crankshaft Thrust                  | 1   | 1   |
| 00  | 3944156           | Bearing, Main                               | 7   | 7   |
| 00  | <b>3945921</b>    | <b>Set, Main Bearing (1.00 mm Oversize)</b> | 1   | 1   |
| 00  | 3944162           | Bearing, Main                               | 6   | 6   |
| 00  | 3944167           | Bearing, Crankshaft Thrust                  | 1   | 1   |
| 00  | 3944157           | Bearing, Main                               | 7   | 7   |
| 00  | <b>FP-3945917</b> | <b>Set, Main Bearing (Standard)</b>         | 1   | 1   |
| 00  | 3944158           | Bearing, Main                               | 6   | 6   |
| 00  | 3944163           | Bearing, Crankshaft Thrust                  | 1   | 1   |
| 00  | 3944153           | Bearing, Main                               | 7   | 7   |
| 00  | <b>FP-3945918</b> | <b>Set, Main Bearing (0.25 mm oversize)</b> | 1   | 1   |
| 00  | 3944159           | Bearing, Main                               | 6   | 6   |
| 00  | 3944164           | Bearing, Crankshaft Thrust                  | 1   | 1   |
| 00  | 3944154           | Bearing, Main                               | 7   | 7   |
| 00  | <b>FP-3945919</b> | <b>Set, Main Bearing (0.50 mm oversize)</b> | 1   | 1   |
| 00  | 3944160           | Bearing, Main                               | 6   | 6   |
| 00  | 3944165           | Bearing, Crankshaft Thrust                  | 1   | 1   |
| 00  | 3944155           | Bearing, Main                               | 7   | 7   |

# ISL/QSL Series



## Camshaft





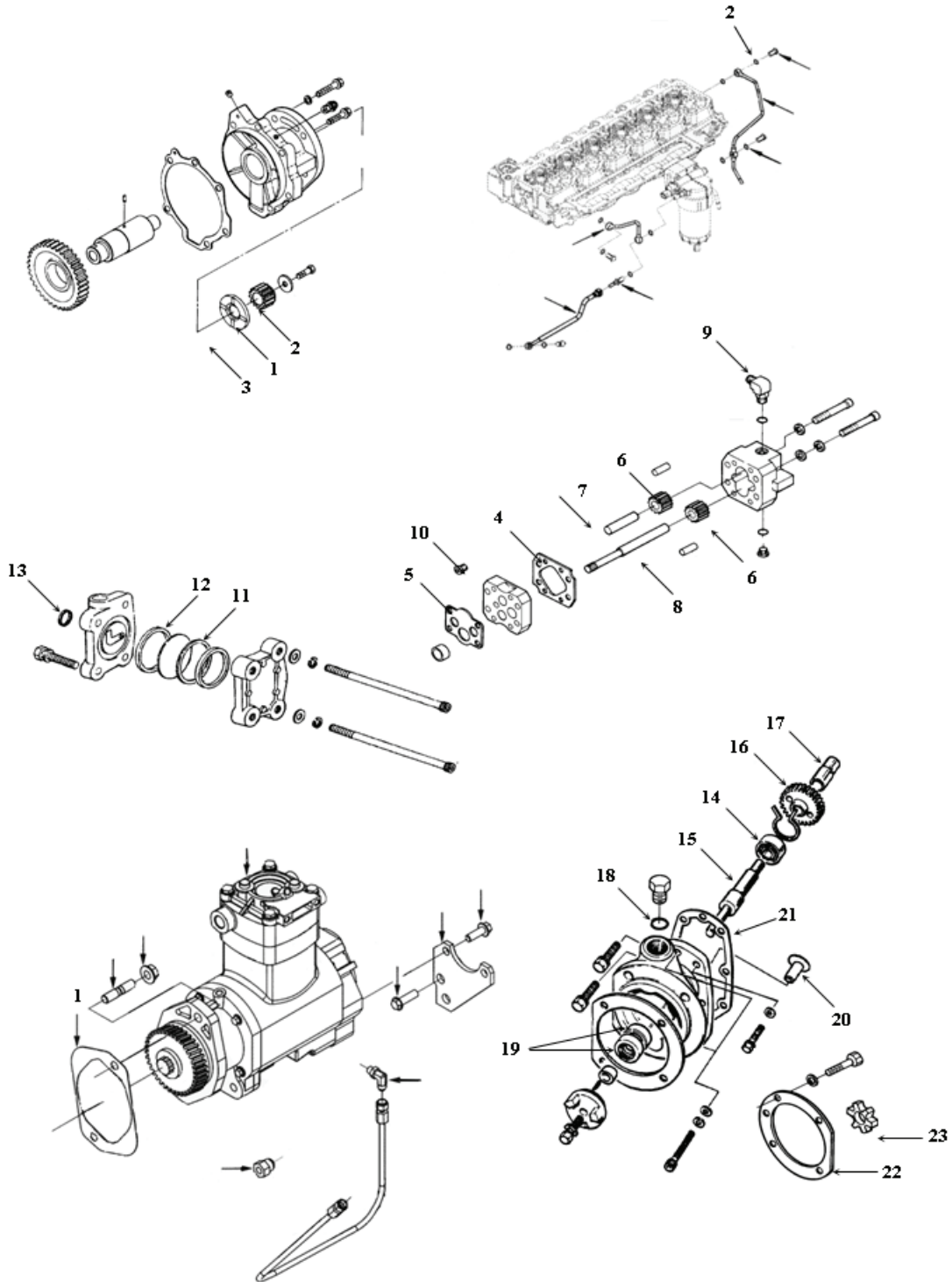
**Camshaft**

| Ref | Part Number | Description              | ISL | QSL |
|-----|-------------|--------------------------|-----|-----|
| 00  | 3900227     | Screw, Hexagon Head Cap  | 2   | 2   |
| 00  | 3917883     | Dowel, Pin               | 1   | 1   |
| 00  | 3944001     | Support, Camshaft Thrust | 1   | 1   |
| 00  | 3950135     | Gear, Camshaft           | 1   | 1   |
| 00  | 3965966     | Tappet, Valve            | 12  | 12  |
| 01  | 3966431     | Camshaft                 | 1   | 1   |

# ISL/QSL Series



## Fuel Pump & Components

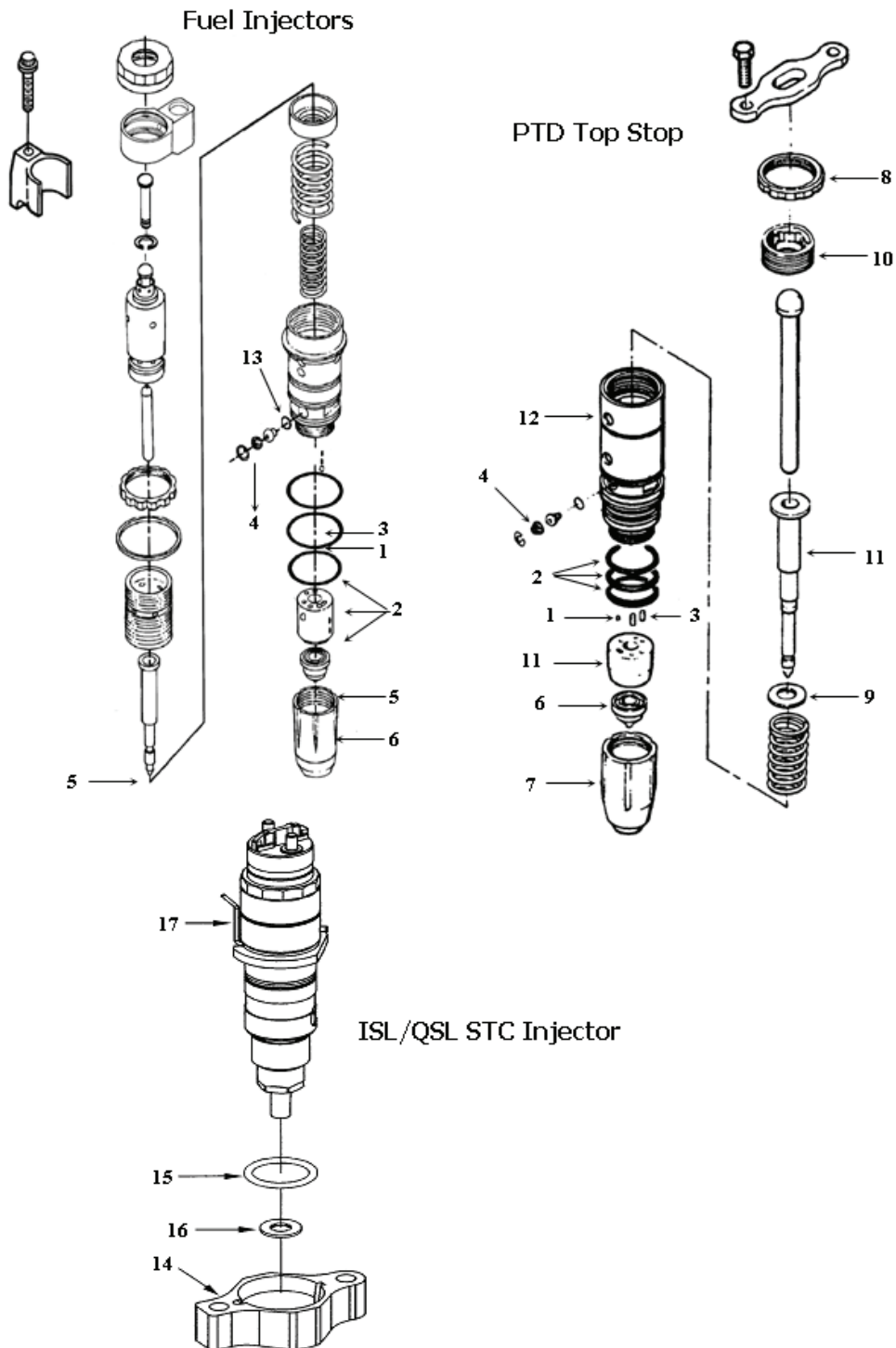




**Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover**

| Ref | Part Number | Description                               | ISL | QSL |
|-----|-------------|---|-----|-----|
| 00  | 3966656     | Connection, Fuel Block                    | 1   | 1   |
| 00  | 3968187     | Pump, Fuel Transfer                       | 1   | 1   |
| 00  | 4902780     | Gasket, Fuel Pump                         | 1   | 1   |
| 00  | 4902952     | Gasket, Fuel Pump                         | 1   | 1   |
| 00  | FP-3069017  | Gasket, Fuel Pump - (Formerly FP-3026163) | 1   | 1   |
| 01  | FP-3940245  | Gasket, Hydraulic Pump Mounting           | 1   | 1   |
| 02  | FP-3963988  | Washer, Sealing                           | 2   | 2   |
| 04  | FP-110855   | Gasket, Fuel Pump                         | 1   | 1   |
| 06  | FP-119363   | Gear, Fuel Pumping                        | 2   | 2   |
| 08  | FP-100215   | Shaft, Fuel Pump Drive                    | 1   | 1   |
| 09  | FP-3033740  | Valve, Check Ball Elbow                   | 1   | 1   |

## Fuel Injectors





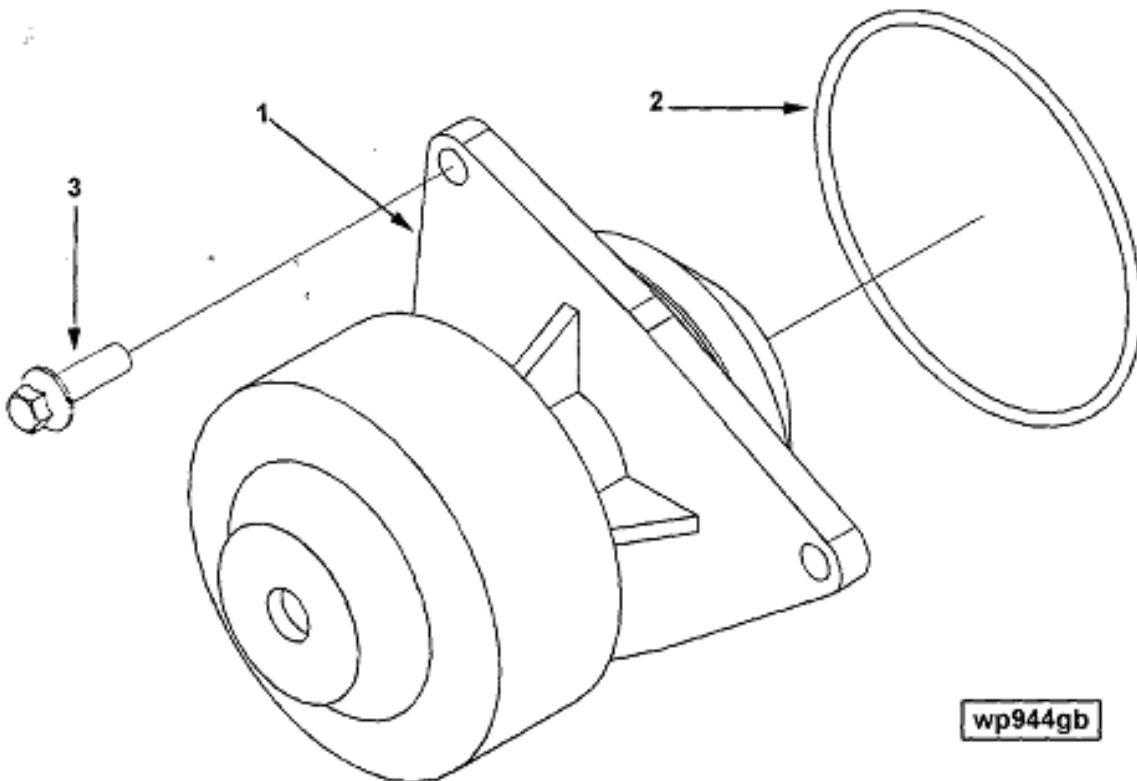
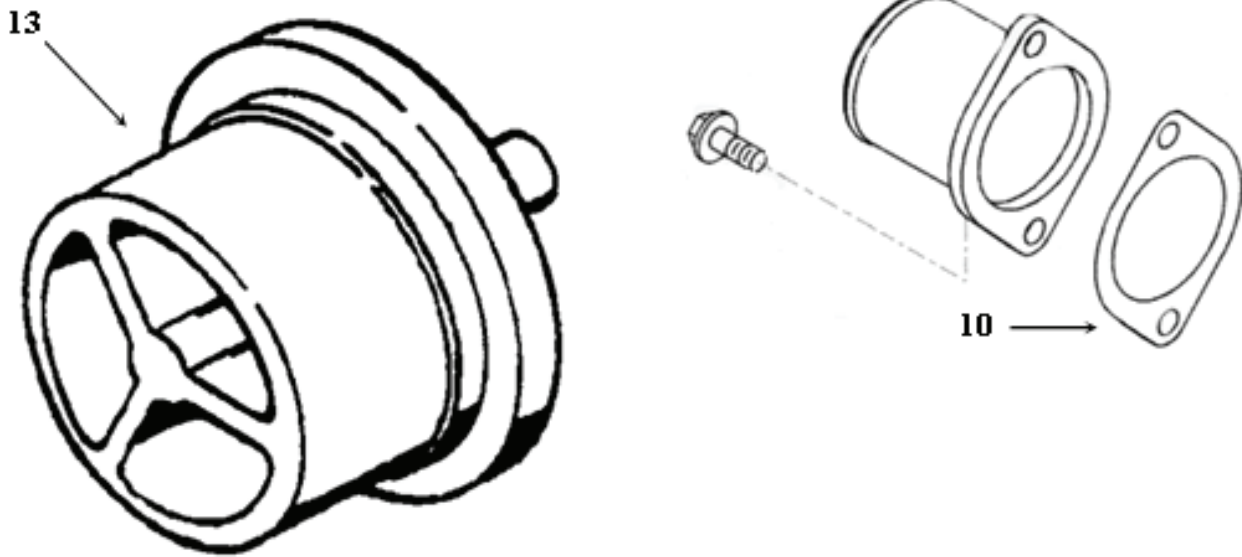
**Fuel Injectors**

| Ref | Part Number | Description                   | ISL | QSL |
|-----|-------------|-------------------------------|-----|-----|
| 00  | 3073569     | Injector (Top Stop 1709,1715) | 6   | 6   |
| 00  | 3073571     | Injector (Top Stop 1710,1714) | 6   | 6   |
| 00  | 3073572     | Injector (Top Stop 1706,1712) | 6   | 6   |
| 00  | 3073574     | Injector (Top Stop 1711,1716) | 6   | 6   |
| 01  | FP-167157   | Ball, check                   | 6   | 6   |
| 02  | FP-193736   | Seal, O-Ring                  | 18  | 18  |
| 03  | FP-203426   | Pin, Roll                     | 12  | 12  |
| 04  | FP-3008706  | Screen, Filter                | 6   | 6   |
| 05  | 3069708     | Plunger, Injector             | 6   | 6   |
| 07  | 3066693     | Retainer, Injector Cup        | 6   | 6   |
| 08  | 3068860     | Nut, Lock                     | 6   | 6   |
| 09  | 3066707     | Retainer, Injector Spring     | 6   | 6   |
| 10  | 3055742     | Screw, Injector Stop          | 6   | 6   |
| 11  | 3069707     | Barrel And Plunger, Injector  | 6   | 6   |
| 12  | 3066695     | Adapter, Injector             | 6   | 6   |
| 13  | 173086      | Gasket, Injector              | 6   | 6   |
| 14  | 3959045     | Clamp, Injector               | 6   | 6   |
| 15  | FP-4890926  | Seal, O-Ring                  | 6   | 6   |
| 16  | FP-3937142  | Seal, Injector                | 6   | 6   |
| 17  | 3965721     | Injector                      | 6   | 6   |

# ISL/QSL Series



## Water Pump, Oil Pump, Thermostat



wp944gb





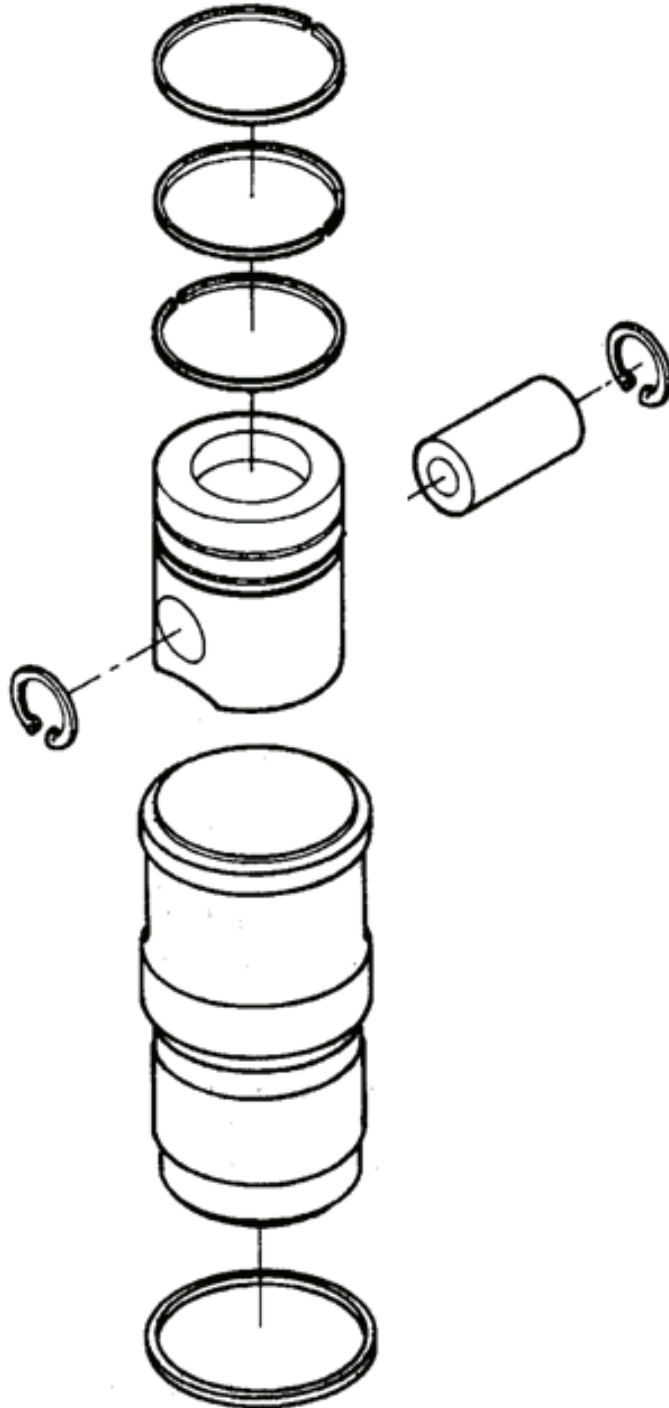
**Water Pump, Oil Pump, Thermostat**

| Ref | Part Number       | Description                      | ISL | QSL |
|-----|-------------------|----------------------------------|-----|-----|
| 02  | FP-3940386        | Seal, O-Ring                     | 1   | 1   |
| 10  | FP-3913032        | Gasket, Water Outlet Connection  | 1   | 1   |
| 13  | FP-4930594        | Thermostat                       | 1   | 1   |
| 00  | <b>FP-4089647</b> | <b>Kit, Water Pump</b>           | 1   | 1   |
| 01  | FP-3973114        | Pump, Water (Previously 3964791) | 1   | 1   |
| 02  | FP-3940386        | Seal, O-Ring                     | 1   | 1   |

# ISL/QSL Series



## Cylinder Kits



## **Cylinder Kits, Piston Kits, Liner Kits & Ring Set**

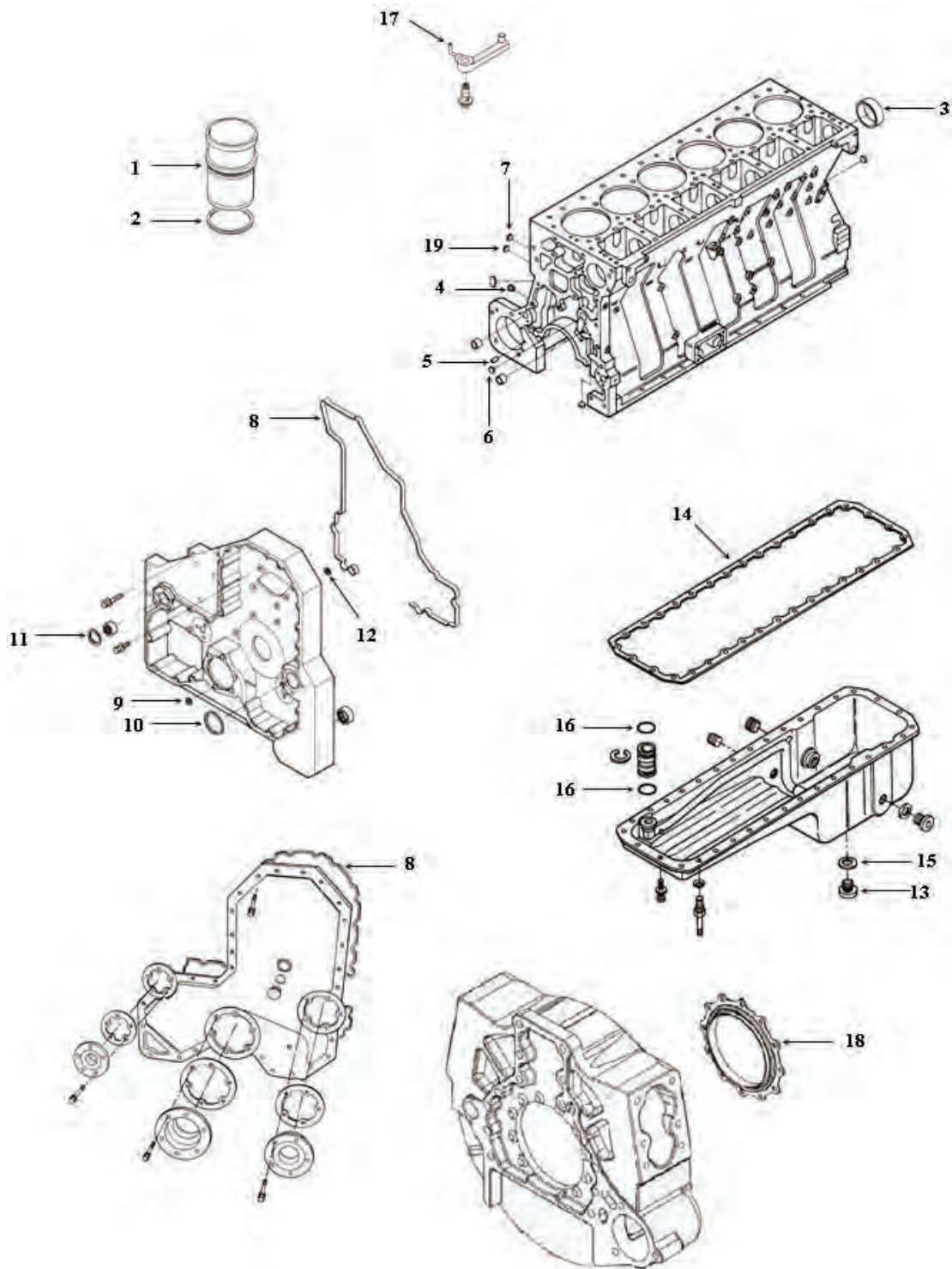
| Piston Kit | Piston Crown | Piston Skirt | Piston Ring Set | Piston Pin | Piston Pin Retainer | Comment            |
|------------|--------------|--------------|-----------------|------------|---------------------|--------------------|
| 4089646    | 3966722      | 3966721      | 4089644         | 3950549    | FP-3920692          | Articulated Piston |

| Liner Kit  | Cylinder Liner | Cylinder Liner Seal | Comment |
|------------|----------------|---------------------|---------|
| FP-3800328 | FP-3948095     | FP-3907177          |         |

# ISM/QSM Series



## Cylinder Block



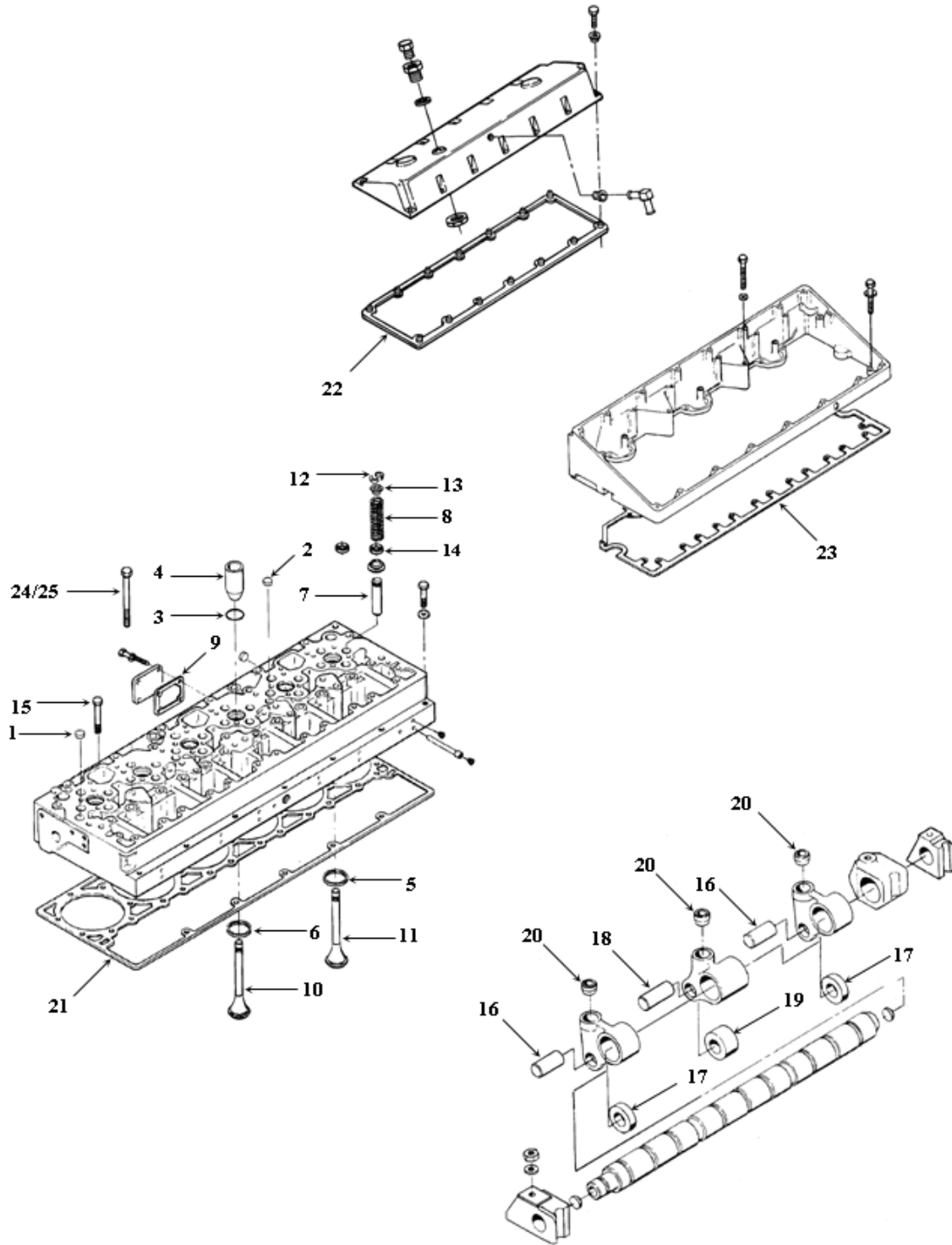
**Cylinder Block, Front & Rear Covers & Gasket Sets**

| Ref | Part Number       | Description  | ISM | QSM |
|-----|-------------------|--|-----|-----|
| 00  | 142207            | Dowel, Pin   | 2   | 2   |
| 00  | 148555            | Dowel, Pin   | 2   | 2   |
| 00  | 179063            | Plug, Retainer   | 1   | 1   |
| 00  | 3008446           | Dowel, Pin   | 3   | 3   |
| 00  | 3008466           | Plug, Pipe   | 2   | 2   |
| 00  | 3008468           | Plug, Pipe   | 1   | 1   |
| 00  | 3008470           | Plug, Pipe   | 1   | 1   |
| 00  | 3009330           | Washer, Plain  | 1   | 1   |
| 00  | 3014754           | Washer, Plain  | 1   | 1   |
| 00  | 3821725           | Plug, Retainer   | 1   | 1   |
| 00  | FP-3010146        | Spring, Compression  | 1   | 1   |
| 00  | FP-3032787        | Seal, O-Ring (Oil Transfer Tube)                           | 1   | 1   |
| 00  | FP-3037537        | Seal, O-Ring (For 3040813 Plug)                            | 1   | 1   |
| 00  | FP-3046201        | Seal, O-Ring   | 1   | 1   |
| 00  | FP-4082772        | Screw, Round Head Cap (For 4083449 Block Stiffening Plate) | 18  | 18  |
| 00  | FP-4089478        | Upper Gasket Set   | 1   | 1   |
| 00  | FP-4089998        | Lower Gasket Set   | 1   | 1   |
| 00  | FP-70550          | Dowel, Pin   | 1   | 1   |
| 03  | FP-3820566        | Bushing  | 7   | 7   |
| 04  | 3008468           | Plug, Pipe   | 1   | 1   |
| 06  | FP-3007635        | Plug, Expansion  | 4   | 4   |
| 08  | FP-4920751        | Seal, Rectangular Strip                                    | 1   | 1   |
| 09  | FP-3201659        | Seal, Rectangular Ring                                     | 6   | 6   |
| 10  | FP-3820945        | Seal, Rectangular Ring                                     | 1   | 1   |
| 11  | FP-3820946        | Seal, Rectangular Ring                                     | 1   | 1   |
| 12  | FP-3883150        | Seal, O-Ring   | 1   | 1   |
| 13  | FP-3055069        | Plug, Threaded   | 2   | 2   |
| 14  | FP-3401290        | Gasket, Oil Pan  | 1   | 1   |
| 15  | FP-67946          | Washer, Plain  | 2   | 2   |
| 16  | FP-3032787        | Seal, O-Ring   | 2   | 2   |
| 17  | FP-3080708        | Nozzle, Piston Cooling                                     | 6   | 6   |
| 18  | FP-4089542        | Seal, Rear Service Kit (Dry Clutch)                        | 1   | 1   |
| 19  | FP-3007635        | Plug, Expansion  | 4   | 4   |
| 00  | <b>FP-4089388</b> | <b>Kit, Liner</b>  | 6   | 6   |
| 01  | FP-3102423        | Liner, Cylinder  | 6   | 6   |
| 02  | FP-3047188        | Seal, Rectangular  | 6   | 6   |

# ISM/QSM Series



## Cylinder Head





### Cylinder Head, Valve Mechanism & Upper Gasket Set

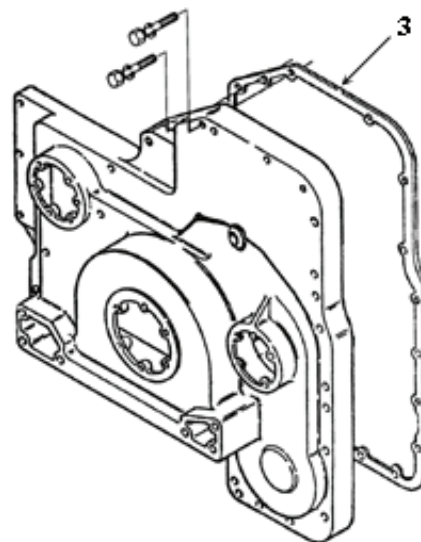
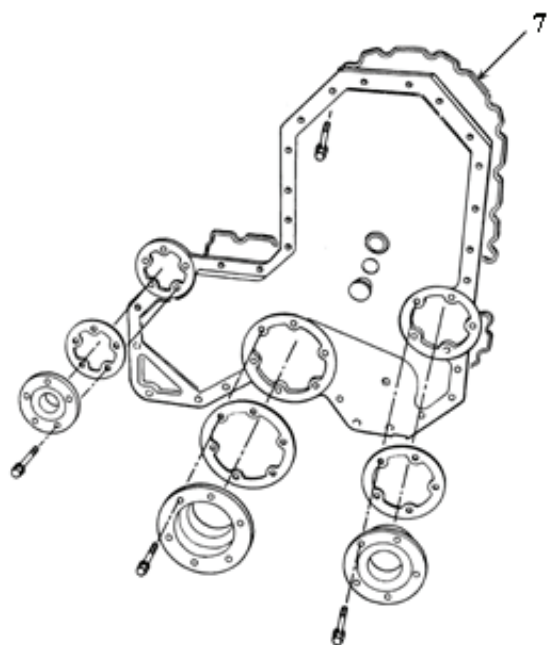
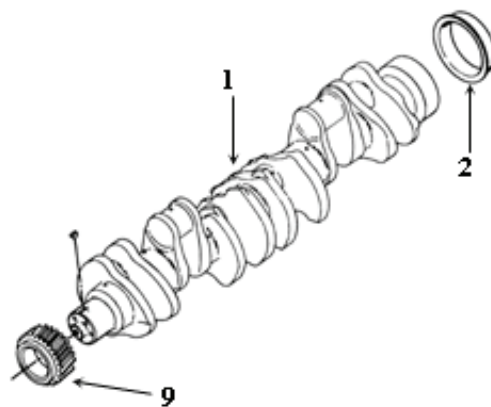
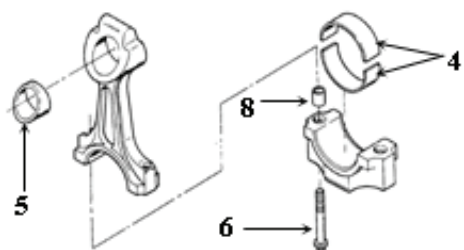
| Ref | Part Number              | Description   | ISL | QSL |
|-----|--------------------------|---|-----|-----|
| 00  | 3008465                  | Plug, Pipe  | 16  | 16  |
| 00  | 3009330                  | Washer, Plain   | 7   | 7   |
| 00  | 3070072                  | Guide, Valve Spring                                       | 24  | 24  |
| 00  | 3079589                  | Lever, Cam Follower                                       | 1   | 1   |
| 00  | 3328379                  | Screw, Hex Flange Head Cap                                | 2   | 2   |
| 00  | 3328637                  | Screw, Hex Flange Head Cap                                | 5   | 5   |
| 00  | 3417769                  | Shaft, Cam Follower                                       | 1   | 1   |
| 00  | 3821160                  | Lever, Cam Follower                                       | 1   | 1   |
| 00  | 3895831                  | Support, Cam fol Shaft                                    | 4   | 4   |
| 00  | 4023086                  | Plug, Expansion   | 2   | 2   |
| 00  | 4064582                  | Support, Cam fol Shaft                                    | 1   | 1   |
| 00  | FP-3007635               | Plug, Expansion   | 8   | 8   |
| 00  | FP-3161423               | Roller, Cam Follower                                      | 1   | 1   |
| 00  | FP-3328328               | Washer, Sealing   | 7   | 7   |
| 00  | FP-3335342               | Pin, Cam Follower Roller                                  | 1   | 1   |
| 00  | FP-3335343               | Pin, Cam Follower Roller                                  | 1   | 1   |
| 00  | FP-3895488               | Roller, Cam Follower                                      | 1   | 1   |
| 00  | FP-4089478               | Upper Gasket Set  | 1   | 1   |
| 01  | FP-3007635               | Plug, Expansion   | 8   | 8   |
| 03  | FP-3035025               | Seal, O-Ring  | 6   | 6   |
| 03  | FP-3035026               | Seal, O-Ring - FP-3035026 Status # Deleted                | 6   | 6   |
| 04  | FP-3417717               | Sleeve, Injector  | 6   | 6   |
| 05  | FP-3090704               | Insert, Valve   | 24  | 24  |
| 06  | FP-3090704               | Insert, Valve   | 24  | 24  |
| 07  | FP-3328786               | Guide, Valve Stem   | 24  | 24  |
| 08  | FP-3895860               | Spring, Valve   | 24  | 24  |
| 09  | FP-3883472               | Gasket, Hand Hole   | 1   | 1   |
| 13  | FP-3883512               | Retainer, Valve Spring                                    | 24  | 24  |
| 14  | FP-4003966               | Seal, Valve Stem  | 6   | 6   |
| 15  | FP-4022907               | Screw, Hex Flange Head Cap (M14 x 1.50 x 71)              | 3   | 3   |
| 16  | FP-3067871               | Bushing   | 24  | 24  |
| 17  | FP-3895488               | Roller, Cam Follower                                      | 24  | 24  |
| 18  | FP-3019733               | Bushing   | 24  | 24  |
| 19  | FP-3161423               | Roller, Cam Follower                                      | 24  | 24  |
| 20  | 3064621                  | Socket, Tappet  | 24  | 24  |
| 21  | FP-2864080 <sup>38</sup> | Gasket, Cylinder Head (New ML7 Design)                    | 1   | 1   |
| 21  | FP-4022500               | Gasket, Cylinder Head (Will Supersede To FP-2864080)      | 1   | 1   |
| 22  | FP-3883220               | Gasket, Rocker Lever Cover                                | 1   | 1   |
| 23  | FP-4070529               | Gasket, Rocker Lever Housing                              | 1   | 1   |
| 24  | 4923187                  | Screw, Hex Flange Head Cap                                | 29  | 29  |
| 25  | FP-3328379               | Screw, Hex Flange Head Cap                                | 2   | 2   |
| 00  | <b>FP-3800636</b>        | <b>Valve Kit, Intake (Non-Chrome Plated Intake Valve)</b> | 12  | 12  |
| 10  | FP-3417778               | Valve, Intake (Non-Chrome Plated)                         | 12  | 12  |
| 12  | FP-3275354               | Collet, Valve   | 24  | 24  |
| 00  | <b>FP-3800637</b>        | <b>Valve Kit, Exhaust</b>                                 | 12  | 12  |
| 11  | FP-3417779               | Valve, Exhaust  | 12  | 12  |
| 12  | FP-3275354               | Collet, Valve   | 24  | 24  |
| 00  | <b>FP-4955239</b>        | <b>Intake (Chrome Plated Intake Valve)</b>                | 12  | 12  |
| 10  | FP-4926069               | Valve, Intake (Chrome Plated)                             | 12  | 12  |
| 12  | FP-3275354               | Collet, Valve   | 24  | 24  |

<sup>38</sup>See Inside Back Cover For ML7™ Product Details.

# ISM/QSM Series



## Crankshaft



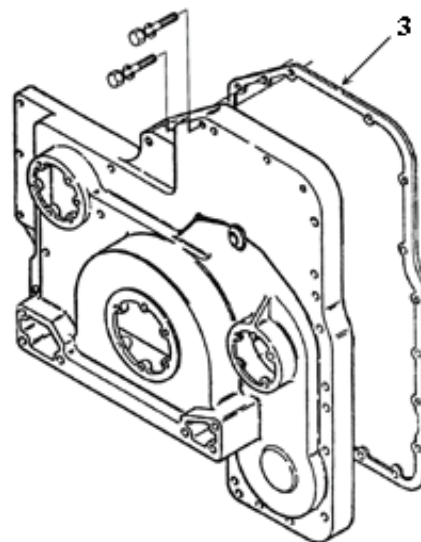
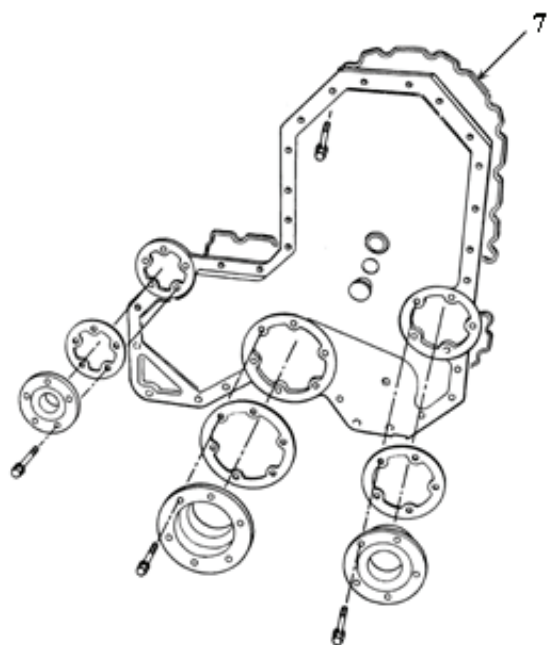
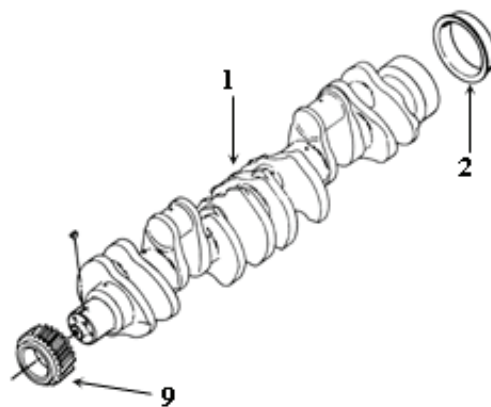
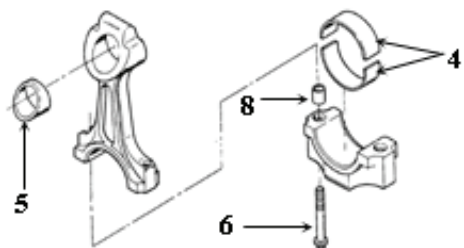
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover**

| Ref | Part Number       | Description   | ISM | QSM |
|-----|-------------------|---|-----|-----|
| 00  | FP-3820918        | Sleeve, Wear (Front)  | 1   | 1   |
| 00  | S 300             | Key, Plain Woodruff   | 1   | 1   |
| 01  | FP-3073707        | Crankshaft, Engine  | 1   | 1   |
| 02  | 3819974           | Sleeve, Wear (Rear)   | 1   | 1   |
| 03  | FP-4089995        | Seal, Rectangular   | 1   | 1   |
| 04  | FP-3016760        | Bearing, Connecting Rod (Std.)  | 12  | 12  |
| 04  | FP-3016761        | Bearing, Connecting Rod (.25mm)   | 12  | 12  |
| 04  | FP-3016762        | Bearing, Connecting Rod (.50mm)   | 12  | 12  |
| 04  | FP-3016763        | Bearing, Connecting Rod (.75mm)   | 12  | 12  |
| 04  | FP-3016764        | Bearing, Connecting Rod (1.00mm)  | 12  | 12  |
| 05  | 3896970           | Bushing, Piston Pin   | 6   | 6   |
| 06  | FP-3027108        | Screw, Connecting Rod Cap   | 12  | 12  |
| 07  | FP-4920751        | Seal, Rectangular   | 1   | 1   |
| 08  | 3027106           | Dowel, Ring   | 2   | 2   |
| 09  | 3084445           | Gear, Crankshaft  | 1   | 1   |
| 00  | <b>4025124</b>    | <b>Set, Main Bearing (1.00 mm Oversize)</b>                               | 1   | 1   |
| 00  | 3016774           | Bearing, Main (Upper)   | 7   | 7   |
| 00  | 3016784           | Bearing, Main (Lower)   | 7   | 7   |
| 00  | FP-4926017        | Bearing, Thrust   | 2   | 2   |
| 00  | FP-4926019        | Bearing, Thrust   | 2   | 2   |
| 00  | <b>FP-4025120</b> | <b>Set, Main Bearing (Std.)</b>   | 1   | 1   |
| 00  | FP-3016770        | Bearing, Main (Upper)   | 7   | 7   |
| 00  | FP-3016780        | Bearing, Main (Lower)   | 7   | 7   |
| 00  | FP-4926017        | Bearing, Thrust   | 2   | 2   |
| 00  | FP-4926019        | Bearing, Thrust   | 2   | 2   |
| 00  | <b>FP-4025121</b> | <b>Set, Main Bearing (0.25 mm oversize)</b>                               | 1   | 1   |
| 00  | FP-3016771        | Bearing, Main (Upper)   | 7   | 7   |
| 00  | FP-3016781        | Bearing, Main (Lower)   | 7   | 7   |
| 00  | FP-4926017        | Bearing, Thrust   | 2   | 2   |
| 00  | FP-4926019        | Bearing, Thrust   | 2   | 2   |
| 00  | <b>FP-4025122</b> | <b>Set, Main Bearing (0.50 mm oversize)</b>                               | 1   | 1   |
| 00  | FP-3016772        | Bearing, Main (Upper)   | 7   | 7   |
| 00  | FP-3016782        | Bearing, Main (Lower)   | 7   | 7   |
| 00  | FP-4926017        | Bearing, Thrust   | 2   | 2   |
| 00  | FP-4926019        | Bearing, Thrust   | 2   | 2   |
| 00  | <b>FP-4025123</b> | <b>Set, Main Bearing (0.75 mm oversize)</b>                               | 1   | 1   |
| 00  | FP-3016773        | Bearing, Main (Upper)   | 7   | 7   |
| 00  | FP-3016783        | Bearing, Main (Lower)   | 7   | 7   |
| 00  | FP-4926017        | Bearing, Thrust   | 2   | 2   |
| 00  | FP-4926019        | Bearing, Thrust   | 2   | 2   |
| 16  | <b>FP-4025125</b> | <b>Main Bearing Set ( Std.) Pre 2004, Roll Pin Design Thrust Bearings</b> | 1   | 1   |
| 00  | 3016770           | Bearing Main (Upper) (Not Sold Separately)                                | 7   | 7   |
| 00  | 3016780           | Bearing Main (Lower) (Not Sold Separately)                                | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer (No.4 Main) (Std.)  | 4   | 4   |
| 16  | <b>FP-4025126</b> | <b>Main Bearing Set (.25mm) Pre 2004, Roll Pin Design Thrust Bearings</b> | 1   | 1   |
| 00  | 3016771           | Bearing Main (Upper) (Not Sold Separately)                                | 7   | 7   |
| 00  | 3016781           | Bearing Main (Lower) (Not Sold Separately)                                | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer   | 4   | 4   |

# ISM/QSM Series



## Crankshaft



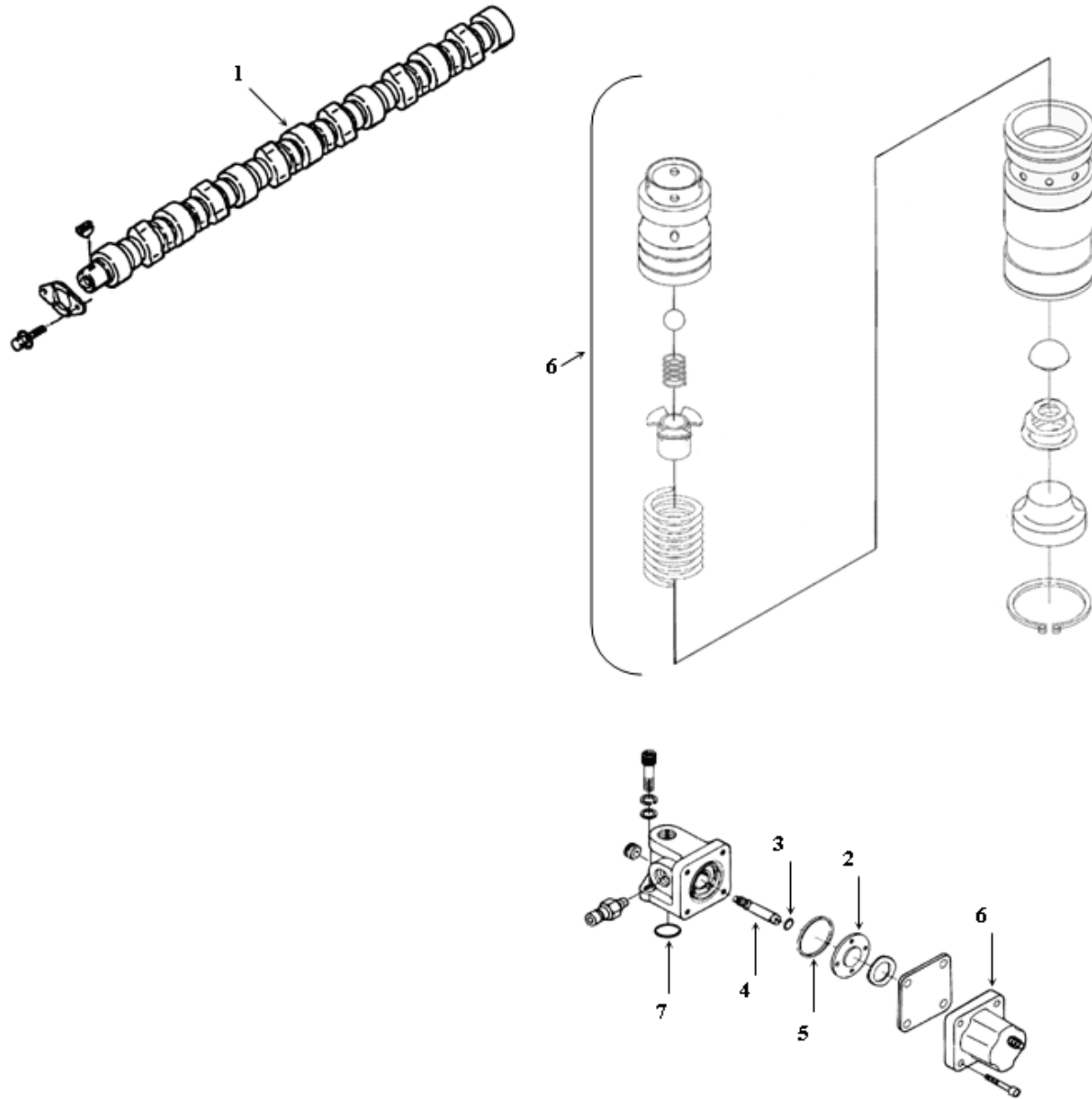
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover (Cont.)**

| Ref | Part Number       | Description  | ISM | QSM |
|-----|-------------------|--|-----|-----|
| 16  | <b>FP-4025127</b> | Main Bearing Set (.50mm) Pre 2004, Roll Pin Design Thrust Bearings | 1   | 1   |
| 00  | 3016772           | Bearing Main (Upper) (Not Sold Separately)                         | 7   | 7   |
| 00  | 3016782           | Bearing Main (Lower) (Not Sold Separately)                         | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer  | 4   | 4   |
| 16  | <b>FP-4025128</b> | Main Bearing Set (.75mm) Pre 2004, Roll Pin Design Thrust Bearings | 1   | 1   |
| 00  | FP-3016773        | Bearing, Main (Upper)  | 7   | 7   |
| 00  | FP-3016783        | Bearing, Main (Lower)  | 7   | 7   |
| 00  | FP-4926019        | Thrust Washer  |     |     |

# ISM/QSM Series



## Camshaft







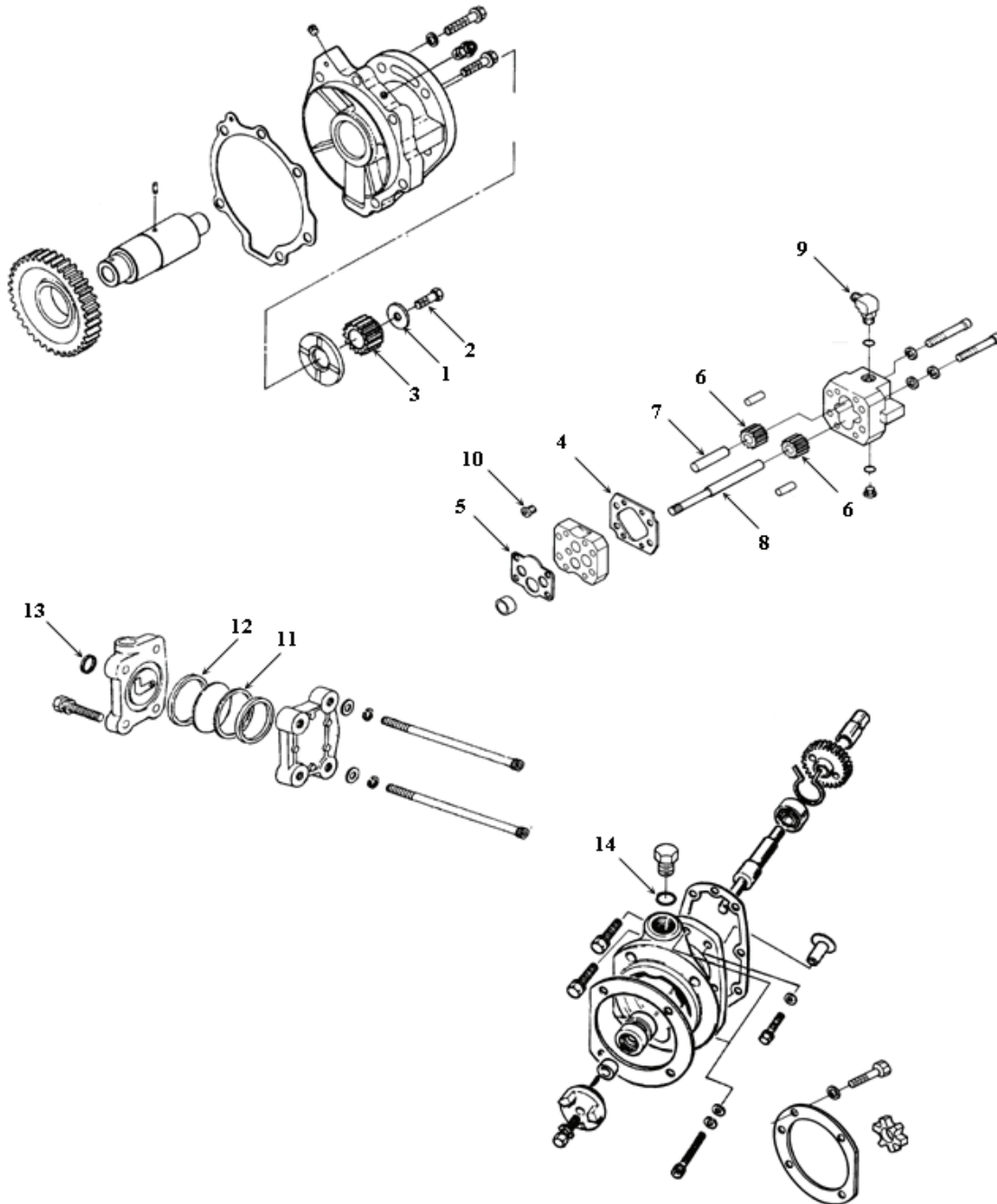
**Camshaft**

| Ref | Part Number | Description   | ISM | QSM |
|-----|-------------|---|-----|-----|
| 00  | 3009953     | Key, Plain Woodruff                                     | 1   | 1   |
| 00  | 3401439     | Gear, Camshaft  | 1   | 1   |
| 00  | 3822067     | Screw, Captive Washer Cup                               | 2   | 2   |
| 00  | 3896335     | Support, Camshaft Thrust                                | 1   | 1   |
| 01  | 3102901     | Camshaft  | 1   | 1   |
| 02  | 196057      | Disc, Valve   | 1   | 1   |
| 03  | 3085615     | Ring, Retaining   | 1   | 1   |
| 04  | 3095356     | Shaft, Fuel Pump Drive                                  | 1   | 1   |
| 05  | FP-129888   | Seal, Rectangular Ring                                  | 1   | 1   |
| 06  | FP-3075383  | Tappet Assy (STC Fuel System, 1991-Up, Mushroom Design) | 6   | 6   |

# ISM/QSM Series



## Fuel Pump & Components



**Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover**

| Ref | Part Number | Description   | ISM | QSM |
|-----|-------------|---|-----|-----|
| 00  | 3028309     | Bearing, Thrust   | 1   | 1   |
| 00  | 3041042     | Gear, Accessory Drive   | 1   | 1   |
| 00  | 3041043     | Gear, Accessory Drive   | 1   | 1   |
| 00  | 3041048     | Gear & Shaft  | 1   | 1   |
| 00  | 3883123     | Screw, Hex Flange Head Cap                                    | 6   | 6   |
| 00  | 3896046     | Support, Accessory Drive                                      | 1   | 1   |
| 00  | 4903442     | Plug, Threaded  | 1   | 1   |
| 00  | 4903443     | Plug, Threaded  | 2   | 2   |
| 00  | S 3193      | Pin, Groove   | 1   | 1   |
| 01  | 170664      | Washer, Plain   | 1   | 1   |
| 02  | FP-3000173  | Screw, Hexagon Head Cap                                       | 1   | 1   |
| 03  | FP-3000174  | Hub, Jaw Coupling   | 1   | 1   |
| 04  | FP-110855   | Gasket, Fuel Pump   | 1   | 1   |
| 06  | FP-119364   | Gear, Fuel Pump - FP-119364 Status A - Pending Discontinuance | 2   | 2   |
| 08  | 3095356     | Shaft, Fuel Pump  | 1   | 1   |
| 09  | FP-3033740  | Valve, Check  | 1   | 1   |
| 10  | 4010296     | Plunger, Pressure Regulator                                   | 1   | 1   |
| 11  | 160540      | Washer, Plain   | 1   | 1   |
| 12  | FP-139988   | Seal, Rectangular Ring  | 1   | 1   |
| 13  | 3033719     | Dowel, Ring   | 1   | 1   |
| 14  | 3021123     | Seal, O-Ring  | 1   | 1   |





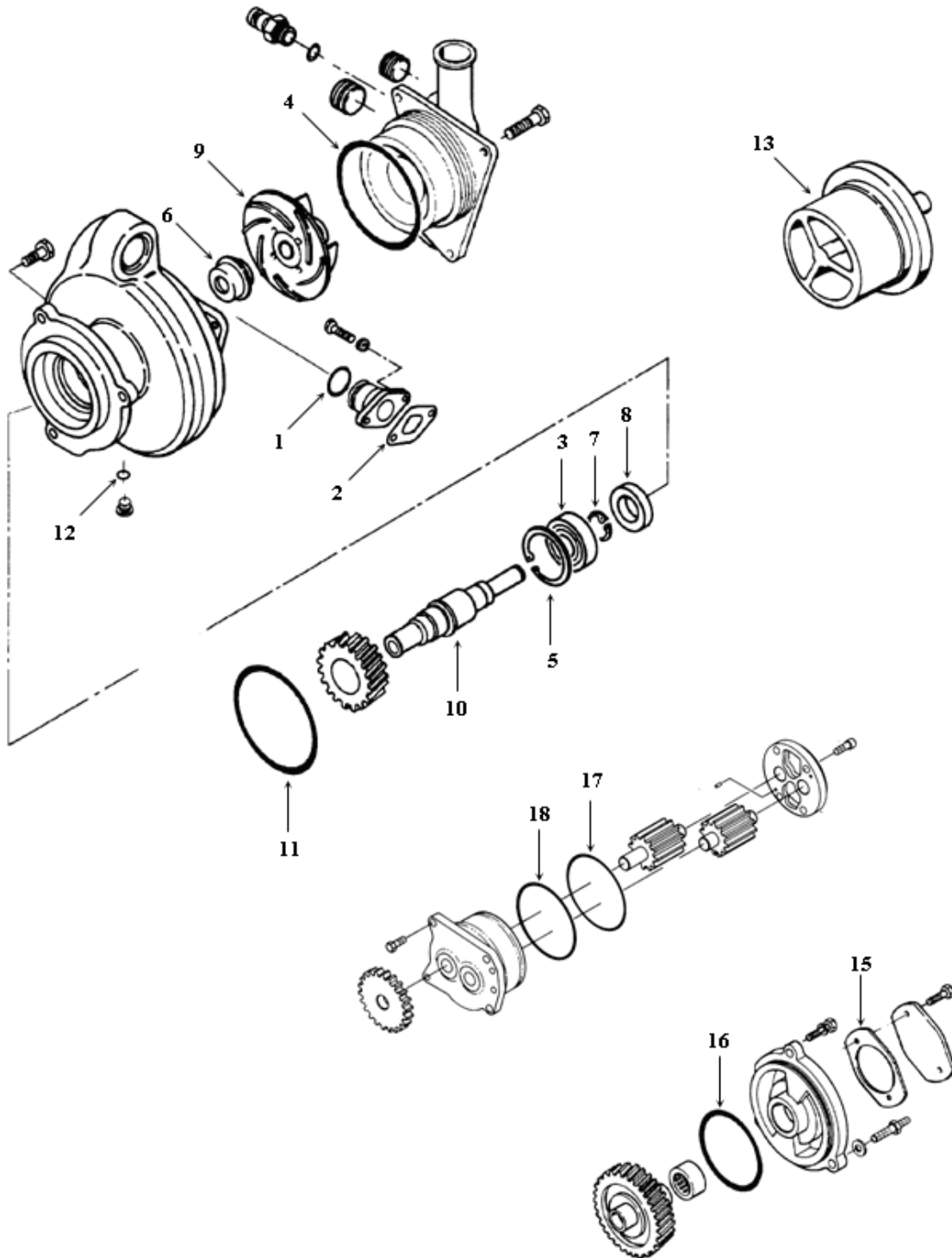
**Fuel Injectors**

| Ref | Part Number | Description             | ISM | QSM |
|-----|-------------|-------------------------|-----|-----|
| 00  | 3882793     | Screw, Twelve Point Cap | 6   | 6   |
| 00  | 4022914     | Clamp, Injector         | 6   | 6   |
| 00  | 4902921     | Injector                | 6   | 6   |
| 00  | FP-3070136  | Seal, O-Ring            | 1   | 1   |
| 00  | FP-3070137  | Seal, O-Ring            | 1   | 1   |
| 00  | FP-3070138  | Seal, O-Ring            | 1   | 1   |

# ISM/QSM Series



## Water Pump, Oil Pump, Thermostat



**Water Pump, Oil Pump, Thermostat**

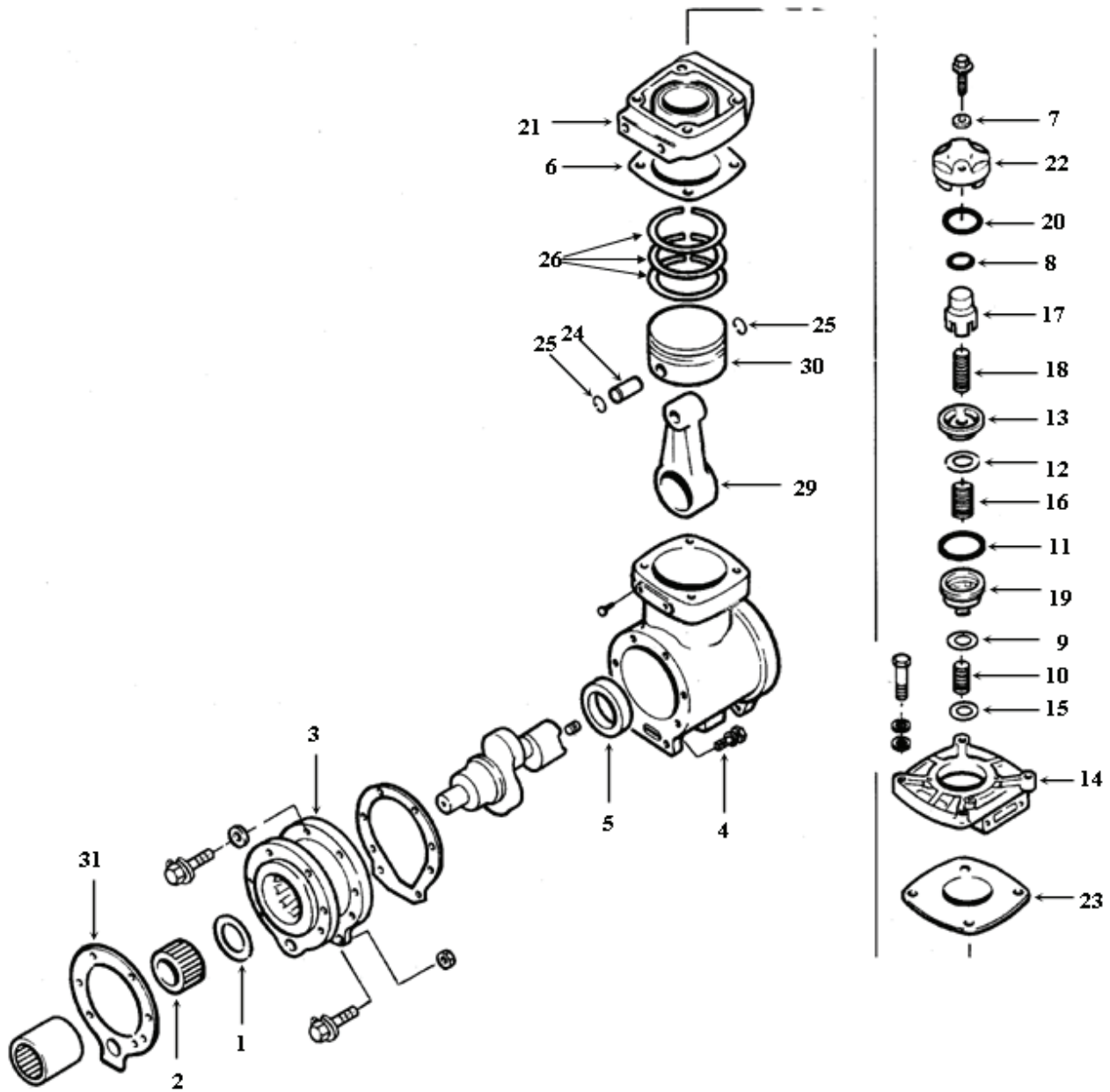
| Ref | Part Number | Description                          | ISM | QSM |
|-----|-------------|--------------------------------------|-----|-----|
| 00  | FP-3893690  | Gasket, Heater Housing               | -   | -   |
| 00  | FP-4083006  | Gasket, Water Header Cover           | -   | -   |
| 01  | 3102649     | Connection, Water Transfer           | 1   | 1   |
| 02  | FP-3027924  | Gasket, Connection                   | 1   | 1   |
| 03  | FP-S16002   | Bearing, Ball                        | 1   | 1   |
| 04  | FP-3102500  | Seal, O-Ring                         | 1   | 1   |
| 05  | FP-160586   | Ring, Retaining                      | 1   | 1   |
| 06  | 3609826     | Seal, Water Pump                     | 1   | 1   |
| 07  | FP-3064634  | Ring, Retaining                      | 1   | 1   |
| 08  | FP-3019600  | Seal, Oil                            | 1   | 1   |
| 09  | 3102723     | Impeller, Water Pump                 | 1   | 1   |
| 10  | 3102499     | Shaft, Water Pump                    | 1   | 1   |
| 11  | FP-2863701  | Seal, O-Ring (Previously FP-3882774) | 1   | 1   |
| 12  | FP-3037537  | Seal, O-Ring                         | 1   | 1   |
| 13  | 3335550     | Thermostat                           | 1   | 1   |
| 14  | FP-3335548  | Seal, Thermostat                     | 1   | 1   |
| 15  | 3558515     | Gasket, Hydraulic Pump               | 1   | 1   |
| 16  | FP-2863702  | Seal, O-Ring (Previously FP-3883042) | 1   | 1   |
| 17  | FP-3033248  | Seal, O-Ring                         | 1   | 1   |
| 18  | FP-3033247  | Seal, O-Ring                         | 1   | 1   |



# ISM/QSM Series



## Compressor (13.2 CFM)





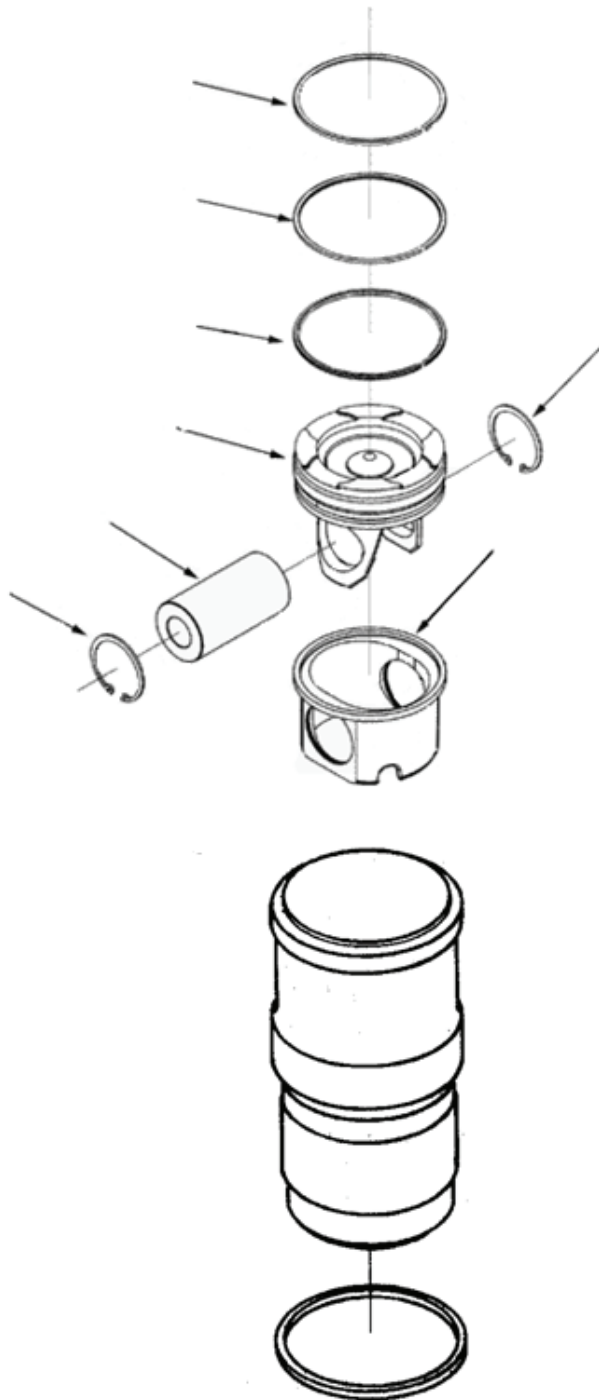
**Compressor (13.2 CFM)**

| Ref | Part Number | Description              | ISM | QSM |
|-----|-------------|--------------------------|-----|-----|
| 00  | 4089207     | Kit, Cylinder Head       | 1   | 1   |
| 00  | 4089209     | Kit, Piston Assembly     | 1   | 1   |
| 00  | 4089211     | Kit, Connecting Rod      | 1   | 1   |
| 00  | 4089213     | Kit, Crankschaft Bearing | 1   | 1   |
| 00  | FP-3820922  | Gasket, Air Compressor   | 1   | 1   |

# ISM-QSM Series



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set



**Cylinder Kits, Piston Kits, Liner Kits & Ring Set**

| Liner Kit  | Liner      | Liner Seal | Comments               |
|------------|------------|------------|------------------------|
| FP-3803703 | FP-3080760 | FP-3047188 | Non Induction Hardened |
| FP-4089388 | FP-3102423 | FP-3047188 | Induction Hardened     |

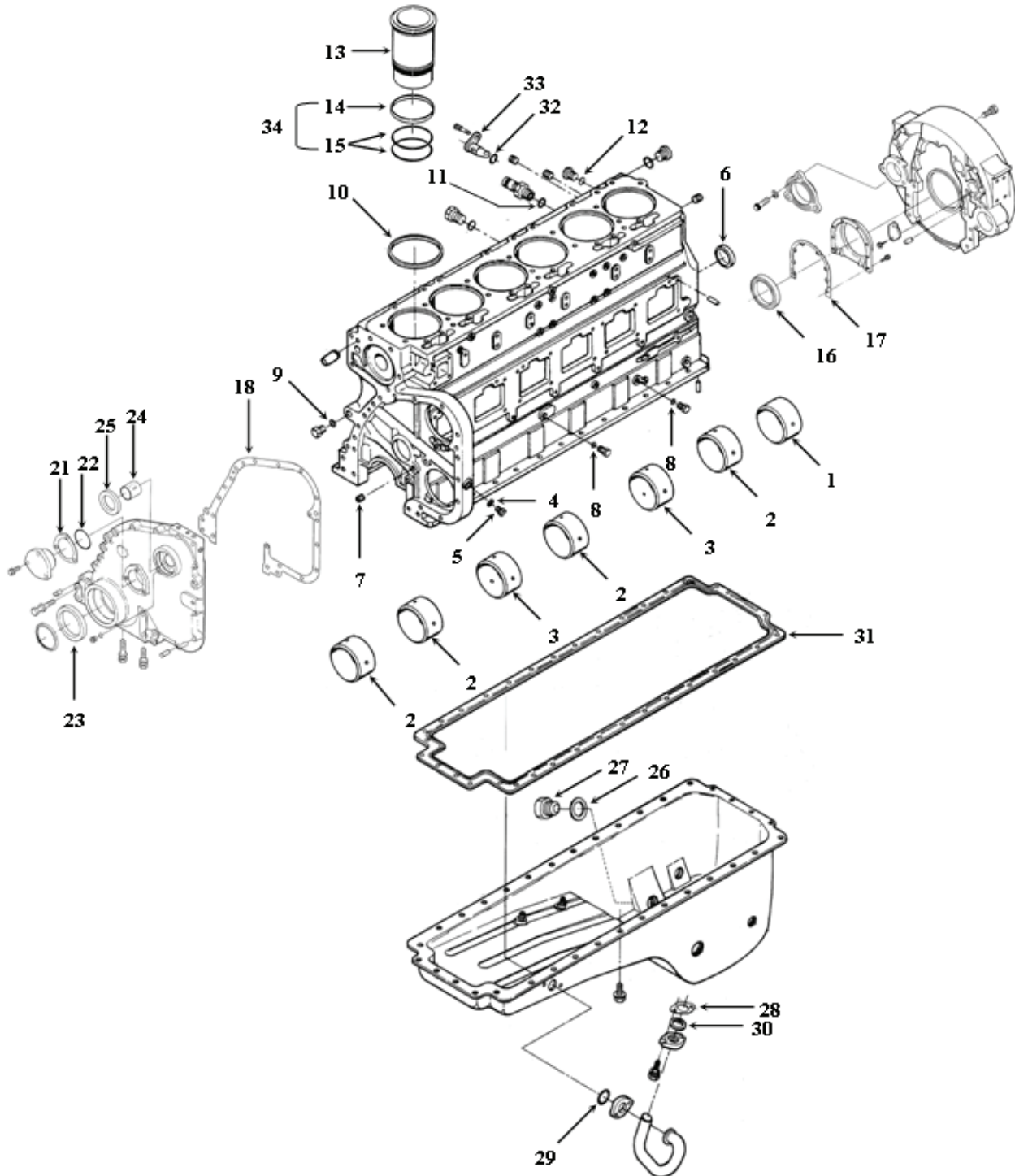
| Piston Kit | Piston Crown | Piston Skirt | Piston Ring Set | Piston Pin   | Piston Pin Retainer | Comment                          |
|------------|--------------|--------------|-----------------|--------------|---------------------|----------------------------------|
| 4024938    | 4059948      | FP-4070653   | FP-3903977      | FP-4083244   | FP-3016652          | Tier II (Europe Industrial only) |
| 4024941    | 4022532      | FP-4070653   | FP-3903977      | FP-4083244   | FP-3016652          | Euro III Europe & Asia only)     |
| 4025158    | 4059905      | FP-4070653   | FP-3903977      | FP-4083244   | FP-3016652          | ISM,QSM Marine                   |
| 4025174    |              | 3067804      | FP-3803961      | FP-4083244   | FP-3016652          | ISM,QSM Marine (CPL1626)         |
| 4089386    | 4060420      | 3067804      | FP-3803961      | FP-4083244   | FP-3016652          | L10                              |
| FP-4025161 | FP-4059901T  | FP-4070653T  | FP-3903977      | Not Included | FP-3016652          | L10,M11,ISM Industrial           |
| FP-4025168 | FP-4059898T  | FP-4070653T  | FP-3903977      | Not Included | FP-3016652          | ISM Automotive                   |
| FP-PK5161  | FP-4059901T  | FP-4070653T  | FP-3903977      | FP-4083244   | FP-3016652          | L10, M11, ISM Industrial         |
| FP-PK5164  | FP-4059898T  | FP-4070653T  | FP-3903977      | FP-4083244   | FP-3016652          | ISM Automotive                   |

| Cylinder Kit           | Liner      | Liner Seal | Piston Crown | Piston Skirt | Ring Set   | Piston Pin | Retainers  | Comment                          |
|------------------------|------------|------------|--------------|--------------|------------|------------|------------|----------------------------------|
| 3803971 Use 4025167    |            |            |              |              |            |            |            |                                  |
| 3803978 Use FP-4025162 |            |            |              |              |            |            |            |                                  |
| 3803980 Use 4025175    |            |            |              |              |            |            |            |                                  |
| 4024844 Use FP-4025164 |            |            |              |              |            |            |            |                                  |
| 4024939                | FP-3080760 | FP-3047188 | 4059948      | FP-4070653   | FP-3903977 | FP-4083244 | FP-3016652 | Tier II (Europe Industrial only) |
| 4024940                | FP-3080760 | FP-3047188 | 4022532      | FP-4070653   | FP-3903977 | FP-4083244 | FP-3016652 | Euro III Europe & Asia only)     |
| 4025160                | FP-3080760 | FP-3047188 | 4059905      | FP-4070653   | FP-3903977 | FP-4083244 | FP-3016652 | ISM,QSM Marine                   |
| 4025167                | FP-3080760 | FP-3047188 |              | 3067804      | FP-3803961 | FP-4083244 | FP-3016652 | ISM,QSM Marine (CPL1626)         |
| 4025175                | FP-3080760 | FP-3047188 | 4060420      | 3067804      | FP-3803961 | FP-4083244 | FP-3016652 | L10                              |
| FP-4025162             | FP-3080760 | FP-3047188 | FP-4059901T  | FP-4070653T  | FP-3903977 | FP-4083244 | FP-3016652 | L10,M11,ISM Industrial           |
| FP-4025164             | FP-3080760 | FP-3047188 | FP-4059898T  | FP-4070653T  | FP-3903977 | FP-4083244 | FP-3016652 | ISM Automotive                   |

# N14 Engine



## Cylinder Block



# N14 Engine



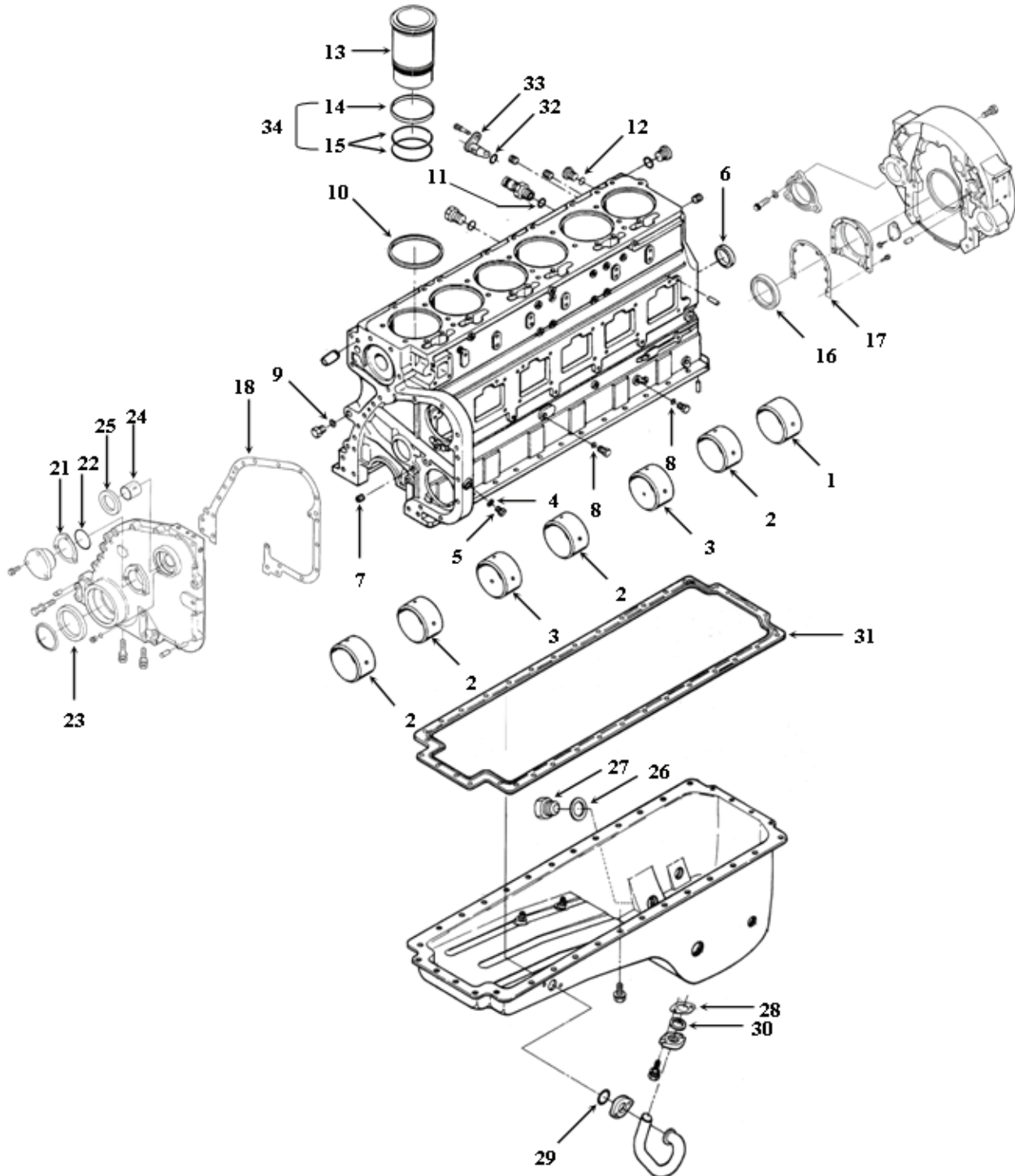
## Cylinder Block, Front & Rear Covers & Gasket Sets

| Ref | Part Number       | Description   | N14 |
|-----|-------------------|---|-----|
| 00  | FP-204165         | Screw, Head Locking (Flywheel)                            | 6   |
| 00  | FP-3803613        | Gasket Set, Lower Engine                                  | 1   |
| 00  | FP-380371610      | Gasket Set, Upper With .010" Thicker Head Gasket (Celect) | 1   |
| 00  | FP-4024924        | Upper Gasket Kit (STC Engine)                             | 1   |
| 00  | FP-402492410      | Gasket Set, Upper With .010" Thicker Head Gasket (STC)    | 1   |
| 00  | FP-4024924S       | Gasket Kit Media Repair (STC Engine)                      | 1   |
| 00  | FP-4089371        | Gasket Set, Upper Engine (Celect)                         | 1   |
| 00  | FP-4089371S       | Gasket Set, In-Frame Engine (Celect)                      | 1   |
| 00  | FP-IFKN14AR       | In-Frame Kit (Articulated Pistons)                        | 1   |
| 00  | FP-N14PREMDNAN-OH | Overhaul Engine Kit (370 H.P. & Above), (Anodized Crown)  | 1   |
| 00  | FP-N14PREMPDN     | In-Frame Kit (Below 370 H.P.)                             | 1   |
| 00  | FP-N14PREMPDNAN   | In-Frame Kit (370 H.P. & Above) (Anodized Crown)          | 1   |
| 00  | FP-N14PREMPDN-OH  | Overhaul Engine Kit (Below 370 H.P.)                      | 1   |
| 00  | FP-PGC25          | Gasket Set - C - Brake®                                   | 1   |
| 01  | FP-3011951        | Bushing, Camshaft #7                                      | 1   |
| 02  | FP-3028075        | Bushing, Camshaft #1,2,4,6                                | 4   |
| 03  | FP-3028269        | Bushing, Camshaft #3,5                                    | 2   |
| 04  | FP-66292          | Washer, Plain   | 1   |
| 05  | FP-210884         | Plug, Threaded (7/8 NPT)                                  | 1   |
| 06  | FP-3011952        | Plug, Expansion (2.625")                                  | 1   |
| 07  | FP-3013786        | Plug, Pipe (3/8 NPT)                                      | 3   |
| 08  | FP-3037537        | Seal, O-Ring  | 2   |
| 09  | FP-3046201        | Seal, O-Ring  | 2   |
| 10  | FP-30549486       | Ring, Liner Seal (0.0205" White) (Bulk - 6 per package)   | AR  |
| 10  | FP-3054948B       | Ring, Liner Seal (0.0205" White) (Bulk - 50 per package)  | AR  |
| 10  | FP-3019959        | Ring, Liner Seal (0.031")                                 | 6   |
| 10  | FP-3019960        | Ring, Liner Seal (0.062")                                 | 6   |
| 10  | FP-3054948        | Ring, Liner Seal (0.0205" White)                          | 6   |
| 11  | FP-3037537        | Seal, O-Ring  | 1   |
| 16  | FP-3006737        | Seal, Crankshaft (Rear)                                   | 1   |
| 16  | FP-3006743        | Sleeve, Crankshaft Repair (Rear)                          | 1   |
| 17  | FP-3067616        | Gasket, Rear Seal Cover                                   | 1   |
| 18  | FP-3067618        | Gasket, Front Gear Cover                                  | 1   |
| 19  | FP-200861         | Washer, Plain (Flywheel)                                  | 6   |
| 21  | FP-185573         | Shim, Camshaft Thrust (.025")                             | 1   |
| 21  | FP-65259A         | Shim, Camshaft Thrust (.010")                             | 1   |
| 21  | FP-65259B         | Shim, Camshaft Thrust (.005")                             | 1   |
| 21  | FP-65259C         | Shim, Camshaft Thrust (.002")                             | 1   |
| 22  | FP-215705         | Seal, O-Ring  | 1   |
| 23  | FP-3006736        | Seal, Crankshaft (Front)                                  | 1   |
| 23  | FP-3006742        | Sleeve, Crankshaft Repair (Front)                         | 1   |
| 24  | FP-132770         | Bushing, Accessory Drive                                  | 1   |
| 25  | FP-3004316        | Seal, Accessory Drive                                     | 1   |
| 26  | FP-67946          | Washer, Plain   | 1   |
| 27  | FP-3055069        | Plug, Threaded (1" NPT) (Oil Pan)                         | 1   |
| 28  | FP-157551         | Gasket, Oil Connection                                    | 1   |

# N14 Engine



## Cylinder Block





# N14 Engine



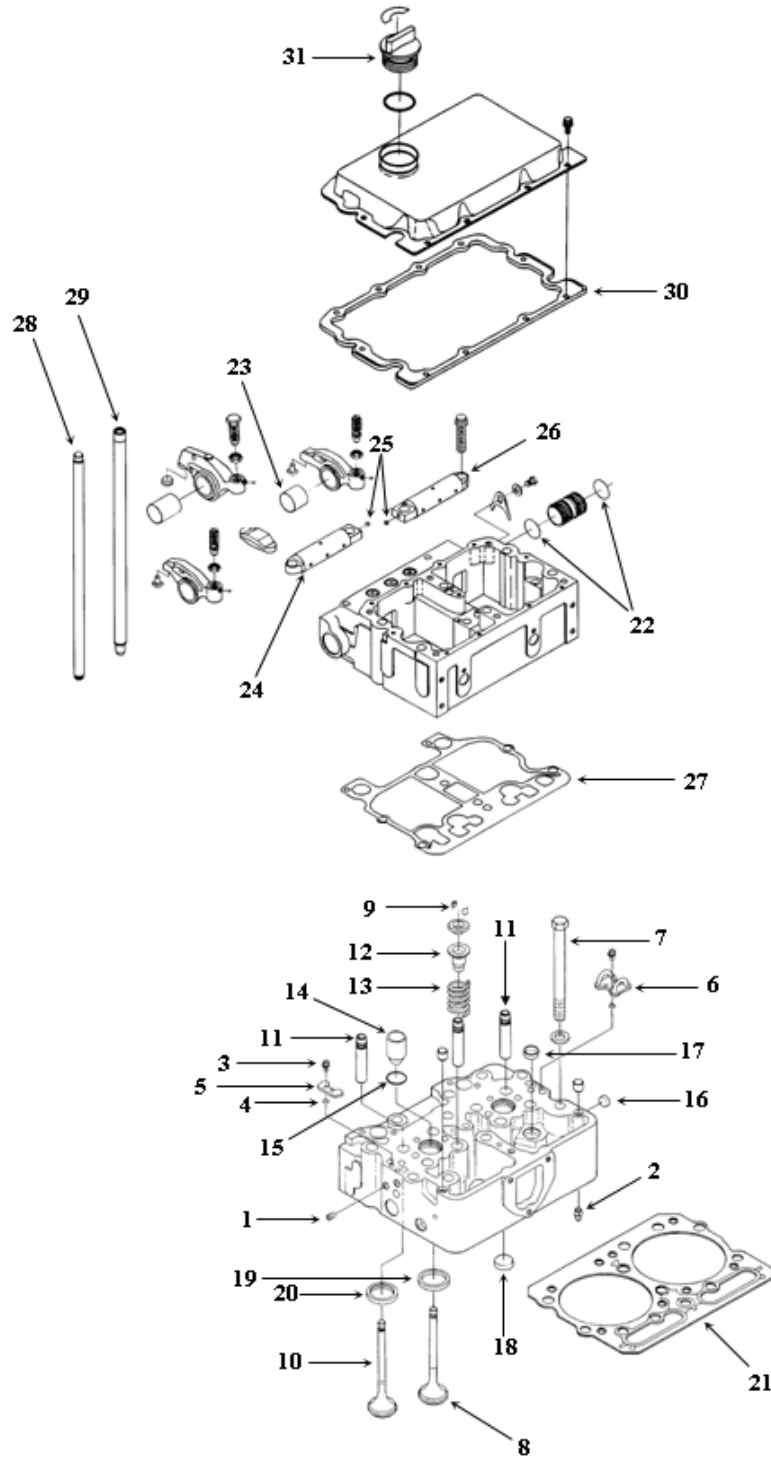
## Cylinder Block, Front & Rear Covers & Gasket Sets (Cont.)

| Ref | Part Number       | Description  | N14 |
|-----|-------------------|--|-----|
| 29  | FP-3029847        | Seal, O-Ring (Oil Suction Tube)                                    | 1   |
| 30  | FP-3034986        | Seal, O-Ring Rectangular Ring                                      | 1   |
| 31  | FP-3099083        | Gasket, Oil Pan (Premium 1.19mm / 0.047" Thick )(See Topic 97T7-8) | 1   |
| 31  | FP-3349820        | Gasket, Oil Pan (Standard 0.79mm / 0.031" Thick )                  | 1   |
| 32  | FP-4058941        | Seal, O-Ring Piston Cooling Nozzle                                 | 6   |
| 33  | FP-4058947        | Nozzle, Piston Cooling   | 6   |
| 34  | FP-AR51477        | Seal Kit, Cylinder Liner   | 6   |
| 00  | <b>FP-3801387</b> | <b>Kit, Cylinder Liner (.020 UPF)</b>                              | 6   |
| 13  | FP-3046325        | Liner (.020 UPF)   | 6   |
| 14  | FP-215090         | Seal, Crevice  | 6   |
| 15  | FP-3032874        | Seal, O-Ring   | 12  |
| 00  | <b>FP-3801826</b> | <b>Kit, Cylinder Liner</b>   | 6   |
| 13  | FP-3055099        | Liner, Cylinder  | 6   |
| 14  | FP-215090         | Seal, Crevice  | 6   |
| 15  | FP-3032874        | Seal, O-Ring   | 12  |
| 00  | <b>FP-3803219</b> | <b>Kit, Cylinder Liner (.020/.040 O.S.)</b>                        | 6   |
| 13  | FP-3065405        | Liner (.020/040 O.S.)  | 6   |
| 14  | FP-215090         | Seal, Crevice  | 6   |
| 15  | FP-3032874        | Seal, O-Ring   | 12  |

# N14 Engine



## Cylinder Head



# N14 Engine



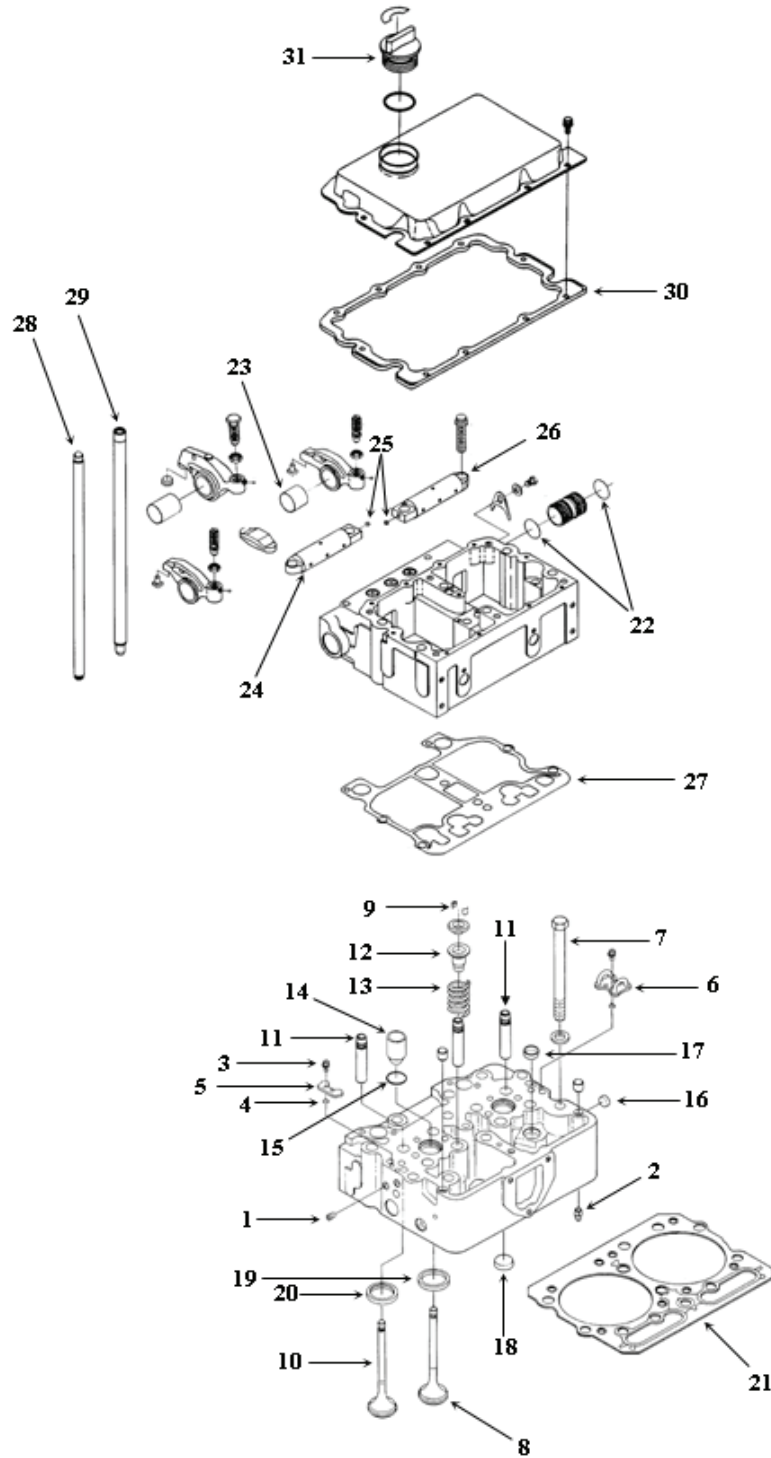
## Cylinder Head

| Ref | Part Number       | Description  | N14 |
|-----|-------------------|--|-----|
| 00  | FP-3020943        | Gasket, Exhaust Manifold                                     | 6   |
| 00  | FP-3008591        | Gasket, Intake Manifold                                      | 3   |
| 00  | FP-3803608        | Gasket Set, Single Cylinder Head                             | 3   |
| 00  | FP-380371610      | Gasket Set, Upper With .010" Thicker Head Gasket (Celect)    | 1   |
| 00  | FP-4024924        | Upper Gasket Kit (STC Engine), Switch to FP-4089368          | 1   |
| 00  | FP-402492410      | Gasket Set, Upper With .010" Thicker Head Gasket (STC)       | 1   |
| 00  | FP-4024924S       | Gasket Kit Media Repair (STC Engine) (Includes Board Carter) | 1   |
| 00  | FP-4089371        | Gasket Set, Upper Engine (Celect)                            | 1   |
| 00  | FP-4089371S       | Gasket Set, In-Frame Engine (Celect)                         | 1   |
| 00  | FP-PGC25          | Gasket Kit, Compression                                      | 1   |
| 01  | FP-S911B          | Plug, Pipe   | 10  |
| 02  | FP-68445          | Pin, Groove  | 6   |
| 03  | FP-70772          | Screw, Fillister Head Cap                                    | 12  |
| 04  | FP-131026         | Seal, O-Ring   | 12  |
| 05  | FP-135308         | Plate, Cover   | 2   |
| 06  | FP-147100         | Connection, Fuel Crossover                                   | 2   |
| 07  | FP-3071161        | Bolt, Cylinder Head (11/16 - 16 X 7 1/4")                    | 36  |
| 11  | FP-3064312        | Guide, Intake Valve  | 12  |
| 11  | FP-3072321        | Guide, Intake Valve (.010 O/S)                               | 12  |
| 12  | FP-3064281        | Seal, Valve Guide  | 12  |
| 13  | FP-3070460        | Spring, Valve  | 24  |
| 14  | FP-3070486        | Sleeve, Injector   | 6   |
| 15  | FP-3007759        | Seal, O-Ring (Injector Sleeve)                               | 6   |
| 16  | FP-3007634        | Plug, Expansion  | 3   |
| 17  | FP-3007635        | Plug, Expansion  | 6   |
| 18  | FP-3007636        | Plug, Expansion  | 2   |
| 19  | FP-3054590        | Insert, Intake Valve   | 12  |
| 19  | FP-3076515        | Insert, Intake Valve   | 12  |
| 20  | FP-3069692        | Insert, Exhaust Valve  | 12  |
| 21  | FP-4058790        | Cylinder Head Gasket, Switch to FP-3047402R1                 | 3   |
| 22  | FP-3050667        | Seal, O-Ring   | 5   |
| 23  | FP-3058462        | Bushing, Rocker Lever  | 6   |
| 24  | FP-3074375        | Shaft, Rocker Lever  | 3   |
| 25  | FP-203933         | Plug, Expansion  | 3   |
| 26  | FP-3074376        | Shaft, Rocker Lever  | 3   |
| 27  | FP-4058981        | Gasket, Rocker Lever Housing                                 | 3   |
| 28  | FP-3066291        | Rod, Push (Valve)  | 12  |
| 29  | FP-3067932        | Rod, Push (Injector)   | 6   |
| 30  | FP-3066311        | Gasket, Rocker Cover   | 1   |
| 31  | FP-101322         | Cap, Oil Filler  | 1   |
| 31  | FP-107981         | Cap, Oil Filler  | 1   |
| 00  | <b>FP-3803360</b> | <b>Kit, Intake Valve (Celect)</b>                            | 12  |
| 08  | FP-3068519        | Valve, Intake  | 12  |
| 09  | FP-3072369        | Lock Half, Valve   | 24  |
| 00  | <b>FP-3803726</b> | <b>Kit, Exhaust Valve (STC Industrial)</b>                   | 12  |
| 10  | FP-3069672        | Valve, Exhaust   | 12  |
| 09  | FP-3072369        | Lock Half, Valve   | 24  |

# N14 Engine



## Cylinder Head



# N14 Engine



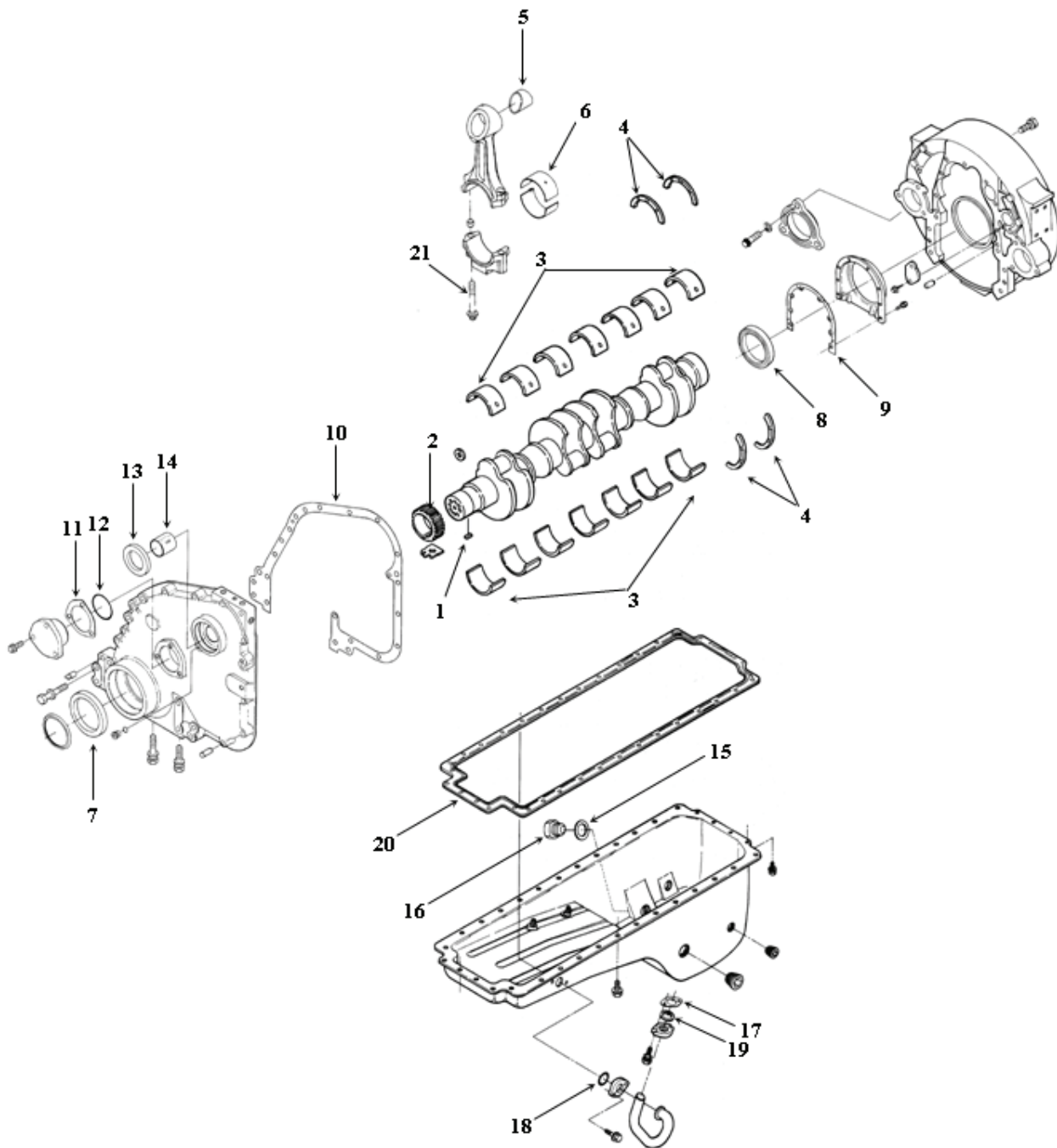
## Cylinder Head (Cont.)

| Ref | Part Number       | Description                        | N14 |
|-----|-------------------|------------------------------------|-----|
| 00  | <b>FP-3803770</b> | Kit, Exhaust Valve (Automotive)    | 12  |
| 10  | FP-3078399        | Valve, Exhaust                     | 12  |
| 09  | FP-3072369        | Lock Half, Valve                   | 24  |
| 00  | <b>FP-3803854</b> | Kit, Intake Valve (STC Industrial) | 12  |
| 08  | FP-3084045        | Valve, Intake                      | 12  |
| 09  | FP-3072369        | Lock Half, Valve                   | 24  |

# N14 Engine



## Crankshaft



## Crankshaft

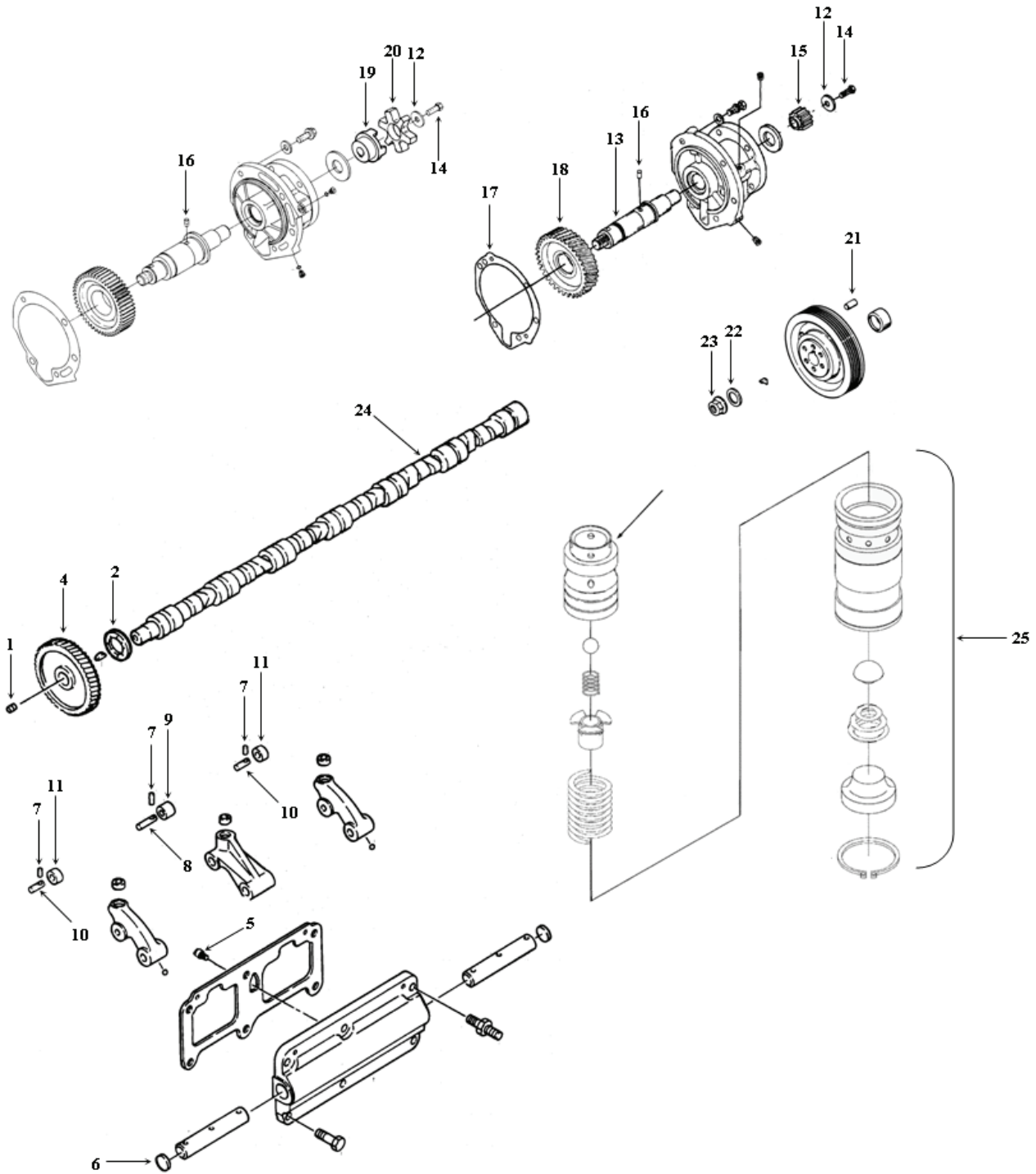
| Ref | Part Number  | Description   | N14 |
|-----|--------------|---|-----|
| 00  | FP-200861    | Washer, Plain (Flywheel)  | 6   |
| 00  | FP-204165    | Screw, Head Locking   | 6   |
| 00  | FP-204165    | Screw, Head Locking   | 1   |
| 00  | FP-217323    | Damper, Vibration (13.55 Inch Diameter)                           | 1   |
| 01  | FP-210179    | Key, Crankshaft   | 1   |
| 02  | FP-3014614   | Gear, Crankshaft  | 1   |
| 03  | FP-3801260   | Set, Main Bearing (Std.)  | 1   |
| 03  | FP-3801261   | Set, Main Bearing (.010)  | 1   |
| 03  | FP-3801262   | Set, Main Bearing (.020)  | 1   |
| 03  | FP-3801263   | Set, Main Bearing (.030)  | 1   |
| 03  | FP-3801264   | Set, Main Bearing (.040)  | 1   |
| 04  | FP-3067568   | Thrust Washer (Std.)  | 1   |
| 05  | FP-3064295   | Bushing, Connecting Rod   | 6   |
| 06  | FP-3055145PR | Bearing, Connecting Rod (Std.)(Pair Pack)                         | 6   |
| 06  | FP-3055146PR | Bearing, Connecting Rod (.010)(Pair Pack)                         | 6   |
| 06  | FP-3055145   | Bearing, Connecting Rod (Std.)                                    | 12  |
| 06  | FP-3055146   | Bearing, Connecting Rod (.010)                                    | 12  |
| 06  | FP-3055147   | Bearing, Connecting Rod (.020)                                    | 12  |
| 06  | FP-3055148   | Bearing, Connecting Rod (.030)                                    | 12  |
| 06  | FP-3055149   | Bearing, Connecting Rod (.040)                                    | 12  |
| 07  | FP-3006736   | Seal, Crankshaft (Front)  | 1   |
| 08  | FP-3006737   | Seal, Crankshaft (Rear)   | 1   |
| 09  | FP-3067616   | Gasket, Rear Seal Cover   | 1   |
| 10  | FP-3067618   | Gasket, Front Gear Cover  | 1   |
| 11  | FP-185573    | Shim, Camshaft Thrust (.025")                                     | 1   |
| 11  | FP-65259A    | Shim, Camshaft Thrust (.010")                                     | 1   |
| 11  | FP-65259B    | Shim, Camshaft Thrust (.005")                                     | 1   |
| 11  | FP-65259C    | Shim, Camshaft Thrust (.002")                                     | 1   |
| 12  | FP-215705    | Seal, O-Ring  | 1   |
| 13  | FP-132770    | Bushing, Accessory Drive  | 1   |
| 14  | FP-3004316   | Seal, Accessory Drive   | 1   |
| 15  | FP-67946     | Washer, Plain   | 1   |
| 16  | FP-3055069   | Plug, Threaded (1" NPT), (Oil Pan)                                | 1   |
| 17  | FP-157551    | Gasket, Oil Connection  | 1   |
| 18  | FP-3029847   | Seal, O-Ring (Oil Suction Tube)                                   | 1   |
| 19  | FP-3034986   | Seal, Rectangular Ring  | 1   |
| 20  | FP-3099083   | Gasket, Oil Pan (Premium 1.19mm / 0.047" Thick)(See Topic 97T7-8) | 1   |
| 20  | FP-3349820   | Gasket, Oil Pan (Standard 0.79mm / 0.031" Thick )                 | 1   |
| 21  | FP-3349806   | Bolt, Connecting Rod  | 12  |



# N14 Engine



## Camshaft, Follower & Accessory Drive



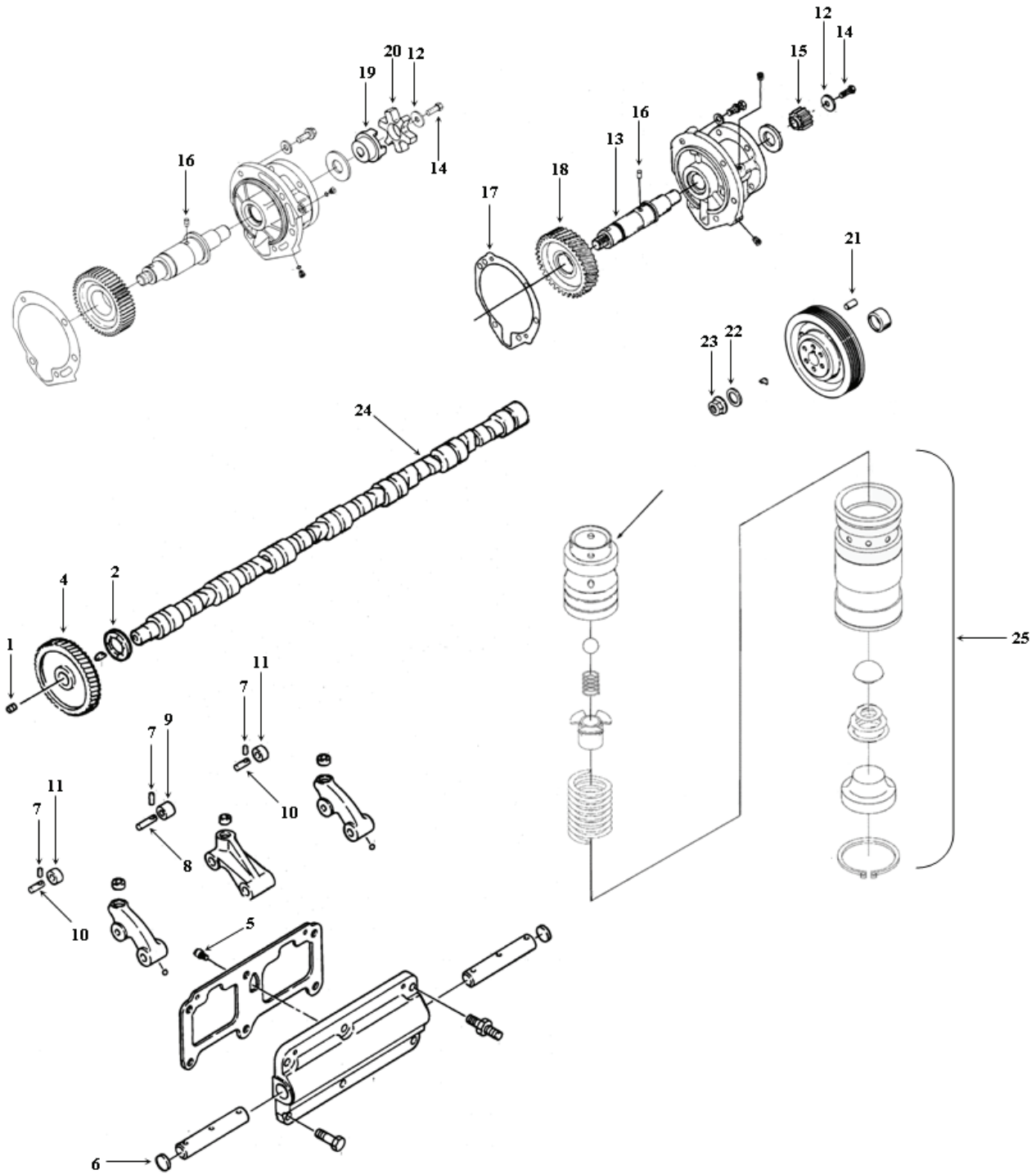
## Camshaft, Cam Follower & Accessory Drive

| Ref | Part Number       | Description  | N14 |
|-----|-------------------|--|-----|
| 00  | FP-3068471        | Gasket, Cam Follower Mounting                      | 3   |
| 00  | FP-3068473        | Gasket, Cam Follower Mounting (.032" Thick)        | 3   |
| 00  | FP-3068474        | Gasket, Cam Follower Mounting (.037" Thick)        | 3   |
| 00  | FP-3068476        | Gasket, Cam Follower Mounting (.047" Thick)        | 3   |
| 00  | FP-3068477        | Gasket, Cam Follower Mounting (.052" Thick)        | 3   |
| 00  | FP-3074400        | Gasket, Cam Follower Mounting                      | 3   |
| 00  | FP-3074401        | Gasket, Cam Follower Mounting (.006-.008 Thick)    | 3   |
| 00  | FP-3074402        | Gasket, Cam Follower Mounting (.014-.021 Thick)    | 3   |
| 00  | FP-3074403        | Gasket, Cam Follower Mounting (.018-.025 Thick)    | 3   |
| 00  | FP-145551         | Seal, O-Ring (Fan Drive)                           | 1   |
| 00  | FP-200307         | Seal, Oil (Fan Drive)                              | 1   |
| 00  | FP-3069102        | Gasket, Compressor To Accessory Drive              | 1   |
| 00  | FP-4026171        | Gasket, PTO Fuel Pump (Previously FP-3069103)      | 1   |
| 00  | FP-S911B          | Plug, Pipe (1/8" - 27 NPT)                         | 1   |
| 01  | FP-68193          | Pipe Plug  | 1   |
| 02  | FP-215233         | Bearing, Thrust                                    | 1   |
| 03  | FP-3021599        | Key, Offset Woodruff                               | 1   |
| 03  | FP-3021601        | Key, Offset Woodruff                               | 1   |
| 04  | FP-3002901        | Gear, Camshaft                                     | 1   |
| 05  | FP-69736          | Screw, Hexagon Head Cap                            | 2   |
| 06  | FP-205401         | Plug, Expansion                                    | 2   |
| 07  | FP-3064309        | Pin, Roll  | 12  |
| 08  | FP-3166388        | Pin, Cam Follower Roller (Injector)                | 6   |
| 08  | FP-3412922        | Pin, Cam Follower Roller (Injector)                | 6   |
| 09  | FP-3161423        | Roller, Cam Follower (Injector)                    | 6   |
| 09  | FP-3895487        | Roller, Cam Follower (Injector)                    | 6   |
| 10  | FP-3013331        | Pin, Cam Follower Roller (Valve)                   | 12  |
| 10  | FP-3166428        | Pin, Cam Follower Roller (Valve)                   | 12  |
| 11  | FP-3036933        | Roller, Cam Follower (Valve)                       | 12  |
| 11  | FP-3865237        | Roller, Cam Follower (Valve), (Check Availability) | 12  |
| 17  | FP-3069101        | Gasket, Accessory Drive Support                    | 1   |
| 18  | FP-142689         | Gear, Accessory Drive                              | 1   |
| 19  | FP-3000175        | Hub, Jaw Coupling (Fuel Pump Drive)                | 1   |
| 20  | FP-3046200        | Spider, Jaw Coupling (Fuel Pump Drive)             | 1   |
| 21  | FP-70550          | Dowel, Pin (Accessory Drive Pulley)                | 1   |
| 22  | FP-193136         | Washer, Plain (Accessory Drive Pulley)             | 1   |
| 23  | FP-3012526        | Nut, Hexagon Flange (7/8" 14 UNF)                  | 1   |
| 24  | FP-3800855        | Camshaft (CPL's 1374, 1405, 1607 and 1652)         | 1   |
| 25  | FP-3075381        | Tappet Assy (Pre 1991)                             | 6   |
| 25  | FP-3075383        | Tappet Assy (1991 - Up STC, Mushroom Design)       | 6   |
| 00  | <b>FP-3006483</b> | <b>Kit, Accessory Drive Shaft</b>                  | 1   |
| 12  | FP-170664         | Washer, Plain                                      | 1   |
| 13  | FP-3000171        | Shaft, Accessory Drive                             | 1   |
| 14  | FP-3000173        | Screw, Hexagon Head Cap                            | 1   |
| 15  | FP-3000174        | Hub, Jaw Coupling                                  | 1   |
| 00  | FP-3008947        | Seal, Accessory Drive                              | 1   |
| 16  | FP-3034438        | Pin, Groove  | 1   |

# N14 Engine



## Camshaft, Follower & Accessory Drive



# N14 Engine



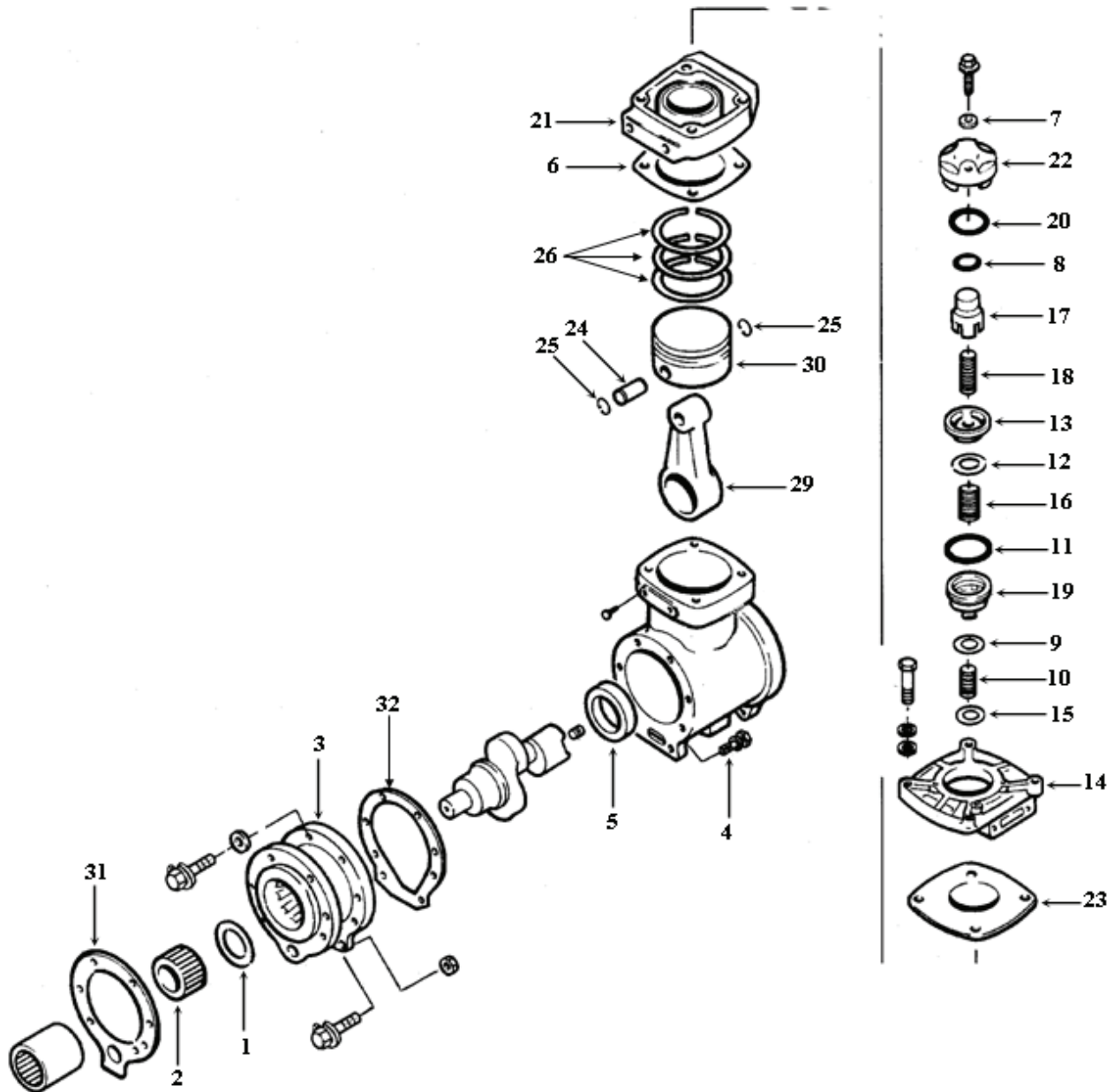
## Camshaft, Cam Follower & Accessory Drive (Cont.)

| Ref | Part Number     | Description                           | N14 |
|-----|-----------------|---------------------------------------|-----|
| 00  | <b>FP-90004</b> | Repair Kit, Accessory Drive           | 1   |
| 00  | FP-116391       | Bushing, Accessory Drive              | 1   |
| 00  | FP-132770       | Bushing, Gear Cover                   | 1   |
| 00  | FP-190397       | Sleeve, Pulley                        | 1   |
| 00  | FP-3004316      | Seal, Front Cover                     | 1   |
| 00  | FP-3008947      | Seal, Accessory Drive                 | 1   |
| 00  | FP-3014103      | Washer                                | 1   |
| 00  | FP-3026556      | Thrust Washer, Accessory Drive        | 1   |
| 00  | FP-3026557      | Thrust Washer, Accessory Drive        | 1   |
| 17  | FP-3069101      | Gasket, Accessory Drive Support       | 1   |
| 00  | FP-3069102      | Gasket, Compressor To Accessory Drive | 1   |

# N14 Engine



## Compressor (13.2 CFM)



# N14 Engine



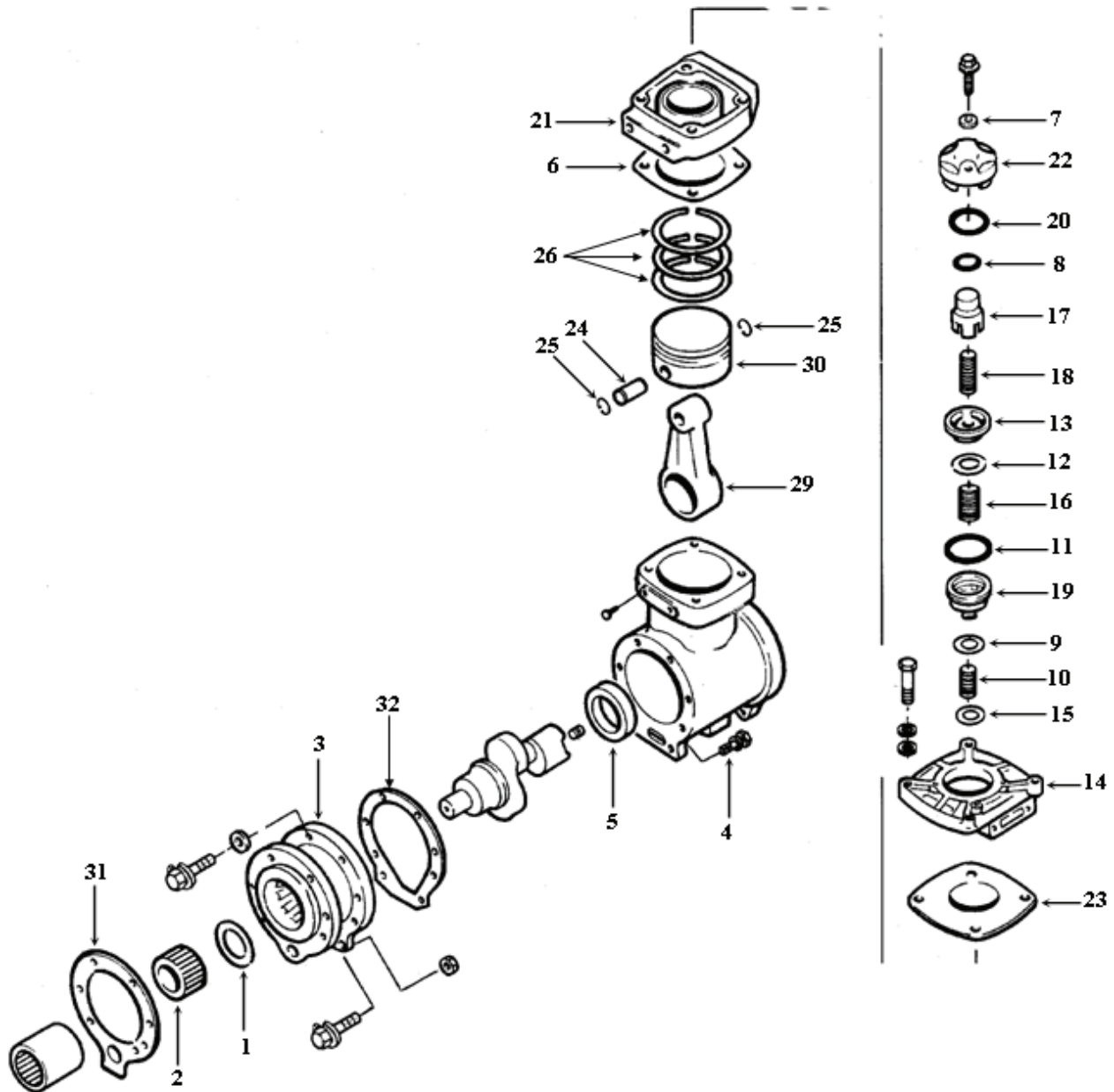
## Compressor (13.2 CFM)

| Ref | Part Number       | Description  | N14 |
|-----|-------------------|--|-----|
| 00  | FP-3018153        | Bushing, Connecting Rod  | 1   |
| 00  | FP-3038060        | Tube, Copper (Water Inlet Compressor)                                | 1   |
| 01  | FP-211662         | Bearing, Thrust  | 1   |
| 02  | FP-3000174        | Hub, Spline Coupling   | 1   |
| 04  | FP-3012472        | Screw, Captive Washer Cap  | 2   |
| 05  | FP-147610         | Bushing  | 1   |
| 06  | FP-154018         | Gasket, Air Compressor   | 1   |
| 07  | FP-109557         | Washer, Plain  | 2   |
| 08  | FP-127936         | Seal Ring  | 1   |
| 09  | FP-127940         | Valve, Exhaust   | 1   |
| 10  | FP-128080         | Spring, Compression  | 1   |
| 11  | FP-128086         | Seal, O-Ring   | 1   |
| 12  | FP-144948         | Valve, Intake  | 1   |
| 13  | FP-145028         | Seat, Compressor Intake Valve  | 1   |
| 14  | FP-153964         | Cover, Air Compressor  | 1   |
| 15  | FP-183429         | Plate, Wear  | 1   |
| 16  | FP-190334         | Spring, Valve  | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 CFM)   | 1   |
| 18  | FP-3023101        | Spring, Compression  | 1   |
| 20  | FP-3043995        | Seal, O-Ring   | 1   |
| 21  | FP-3558762        | Head, Compressor   | 1   |
| 22  | FP-3046298        | Body, Unloading Valve  | 1   |
| 22  | FP-3558624        | Body, Unloader Valve (Celect, Celect Plus)                           | 1   |
| 23  | FP-3047159        | Gasket   | 1   |
| 29  | FP-3018151        | Rod, Compressor Connecting   | 1   |
| 31  | FP-3820922        | Gasket, Air Compressor Support                                       | 1   |
| 32  | FP-176027         | Gasket   | 1   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> | 1   |
| 30  | FP-3045670        | Body, Piston   | 1   |
| 26  | FP-AR73350        | Ring Set, Compressor (Std.)  | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> | 1   |
| 30  | FP-3045671        | Body, Piston (.010)  | 1   |
| 26  | FP-AR73351        | Ring Set, Compressor, (.010)   | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> | 1   |
| 30  | FP-3045672        | Body, Piston (.020)  | 1   |
| 26  | FP-AR73352        | Ring Set, Compressor, (.020)   | 1   |
| 24  | FP-119810         | Pin, Piston  | 1   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |

# N14 Engine



## Compressor (13.2 CFM)





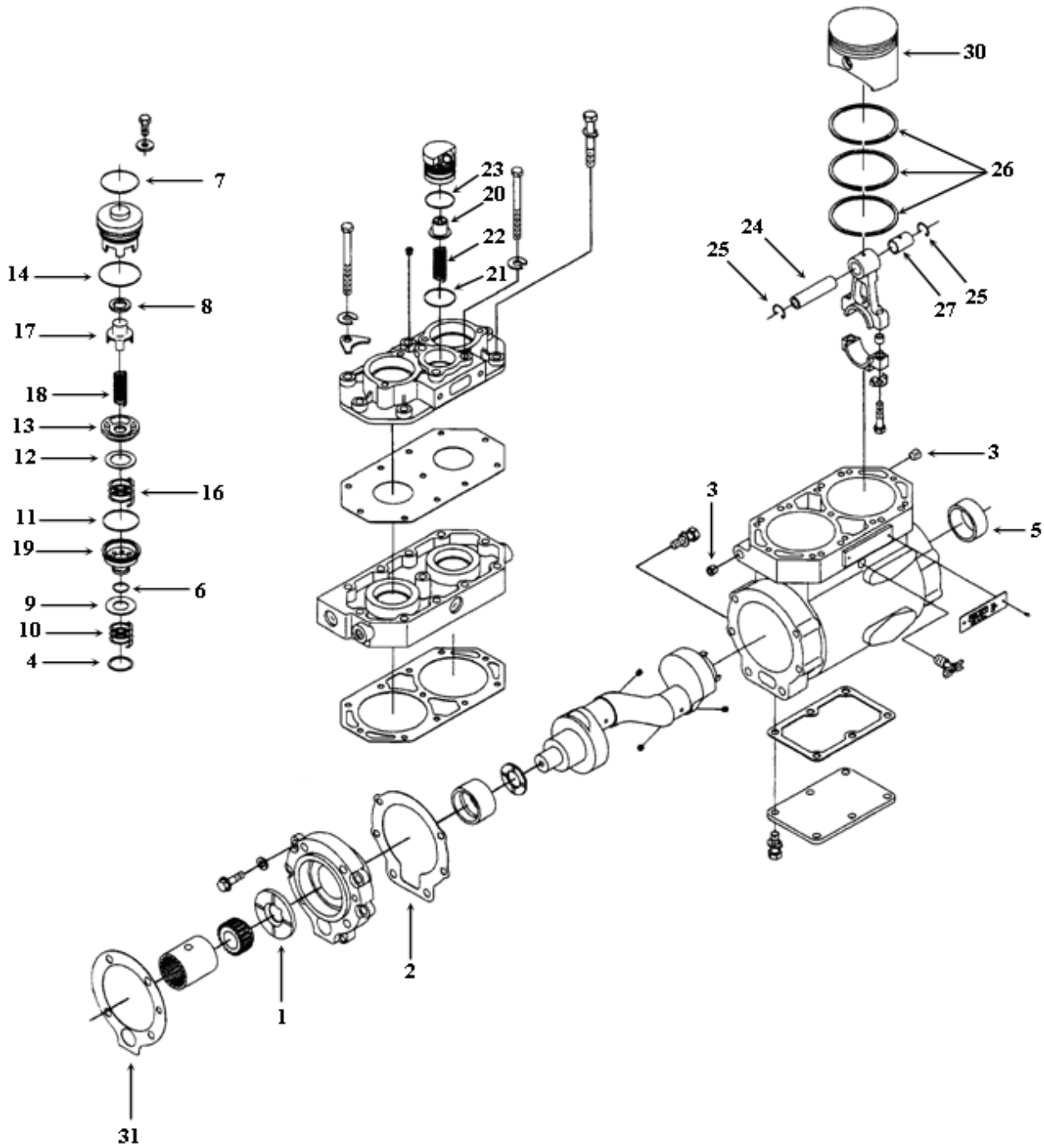
## Compressor Kits (13.2 CFM)

| Ref | Part Number       | Description                         | N14 |
|-----|-------------------|-------------------------------------|-----|
| 00  | <b>FP-3801728</b> | Kit, Compressor Head Repair (Major) | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1   |
| 13  | FP-145028         | Seat, Compressor Intake Valve       | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 CFM)            | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve      | 1   |
| 22  | FP-3046298        | Body, Unloading Valve               | 1   |
| 00  | <b>FP-3801733</b> | Kit, Compressor Head Repair (Minor) | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                   | 1   |
| 13  | FP-145028         | Seat, Compressor Intake Valve       | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 CFM)            | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve      | 1   |
| 00  | <b>FP-AR12719</b> | Kit, Valve Repair                   | 1   |
| 07  | FP-109557         | Washer, Plain                       | 1   |
| 08  | FP-127936         | Seal Ring                           | 1   |
| 09  | FP-127940         | Valve, Exhaust                      | 1   |
| 10  | FP-128080         | Spring, Compression                 | 1   |
| 11  | FP-128086         | Seal, O-Ring                        | 1   |
| 12  | FP-144948         | Valve, Intake                       | 1   |
| 15  | FP-183429         | Plate, Wear                         | 1   |
| 16  | FP-190334         | Spring, Valve                       | 1   |
| 18  | FP-3023101        | Spring, Compression                 | 1   |
| 20  | FP-3043995        | Seal, O-Ring                        | 1   |
| 00  | FP-128085         | Seal, O-Ring                        | 1   |
| 00  | <b>FP-AR73308</b> | Gasket Set, 13.2 CFM Compressor     | 1   |
| 08  | FP-127936         | Seal, O-Ring                        | 1   |
| 00  | FP-128085         | Seal, O-Ring                        | 1   |
| 11  | FP-128086         | Seal, O-Ring                        | 1   |
| 06  | FP-154018         | Gasket                              | 1   |
| 00  | FP-176027         | Gasket                              | 1   |
| 20  | FP-3043995        | Seal, O-Ring                        | 1   |
| 23  | FP-3047159        | Gasket                              | 1   |
| 00  | FP-3201386        | Gasket                              | 1   |

# N14 Engine



## Compressor (30 CFM)



# N14 Engine



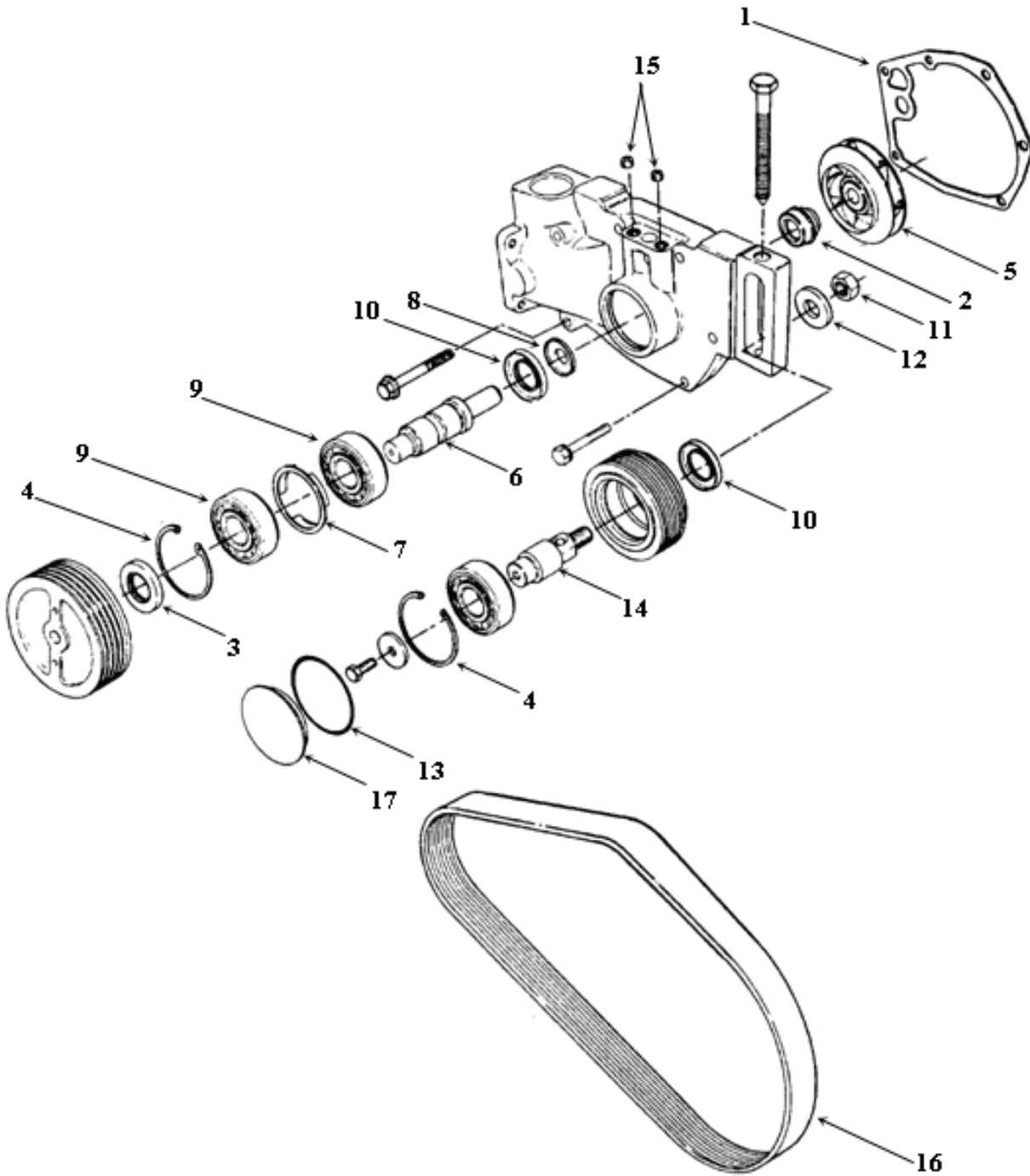
## Compressor (30 CFM)

| Ref | Part Number       | Description  | N14 |
|-----|-------------------|--|-----|
| 01  | FP-211662         | Bearing, Thrust  | 1   |
| 02  | FP-199347         | Gasket, Air Compressor   | 1   |
| 03  | FP-3013786        | Plug, Pipe   | 2   |
| 04  | FP-183429         | Plate, Wear  | 2   |
| 05  | FP-147610         | Bushing  | 1   |
| 06  | FP-3042542        | Seal, O-Ring   | 2   |
| 07  | FP-211315         | Seal, O-Ring   | 2   |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   |
| 09  | FP-127940         | Valve, Exhaust   | 1   |
| 10  | FP-128080         | Spring, Compression  | 1   |
| 11  | FP-128086         | Seal, O-Ring   | 1   |
| 12  | FP-144948         | Valve, Intake  | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve                                       | 1   |
| 14  | FP-3015068        | Seal, O-Ring   | 2   |
| 16  | FP-190334         | Spring, Valve  | 1   |
| 17  | FP-191037         | Cap, Unloader  | 1   |
| 18  | FP-3023101        | Spring, Compression  | 1   |
| 20  | FP-184240         | Cap, Unloader Valve (E Type)   | 1   |
| 21  | FP-3009738        | Seal, O-Ring   | 1   |
| 22  | FP-150631         | Spring, Compression  | 1   |
| 23  | FP-3009739        | Seal, O-Ring   | 1   |
| 27  | FP-3018153        | Bushing, Connecting Rod  | 1   |
| 31  | FP-3820922        | Gasket, Air Compressor Support                                       | 1   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> | 2   |
| 30  | FP-3045670        | Body, Piston (Std.)  | 2   |
| 26  | FP-AR73350        | Ring Set, Compressor (Std.)  | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> | 2   |
| 30  | FP-3045671        | Body, Piston (.010)  | 2   |
| 26  | FP-AR73351        | Ring Set, Compressor (.010)  | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> | 2   |
| 30  | FP-3045672        | Body, Piston (.020)  | 2   |
| 26  | FP-AR73352        | Ring Set, Compressor (.020)  | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   |
| 00  | <b>FP-AR12719</b> | <b>Kit, Valve Repair</b>   | 1   |
| 07  | FP-109557         | Washer, Plain  | 2   |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   |
| 09  | FP-127940         | Valve, Exhaust   | 1   |
| 10  | FP-128080         | Spring, Compression  | 1   |
| 11  | FP-128086         | Seal, O-Ring   | 1   |
| 12  | FP-144948         | Valve, Intake  | 1   |
| 15  | FP-183429         | Plate, Wear  | 1   |
| 16  | FP-190334         | Spring, Valve  | 1   |
| 18  | FP-3023101        | Spring, Compression  | 1   |
| 20  | FP-3043995        | Seal, O-Ring   | 1   |
| 00  | FP-128085         | Seal, O-Ring   | 1   |

# N14 Engine



## Water Pump



# N14 Engine



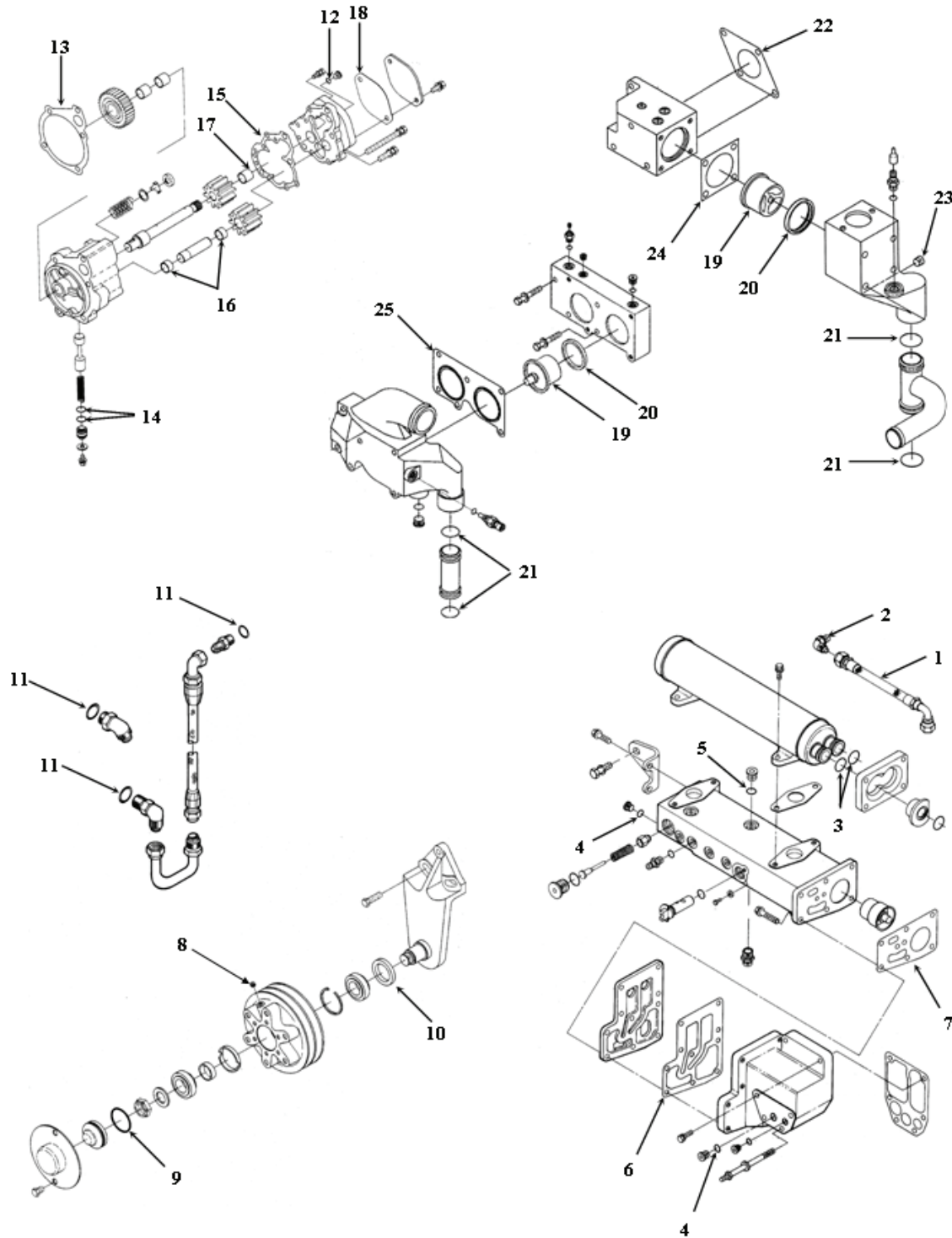
## Water Pump

| Ref | Part Number       | Description   | N14 |
|-----|-------------------|---|-----|
| 00  | FP-186780         | Seal, Thermostat  | 1   |
| 00  | FP-193136         | Washer, Plain   | 1   |
| 00  | FP-203097         | Sleeve, Wear  | 1   |
| 00  | FP-3012526        | Nut, Hexagon Flange (7/8 - 14 UNF)  | 1   |
| 00  | FP-3066330        | Pulley, Idler   | 1   |
| 00  | FP-3076489        | Thermostat Assembly (180° F)  | 1   |
| 00  | FP-3803605        | Pump Assembly, Water (CPL #'s 1054, 1059, 1061, 1062, 1718, 1719, 1722, 1723) | 1   |
| 00  | FP-70550          | Pin, Dowel  | 1   |
| 01  | FP-3076522        | Gasket, Mounting  | 1   |
| 02  | FP-3029099        | Seal, Water Pump  | 1   |
| 03  | FP-3038998        | Seal, Oil   | 2   |
| 11  | FP-S201           | Nut, Heavy Hexagon  | 1   |
| 12  | FP-213082         | Washer, Plain   | 1   |
| 13  | FP-145551         | Seal, O-Ring  | 1   |
| 14  | FP-3066328        | Shaft, Idler  | 1   |
| 15  | FP-S911B          | Plug, Pipe  | 2   |
| 16  | FP-217638         | Belt, V Ribbed  | 1   |
| 17  | FP-3064404        | Cover, Idler Pulley   | 1   |
| 00  | <b>FP-3064392</b> | <b>Assembly, Water Pump Shaft</b>   | 1   |
| 06  | FP-3064389        | Shaft, Water Pump   | 1   |
| 07  | FP-196844         | Spacer, Bearing   | 1   |
| 08  | FP-3064390        | Slinger, Water Pump   | 1   |
| 09  | FP-3064406        | Bearing, Ball   | 2   |
| 10  | FP-3074482        | Seal, Oil   | 1   |
| 00  | <b>FP-3803612</b> | <b>Kit, Water Pump Repair (Minor)</b>   | 1   |
| 04  | FP-S16255         | Ring, Retaining P/Bolt  | 1   |
| 00  | FP-43463A         | Seal, O-Ring  | 1   |
| 02  | FP-3029099        | Seal, Water Pump  | 1   |
| 00  | FP-3024960        | Gasket, Connection  | 1   |
| 01  | FP-3076522        | Gasket, Mounting  | 1   |
| 00  | <b>FP-3803614</b> | <b>Kit, Water Pump Repair (Major)</b>   | 1   |
| 05  | FP-3064386        | Impeller, Water Pump  | 1   |
| 00  | FP-3064392        | Assembly, Water Pump Shaft  | 1   |
| 04  | FP-S16255         | Ring, Retaining P/Bolt  | 1   |
| 00  | FP-43463A         | Seal, O-Ring  | 1   |
| 02  | FP-3029099        | Seal, Water Pump  | 1   |
| 00  | FP-3024960        | Gasket, Connection  | 1   |
| 01  | FP-3076522        | Gasket, Mounting  | 1   |

# N14 Engine



## Cooling Components



# N14 Engine



## Cooling Components

| Ref | Part Number | Description                      | N14 |
|-----|-------------|----------------------------------|-----|
| 01  | FP-3035580  | Hose, Flexible                   | 1   |
| 02  | FP-3037535  | Elbow, Male Union                | 1   |
| 03  | FP-109080   | Seal, O-Ring                     | 1   |
| 04  | FP-3037537  | Seal, O-Ring                     | 4   |
| 05  | FP-3046201  | Seal, O-Ring                     | 5   |
| 06  | FP-3070477  | Gasket, Oil Cooler Support       | 1   |
| 07  | FP-3072341  | Gasket, Oil Transfer Connection  | 1   |
| 08  | FP-S911B    | Plug, Pipe (1/8" NPT)            | 1   |
| 09  | FP-145551   | Seal, O-Ring                     | 1   |
| 10  | FP-200307   | Seal, Oil                        | 1   |
| 11  | FP-3040817  | Seal, O-Ring                     | 1   |
| 12  | FP-3037537  | Seal, O-Ring (Oil Pump)          | 1   |
| 13  | FP-3067613  | Gasket, Lube Oil Pump            | 1   |
| 14  | FP-145504   | Seal, O-Ring                     | 2   |
| 15  | FP-3014778  | Gasket, Lube Oil Pump Cover      | 1   |
| 16  | FP-68365    | Bushing, Oil Pump                | 2   |
| 17  | FP-69521    | Bushing, Oil Pump                | 4   |
| 18  | FP-154916   | Gasket, Hydraulic Pump           | 1   |
| 19  | FP-3076489  | Thermostat (82°C), (180° F)      | 1   |
| 20  | FP-186780   | Seal, Thermostat                 | 2   |
| 21  | FP-43463A   | Seal, O-Ring                     | 2   |
| 22  | FP-3064313  | Gasket, Thermostat Housing       | 1   |
| 23  | FP-3013786  | Plug, Pipe                       | 1   |
| 24  | FP-3066285  | Gasket, Thermostat Housing Cover | 1   |
| 25  | FP-3865236  | Gasket, Safety Thermostat        | 1   |

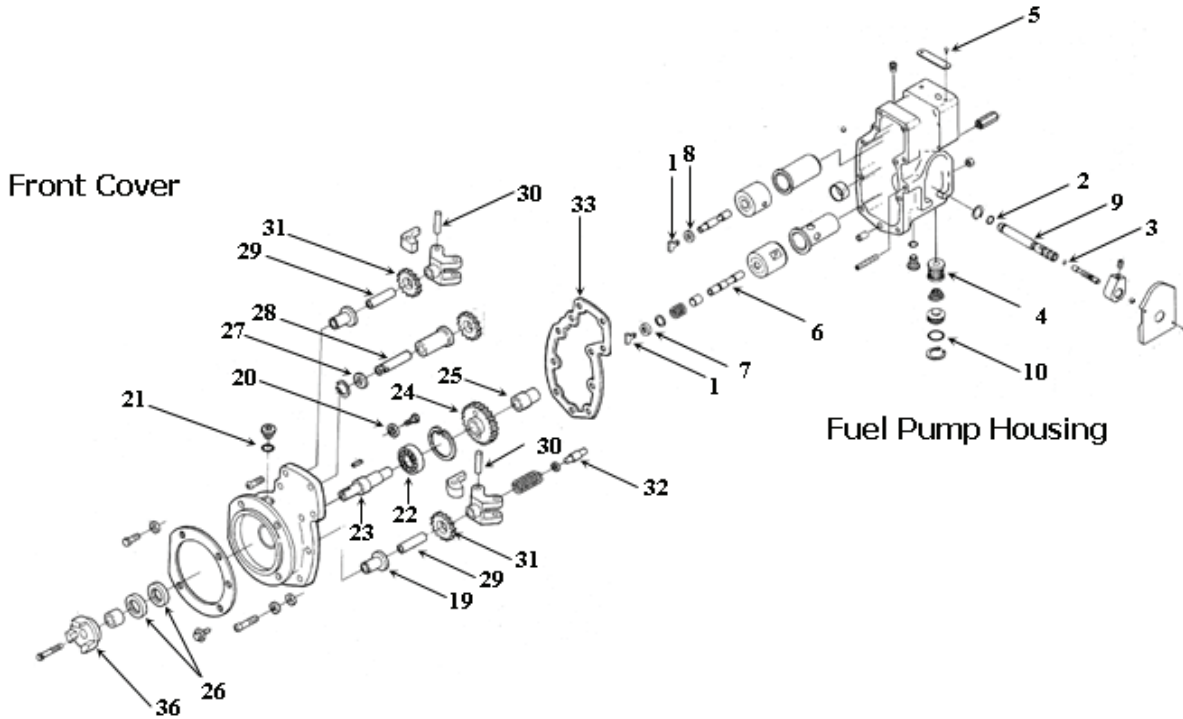


# N14 Engine

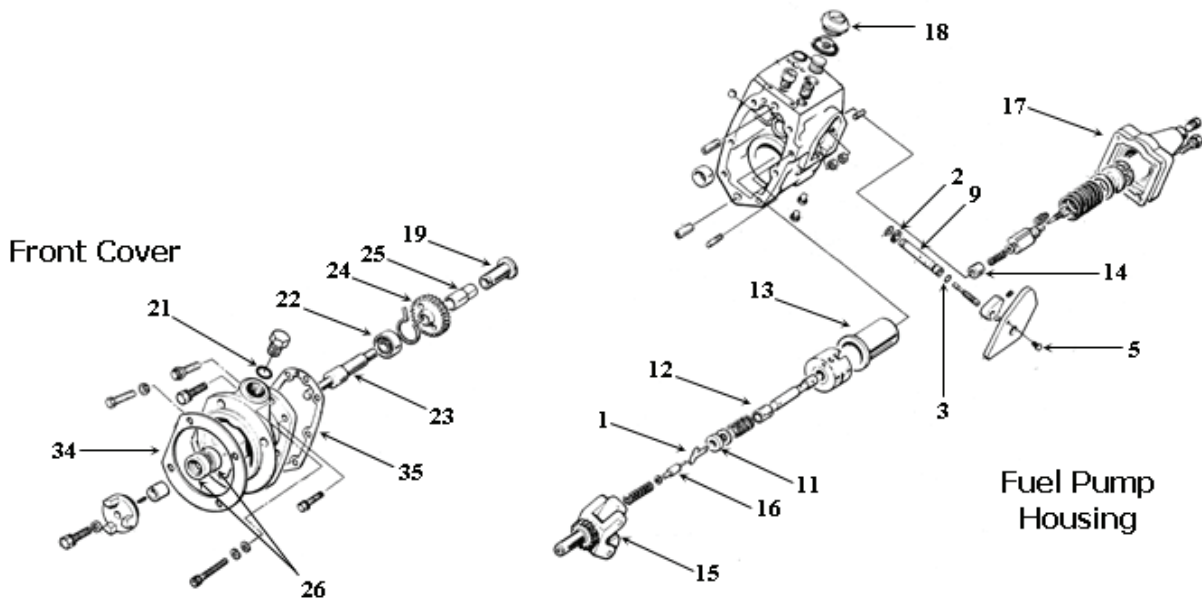


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive



# N14 Engine



## Fuel Pump Housing

| Ref | Part Number | Description               | N14 |
|-----|-------------|---------------------------|-----|
| 01  | FP-70690    | Driver, Governor Plunger  | 2   |
| 02  | FP-100478   | Seal, O-Ring              | 1   |
| 03  | FP-213768   | Seal, O-Ring              | 1   |
| 04  | FP-146483   | Screen, Filter            | 1   |
| 05  | FP-S2286    | Screw, Drive (Name Plate) | 4   |

## STC Industrial

| Ref | Part Number | Description             | N14 |
|-----|-------------|-------------------------|-----|
| 00  | FP-177150   | Sleeve, Governor Barrel | 1   |
| 06  | FP-3040750  | Plunger, Governor       | 1   |
| 07  | FP-3027633  | Bearing, Thrust         | 1   |
| 08  | FP-3035230  | Bearing, Thrust         | 1   |
| 10  | FP-3066914  | Seal, O-Ring            | 1   |

## PTG Automotive

| Ref | Part Number | Description                     | N14 |
|-----|-------------|---------------------------------|-----|
| 11  | FP-3066637  | Bearing, Thrust                 | 1   |
| 13  | FP-3036970  | Lodging, Carries Springs        | 1   |
| 14  | FP-140417   | Plunger, Idle                   | 1   |
| 15  | FP-3024991  | Counterweight Governor          | 1   |
| 16  | FP-144178   | Plunger, Governor Weight Assist | 1   |
| 17  | FP-70705    | Gasket, Spring Pack Flange      | 1   |
| 18  | FP-157088   | Cap, Fuel Pump Filter           | 1   |

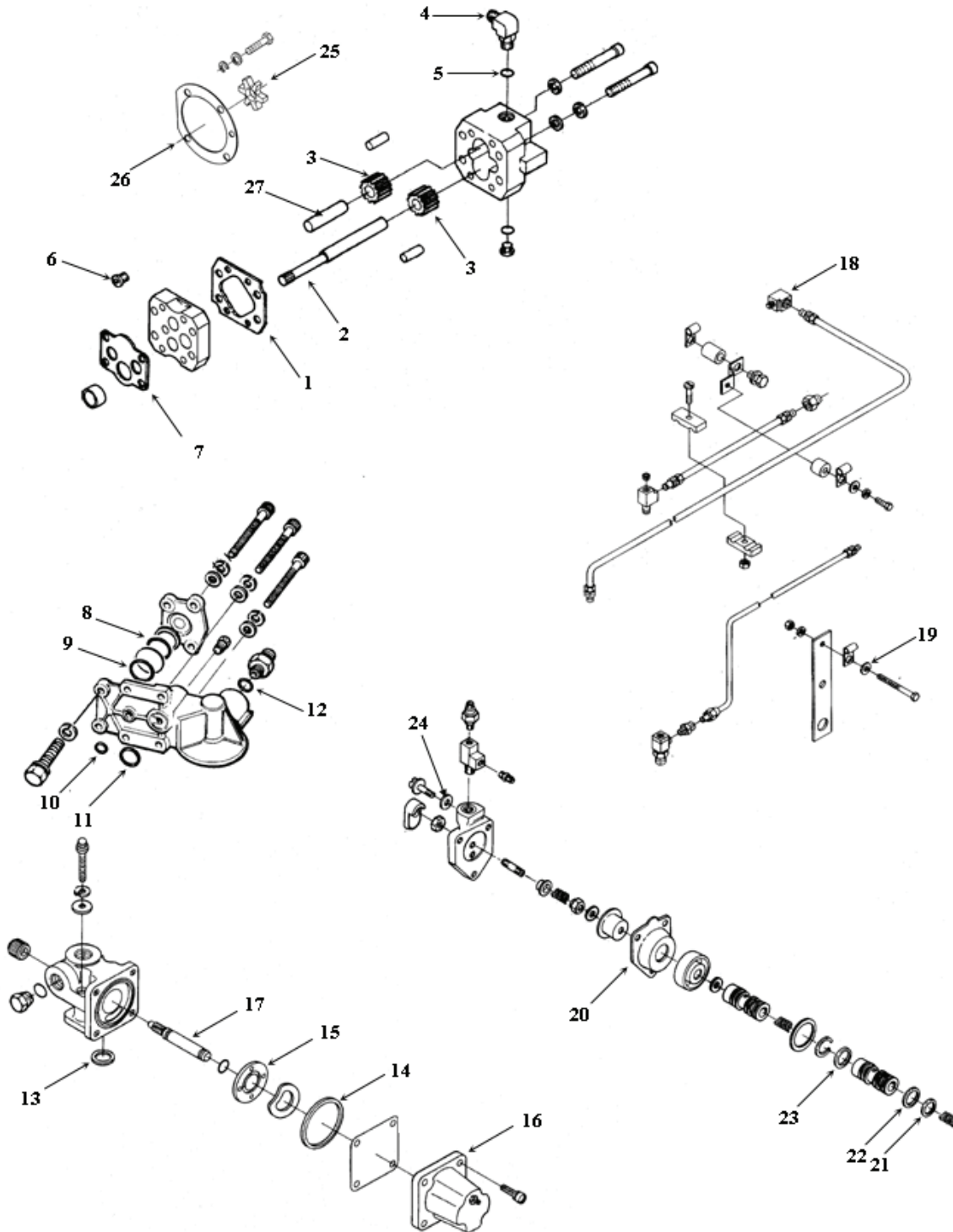
## Fuel Pump Front Cover & Weight Assembly (STC & PTG)

| Ref | Part Number | Description  | N14 |
|-----|-------------|--|-----|
| 00  | FP-3024991  | The Following Items For Option 12394, 12395, 12396, 1239 | 1   |
| 19  | FP-163944   | Bushing, Fuel Pump                                       | 2   |
| 21  | FP-3040817  | Seal, O-Ring   | 1   |
| 22  | FP-S16052   | Bearing, Ball  | 1   |
| 23  | FP-212601   | Shaft, Fuel Pump Drive                                   | 1   |
| 26  | FP-3062676  | Seal, Oil  | 2   |
| 27  | FP-201745   | Washer, Lock   | 1   |
| 30  | FP-211635   | Pin, Governor  | 4   |
| 32  | FP-144178   | The Following Items For Option 12394, 12395, 12396, 1239 | 1   |
| 33  | FP-200998   | Gasket, Fuel Pump  | 1   |
| 34  | FP-4026171  | Gasket, Fuel Pump Front Cover                            | 1   |
| 35  | FP-3063052  | Gasket, Fuel Pump Front Cover                            | 2   |
| 36  | FP-3000175  | Hub, Jaw Coupling (STC Fuel Pump Drive)                  | 1   |

# N14 Engine



## Fuel Gear Pump



# N14 Engine



## Fuel Gear Pump

| Ref | Part Number | Description                                     | N14 |
|-----|-------------|---|-----|
| 00  | FP-119364   | Gear, Fuel Pumping (1 1/4"), (Celect Fuel Pump) | 1   |
| 00  | FP-3034243  | Fuel Pump (Gear 3/4")                           | 1   |
| 00  | FP-3037537  | Seal, O-Ring (Celect Fuel Pump)                 | 1   |
| 01  | FP-110855   | Gasket, Fuel Pump                               | 1   |
| 02  | FP-100215   | Shaft, Fuel Pump Drive (3/4")                   | 1   |
| 03  | FP-119363   | Gear, Fuel Pumping (3/4")                       | 1   |
| 04  | FP-3033740  | Valve, Check Ball Elbow                         | 1   |
| 06  | FP-3050624  | Valve, Pressure Regulator                       | 1   |
| 07  | FP-3069017  | Gasket, Fuel Pump                               | 1   |

## Fuel Filter Head

| Ref | Part Number | Description            | N14 |
|-----|-------------|------------------------|-----|
| 08  | FP-100099   | Seal, Rectangular Ring | 1   |
| 09  | FP-139988   | Seal, Rectangular Ring | 1   |
| 10  | FP-151900   | Seal, Rectangular Ring | 1   |
| 11  | FP-213079   | Seal, Rectangular Ring | 1   |
| 12  | FP-3040817  | Seal, O-Ring           | 1   |

## Fuel Shutoff Valve

| Ref | Part Number | Description   | N14 |
|-----|-------------|---|-----|
| 00  | FP-190876   | Seal, O-Ring  | 1   |
| 13  | FP-154087   | Seal, Rectangular   | 1   |
| 14  | FP-129888   | Seal, Rectangular (Fuel Shutoff Valve)                          | 1   |
| 15  | FP-3030970  | Disc, Valve   | 1   |
| 16  | FP-3408421  | Solenoid (Fuel Shutoff Valve), (12 Volt)(Previously FP-3054611) | 1   |
| 17  | FP-3013036  | Shaft (Fuel Shutoff Valve)                                      | 1   |

## Fuel Tubing

| Ref | Part Number | Description          | N14 |
|-----|-------------|----------------------|-----|
| 18  | FP-181213   | Elbow, Plain Adapter | 2   |
| 19  | FP-S631     | Washer, Plain        | 2   |

## AFC Assembly

| Ref | Part Number | Description   | N14 |
|-----|-------------|---------------|-----|
| 20  | FP-3013811  | Diaphragm     | 1   |
| 21  | FP-3042542  | Seal, O-Ring  | 1   |
| 22  | FP-3066914  | Seal, O-Ring  | 2   |
| 23  | FP-3045986  | Seal, O-Ring  | 1   |
| 24  | FP-S631     | Washer, Plain | 3   |

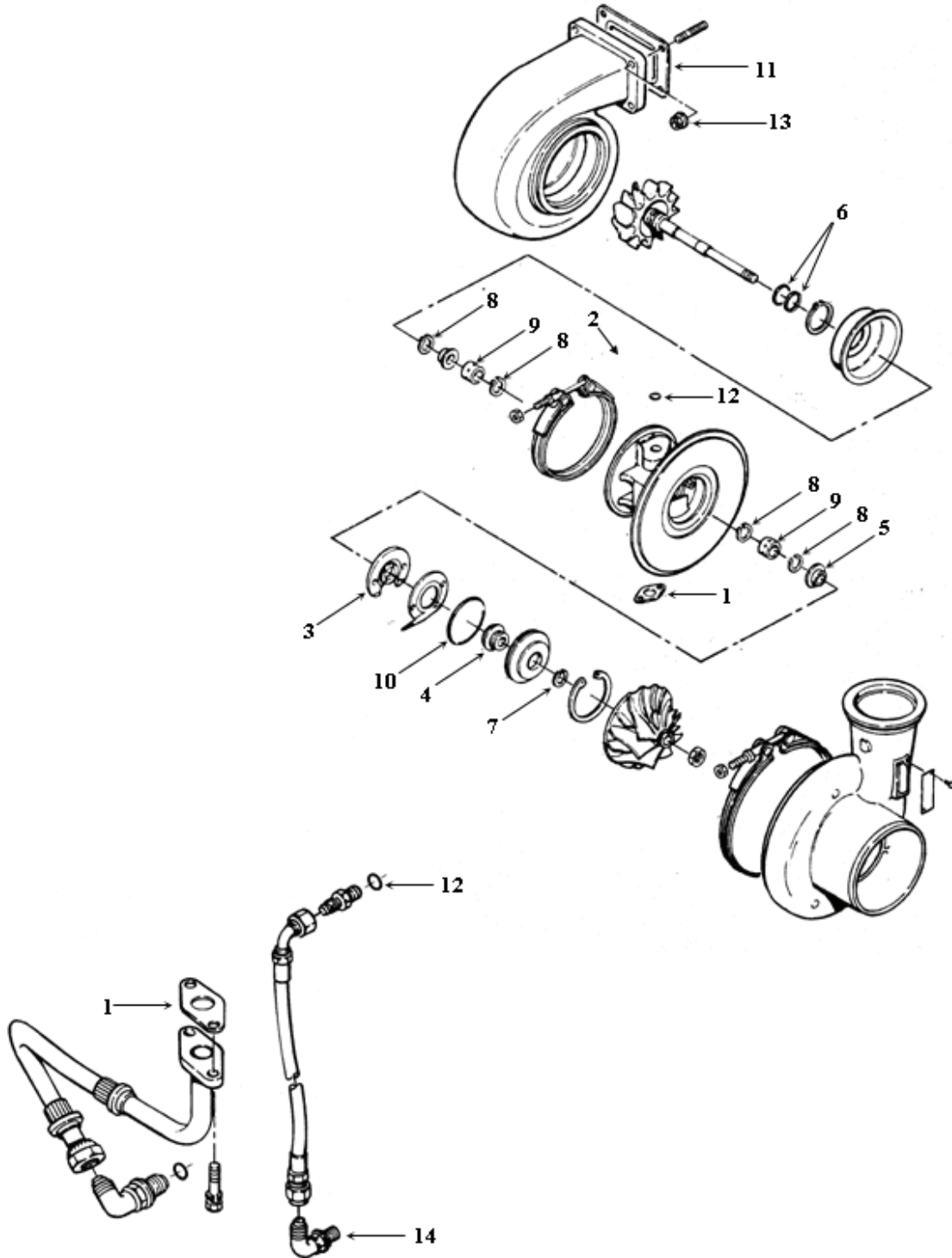
## Fuel Pump Coupling

| Ref | Part Number | Description                               | N14 |
|-----|-------------|---|-----|
| 25  | FP-3046200  | Spider, Jaw Coupling (Fuel Pump Drive)    | 1   |
| 26  | FP-4026171  | Gasket, Fuel Pump (Previously FP-3069103) | 1   |

# N14 Engine



## Turbocharger



# N14 Engine



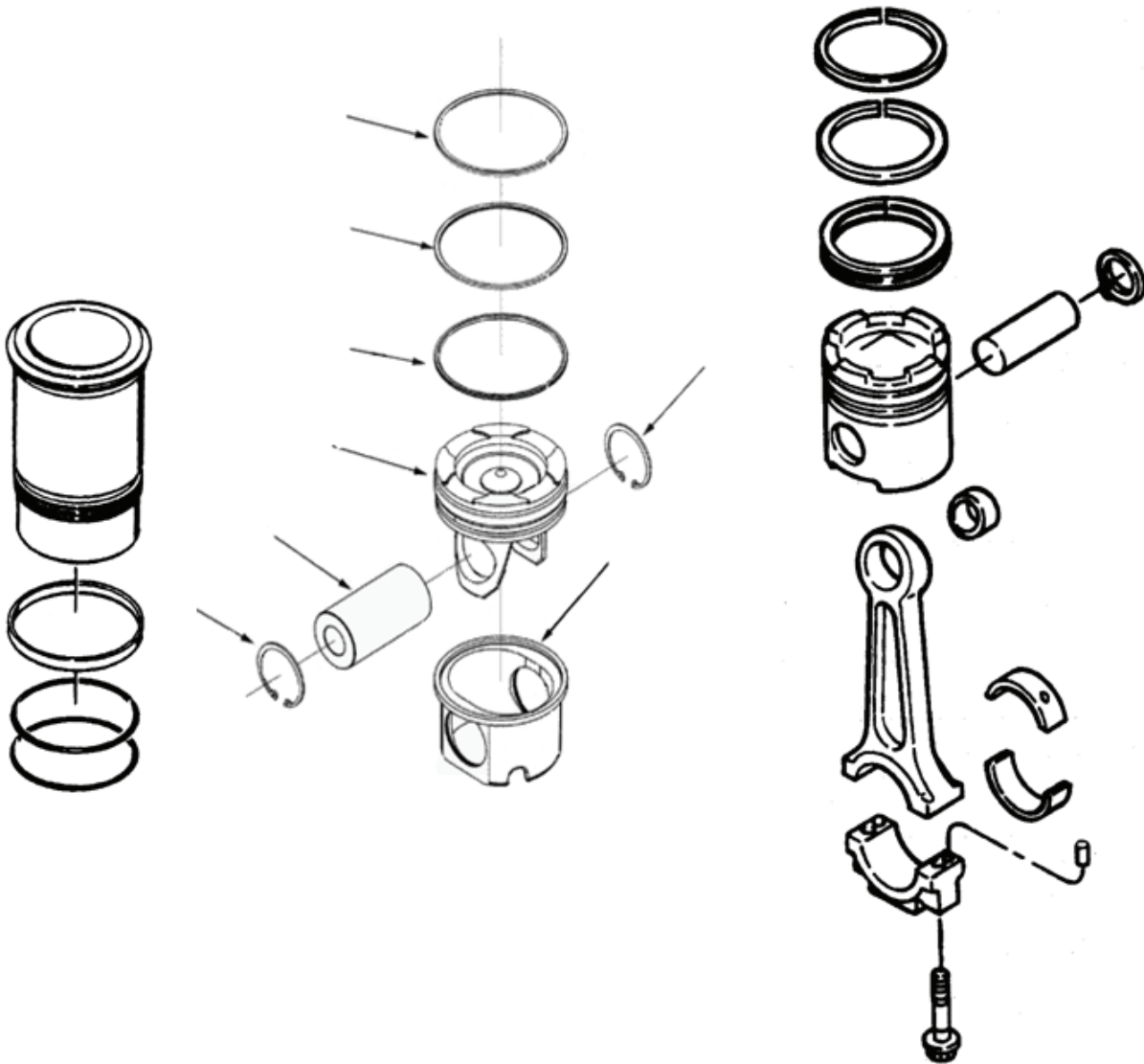
## Turbocharger

| Ref | Part Number       | Description   | N14 |
|-----|-------------------|---|-----|
| 01  | FP-3202117        | Gasket, Connection                                    | 1   |
| 11  | FP-3069177        | Gasket, Turbocharger                                  | 1   |
| 12  | FP-3037537        | Seal, O-Ring  | 1   |
| 13  | FP-3056158        | Nut, Hexagon Flange                                   | 4   |
| 14  | FP-3037535        | Elbow, Male Union                                     | 1   |
| 00  | <b>FP-3801522</b> | <b>Seal Kit, Turbocharger</b>                         |     |
| 01  | FP-201048         | Gasket, Turbocharger                                  | 1   |
| 02  | FP-201049         | Gasket, Turbocharger                                  | 1   |
| 06  | FP-3521441        | Seal, O-Ring, Turbocharger                            | 2   |
| 07  | FP-3521442        | Seal, O-Ring, Turbocharger                            | 1   |
| 08  | FP-3709510        | Ring, Retaining P/Bolt                                | 4   |
| 10  | FP-3751948        | Seal, O-Ring, Turbocharger                            | 1   |
| 00  | FP-3801523        | Repair Kit, Turbocharger                              |     |
| 01  | FP-201048         | Gasket, Turbocharger                                  | 1   |
| 02  | FP-201049         | Gasket, Turbocharger                                  | 1   |
| 03  | FP-3536075        | Bearing, Thrust, Turbocharger (Previously FP-3532984) | 1   |
| 04  | FP-3521439        | Slinger, Turbocharger                                 | 1   |
| 05  | FP-3521440        | Collar, Thrust Turbocharger                           | 1   |
| 06  | FP-3521441        | Seal, O-Ring, Turbocharger                            | 2   |
| 07  | FP-3521442        | Seal, O-Ring, Turbocharger                            | 1   |
| 08  | FP-3709510        | Ring, Retaining P/Bolt                                | 4   |
| 09  | FP-3722366        | Bearing, Turbocharger                                 | 2   |
| 10  | FP-3751948        | Seal, O-Ring, Turbocharger                            | 1   |

# N14 Engine



## Cylinder & Piston Kits





## Cylinder & Piston Kits

| Cylinder Kit | Piston Body | Liner      | Ring Set   | Piston Pin | Retainers  | Crevice Seal  | O-Rings        |
|--------------|-------------|------------|------------|------------|------------|---------------|----------------|
| FP-3803753   | FP-3081266  | FP-3055099 | FP-4089489 | FP-3064304 | FP-3064305 | FP-215090 (1) | FP-3032874 (2) |
| FP-3803755   | FP-3081268  | FP-3055099 | FP-4089489 | FP-3064304 | FP-3064305 | FP-215090 (1) | FP-3032874 (2) |
| FP-3803757   | FP-3081267  | FP-3055099 | FP-4089489 | FP-3064304 | FP-3064305 | FP-215090 (1) | FP-3032874 (2) |
| FP-3803759   | FP-3081269  | FP-3055099 | FP-4089489 | FP-3064304 | FP-3064305 | FP-215090 (1) | FP-3032874 (2) |

Above kits include items in shaded area

| Piston Kit | Piston Body | Retainers  | Comment   |
|------------|-------------|------------|---|
| FP-3803752 | FP-3081266  | FP-3064305 | NTA14E (Celect) Below 350 H.P. (Non-Anodized Crown)               |
| FP-3803754 | FP-3081268  | FP-3064305 | NTA14E (Celect) Above 350 H.P. (Anodized Crown)                   |
| FP-3803756 | FP-3081267  | FP-3064305 | NTA14 (STC) Auto & Industrial Below 370 H.P. (Non-Anodized Crown) |
| FP-3803758 | FP-3081269  | FP-3064305 | NTA14 (STC) Auto & Industrial Below 370 H.P. (Anodized Crown)     |

Above kits include items in shaded area

| Piston Body | CPL Reference #   |
|-------------|---|
| FP-3081266  | CPL: 1386, 1391, 1392, 1393, 1394, 1540, 1574, 1649   |
| FP-3081267  | CPL: 1395, 1507, 1529, 1530, 1532   |
| FP-3081268  | CPL: 1309, 1324, 1384, 1385, 1389, 1390, 1426, 1445, 1533, 1534, 1535, 1536, 1537, 1538, 1548, 1572, 1573, 1575, 1580, 1611 |
| FP-3081269  | CPL: 1374, 1405, 1607, 1652   |

| Liner Kit  | Liner      | Crevice Seal  | O-Rings        | Size              |
|------------|------------|---------------|----------------|-------------------|
| FP-3801387 | FP-3046325 | FP-215090 (1) | FP-3032874 (2) | 0.020" UPF        |
| FP-3801826 | FP-3055099 | FP-215090 (1) | FP-3032874 (2) | Standard          |
| FP-3803219 | FP-3065405 | FP-215090 (1) | FP-3032874 (2) | 0.020"/0.040" O.S |

Above kits include items in shaded area

| Ring Set   | Top Ring   | Comp Ring  | Oil Ring   |
|------------|------------|------------|------------|
| FP-4089489 | FP-4058967 | FP-4058968 | FP-4058969 |

Above kits include items in shaded area

## Articulated Cylinder & Piston Kits

| Piston Kit | Piston Crown             | Piston Skirt | Ring Set   | Piston Pin | Retainers  | CPL Reference #   |
|------------|--------------------------|--------------|------------|------------|------------|---|
| FP-3803739 | FP-3087634 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 1807, 1833, 2027, 2038, 2330, 2389, 2575, 2590   |
| FP-3803741 | FP-3087635 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 1809, 1844, 1852, 1896, 1921, 1924, 1987, 2003, 2025, 2033, 2143, 2228, 2261, 2287, 2306, 2388, 2690, 2391, 2403, 2453, 2492, 2529, 2591, 2592, 2659, 8023, 9921, 9925, 9951 |
| FP-3804630 | FP-3865113 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 2026, 2398   |

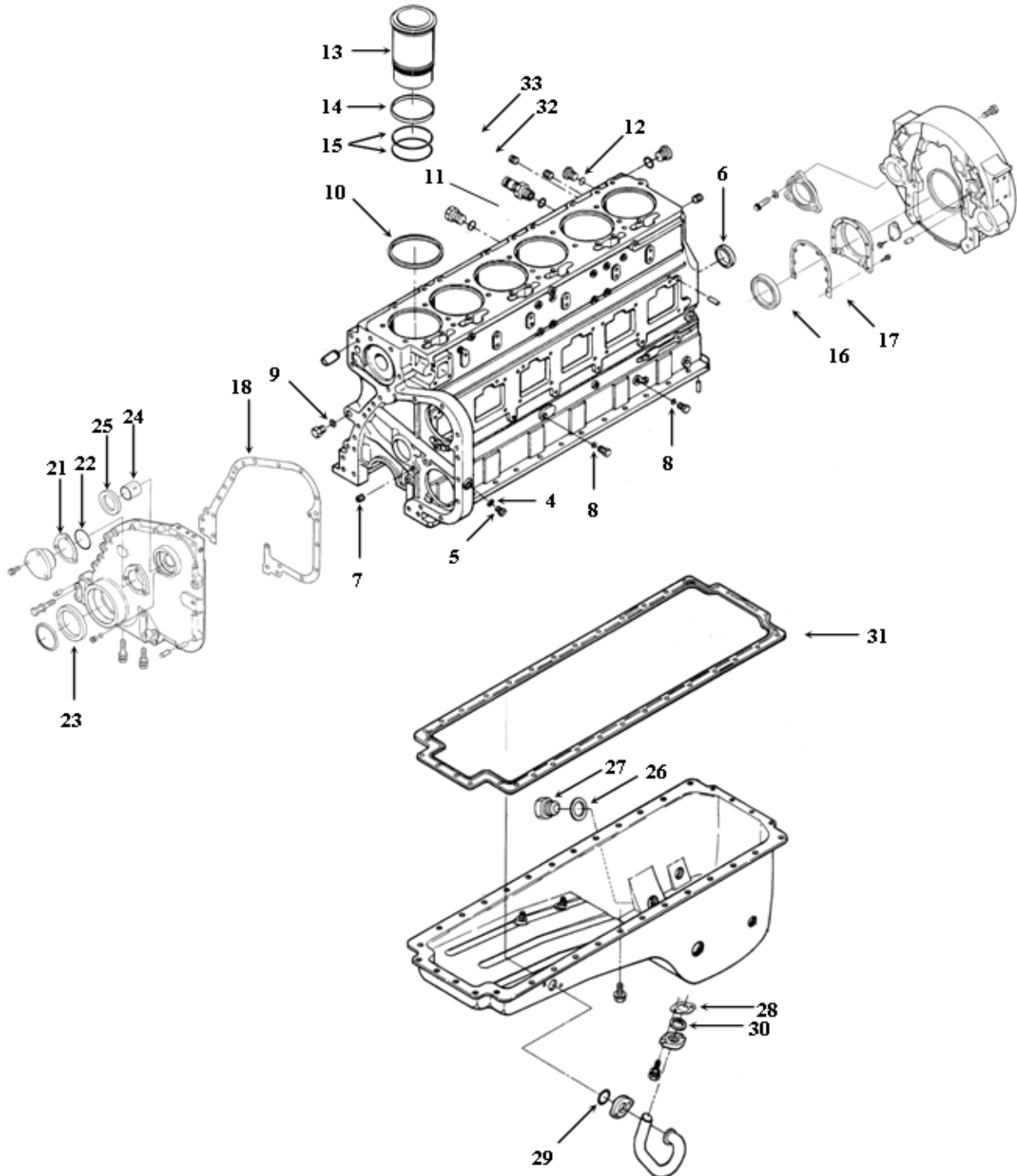
| Cylinder Kit              | Liner      | Crevice Seal  | Liner O-rings  | Piston Crown             | Piston Skirt | Ring Set   | Piston Pin | Retainers  | CPL Reference #   |
|---------------------------|------------|---------------|----------------|--------------------------|--------------|------------|------------|------------|---|
| 3804501 Use<br>FP-3803742 |            |               |                |                          |              |            |            |            |   |
| 3804639 Use<br>FP-3803740 |            |               |                |                          |              |            |            |            |   |
| 3804653 Use<br>FP-3803740 |            |               |                |                          |              |            |            |            |   |
| FP-3803740                | FP-3055099 | FP-215090 (1) | FP-3032874 (2) | FP-3087634 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 1807, 1833, 2027, 2038, 2330, 2389, 2575, 2590   |
| FP-3803742                | FP-3055099 | FP-215090 (1) | FP-3032874 (2) | FP-3087635 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 1809, 1844, 1852, 1896, 1921, 1924, 1987, 2003, 2025, 2033, 2143, 2228, 2261, 2287, 2306, 2388, 2690, 2391, 2403, 2453, 2492, 2529, 2591, 2592, 2659, 8023, 9921, 9925, 9951 |
| FP-3804636                | FP-3055099 | FP-215090 (1) | FP-3032874 (2) | FP-3865113 <sup>37</sup> | 37           | FP-4089489 | FP-3064304 | FP-3064305 | CPL: 2026, 2398   |

<sup>37</sup>Not Sold Separately

# ISX/QSX Series



## Cylinder Block



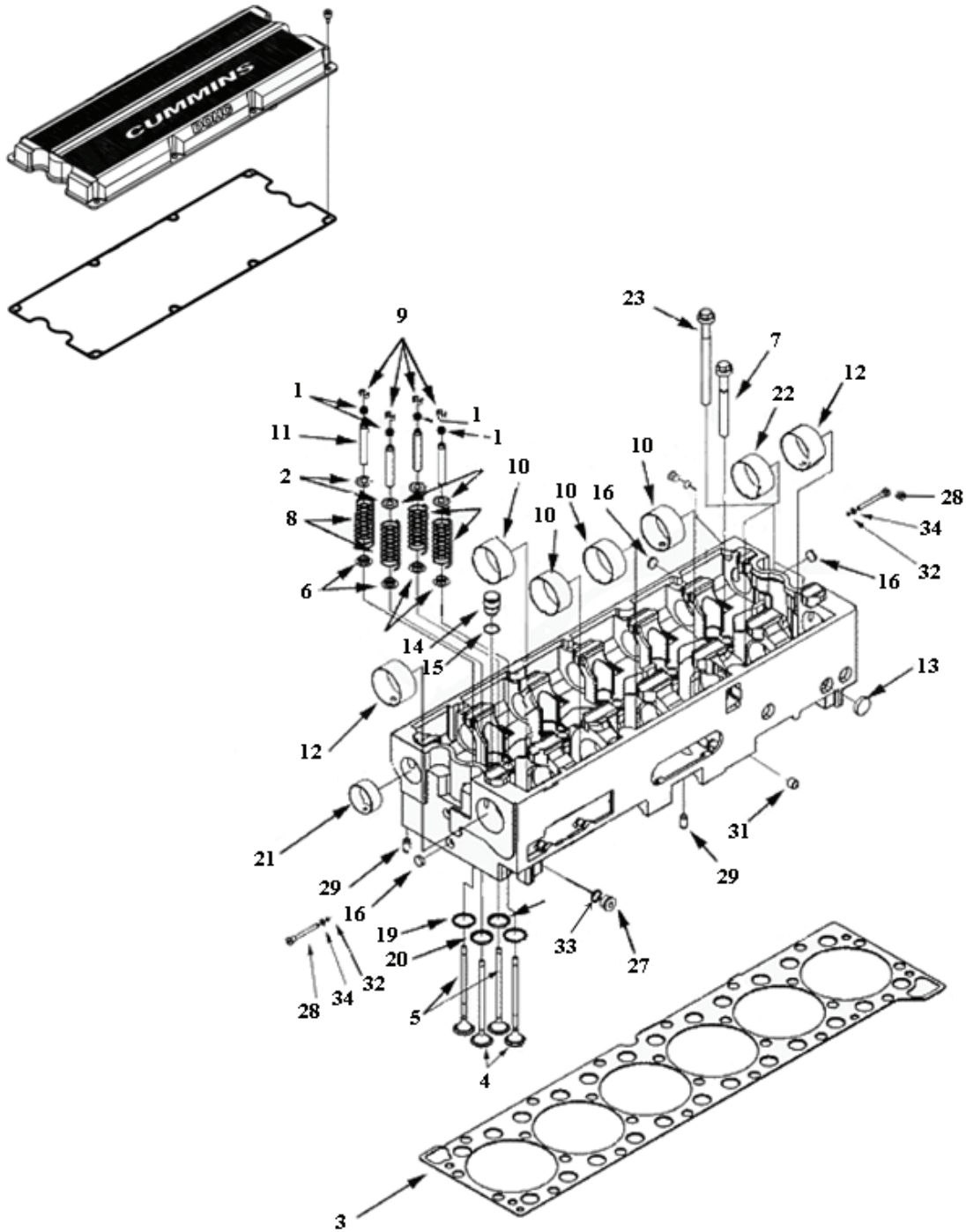
**Cylinder Block, Front & Rear Covers & Gasket Sets**

| Ref | Part Number | Description   | ISX | QSX |
|-----|-------------|---|-----|-----|
| 00  | 3903112     | Screw, Hex Flange Head Cap                            | 35  | 35  |
| 00  | 3678506     | Screw, Hex Flange Head Cap                            | 14  | 14  |
| 00  | 3678507     | Dowel, Ring   | 14  | 14  |
| 00  | 3680781     | Screw, Hex Flange Head Cap                            | 10  | 10  |
| 00  | 3678610     | Plug, Threaded  | 1   | 1   |
| 00  | 3680420     | Plug, Threaded  | 1   | 1   |
| 00  | 4026621     | Connection, Oil Suction                               | 1   | 1   |
| 00  | 4026622     | Clip  | 1   | 1   |
| 00  | 4955594     | Gasket Set, Upper (Eng. Built Prior To 8/27/2001)     | 1   | 1   |
| 00  | 4955595     | Gasket Set, Upper (Non-EGR Engines Up To S/N14022616) | 1   | 1   |
| 00  | FP-3678912  | Seal, O-Ring  | 1   | 1   |
| 04  | 3678603     | Seal, O-Ring  | 1   | 1   |
| 08  | FP-3678912  | Seal, O-Ring  | 1   | 1   |
| 09  | 3678603     | Seal, O-Ring  | 1   | 1   |
| 10  | 3678751     | Seal, Combustion                                      | 6   | 6   |
| 11  | FP-3678912  | Seal, O-Ring  | 4   | 4   |
| 12  | FP-3678912  | Seal, O-Ring  | 4   | 4   |
| 13  | 3681046     | Liner, Cylinder                                       | 6   | 6   |
| 14  | 3678738     | Seal, O-Ring  | 6   | 6   |
| 15  | 3678737     | Seal, O-Ring  | 6   | 6   |
| 16  | 3680095     | Seal, Oil   | 1   | 1   |
| 17  | 3680373     | Gasket, Flywheel Housing                              | 1   | 1   |
| 18  | 3681145     | Gasket, Gear Housing                                  | 1   | 1   |
| 21  | FP-3026134  | Gasket, Cover Plate                                   | 1   | 1   |
| 22  | 4026490     | Seal, O-Ring  | 1   | 1   |
| 23  | 4026488     | Seal, Oil   | 1   | 1   |
| 24  | 3680239     | Shaft, Idler  | 1   | 1   |
| 25  | 3680201     | Bushing   | 1   | 1   |
| 26  | 3678606     | Seal, O-Ring  | 2   | 2   |
| 27  | 3680534     | Plug, Threaded  | 2   | 2   |
| 28  | 3678756     | Seal, O-Ring  | 1   | 1   |
| 29  | 3678756     | Seal, O-Ring  | 1   | 1   |
| 30  | 3678756     | Seal, O-Ring  | 1   | 1   |
| 31  | 4026684     | Gasket, Oil Pan                                       | 1   | 1   |
| 32  | 3330478     | Seal, O-Ring  | 1   | 1   |
| 33  | 4001902     | Sensor, Position                                      | 1   | 1   |

# ISX/QSX Series



## Cylinder Head



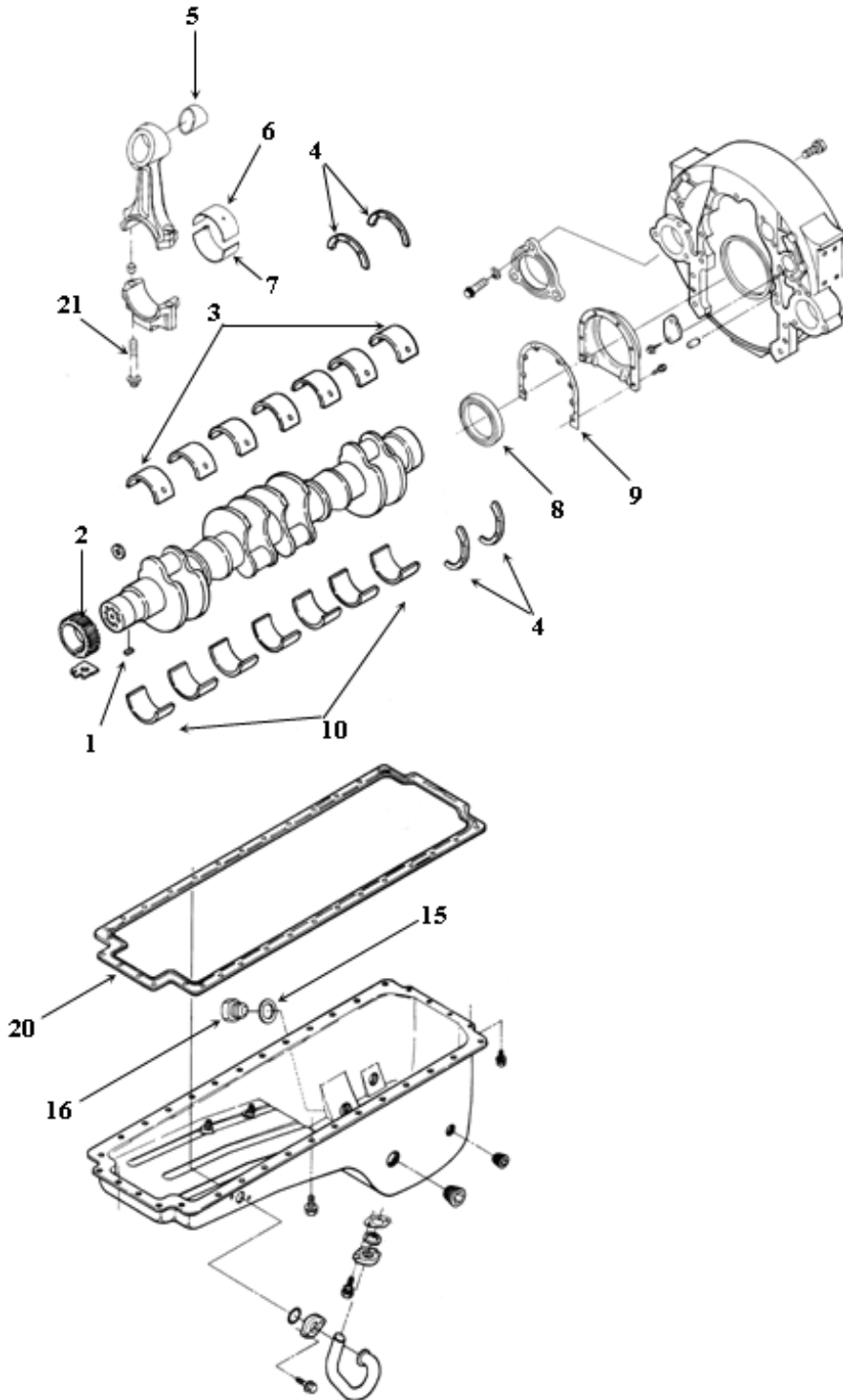
## Cylinder Head

| Ref | Part Number | Description                | ISX | QSX |
|-----|-------------|----------------------------|-----|-----|
| 00  | 3412426     | Seal, Combustion           | 6   | 6   |
| 00  | 3678751     | Seal, Combustion           | 6   | 6   |
| 00  | 3680955     | Plug, Ball                 | 4   | 4   |
| 00  | 3679418     | Shaft, Rocker              | 1   | 1   |
| 01  | 4026791     | Seal, Valve Stem           | 24  | 24  |
| 01  | 3813247     | Plug, Expansion            | 1   | 1   |
| 02  | 3680884     | Retainer, Valve Spring     | 24  | 24  |
| 03  | 4926316     | Gasket, Cylinder Head      | 1   | 1   |
| 04  | 4965868     | Valve, Intake              | 12  | 12  |
| 05  | 4101454     | Valve, Exhaust             | 12  | 12  |
| 06  | 3680318     | Seat, Valve Spring         | 24  | 24  |
| 07  | 3678506     | Screw, Hex Flange Head Cap | 22  | 22  |
| 08  | 3679551     | Spring, Valve              | 24  | 24  |
| 09  | FP-3680883  | Collet, Valve              | 48  | 48  |
| 10  | 3680580     | Bushing                    | 4   | 4   |
| 11  | 4026657     | Guide, Valve Stem          | 24  | 24  |
| 12  | 3680581     | Bushing                    | 3   | 3   |
| 13  | 3015865     | Plug, Expansion            | 7   | 7   |
| 14  | 3412352     | Sleeve, Injector           | 6   | 6   |
| 15  | FP-3678536  | Seal, Rectangular Ring     | 6   | 6   |
| 19  | 3679537     | Insert, Valve (Exhaust)    | 12  | 12  |
| 20  | 3681071     | Insert, Valve (Intake)     | 12  | 12  |
| 21  | 4026423     | Bushing                    | 7   | 7   |
| 23  | 3678804     | Screw, Hex Flange Head Cap | 4   | 4   |
| 27  | 3678611     | Plug, Threaded             | 3   | 3   |
| 28  | 4920470     | Plug, Threaded             | 6   | 6   |
| 29  | 3901846     | Dowel, Pin                 | 2   | 2   |
| 30  | 3679937     | Gasket, Valve Cover        | 1   | 1   |
| 31  | 3911678     | Dowel, Ring                | 2   | 2   |
| 32  | 3678603     | Seal, O-Ring               | 1   | 1   |
| 33  | 3678606     | Seal, O-Ring               | 1   | 1   |
| 34  | 3679122     | Seal, O-Ring               | 1   | 1   |

# ISX/QSX Series



## Crankshaft



**Crankshaft**

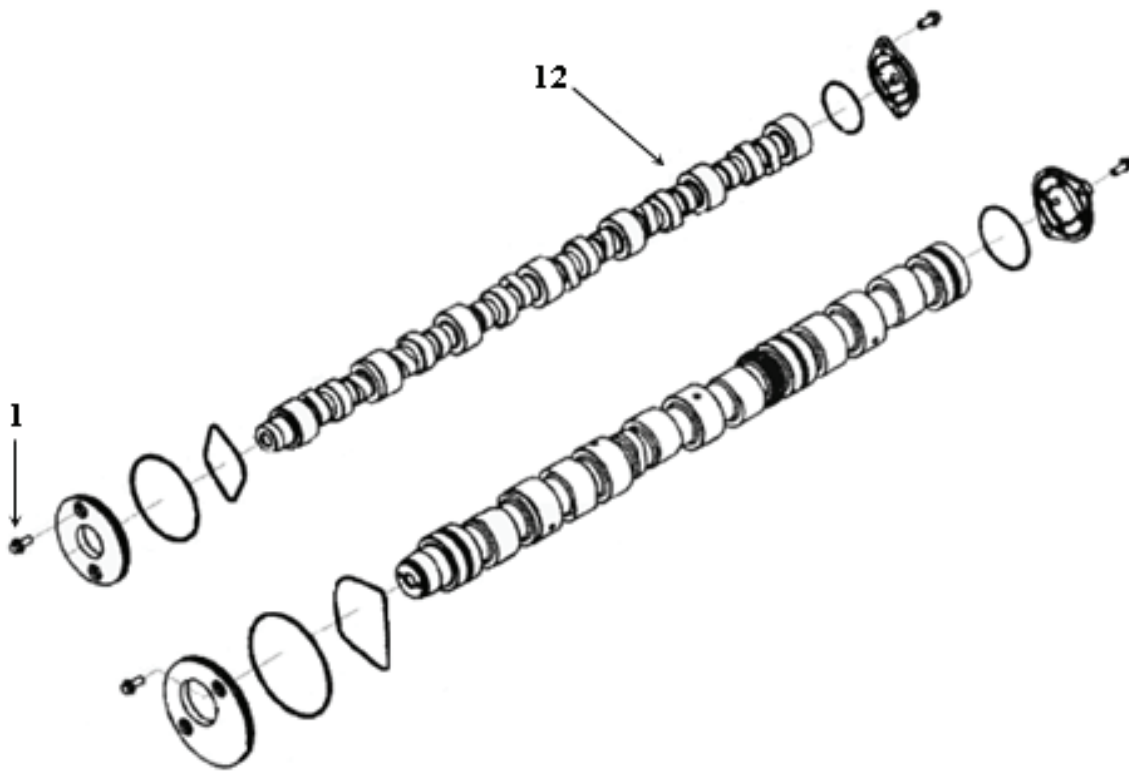
| Ref | Part Number    | Description   | ISX | QSX |
|-----|----------------|---|-----|-----|
| 00  | 3608888        | Crankshaft, Engine  | 1   | 1   |
| 00  | 3678739        | Dowel, Ring   | 2   | 2   |
| 01  | 3068935        | Dowel, Pin  | 2   | 2   |
| 02  | 3680542        | Gear, Crankshaft  | 1   | 1   |
| 05  | 3679314        | Bushing   | 3   | 3   |
| 06  | 4962705        | Bearing, Connecting Rod (Upper)                           | 6   | 6   |
| 07  | 4925975        | Bearing, Connecting Rod (Lower)                           | 6   | 6   |
| 09  | 4965688        | Gasket, Flywheel Housing                                  | 1   | 1   |
| 15  | 3678606        | Seal, Oil   | 2   | 2   |
| 16  | 3680534        | Plug, Threaded  | 1   | 1   |
| 20  | 4026684        | Gasket, Oil Pan   | 1   | 1   |
| 21  | 3678574        | Screw, Connecting Rod Cap                                 | 24  | 24  |
| 00  | <b>3800298</b> | <b>Set, Main Bearing (Std.)</b>                           | 1   | 1   |
| 03  | 3678555        | Main Bearing, Upper                                       | 7   | 7   |
| 10  | 3678556        | Main Bearing, Lower                                       | 7   | 7   |
| 04  | 3680202        | Thrust Bearing  | 4   | 4   |
| 00  | <b>4089405</b> | <b>Connecting Rod Bearing Pair (Std.) - Drilled Upper</b> | 6   | 6   |
| 00  | 4925971        | Bearing, Connecting Rod (Upper) - Drilled                 | 6   | 6   |
| 00  | 4925975        | Bearing, Connecting Rod (Lower)                           | 6   | 6   |
| 00  | <b>4089845</b> | <b>Set, Main Bearing (.25mm)</b>                          | 1   | 1   |
| 03  | 4907151        | Main Bearing, Upper                                       | 7   | 7   |
| 10  | 4907153        | Main Bearing, Lower                                       | 7   | 7   |
| 04  | 3680202        | Thrust Bearing  | 4   | 4   |
| 00  | <b>4089846</b> | <b>Set, Main Bearing (.50mm)</b>                          | 1   | 1   |
| 03  | 4907152        | Main Bearing, Upper                                       | 7   | 7   |
| 10  | 4907154        | Main Bearing, Lower                                       | 7   | 7   |
| 04  | 3680202        | Thrust Bearing  | 4   | 4   |
| 00  | <b>4090016</b> | <b>Connecting Rod Bearing Pair (25mm) - Drilled Upper</b> | 6   | 6   |
| 00  | 4925972        | Bearing, Connecting Rod (Upper) - Drilled                 | 6   | 6   |
| 00  | 4925976        | Bearing, Connecting Rod (Lower)                           | 6   | 6   |
| 00  | <b>4090017</b> | <b>Connecting Rod Bearing Pair (50mm) - Drilled Upper</b> | 6   | 6   |
| 00  | 4925973        | Bearing, Connecting Rod (Upper) - Drilled                 | 6   | 6   |
| 00  | 4925977        | Bearing, Connecting Rod (Lower)                           | 6   | 6   |
| 00  | <b>4965569</b> | <b>Kit, Seal &amp; Spacer</b>                             | 1   | 1   |
| 08  | 4962603        | Seal, Oil   | 1   | 1   |
| 00  | 4918688        | Spacer, Oil Seal  | 1   | 1   |



# ISX/QSX Series



## Camshaft, Follower & Accessory Drive



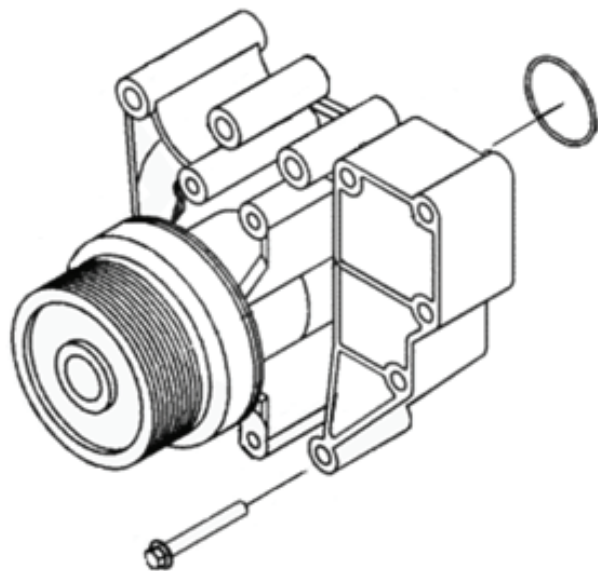
**Camshaft, Cam Follower & Accessory Drive**

| Ref | Part Number | Description                | ISX | QSX |
|-----|-------------|----------------------------|-----|-----|
| 00  | 3412284     | Camshaft                   | 1   | 1   |
| 00  | 3679929     | Support, Camshaft Thrust   | 1   | 1   |
| 00  | 3679930     | Support, Camshaft Thrust   | 1   | 1   |
| 00  | 3679931     | Gasket, Camshaft Cover     | 1   | 1   |
| 00  | 3679932     | Gasket, Camshaft Cover     | 1   | 1   |
| 00  | 3679933     | Seal, O-Ring               | 1   | 1   |
| 00  | 3679934     | Seal, O-Ring               | 1   | 1   |
| 00  | 4026587     | Cover, Camshaft            | 1   | 1   |
| 00  | 4026588     | Cover, Camshaft            | 1   | 1   |
| 00  | 4026522     | Seal, Rectangular Ring     |     |     |
| 00  | 4026523     | Seal, Rectangular Ring     |     |     |
| 01  | 3902460     | Screw, Hex Flange Head Cap | 8   | 8   |
| 02  | 3679930     | Support, Camshaft Thrust   | 2   | 2   |
| 04  | 3681204     | Gear, Camshaft             | 2   | 2   |
| 06  | 3679336     | Roller, Cam Follower       | 4   | 4   |
| 07  | 3871558     | Plug, Pipe                 | 24  | 24  |
| 08  | 3680173     | Pin, Cam Follower Roller   | 12  | 12  |
| 09  | 3678488     | Bushing                    | 12  | 12  |
| 10  | 3680173     | Pin, Cam Follower Roller   | 12  | 12  |
| 11  | 3678488     | Bushing                    | 12  | 12  |
| 12  | 3681710     | Camshaft                   | 1   | 1   |

# ISX/QSX Series



## Water Pump





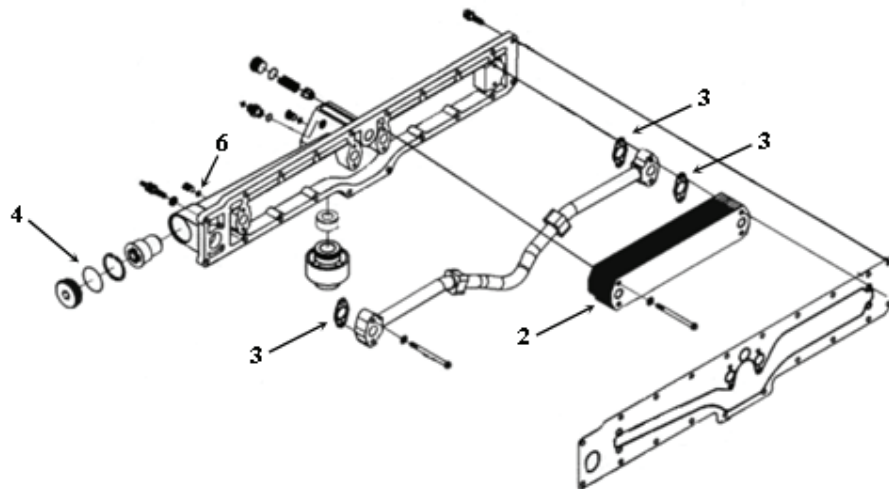
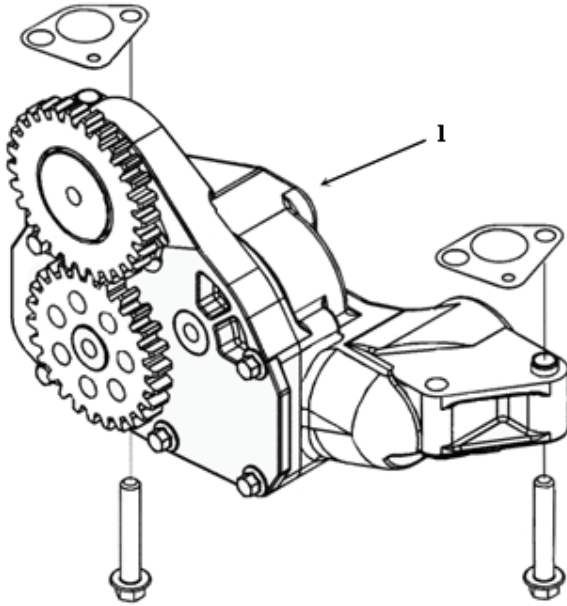
**Water Pump**

| Ref | Part Number | Description     | ISX | QSX |
|-----|-------------|-----------------|-----|-----|
| 00  | 3678724     | Seal, O-Ring    | 1   | 1   |
| 00  | 4089908     | Kit, Water Pump | 1   | 1   |

# ISX/QSX Series



## Cooling Components, Water Pump, Oil Pump, Th



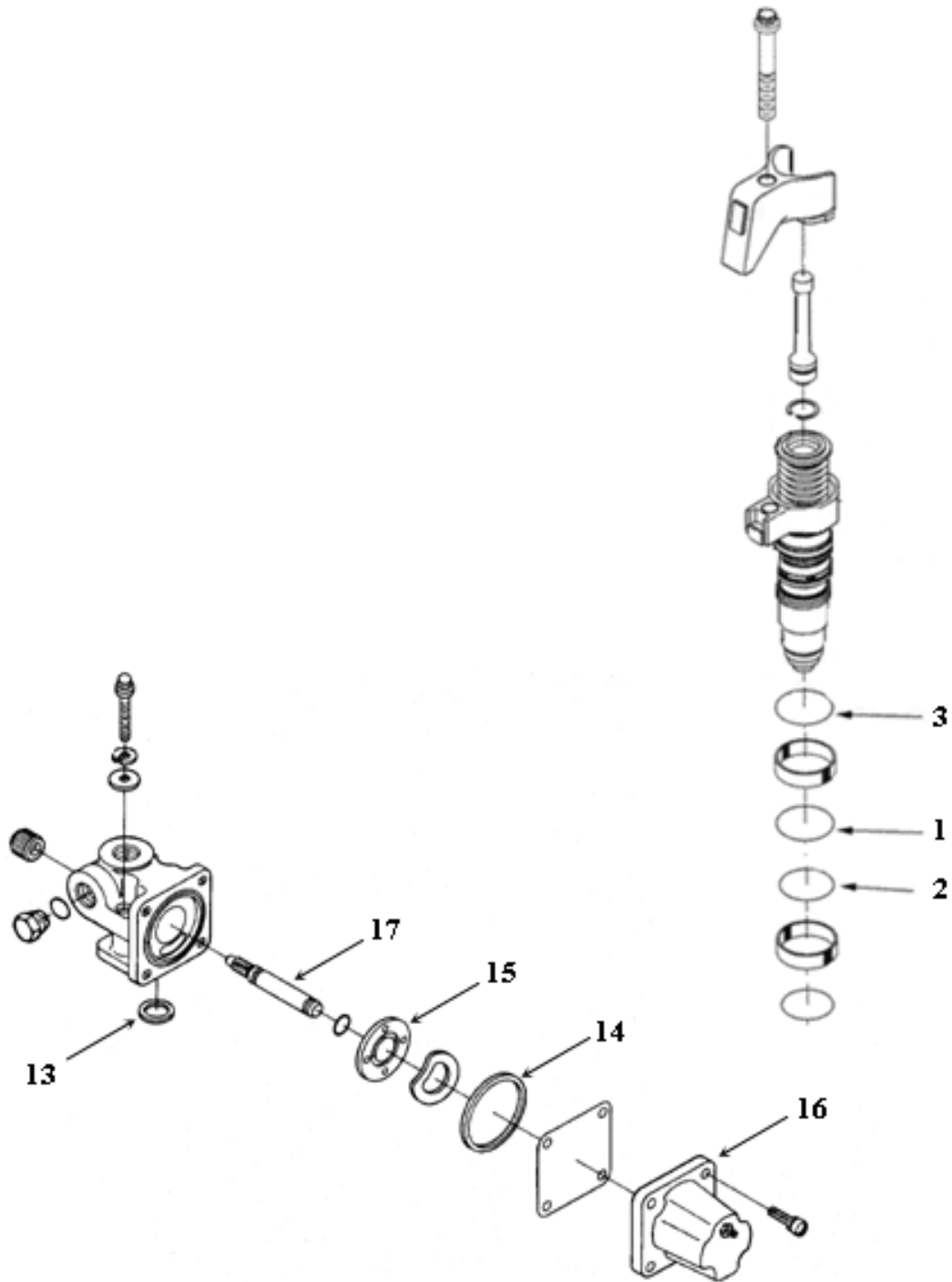
**Cooling Components, Water Pump, Oil Pump, Thermostat**

| Ref | Part Number | Description               | ISX | QSX |
|-----|-------------|---------------------------|-----|-----|
| 00  | 3411880     | Head, Oil Filter Cooler   | 1   | 1   |
| 00  | 3411881     | Ring, Retaining           | 1   | 1   |
| 00  | 3411882     | Adapter, Filter Head      | 1   | 1   |
| 00  | 3418883     | Assy, Oil Filter clr Head | 1   | 1   |
| 00  | 3678606     | Seal, O-Ring              | 1   | 1   |
| 00  | 3679770     | Plug, Threaded            | 1   | 1   |
| 00  | 3679880     | Plug, Threaded            | 1   | 1   |
| 00  | 3679954     | Plug, Threaded            | 1   | 1   |
| 00  | 3680453     | Thermostat                | 1   | 1   |
| 00  | 3680593     | Plate, Cover              | 1   | 1   |
| 00  | 3680712     | Gasket, Lub Oil clr Hsg   | 1   | 1   |
| 00  | 3680713     | Gasket, Lub Oil clr Hsg   | 1   | 1   |
| 00  | 3800751     | Kit, Shim                 | 1   | 1   |
| 00  | 3800753     | Kit, Lube Pump            | 1   | 1   |
| 00  | 3820320     | Plunger, Bypass Valve     | 1   | 1   |
| 00  | 3882586     | Spring, Compression       | 1   | 1   |
| 00  | FP-3678786  | Seal, O-Ring              | 1   | 1   |
| 00  | 3009330     | Washer, Plain             | 20  | 20  |
| 00  | 3892692     | Screw, Captive Washer Cap | 20  | 20  |
| 00  | 3678921     | Plug, Threaded            | 3   | 3   |
| 00  | 3328617     | Screw, Captive Washer Cap | 6   | 6   |
| 00  | 3680329     | Washer, Sealing           | 8   | 8   |
| 00  | 3680596     | Screw, Hex Flange Cap     | 8   | 8   |
| 01  | 4026691     | Pump, Lubricating Oil     | 1   | 1   |
| 02  | 3680595     | Core, Cooler              | 2   | 2   |
| 03  | 3680714     | Gasket, Oil Cooler Core   | 4   | 4   |
| 04  | 3089025     | Seal, O-Ring              | 1   | 1   |
| 06  | FP-3678912  | Seal, O-Ring              | 1   | 1   |

# ISX/QSX Series



## Fuel Components







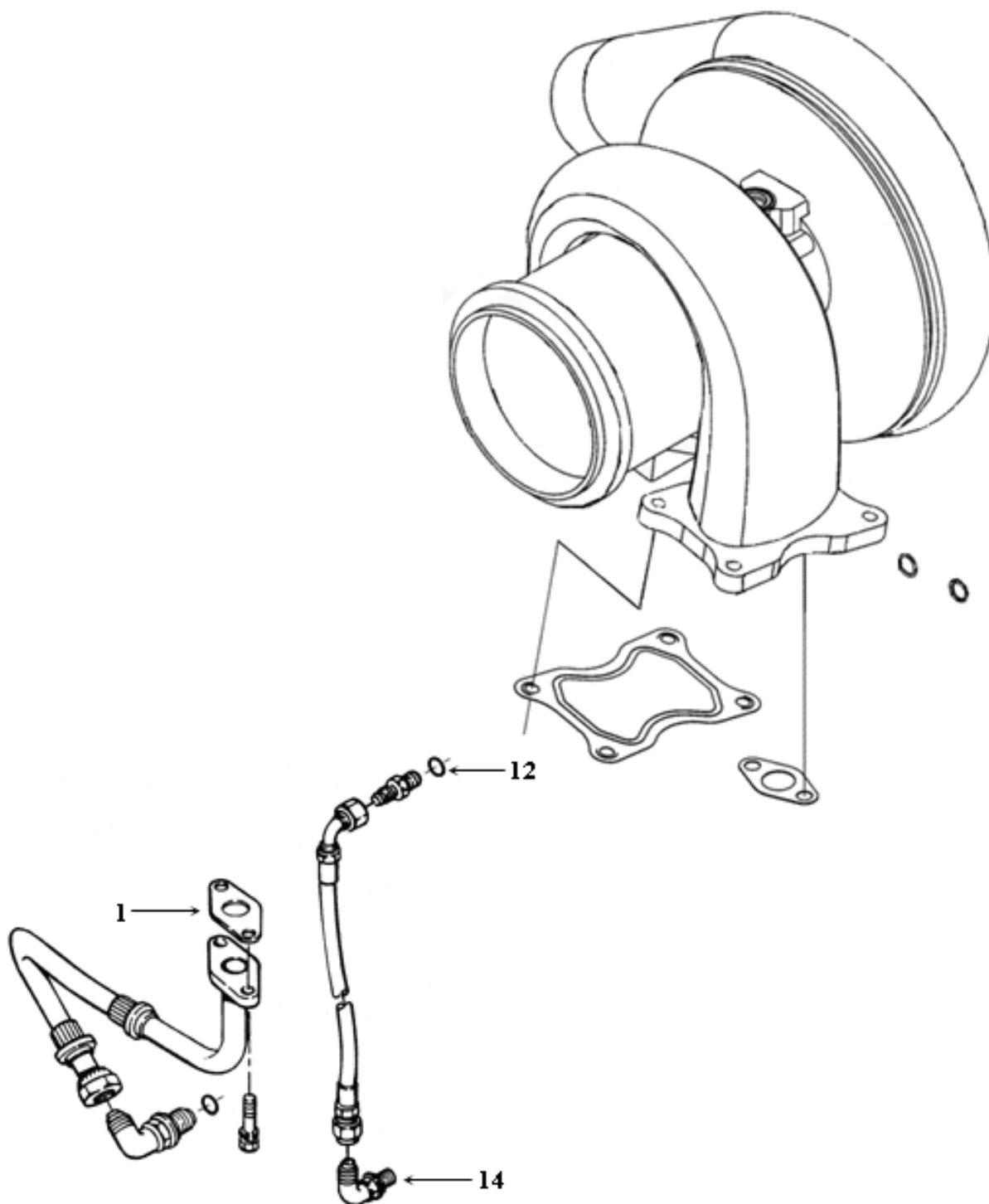
Fuel Components

| Ref | Part Number       | Description                   | ISX | QSX |
|-----|-------------------|-------------------------------|-----|-----|
| 01  | FP-3330537        | O-Ring, Fuel Injector         | 6   | 6   |
| 02  | FP-3330538        | O-Ring, Fuel Injector         | 6   | 6   |
| 03  | FP-3347939        | O-Ring, Fuel Injector (Black) | 6   | 6   |
| 00  | <b>FP-4024808</b> | <b>Kit, Fuel Solenoid</b>     | 1   | 1   |
| 14  | FP-129888         | Seal, Rectangular Ring        | 2   | 2   |
| 16  | FP-3408421        | Solenoid                      | 1   | 1   |

# ISX/QSX Series



## Turbocharger





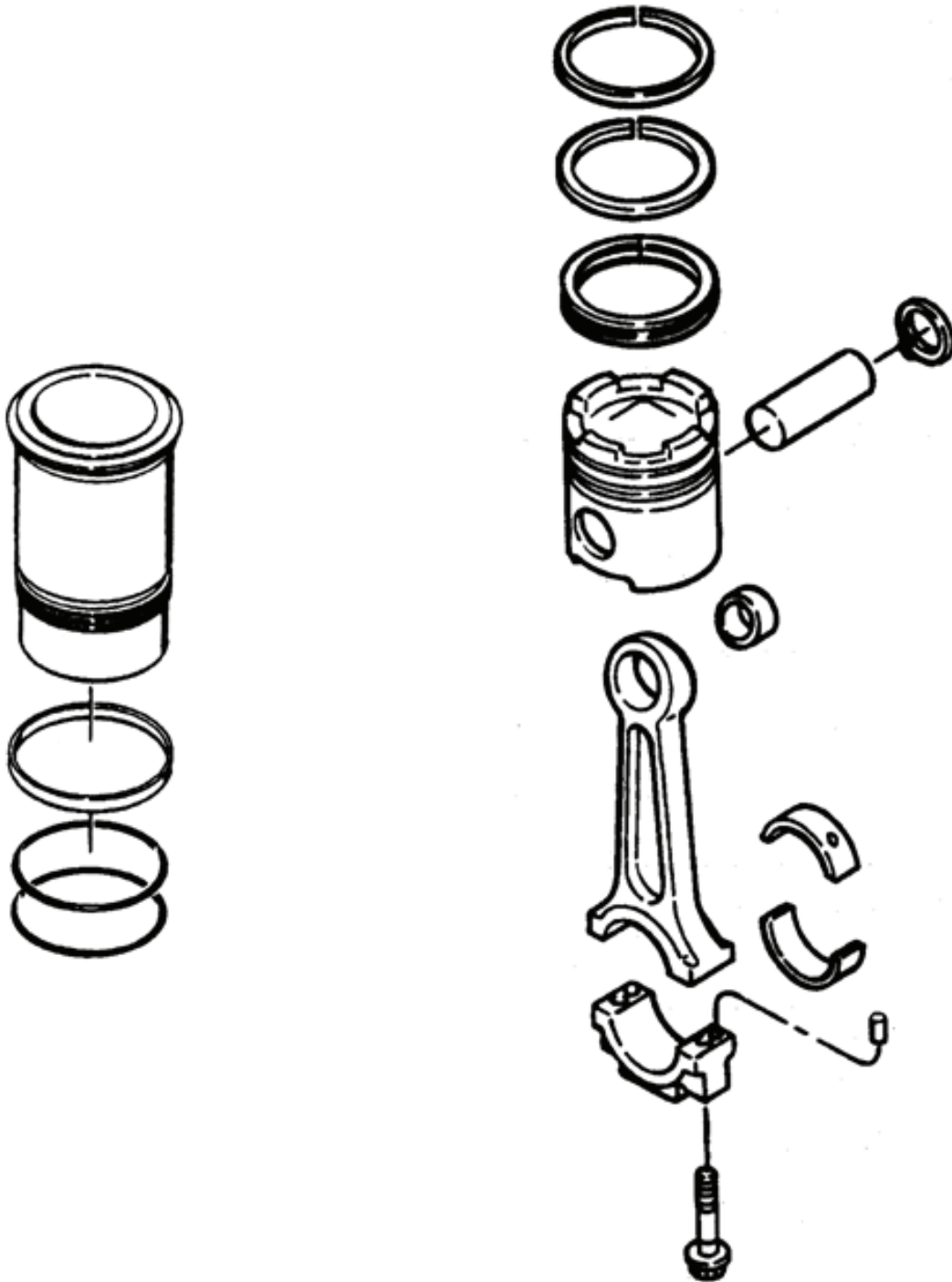
**Turbocharger**

| Ref | Part Number | Description                        | ISX | QSX |
|-----|-------------|------------------------------------|-----|-----|
| 00  | 3679139     | Seal, O-Ring                       | 1   | 1   |
| 00  | 3680324     | Gasket, Flange                     | 1   | 1   |
| 00  | 3680465     | Gasket, Turbocharger               | 1   | 1   |
| 00  | 3800770     | Kit, Turbocharger (Option PP10146) | 1   | 1   |
| 00  | 3800774     | Kit, Turbocharger (Option PP10147) | 1   | 1   |
| 00  | 3800775     | Kit, Turbocharger (Option PP10144) | 1   | 1   |
| 00  | 3800775     | Kit, Turbocharger (Option PP10149) | 1   | 1   |
| 00  | 3883963     | Seal, O-Ring                       | 1   | 1   |

# ISX/QSX Series



## Cylinder Kits



# ISX/QSX Series



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set

| Piston Kit | Piston  | Liner Kit | Liner   | Ring Set | Piston Pin | Piston Pin Retainer | CPL #  |
|------------|---------|-----------|---------|----------|------------|---------------------|--------|
| 3800940    | 3681737 | 3800453   | 3681046 | 4089154  | 3678590    | FP-3064305          | PP2630 |
| 3800941    | 3681738 | 3800453   | 3681046 | 4089154  | 3678590    | FP-3064305          | PP2629 |

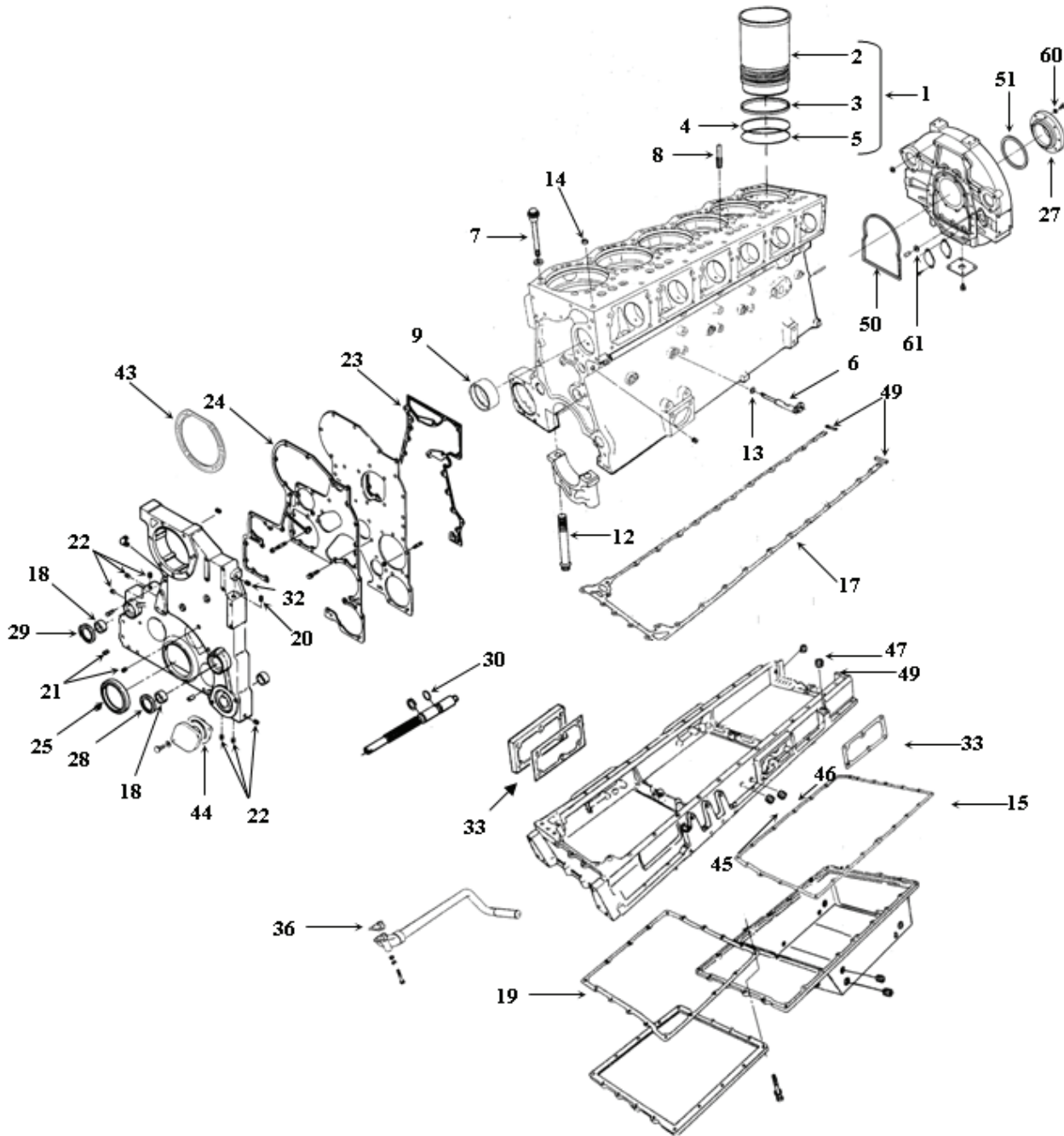
| Liner Kit | Liner   | Liner Seal | Ring Set | Pin     |
|-----------|---------|------------|----------|---------|
| 4089153   | 4101507 | 3678738    | 4089406  | 4923748 |

For 1 Piece Steel Pistons Only

# KT, KTA Series



## Cylinder Block



## Cylinder Block (KT19)

| Ref | Part Number         | Description   | K19 | K38 | K50 |
|-----|---------------------|---|-----|-----|-----|
| 00  | <b>FP-AR3880664</b> | Complete Cylinder Kit 14.5:1 C.R. (Kit Contents Are Listed Below)             | 6   |     |     |
|     | FP-3004730          | Piston Body   |     |     |     |
|     | FP-4095009          | Piston Pin  |     |     |     |
|     | FP-205269           | Piston Pin Retainers  |     |     |     |
|     | FP-4089500          | Single Cylinder Ring Set  |     |     |     |
|     | FP-4009220          | Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240) |     |     |     |
|     | FP-3011076          | Seal, O-Ring (Cylinder Liner)   |     |     |     |
|     | FP-3014668          | Seal, O-Ring (Cylinder Liner)   |     |     |     |
|     | FP-3081489          | Seal, Crevice (Cylinder Liner)  |     |     |     |
|     | FP-4000504          | Filler Band, (Cylinder Liner)   |     |     |     |
| 00  | <b>FP-AR3880665</b> | Complete Cylinder Kit 15.5:1 C.R. (Kit Contents Are Listed Below)             | 6   |     |     |
|     | FP-3026270          | Piston Body   |     |     |     |
|     | FP-4095009          | Piston Pin  |     |     |     |
|     | FP-205269           | Piston Pin Retainers  |     |     |     |
|     | FP-4089500          | Single Cylinder Ring Set  |     |     |     |
|     | FP-4009220          | Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240) |     |     |     |
|     | FP-3011076          | Seal, O-Ring (Cylinder Liner)   |     |     |     |
|     | FP-3014668          | Seal, O-Ring (Cylinder Liner)   |     |     |     |
|     | FP-3081489          | Seal, Crevice (Cylinder Liner)  |     |     |     |
|     | FP-4000504          | Filler Band, (Cylinder Liner)   |     |     |     |

(The Following Thick Flanged LPF Cylinder Liners for Late Blocks FP-3028130 & FP-3060545)

| Ref | Part Number | Description  | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 00  | FP-4024767  | Kit, Cylinder Liner (Standard), (Thick Flange .526"), (Previously FP-3028434)  | 6   |     |     |
| 00  | FP-4024768  | Kit, Cylinder Liner (.020 O.S.), (Thick Flange .526"), (Previously FP-3028430) | 6   |     |     |
| 00  | FP-4024769  | Kit, Cylinder Liner (.040 O.S.), (Thick Flange .526"), (Previously FP-3028431) | 6   |     |     |
| 00  | FP-4024771  | Kit, Cylinder Liner (.083 O.S.), (Thick Flange .526"), (Previously FP-3024726) | 6   |     |     |
| 00  | FP-4024772  | Kit, Cylinder Liner (.095 O.S.), (Thick Flange .526"), (Previously FP-3028433) | 6   |     |     |
| 00  | FP-4024773  | Kit, Cylinder Liner (.020/.020), (Thick Flange .526"), (Previously FP-3803505) | 6   |     |     |
| 00  | FP-4024774  | Kit, Cylinder Liner (.060/.020), (Thick Flange .526"), (Previously FP-3803509) | 6   |     |     |
| 00  | FP-4024775  | Kit, Cylinder Liner (.060 O.S.), (Thick Flange .526"), (Previously FP-3803510) | 6   |     |     |
| 01  | FP-4009220  | Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240)  | 6   |     |     |
| 01  | FP-4009221  | Cylinder Liner Bare (.020 O.S.), (Thick Flange .526"), (Previously FP-3202241) | 6   |     |     |
| 01  | FP-4009222  | Cylinder Liner Bare (.040 O.S.), (Thick Flange .526"), (Previously FP-3202242) | 6   |     |     |
| 01  | FP-4009228  | Cylinder Liner Bare (.083 O.S.), (Thick Flange .526"), (Previously FP-3024726) | 6   |     |     |
| 01  | FP-4009230  | Cylinder Liner Bare (.095 O.S.), (Thick Flange .526"), (Previously FP-3053800) | 6   |     |     |
| 01  | FP-4009231  | Cylinder Liner Bare (.020/.020), (Thick Flange .526"), (Previously FP-3074547) | 6   |     |     |
| 01  | FP-4009232  | Cylinder Liner Bare (.060/.020), (Thick Flange .526"), (Previously FP-3074551) | 6   |     |     |
| 01  | FP-4009233  | Cylinder Liner Bare (.060 O.S.), (Thick Flange .526"), (Previously FP-3074552) | 6   |     |     |

(The Following Thin Flanged UPF Cylinder Liner for Early Blocks FP-3001700 & FP-3005860)

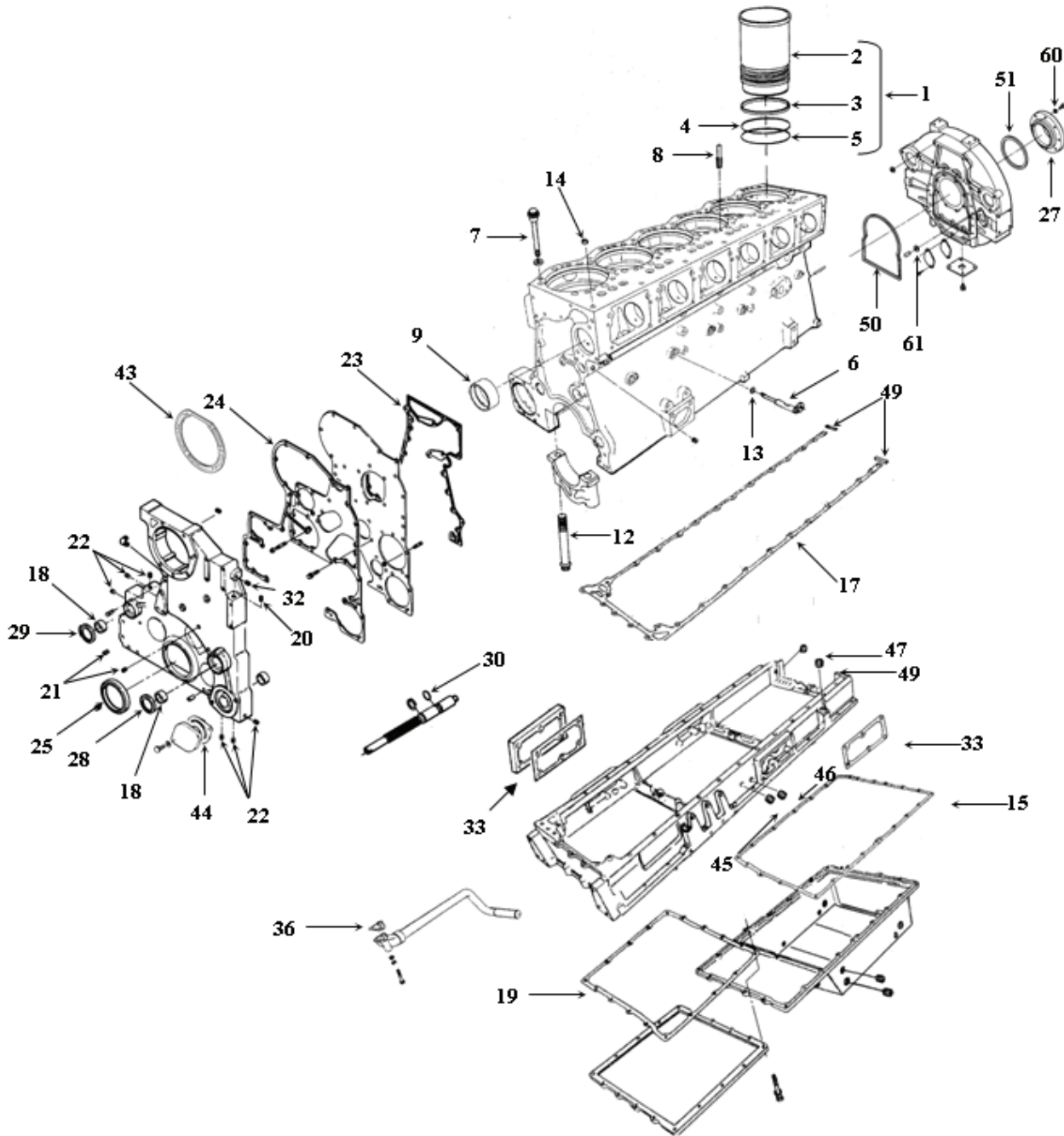
| Ref | Part Number | Description  | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 00  | FP-4024770  | Kit, Cylinder Liner UPF (Std.), (Thin Flange .306"), (Previously FP-3009549) | 6   |     |     |
| 01  | FP-4009227  | Cylinder Liner UPF (Std.), (Thin Flange .306"), (Previously FP-3007710)      | 6   |     |     |



# KT, KTA Series



## Cylinder Block



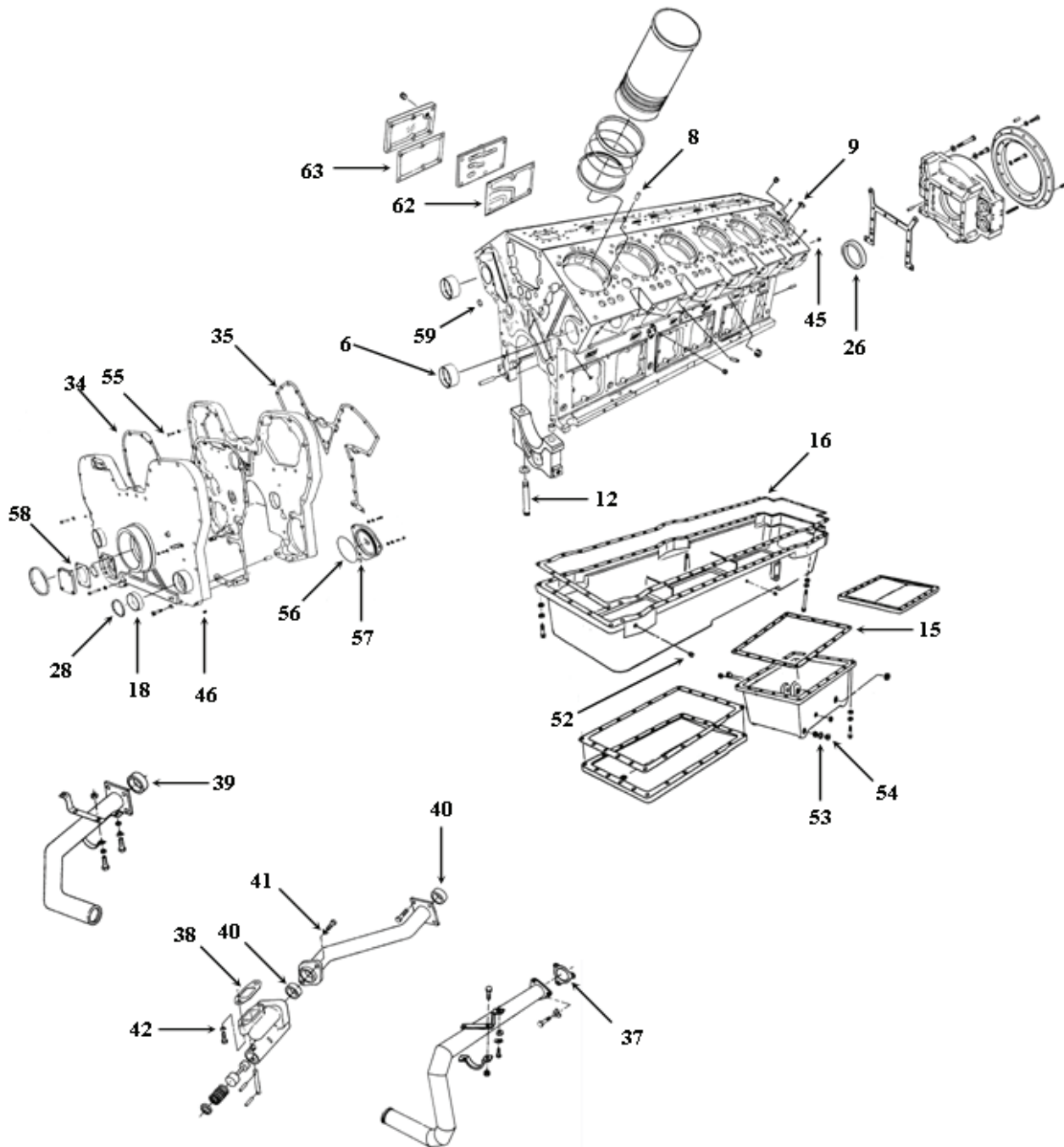
## Cylinder Block (KT38 & KT50)

| Ref | Part Number         | Description  | K19 | K38 | K50 |
|-----|---------------------|--|-----|-----|-----|
| 00  | FP-3088298          | Laina, Liner 0.019" (Previously FP-3014227, FP-3074559)                  | 6   |     |     |
| 00  | FP-3014226          | Shim, Liner .007"  | 6   |     |     |
| 00  | FP-3014228          | Shim, Liner .009"  | 6   |     |     |
| 00  | FP-4000504          | Filler Band, (Cylinder Liner)  | 6   |     |     |
| 00  | FP-3007525          | Kit, Cylinder Liner (Standard)   |     | 12  | 16  |
| 00  | FP-3012611          | Kit, Cylinder Liner (.010 O.S.)  |     | 12  | 16  |
| 00  | FP-3012612          | Kit, Cylinder Liner (.020 O.S.)  |     | 12  | 16  |
| 00  | FP-3801268          | Kit, Cylinder Liner (.030 O.S.)  |     | 12  | 16  |
| 00  | FP-3801269          | Kit, Cylinder Liner (.040 O.S.)  |     | 12  | 16  |
| 01  | FP-3022157          | Cylinder Liner Bare (Standard)   |     | 12  | 16  |
| 01  | FP-3023017          | Cylinder Liner Bare (.010 O.S.)  |     | 12  | 16  |
| 01  | FP-3023018          | Cylinder Liner Bare (.020 O.S.)  |     | 12  | 16  |
| 01  | FP-3023019          | Cylinder Liner Bare (.030 O.S.)  |     | 12  | 16  |
| 01  | FP-3023020          | Cylinder Liner Bare (.040 O.S.)  |     | 12  | 16  |
| 02  | FP-3081489          | Seal, Crevice (Cylinder Liner)   | 6   | 12  | 16  |
| 03  | FP-3011076          | Seal, O-Ring (Cylinder Liner)  | 6   | 12  | 16  |
| 04  | FP-3014668          | Seal, O-Ring (Cylinder Liner)  | 6   | 12  | 16  |
| 00  | <b>FP-AR3880666</b> | <b>Complete Cylinder Kit 15.5:1 C.R. (Kit Contents Are Listed Below)</b> |     | 6   | 6   |
|     | FP-3026270          | Piston Body  |     |     |     |
|     | FP-4095009          | Piston Pin   |     |     |     |
|     | FP-205269           | Piston Pin Retainers   |     |     |     |
|     | FP-4089500          | Single Cylinder Ring Set   |     |     |     |
|     | FP-3022157          | Cylinder Liner Bare (Standard)   |     |     |     |
|     | FP-3011076          | Seal, O-Ring (Cylinder Liner)  |     |     |     |
|     | FP-3014668          | Seal, O-Ring (Cylinder Liner)  |     |     |     |
|     | FP-3081489          | Seal, Crevice (Cylinder Liner)   |     |     |     |
| 00  | <b>FP-AR3880667</b> | <b>Complete Cylinder Kit 14.5:1 C.R. (Kit Contents Are Listed Below)</b> |     | 6   | 6   |
|     | FP-3004730          | Piston Body  |     |     |     |
|     | FP-4095009          | Piston Pin   |     |     |     |
|     | FP-205269           | Piston Pin Retainers   |     |     |     |
|     | FP-4089500          | Single Cylinder Ring Set   |     |     |     |
|     | FP-3022157          | Cylinder Liner Bare (Standard)   |     |     |     |
|     | FP-3011076          | Seal, O-Ring (Cylinder Liner)  |     |     |     |
|     | FP-3014668          | Seal, O-Ring (Cylinder Liner)  |     |     |     |
|     | FP-3081489          | Seal, Crevice (Cylinder Liner)   |     |     |     |

# KT, KTA Series



## Cylinder Block



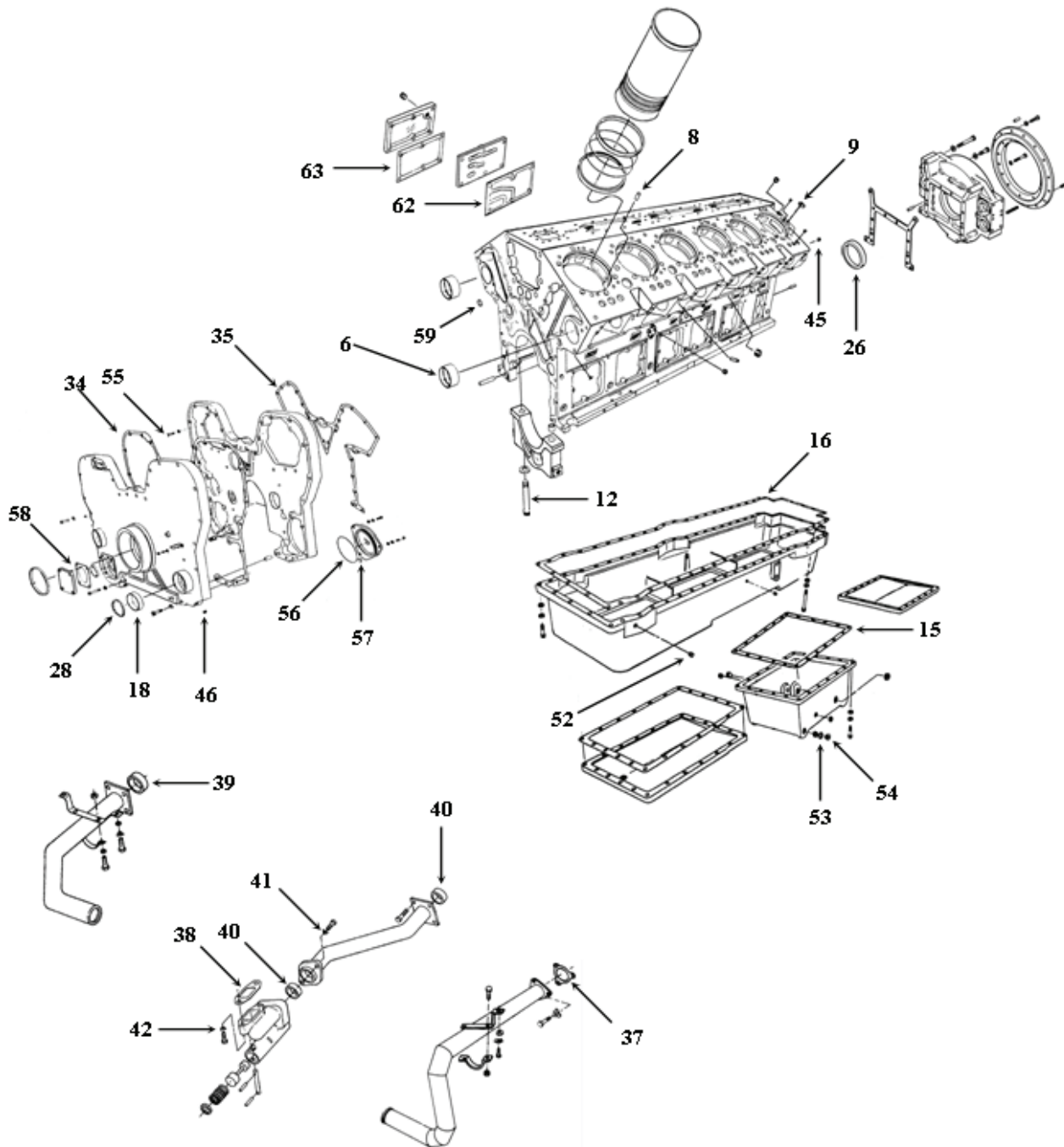
## Cylinder Block

| Ref | Part Number | Description  | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 00  | FP-43969A   | O-Ring (Oil Cover Plate)                             |     | 4   | 4   |
| 00  | FP-S965E    | Plug, Pipe (Gear Cover)                              |     | 2   | 4   |
| 00  | FP-3040722  | Gasket, Camshaft Cover                               | 1   | 2   | 2   |
| 00  | FP-3040721  | Gasket, Cam Follower Cover                           | 6   | 12  | 16  |
| 00  | FP-3803596  | Gasket Set, Single Cylinder Head                     | 6   | 12  | 16  |
| 00  | FP-108172   | Seal, O-Ring (Hand Hole)                             |     | 1   | 1   |
| 00  | FP-190397   | Sleeve, Wear (Accessory Drive)                       |     | 1   | 1   |
| 00  | FP-205571   | Gasket, Seal Retainer                                |     | 1   | 1   |
| 00  | FP-3006236  | Sleeve, Front Crankshaft Seal                        | 1   | 1   | 1   |
| 00  | FP-3006237  | Sleeve, Rear Crankshaft Seal                         | 1   | 1   | 1   |
| 00  | FP-3031544  | Seal, Rectangular Ring (Lube Oil Suction Tube)       |     | 1   | 1   |
| 00  | FP-3200287  | Seal, Keyway   |     | 1   | 1   |
| 00  | FP-3801897  | STC Kit, Add To Upper Set For KTTA Models            |     |     | 1   |
| 00  | FP-3803601  | Gasket Set, Upper                                    |     |     | 1   |
| 00  | FP-3804300  | Gasket Set, Lower                                    |     |     | 1   |
| 00  | FP-3913994  | Seal, O-Ring   |     | 1   | 1   |
| 00  | FP-200861   | Washer, Plain (Flywheel Bolt)                        | 9   |     |     |
| 00  | FP-206177   | Gasket, Pressure Relief Valve Body                   |     | 1   |     |
| 00  | FP-207551   | Seal, O-Ring, Dust Seal (Flywheel Housing)           |     | 1   |     |
| 00  | FP-3005940  | Gasket, Gear Housing                                 |     | 1   |     |
| 00  | FP-3007380  | Gasket, Cover (Hydraulic Drive)                      | 1   |     |     |
| 00  | FP-3007441  | Seal, O-Ring, Piston Cooling Nozzle                  |     | 12  |     |
| 00  | FP-3801896  | STC Kit, Add To Upper Set For KTTA Models            |     | 1   |     |
| 00  | FP-3803597  | Gasket Set, Upper (KT19)                             | 1   |     |     |
| 00  | FP-3803600  | Gasket Set, Upper                                    |     | 1   |     |
| 00  | FP-3804296  | Gasket Set, Upper (KTA/KTTA19)                       | 1   |     |     |
| 00  | FP-3804301  | Gasket Set, Lower                                    |     | 1   |     |
| 00  | FP-4089390  | Gasket Set, Lower (KT19) (Formerly FP-3801006)       | 1   |     |     |
| 00  | FP-4089391  | Gasket Set, Lower (KTA/KTTA19) (Formerly FP-3801007) | 1   |     |     |
| 05  | FP-3002834  | Bushing, Camshaft                                    | 7   |     |     |
| 06  | FP-205230   | Bushing, Camshaft                                    |     | 26  | 34  |
| 08  | FP-68445    | Pin, Groove  | 12  | 24  | 32  |
| 09  | FP-206224   | Plug, Expansion                                      |     | 15  | 21  |
| 13  | FP-3015067  | Seal, O-Ring   | 6   |     |     |
| 15  | FP-3043211  | Gasket, Oil Pan                                      |     |     | 2   |
| 15  | FP-3042590  | Gasket, Oil Pan                                      | 1   |     |     |
| 16  | FP-3043213  | Gasket, Oil Pan                                      |     |     | 1   |
| 16  | FP-3043212  | Gasket, Oil Pan                                      |     | 1   |     |
| 17  | FP-3042587  | Gasket, Oil Pan Adapter (Late)                       | 1   |     |     |
| 17  | FP-3042588  | Gasket, Oil Pan Adapter (Early)                      | 1   |     |     |
| 18  | FP-132770   | Bushing, Accessory & Water Pump Drives               | 2   |     |     |
| 19  | FP-3073213  | Gasket, Oil Pan Adapter (Late)                       | 1   |     |     |
| 20  | FP-S965E    | Plug, Pipe (Gear Cover)                              | 1   |     |     |
| 21  | FP-3013786  | Plug, Pipe (Gear Cover)                              | 2   | 1   |     |
| 22  | FP-3002158  | Plug, Pipe (Gear Cover)                              | 6   |     |     |
| 23  | FP-3037282  | Gasket, Gear Cover Plate To Block                    | 1   |     |     |

# KT, KTA Series



## Cylinder Block



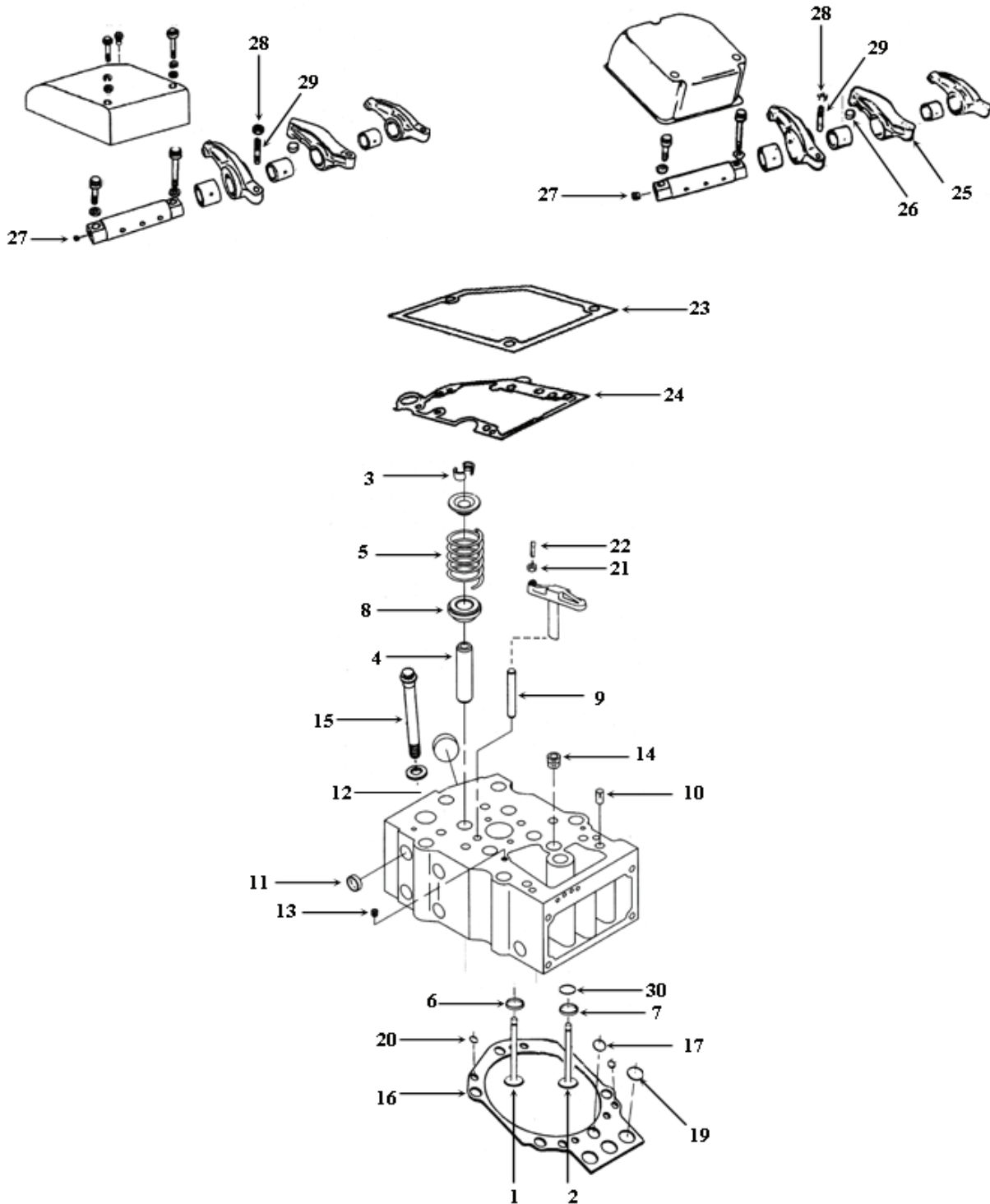
**Cylinder Block (Cont.)**

| Ref | Part Number | Description  | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 24  | FP-3001318  | Gasket, Front Gear Cover Plate (KT19)                | 1   |     |     |
| 24  | FP-3074690  | Gasket, Front Gear Cover Plate (KTA19) (3044762)     | 1   |     |     |
| 25  | FP-3016792  | Seal, Oil Front Crankshaft                           | 1   | 1   | 1   |
| 26  | FP-3630681  | Oil Seal Rear Crankshaft (Previously FP-3630681)     |     | 1   | 1   |
| 27  | FP-3005885  | Seal, Oil Crankshaft (Rear RR)                       | 1   |     |     |
| 27  | FP-3005886  | Seal, Oil Crankshaft (Rear RR) (Wet Housing)         | 1   |     |     |
| 28  | FP-3628895  | Gear Cover Seal                                      | 1   | 2   | 2   |
| 29  | FP-3016794  | Seal, Oil Water Pump Drive                           | 1   |     |     |
| 30  | FP-3201125  | Seal, O-Ring   | 1   |     |     |
| 32  | FP-175831   | Cup Plug, Barring                                    | 1   |     |     |
| 33  | FP-3042586  | Gasket, Hand Hole Cover                              | 3   |     |     |
| 34  | FP-3177160  | Gasket, Front Cover                                  |     | 1   | 1   |
| 35  | FP-3178076  | Gasket, Gear Cover                                   |     | 1   | 1   |
| 36  | FP-3008403  | Gasket, Oil Connection (Oil Suction Tube)            | 1   |     |     |
| 37  | FP-206013   | Gasket, Oil Connection (Oil Suction Tube)            |     | 1   |     |
| 38  | FP-3000632  | Gasket, Oil Connection (Oil Suction Tube)            |     |     | 1   |
| 39  | FP-3026391  | Seal, Rectangular Ring                               |     |     | 1   |
| 40  | FP-3026392  | Seal, Rectangular Ring                               |     |     | 2   |
| 40  | FP-3026393  | Seal, Rectangular Ring                               |     | 2   |     |
| 41  | FP-68908    | Lockplate  |     |     | 2   |
| 42  | FP-151355   | Lockplate  |     |     | 2   |
| 43  | FP-3042612  | Gasket, Fan Hub                                      | 1   |     |     |
| 44  | FP-3008400  | Gasket, Cover (Hydraulic Drive)                      | 1   |     |     |
| 45  | FP-3013786  | Plug, Pipe (Gear Cover)                              | 1   | 5   | 8   |
| 45  | FP-3013786  | Plug, Pipe (Gear Cover)                              |     | 5   | 8   |
| 46  | FP-3002158  | Plug, Pipe (Gear Cover)                              | 1   |     |     |
| 47  | FP-153518   | Seal, Bolt   | 4   |     |     |
| 48  | FP-205241   | Strip, Rectangular Sealing                           | 2   |     |     |
| 49  | FP-3046201  | Seal, O-Ring   | 1   |     |     |
| 50  | FP-3096260  | Ribbed Type Rectangular Label (Previously FP-205239) | 1   |     |     |
| 51  | FP-205247   | Seal, O-Ring   | 1   |     |     |
| 52  | FP-67622    | Plug, Pipe   |     | 2   |     |
| 53  | FP-67946    | Washer, Plain  |     | 2   | 8   |
| 54  | FP-3055069  | Plug, Threaded                                       |     | 2   | 3   |
| 55  | FP-103009   | Screw, Hexagon Head Cap (Front Gear Cover)           |     | 8   |     |
| 56  | FP-3818885  | O-Ring (Hydraulic Cover)                             |     | 1   |     |
| 57  | FP-145600   | O-Ring (Hydraulic Cover)                             |     | 3   |     |
| 58  | FP-206407   | Gasket, Hydraulic Cover                              |     | 1   |     |
| 59  | FP-175830   | Plug, Expansion                                      | 2   | 8   | 12  |
| 60  | FP-S631     | Washer, Plain  | 8   |     |     |
| 61  | FP-172648   | Seal, Rectangular Ring                               | 12  |     |     |
| 62  | FP-3177108  | Gasket, Filter Head                                  |     | 1   | 1   |
| 63  | FP-3628973  | Gasket, Oil Transfer (Formerly FP-3011651)           |     | 1   | 1   |

# KT, KTA Series



## Cylinder Head





## Cylinder Head

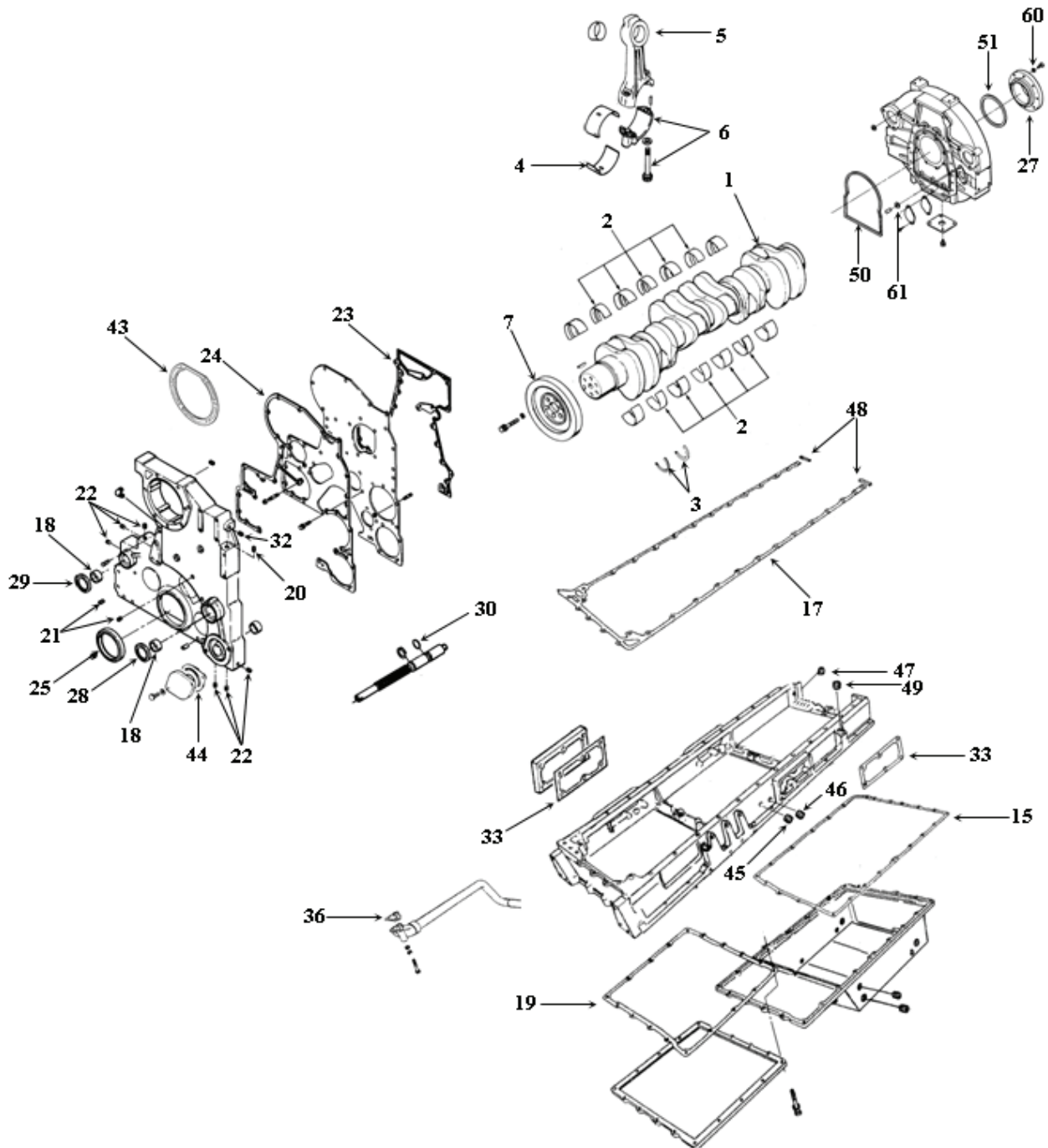
| Ref | Part Number             | Description  | K19 | K38 | K50 |
|-----|-------------------------|--|-----|-----|-----|
| 00  | FP-3803515              | Kit, Valve, Standard Intake (Silichrome 1), (W/Lock)     | 12  | 24  | 32  |
| 00  | FP-3803518 <sup>9</sup> | Kit, Valve, Premium Intake (Tribaloy), (W/Lock)          | 12  | 24  | 32  |
| 00  | FP-3803528              | Kit, Valve, Premium Exhaust (Inconel), (W/Lock)          | 12  | 24  | 32  |
| 00  | FP-3803529              | Kit, Valve, Standard Exhaust (Stellite 6), (W/Lock)      | 12  | 24  | 32  |
| 00  | FP-208084               | Rivet  | 6   | 12  | 16  |
| 00  | FP-3037821              | Gasket, Exhaust Manifold                                 |     | 12  | 16  |
| 00  | FP-3803596              | Gasket Set, Single Cylinder Head                         | 6   | 12  | 16  |
| 00  | FP-3043097              | Gasket, Exhaust Manifold                                 | 6   |     |     |
| 01  | FP-3088389              | Valve, Premium Exhaust (Inconel)                         | 12  | 24  | 32  |
| 01  | FP-3088391              | Valve, Standard Exhaust (Stellite 6)                     | 12  | 24  | 32  |
| 02  | FP-3052820 <sup>9</sup> | Valve, Premium Intake (Tribaloy)                         | 12  | 24  | 32  |
| 02  | FP-3088393              | Valve, Standard Intake (Silichrome 1)                    | 12  | 24  | 32  |
| 03  | FP-205091               | Collet, Valve  | 48  | 96  | 128 |
| 04  | FP-3018818              | Guide, Valve Flat Top (3.800" Standard Length)           | 12  | 24  | 32  |
| 04  | FP-3202210              | Guide, Valve 45° Taper Top (3.580" Standard Length)      | 12  | 24  | 32  |
| 05  | FP-3633840              | Spring, Valve Short (Nitrided), (Check For Availability) | 24  | 48  | 64  |
| 05  | FP-3629006              | Spring, Valve Long (Carbon Steel) (Previously FP-205208) | 12  | 24  | 32  |
| 06  | FP-205093               | Insert, Exhaust Valve (Standard 2.381")                  | 12  | 24  | 32  |
| 07  | FP-3026296              | Insert, Intake Valve (Standard 2.381")                   | 12  | 24  | 32  |
| 07  | FP-3031098              | Insert, Intake Valve (2.391" O.S.)                       | 12  | 24  | 32  |
| 07  | FP-3031099              | Insert, Intake Valve (2.401" O.S.)                       | 12  | 24  | 32  |
| 07  | FP-3052819 <sup>9</sup> | Insert, Intake Valve (Tribaloy Standard 2.381")          | 12  | 24  | 32  |
| 08  | FP-3081081              | Rotator, Valve Spring                                    | 12  | 24  | 32  |
| 09  | FP-205169               | Crosshead Guide  | 12  | 24  | 32  |
| 10  | FP-68445                | Pin, Groove  | 12  | 24  | 32  |
| 11  | FP-205401               | Plug, Expansion  | 48  | 96  | 128 |
| 12  | FP-206224               | Plug, Expansion  | 12  | 24  | 32  |
| 13  | FP-67622                | Plug, Pipe   | 6   | 12  | 16  |
| 13  | FP-3002158              | Plug, Pipe   | 1   | 1   | 1   |
| 14  | FP-S915A                | Plug, Pipe   | 6   | 12  | 16  |
| 16  | FP-3126287              | Cylinder Head Gasket O/S                                 | 6   | 12  | 16  |
| 16  | FP-3166288              | Standard Cylinder Head Gasket (Previously FP-3022340)    | 6   | 12  | 16  |
| 20  | FP-207448               | Grommet, Cylinder Head Water                             | 24  | 48  | 64  |
| 21  | FP-203131               | Nut, Locking   | 12  | 24  | 32  |
| 22  | FP-147389               | Screw, Adjusting   | 12  | 24  | 32  |
| 23  | FP-4922219              | Gasket, Rocker Lever Cover                               | 6   | 12  | 16  |
| 24  | FP-3201517              | Gasket, Rocker Lever Housing                             | 6   | 12  | 16  |
| 25  | FP-3013300              | Lever, Rocker (Injector), (Early)                        | 6   |     |     |
| 26  | FP-194037               | Socket, Rocker Lever                                     | 6   | 12  | 16  |
| 27  | FP-203933               | Plug, Expansion (Rocker Lever Shaft)                     | 6   | 12  | 16  |
| 28  | FP-S212                 | Nut, Regular Hexagon                                     | 18  | 36  | 48  |
| 29  | FP-168306               | Screw, Slotted Set                                       | 18  | 36  | 48  |
| 30  | FP-3009109              | Plate, Swirl   | 12  | 24  | 32  |

<sup>9</sup>Must use with Tribaloy Valve Insert FP-3052819

# KT, KTA Series



## Crankshaft



## Crankshaft

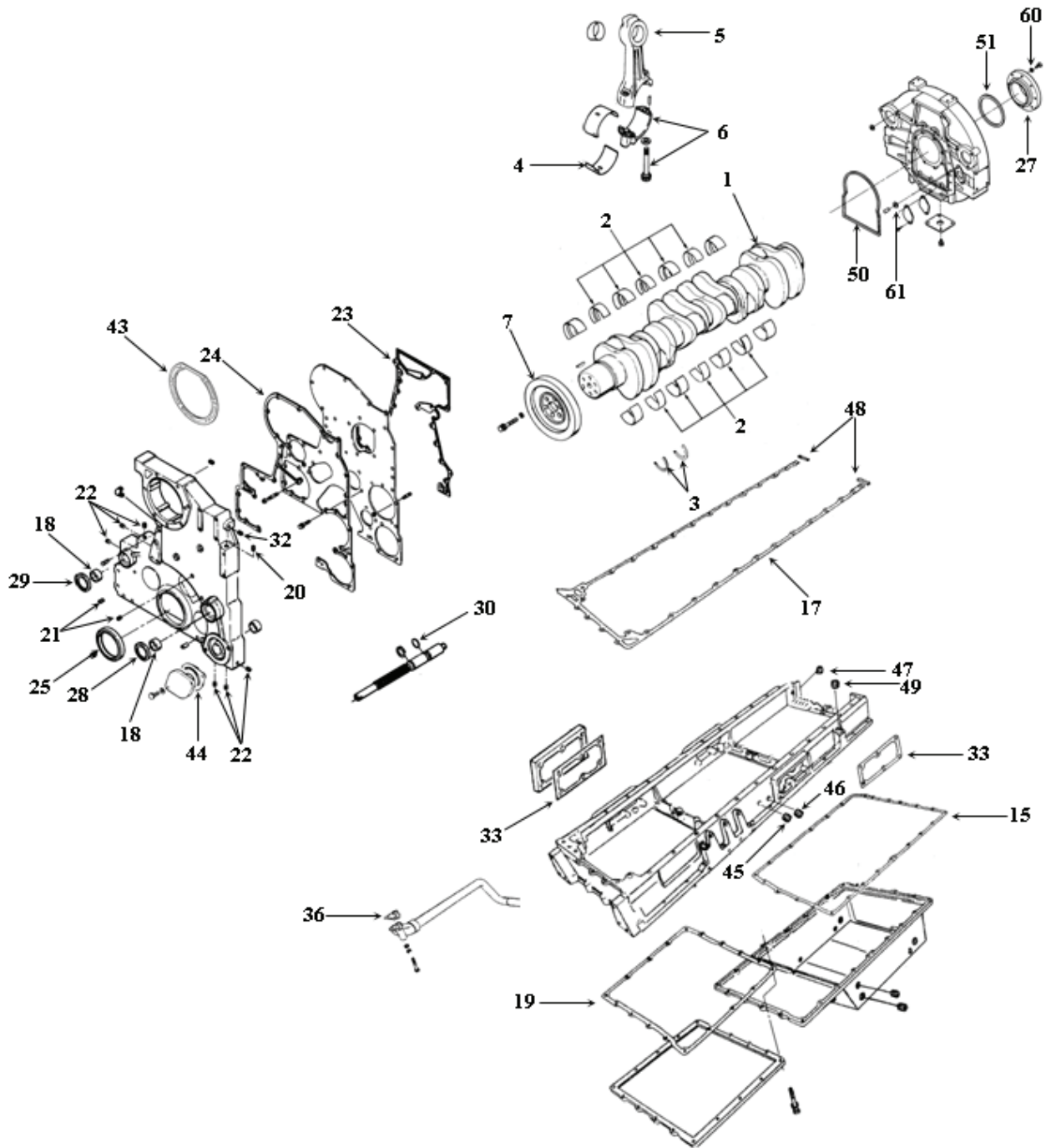
| Ref | Part Number              | Description                                      | K19 | K38 | K50 |
|-----|--------------------------|--|-----|-----|-----|
| 00  | FP-108172                | Seal, O-Ring (Hand Hole)                         |     | 1   | 1   |
| 00  | FP-3006236               | Sleeve, Front Crankshaft Seal                    | 1   | 1   | 1   |
| 00  | FP-3006237               | Sleeve, Rear Crankshaft Seal                     | 1   | 1   | 1   |
| 00  | FP-3018210 <sup>35</sup> | Bearing Set, Main Standard                       |     |     | 1   |
| 00  | FP-3018211               | Bearing Set, Main (.010)                         |     |     | 1   |
| 00  | FP-3018212               | Bearing Set, Main (.020)                         |     |     | 1   |
| 00  | FP-3031544               | Seal, Rectangular Ring (Lube Oil Suction Tube)   |     | 1   | 1   |
| 00  | FP-3630681               | Rear Crankshaft Seal (Previously FP-3016793)     |     | 1   | 1   |
| 00  | FP-3913994               | Seal, O-Ring                                     |     | 1   | 1   |
| 00  | FP-3007380               | Gasket, Cover (Hydraulic Drive)                  | 1   |     |     |
| 00  | FP-AR12250               | Bearing Set, Main Standard                       |     | 1   |     |
| 00  | FP-AR12251               | Bearing Set, Main (.010)                         |     | 1   |     |
| 00  | FP-AR12252               | Bearing Set, Main (.020)                         |     | 1   |     |
| 01  | FP-3096362               | Crankshaft, W/O Gear                             | 1   |     |     |
| 02  | FP-AR12270               | Bearing Set, Main Standard                       | 1   |     |     |
| 02  | FP-AR12271               | Bearing Set, Main (.010)                         | 1   |     |     |
| 02  | FP-AR12272               | Bearing Set, Main (.020)                         | 1   |     |     |
| 02  | FP-AR12273               | Bearing Set, Main (.030)                         | 1   |     |     |
| 03  | FP-3000139               | Thrust Washer Standard                           |     | 2   | 2   |
| 03  | FP-205112                | Thrust Washer Standard                           | 4   |     |     |
| 03  | FP-205112S               | Thrust Washer Set (4 Pieces)                     | 1   |     |     |
| 03  | FP-3001197 <sup>35</sup> | Thrust Washer (.020 O.S.)                        | 4   |     |     |
| 04  | FP-3047390               | Bearing Half, Connecting Rod (Std.)              |     | 24  | 32  |
| 04  | FP-3047391               | Bearing Half, Connecting Rod (.010)              |     | 24  | 32  |
| 04  | FP-3047392               | Bearing Half, Connecting Rod (.020)              |     | 24  | 32  |
| 04  | FP-3047393               | Bearing Half, Connecting Rod (.030)              |     | 24  | 32  |
| 04  | FP-205840                | Bearing Half, Connecting Rod (Std.)              | 12  |     |     |
| 04  | FP-205841                | Bearing Half, Connecting Rod (.010)              | 12  |     |     |
| 04  | FP-205842                | Bearing Half, Connecting Rod (.020)              | 12  |     |     |
| 04  | FP-205843                | Bearing Half, Connecting Rod (.030)              | 12  |     |     |
| 05  | FP-3043909               | Bushing, Connecting Rod                          | 6   | 12  | 16  |
| 07  | FP-217322                | Damper, Vibration                                | 1   |     |     |
| 15  | FP-3043211               | Gasket, Oil Pan                                  |     |     | 2   |
| 15  | FP-3042590               | Gasket, Oil Pan                                  | 1   |     |     |
| 16  | FP-3043213               | Gasket, Oil Pan                                  |     |     | 1   |
| 16  | FP-3043212               | Gasket, Oil Pan                                  |     | 1   |     |
| 17  | FP-3042587               | Gasket, Oil Pan Adapter (Late)                   | 1   |     |     |
| 17  | FP-3042588               | Gasket, Oil Pan Adapter (Early)                  | 1   |     |     |
| 18  | FP-132770                | Bushing, Accessory & Water Pump Drives           | 2   |     |     |
| 19  | FP-3073213               | Gasket, Oil Pan Adapter (Late)                   | 1   |     |     |
| 20  | FP-S965E                 | Plug, Pipe (Gear Cover)                          | 1   |     |     |
| 21  | FP-3013786               | Plug, Pipe                                       | 2   | 1   |     |
| 22  | FP-3002158               | Plug, Pipe (Oil Pan)                             | 6   |     |     |
| 23  | FP-3037282               | Gasket, Gear Cover Plate To Block                | 1   |     |     |
| 24  | FP-3074690               | Gasket, Front Gear Cover Plate (FP-3044762)      | 1   |     |     |
| 25  | FP-3016792               | Seal, Oil Front Crankshaft                       | 1   | 1   | 1   |
| 27  | FP-3630681               | Oil Seal Rear Crankshaft (Previously FP-3016793) |     | 1   | 1   |
| 27  | FP-3005885               | Seal, Oil Crankshaft (Rear RR)                   | 1   |     |     |

<sup>35</sup>Discontinued

# KT, KTA Series



## Crankshaft



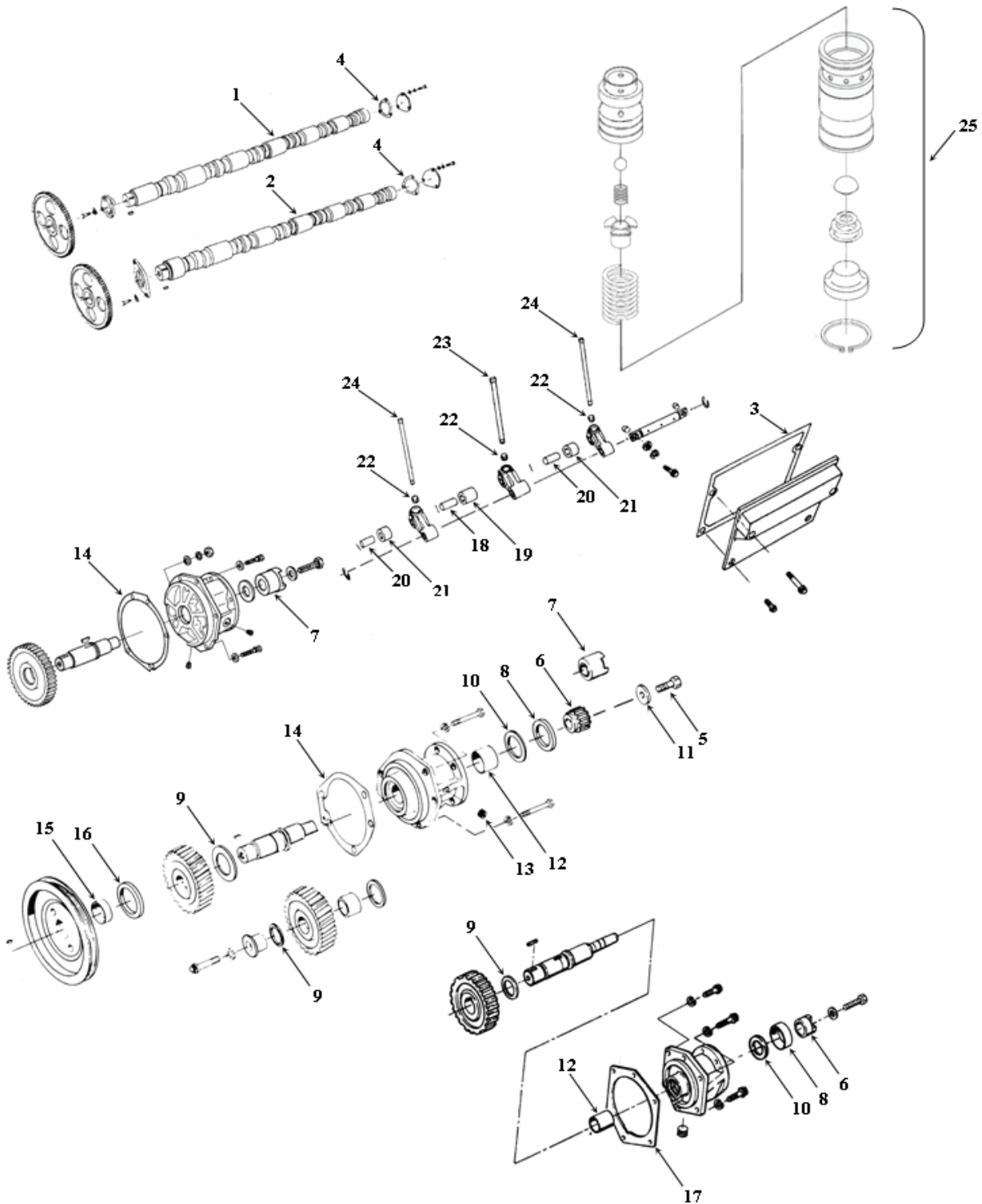
**Crankshaft (Cont.)**

| Ref | Part Number | Description                                      | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 27  | FP-3005886  | Seal, Oil Crankshaft (Rear RR) (Wet Housing)     | 1   |     |     |
| 28  | FP-3628895  | Gear Cover Seal                                  | 1   | 2   | 2   |
| 29  | FP-3016794  | Seal, Oil Water Pump Drive                       | 1   |     |     |
| 30  | FP-3201125  | Seal, O-Ring                                     | 1   |     |     |
| 32  | FP-175831   | Cup Plug, Barring                                | 1   |     |     |
| 33  | FP-3042586  | Gasket, Hand Hole Cover                          | 3   |     |     |
| 36  | FP-3000632  | Gasket, Oil Connection (Oil Suction Tube)        |     |     | 1   |
| 36  | FP-206013   | Gasket, Oil Connection (Oil Suction Tube)        |     | 1   |     |
| 36  | FP-3008403  | Gasket, Oil Connection (Oil Suction Tube)        | 1   |     |     |
| 43  | FP-3042612  | Gasket, Fan Hub                                  | 1   |     |     |
| 44  | FP-3008400  | Gasket, Cover (Hydraulic Drive)                  | 1   |     |     |
| 45  | FP-3013786  | Plug, Pipe                                       | 1   | 5   | 8   |
| 46  | FP-3002158  | Plug, Pipe (Oil Pan)                             | 1   |     |     |
| 47  | FP-153518   | Seal, Bolt                                       | 4   |     |     |
| 48  | FP-205241   | Strip, Rectangular Sealing (Oil Pan)             | 2   |     |     |
| 49  | FP-3046201  | Seal, O-Ring                                     | 1   |     |     |
| 50  | FP-3096260  | Seal, Rectangular Section (Previously FP-205239) | 1   |     |     |
| 51  | FP-205247   | Seal, O-Ring                                     | 1   |     |     |
| 60  | FP-S631     | Washer, Plain                                    | 8   |     |     |
| 61  | FP-172648   | Seal, Rectangular Ring                           | 12  |     |     |

# KT, KTA Series



## Camshaft, Cam Follower & Accessory Drive



**Camshaft, Cam Follower & Accessory Drive**

| Ref | Part Number | Description  | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 00  | FP-103009   | Capscrew   |     | 1   | 1   |
| 00  | FP-107981   | Cap, Oil Filler  | 1   |     |     |
| 00  | FP-3066877  | Camshaft (CPL #'s 127, 153, 159, 171, 183, 184, 185, 213, 219, 232, 245, 251, 274, 290, 291, 292, 293, 297, 302, 334, 379, 385, 386, 398, 415, 428, 438, 439, 440, 441, 442, 444, 445, 447, 474, 475, 520, 584, 640, 672, 724, 884, 885, 886, 888, 952, 969, 1190, 1531) | 1   |     |     |
| 03  | FP-3040721  | Gasket, Camshaft Follower Cover  | 6   | 12  | 16  |
| 04  | FP-3040722  | Gasket, Camshaft Cover   | 1   | 2   | 2   |
| 05  | FP-3000173  | Capscrew   | 1   |     |     |
| 06  | FP-3000174  | Coupling Half  | 1   | 1   | 1   |
| 07  | FP-3000175  | Hub, Jaw Coupling  | 1   |     |     |
| 08  | FP-3014103  | Washer, Clamping   | 1   | 1   | 1   |
| 09  | FP-3026556  | Washer, Thrust   | 1   | 1   | 1   |
| 10  | FP-3026557  | Washer, Thrust   | 1   | 1   | 1   |
| 11  | FP-170664   | Washer, Plain  | 1   |     |     |
| 12  | FP-116391   | Bearing, Accessory Drive   | 1   | 1   | 1   |
| 13  | FP-3002158  | Plug, Pipe   | 2   |     |     |
| 14  | FP-3410171  | Gasket, Accessory Drive Support  | 1   | 1   | 1   |
| 15  | FP-190397   | Sleeve, Wear Accessory Drive Pulley  | 1   | 1   | 1   |
| 16  | FP-3200287  | Seal, Accessory Drive  | 1   | 1   | 1   |
| 16  | FP-3628894  | Seal, Cover Accessories  | 1   | 1   | 1   |
| 17  | FP-3046852  | Gasket, Accessory Drive Support  |     | 1   | 1   |
| 18  | FP-205068   | Pin, Cam Follower Injector   | 6   | 12  | 16  |
| 19  | FP-3016825  | Roller, Cam Follower Injector  | 6   | 12  | 16  |
| 20  | FP-205071   | Pin, Cam Follower Intake & Exhaust Valve   | 12  | 24  | 32  |
| 21  | FP-3016826  | Roller, Cam Follower Intake & Exhaust Valve  | 12  | 24  | 32  |
| 22  | FP-213559   | Socket, Cam Follower   |     | 36  | 48  |
| 22  | FP-107738   | Socket, Cam Follower   | 18  |     |     |
| 23  | FP-3017961  | Rod, Push Injector   | 6   | 12  | 16  |
| 24  | FP-205492   | Rod, Push Intake & Exhaust Valve   | 12  | 24  | 32  |
| 25  | FP-3075381  | Tappet Assy (HUT, STC Fuel Systems)  | 6   | 12  | 16  |

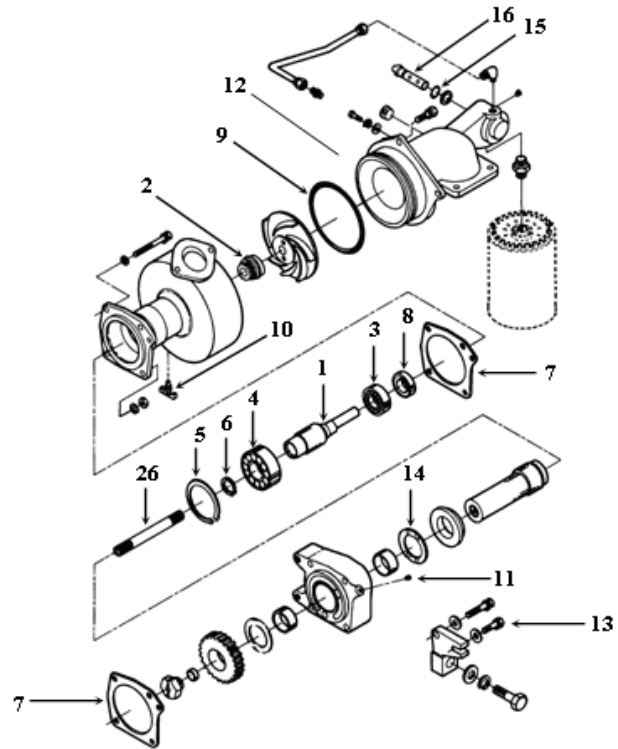


# KT, KTA Series

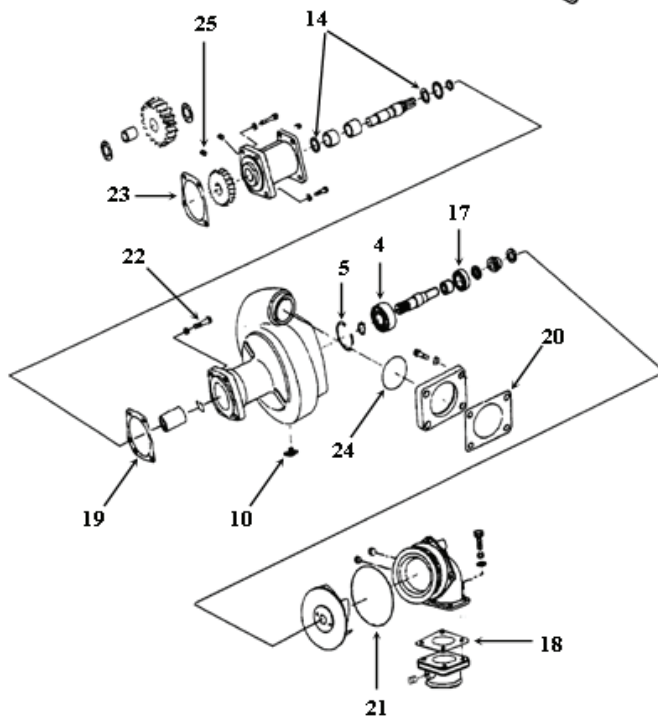


## Water Pump

K19



K38 & K50



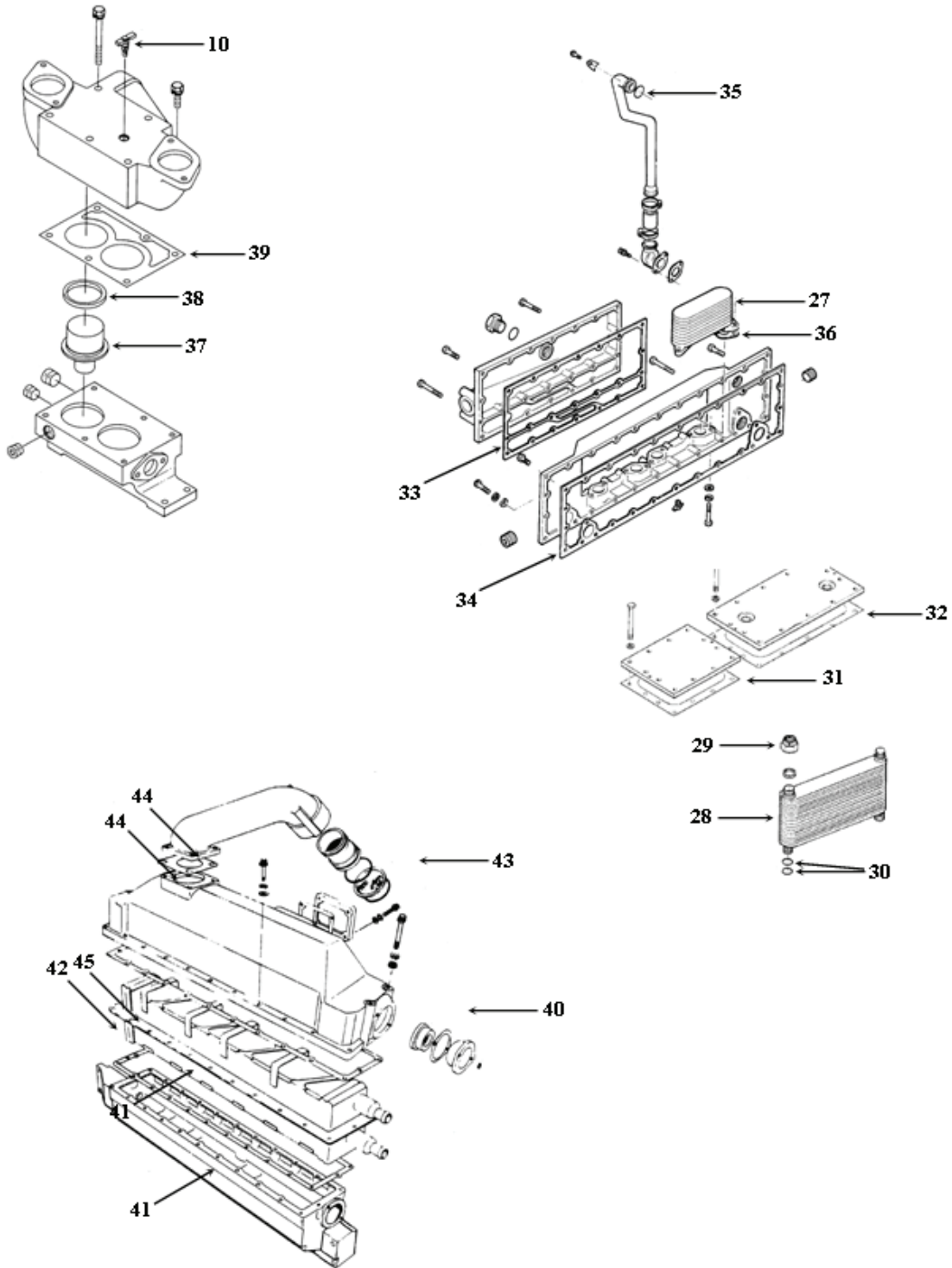
## Water Pump

| Ref | Part Number       | Description   | K19 | K38 | K50 |
|-----|-------------------|---|-----|-----|-----|
| 03  | FP-3077646        | Bearing, Ball (Inner Water Pump Shaft) (Early KT450)      | 1   |     |     |
| 03  | FP-S16002         | Bearing, Ball (Inner Water Pump Shaft) (KT,KTA19)         | 1   |     |     |
| 04  | FP-S16069         | Bearing, Ball (Outer Water Pump Shaft) (KT,KTA19, 38, 50) | 1   | 1   | 1   |
| 11  | FP-S965E          | Plug, Pipe 1/16" NPT                                      | 1   |     |     |
| 12  | FP-S631           | Washer, Plain   | 1   |     |     |
| 13  | FP-3012472        | Screw   | 1   |     |     |
| 14  | FP-3026556        | Bearing, Thrust   | 2   | 1   | 1   |
| 15  | FP-3818885        | Seal, O-Ring  | 1   |     |     |
| 17  | FP-S16054         | Bearing, Ball (Inner Water Pump Shaft) (KT,KTA38, 50)     |     | 1   | 1   |
| 18  | FP-3179035        | Gasket, Connection  |     | 1   | 1   |
| 19  | FP-206193         | Gasket, Water Pump  |     | 1   | 1   |
| 20  | FP-206455         | Gasket, Water Pump  |     | 1   | 1   |
| 21  | FP-206457         | Seal, O-Ring  |     | 1   | 1   |
| 22  | FP-103009         | Capscrew  |     | 4   | 4   |
| 23  | FP-206416         | Gasket, Support   |     | 1   | 1   |
| 24  | FP-3007512        | Seal, O-Ring  |     | 1   | 1   |
| 25  | FP-68193          | Plug, Pipe  |     | 1   | 1   |
| 00  | <b>FP-3803153</b> | <b>Kit, Water Pump Repair</b>                             | 1   |     |     |
| 01  | FP-3042827        | Shaft, Water Pump   | 1   |     |     |
| 02  | FP-3029099        | Seal, Coolant Water Pump                                  | 1   |     |     |
| 03  | FP-S16002         | Bearing, Ball (Inner Water Pump Shaft) (KT,KTA19)         | 1   |     |     |
| 04  | FP-S16069         | Bearing, Ball (Outer Water Pump Shaft) (KT,KTA19, 38, 50) | 1   | 1   | 1   |
| 05  | FP-70183          | Retaining Ring, Water Pump Shaft                          | 1   | 1   | 1   |
| 06  | FP-205258         | Retaining Ring, Water Pump Shaft                          | 1   |     |     |
| 00  | FP-205288         | Gasket, Water Pump  | 1   |     |     |
| 00  | FP-205289         | Gasket, Water Pump  | 1   |     |     |
| 07  | FP-3202283        | Gasket, Water Pump  | 1   |     |     |
| 08  | FP-206948         | Seal, Oil   | 1   |     |     |
| 09  | FP-145623         | Seal, O-Ring  | 1   |     |     |
| 00  | FP-3028291        | Seal, O-Ring  | 2   |     |     |
| 10  | FP-S962E          | Cock, Drain   | 1   | 1   | 1   |

# KT, KTA Series



## Thermostat & Coolers



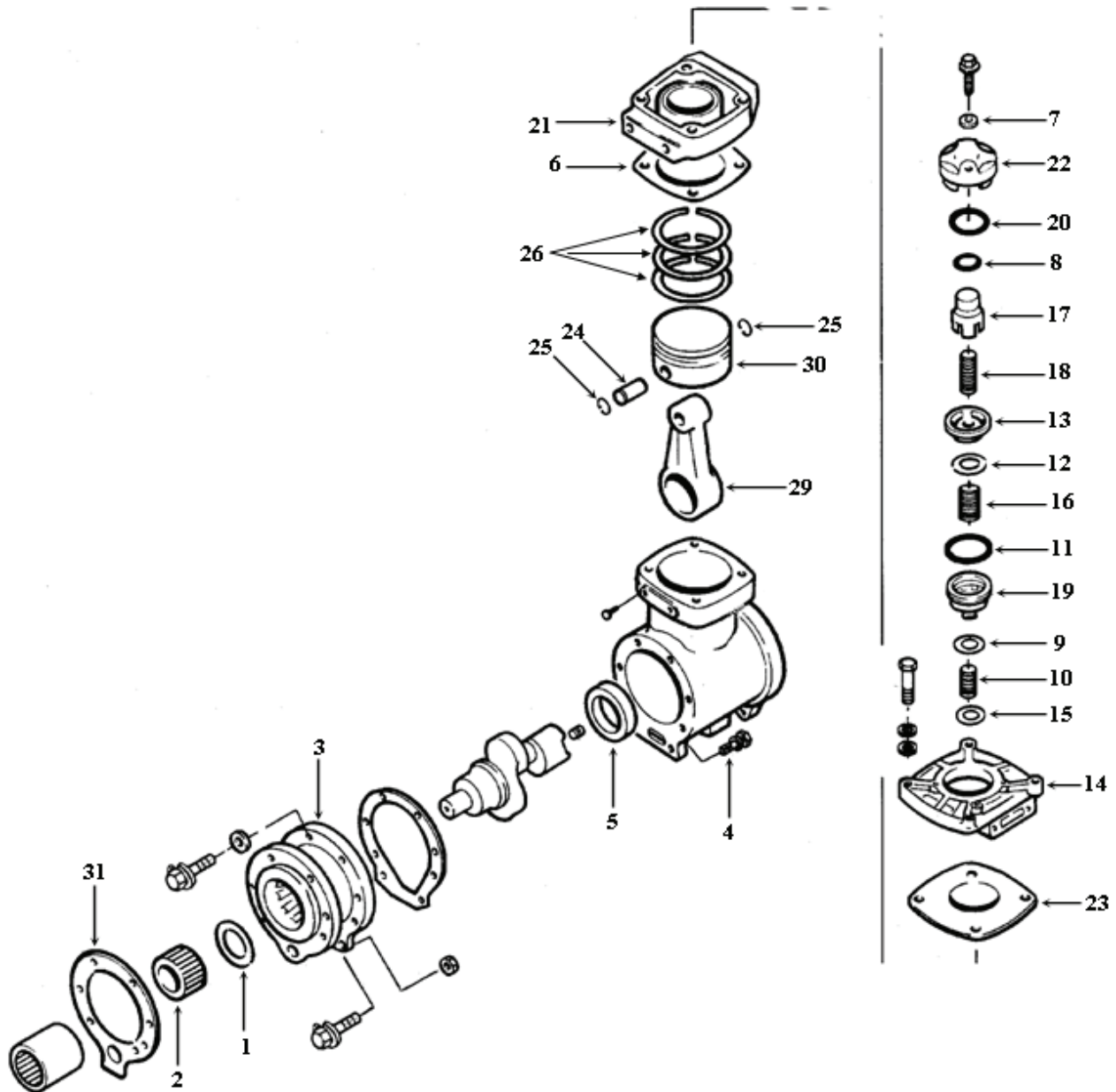
## Thermostat, Oil Cooler & Aftercooler

| Ref | Part Number       | Description   | K19 | K38 | K50 |
|-----|-------------------|---|-----|-----|-----|
| 00  | FP-3033915        | O-Ring (Use w/3638360, 3638361 Aftercoolers Only) (After Feb. 6, 2006 Production) |     | 8   | 8   |
| 00  | FP-68910          | O-Ring (Use w/3068976, 3638311, 3638312, 3866152 After Coolers Only)              |     | 8   | 8   |
| 00  | FP-206443         | Gasket, Thermostat Housing  |     | 2   | 2   |
| 00  | FP-3002158        | Plug, Pipe  | 1   |     |     |
| 00  | FP-3014304        | Sleeve, Rubber  | 24  |     |     |
| 28  | FP-3635074        | Cooler Assembly, Oil  |     | 3   | 4   |
| 28  | FP-4095097        | Body, Oil Cooler (Previously FP-3201785)  | 2   |     |     |
| 29  | FP-206021         | Seal, Oil Cooler  | 6   | 6   | 8   |
| 30  | FP-212161         | Seal, Oil Cooler (Use w/FP-3627295 Cooler)  | 12  | 12  | 16  |
| 31  | FP-3009323        | Gasket, Mounting Oil Cooler   |     | 1   | 1   |
| 32  | FP-3009324        | Gasket, Mounting Oil Cooler   |     | 3   | 4   |
| 33  | FP-3065791        | Gasket, Mounting Oil Cooler   | 1   |     |     |
| 34  | FP-3200550        | Gasket, Mounting Oil Cooler   | 1   |     |     |
| 35  | FP-70624          | Seal, O-Ring  | 1   |     |     |
| 36  | FP-206973         | Gasket, Mounting Oil Cooler   | 4   |     |     |
| 37  | FP-3076489        | Thermostat (82°C), (180° F)   | 1   | 2   | 4   |
| 37  | FP-204586         | Thermostat (80°C), (175° F)   | 1   |     |     |
| 37  | FP-3017360        | Thermostat (85°C), (185° F)   | 2   |     |     |
| 38  | FP-3627961        | Seal, Thermostat  |     | 4   | 4   |
| 38  | FP-186780         | Seal, Thermostat  | 1   |     |     |
| 39  | FP-3010918        | Gasket, Thermostat Housing  | 1   |     |     |
| 40  | FP-3001299        | Core, Aftercooler   | 1   |     |     |
| 41  | FP-3001304        | Gasket, Aftercooler   | 2   |     |     |
| 42  | FP-3001305        | Gasket, Aftercooler   | 1   |     |     |
| 43  | FP-3032161        | Gasket, Aftercooler   | 3   |     |     |
| 44  | FP-3023066        | Seal, O-Ring  | 2   |     |     |
| 45  | FP-206808         | Seal  | 2   |     |     |
| 46  | FP-109557         | Washer, Plain   | 4   |     |     |
| 00  | <b>FP-3804935</b> | <b>Kit, Oil Cooler</b>  | 2   | -   | -   |
| 28  | FP-4095097        | Body, Oil Cooler (Previously FP-3201785)  | 1   | -   | -   |
| 00  | FP-3078053        | Bolt, Oil Cooler Mounting   | 4   | -   | -   |

# KT, KTA Series



## Compressor (13.2 CFM)



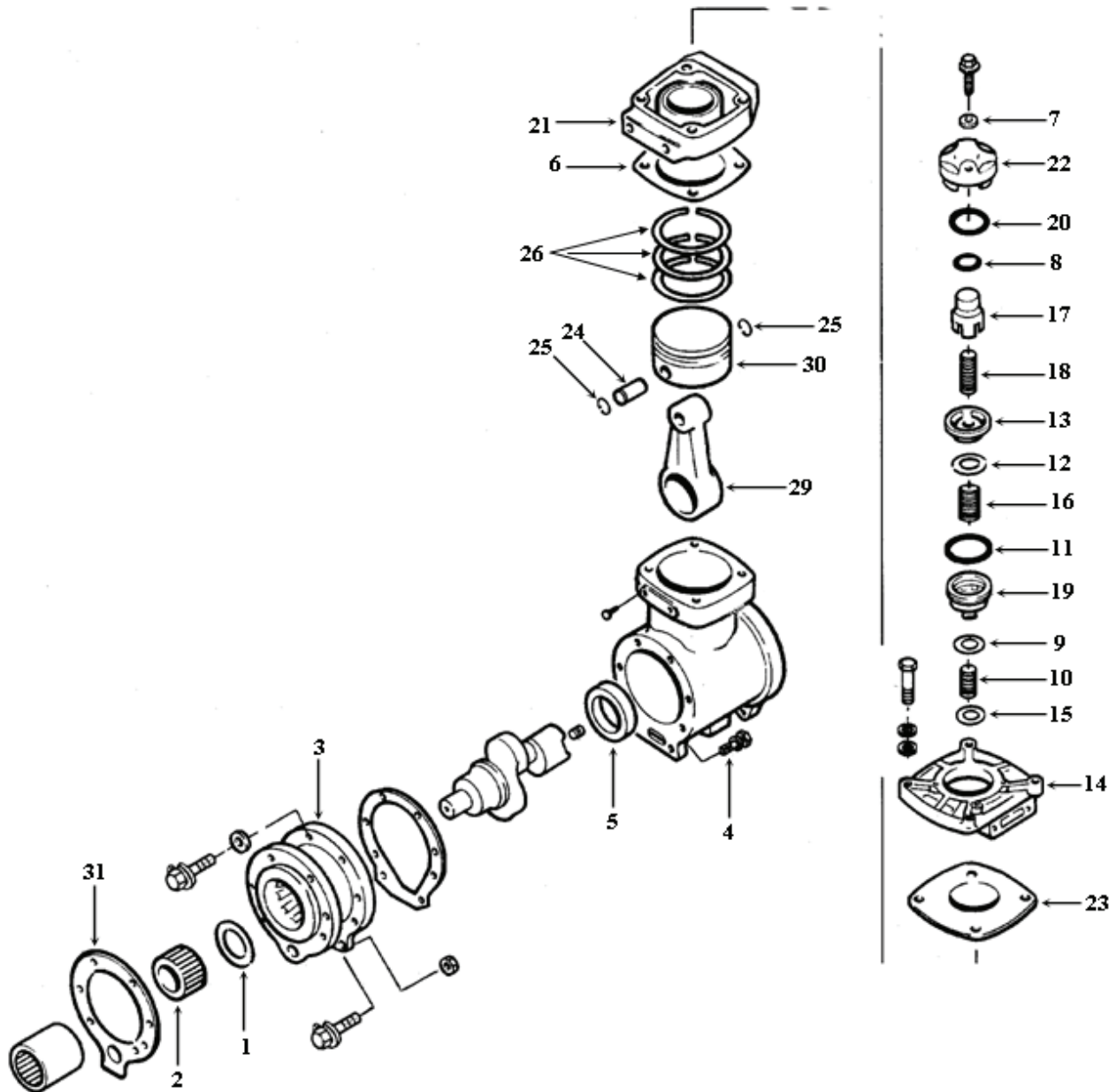
## Compressor (13.2 CFM)

| Ref | Part Number       | Description  | K19 | K38 | K50 |
|-----|-------------------|--|-----|-----|-----|
| 00  | FP-3018153        | Bushing, Connecting Rod  | 1   |     |     |
| 00  | FP-3042542        | Seal, O-Ring   | 1   |     |     |
| 00  | FP-3201386        | Gasket, Connection   | 1   |     |     |
| 00  | FP-S911B          | Plug, Pipe   | 1   |     |     |
| 01  | FP-211662         | Bearing, Thrust  | 1   |     |     |
| 02  | FP-3000174        | Hub, Spline Coupling   | 1   |     |     |
| 04  | FP-3012472        | Screw, Captive Washer Cap  | 2   |     |     |
| 05  | FP-147610         | Bushing  | 1   |     |     |
| 06  | FP-154018         | Gasket, Air Compressor   | 1   |     |     |
| 07  | FP-109557         | Washer, Plain  | 2   |     |     |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   |     |     |
| 09  | FP-127940         | Valve, Exhaust   | 1   |     |     |
| 10  | FP-128080         | Spring, Compression  | 1   |     |     |
| 11  | FP-128086         | Seal, O-Ring   | 1   |     |     |
| 12  | FP-144948         | Valve, Intake  | 1   |     |     |
| 13  | FP-145028         | Seat, Compression Intake Valve                                       | 1   |     |     |
| 14  | FP-153964         | Cover, Air Compressor  | 1   |     |     |
| 15  | FP-183429         | Plate, Wear  | 1   |     |     |
| 16  | FP-190334         | Spring, Valve  | 1   |     |     |
| 17  | FP-184240         | Cap, Unloader (15.0 CFM)   | 2   |     |     |
| 17  | FP-191037         | Cap, Unloader (13.2 CFM)   | 1   |     |     |
| 18  | FP-3023101        | Spring, Compression  | 1   |     |     |
| 20  | FP-3043995        | Seal, O-Ring   | 1   |     |     |
| 21  | FP-3558762        | Head, Compressor   | 1   |     |     |
| 22  | FP-3046298        | Body, Unloading Valve  | 1   |     |     |
| 23  | FP-3047159        | Gasket, Air Compressor   | 1   |     |     |
| 29  | FP-3018151        | Rod, Compressor Connecting   | 1   |     |     |
| 31  | FP-3820922        | Gasket, Air Compressor Support                                       | 1   |     |     |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> | 1   |     |     |
| 30  | FP-3045670        | Body, Piston (Std.)  | 1   |     |     |
| 26  | FP-AR73350        | Ring Set, Compressor (Std.)  | 1   |     |     |
| 24  | FP-119810         | Pin, Piston  | 1   |     |     |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |     |     |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> | 1   |     |     |
| 30  | FP-3045671        | Body, Piston (.010)  | 1   |     |     |
| 26  | FP-AR73351        | Ring Set, Compressor (.010)  | 1   |     |     |
| 24  | FP-119810         | Pin, Piston  | 1   |     |     |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |     |     |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> | 1   |     |     |
| 30  | FP-3045672        | Body, Piston (.020)  | 1   |     |     |
| 26  | FP-AR73352        | Ring Set, Compressor (.020)  | 1   |     |     |
| 24  | FP-119810         | Pin, Piston  | 1   |     |     |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 2   |     |     |

# KT, KTA Series



## Compressor (13.2 CFM)





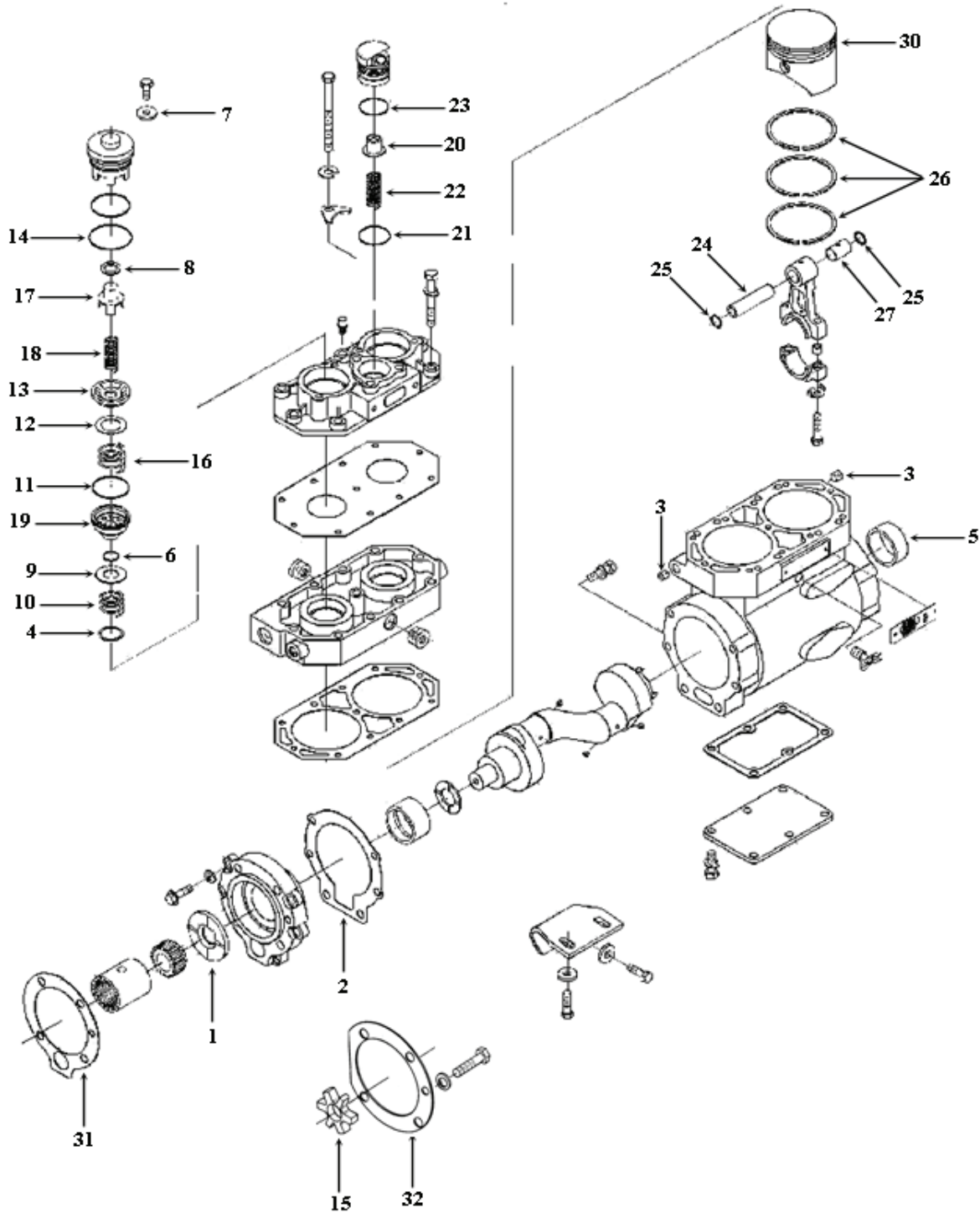
**Compressor Kits (13.2 CFM)**

| Ref | Part Number       | Description                     | K19 | K38 | K50 |
|-----|-------------------|---------------------------------|-----|-----|-----|
| 00  | <b>FP-AR12719</b> | Kit, Valve Repair               | 1   |     |     |
| 07  | FP-109557         | Washer, Plain                   | 2   |     |     |
| 08  | FP-127936         | Seal Ring                       | 1   |     |     |
| 09  | FP-127940         | Valve, Exhaust                  | 1   |     |     |
| 10  | FP-128080         | Spring, Compression             | 1   |     |     |
| 11  | FP-128086         | Seal, O-Ring                    | 1   |     |     |
| 12  | FP-144948         | Valve, Intake                   | 1   |     |     |
| 15  | FP-183429         | Plate, Wear                     | 1   |     |     |
| 16  | FP-190334         | Spring, Valve                   | 1   |     |     |
| 18  | FP-3023101        | Spring, Compression             | 1   |     |     |
| 20  | FP-3043995        | Seal, O-Ring                    | 1   |     |     |
| 00  | FP-128085         | Seal, O-Ring                    | 1   |     |     |
| 00  | <b>FP-AR73308</b> | Gasket Set, 13.2 CFM Compressor | 1   |     |     |
| 08  | FP-127936         | Seal, O-Ring                    | 1   |     |     |
| 00  | FP-128085         | Seal, O-Ring                    | 1   |     |     |
| 11  | FP-128086         | Seal, O-Ring                    | 1   |     |     |
| 06  | FP-154018         | Gasket                          | 1   |     |     |
| 00  | FP-176027         | Gasket                          | 1   |     |     |
| 20  | FP-3043995        | Seal, O-Ring                    | 1   |     |     |
| 23  | FP-3047159        | Gasket                          | 1   |     |     |
| 00  | FP-3201386        | Gasket                          | 1   |     |     |

# KT, KTA Series



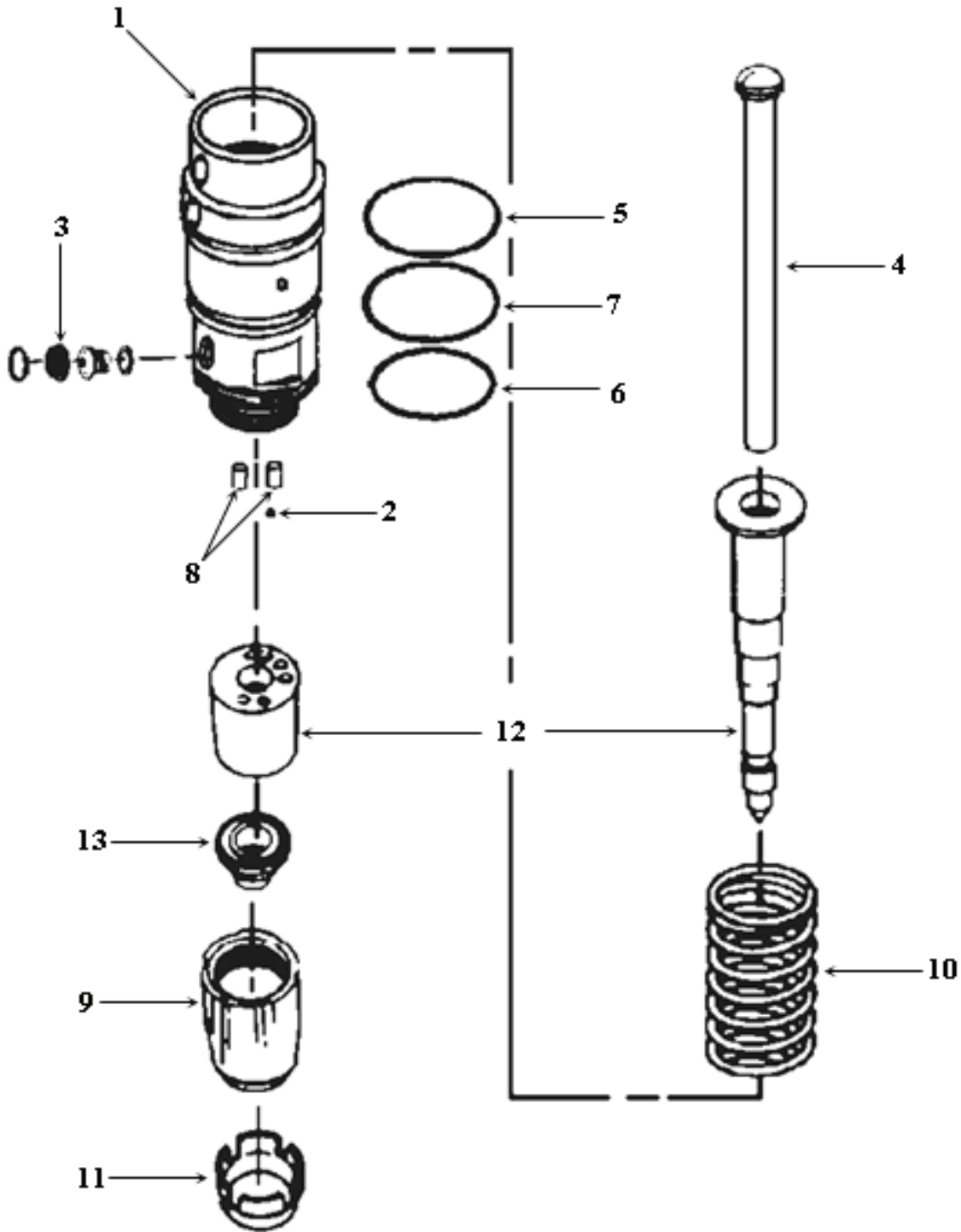
## Compressor (30 CFM)



## Compressor (30 CFM)

| Ref | Part Number       | Description  | K19 | K38 | K50 |
|-----|-------------------|--|-----|-----|-----|
| 00  | FP-127950         | Gasket, Connection   | 1   | 1   | 1   |
| 00  | FP-3046201        | Seal, O-Ring   | 1   | 1   | 1   |
| 00  | FP-207117         | Gasket, Air Compressor   | 1   |     |     |
| 00  | FP-185848         | Gasket, Air Compressor   | 1   |     |     |
| 01  | FP-211662         | Bearing, Thrust  | 1   | 1   | 1   |
| 02  | FP-199347         | Gasket, Air Compressor   | 1   | 1   | 1   |
| 03  | FP-3013786        | Plug, Pipe   | 2   | 1   | 1   |
| 04  | FP-183429         | Plate, Wear  | 2   | 2   | 2   |
| 05  | FP-147610         | Bushing  | 1   | 1   | 1   |
| 06  | FP-3042542        | Seal, O-Ring   | 2   | 1   | 1   |
| 07  | FP-211315         | Seal, O-Ring   | 2   | 2   | 2   |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   | 3   | 3   |
| 09  | FP-127940         | Valve, Exhaust   | 1   | 2   | 2   |
| 10  | FP-128080         | Spring, Compression  | 1   | 2   | 2   |
| 11  | FP-128086         | Seal, O-Ring   | 1   | 2   | 2   |
| 12  | FP-144948         | Valve, Intake  | 1   | 2   | 2   |
| 13  | FP-145028         | Seat, Compression Intake Valve                                       | 1   | 2   | 2   |
| 14  | FP-3015068        | Seal, O-Ring   | 2   | 2   | 2   |
| 15  | FP-3046200        | Spider, Jaw Coupling   | 1   | 1   | 1   |
| 16  | FP-190334         | Spring, Valve  | 1   | 2   | 2   |
| 17  | FP-191037         | Cap, Unloader  | 1   | 2   | 2   |
| 18  | FP-3023101        | Spring, Compression  | 1   | 2   | 2   |
| 20  | FP-184240         | Cap, Unloader Valve (E Type)   | 1   | 1   | 1   |
| 21  | FP-3009738        | Seal, O-Ring   | 1   | 1   | 1   |
| 22  | FP-150631         | Spring, Compression  | 1   | 1   | 1   |
| 23  | FP-3009739        | Seal, O-Ring   | 1   | 1   | 1   |
| 27  | FP-3018153        | Bushing, Connecting Rod  | 2   | 2   | 2   |
| 31  | FP-3069102        | Gasket, Air Compressor   | 1   | 1   | 1   |
| 32  | FP-4026171        | Gasket, Fuel Pump  | 1   | 1   | 1   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b> | 2   | 2   | 2   |
| 30  | FP-3045670        | Body, Piston (Std.)  | 2   | 2   | 2   |
| 26  | FP-AR73350        | Ring Set, Compressor (Std.)  | 2   | 2   | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   | 2   | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   | 4   | 4   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b> | 2   | 2   | 2   |
| 30  | FP-3045671        | Body, Piston (.010)  | 2   | 2   | 2   |
| 26  | FP-AR73351        | Ring Set, Compressor (.010)  | 2   | 2   | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   | 2   | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   | 4   | 4   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b> | 2   | 2   | 2   |
| 30  | FP-3045672        | Body, Piston (.020)  | 2   | 2   | 2   |
| 26  | FP-AR73352        | Ring Set, Compressor (.020)  | 2   | 2   | 2   |
| 24  | FP-119810         | Pin, Piston  | 2   | 2   | 2   |
| 25  | FP-3558754        | Ring, Retaining P/Bolt   | 4   | 4   | 4   |

Fuel Injectors



## Fuel Injectors

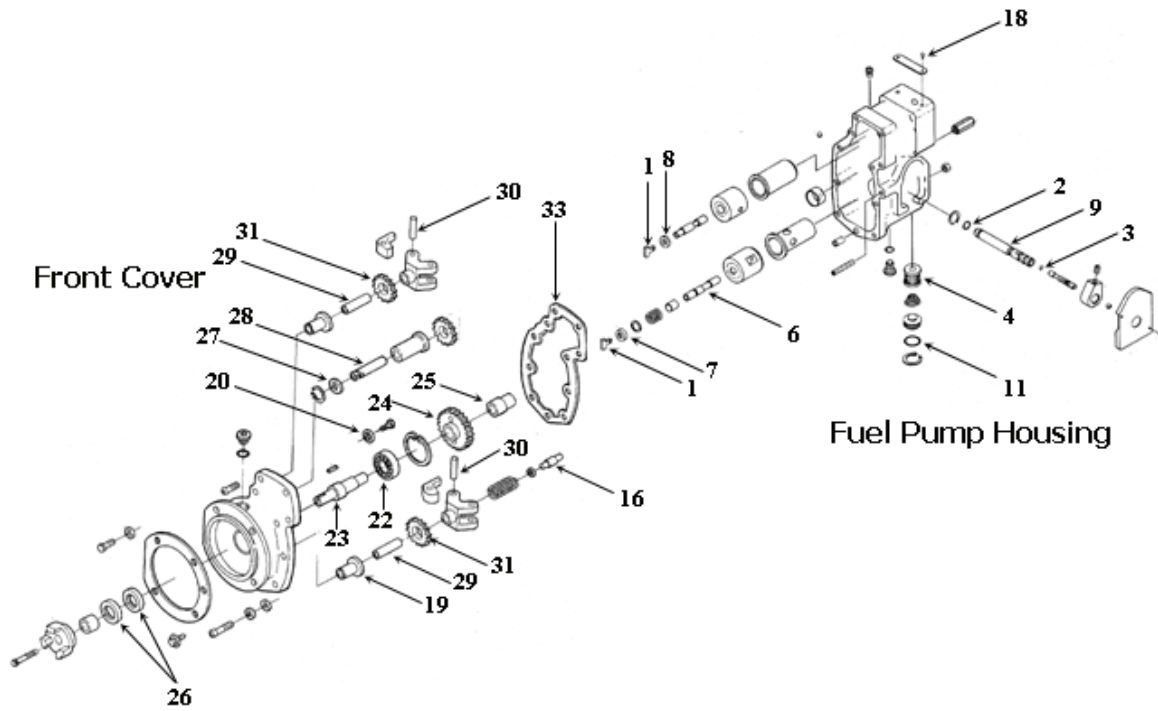
| Ref | Part Number | Description                  | K19 | K38 | K50 |
|-----|-------------|------------------------------|-----|-----|-----|
| 00  | FP-3053124  | Injector Assembly, PTK (New) |     | 12  | 16  |
| 00  | FP-3016675  | Injector Assembly, PTK (New) | 6   |     |     |
| 00  | FP-3016676  | Injector Assembly, PTK (New) | 6   |     |     |
| 00  | FP-3022197  | Injector Assembly, PTK (New) | 6   |     |     |
| 01  | FP-205463   | Adapter, Injector            | 1   | 1   | 1   |
| 02  | FP-167157   | Ball, Check                  | 1   | 1   | 1   |
| 03  | FP-3008706  | Screen, Filter               | 1   | 1   | 1   |
| 04  | FP-205462   | Link, Injector Plunger       | 1   | 1   | 1   |
| 05  | FP-3010510  | Seal, O-Ring                 | 1   | 1   | 1   |
| 06  | FP-193736   | Seal, O-Ring                 | 1   | 1   | 1   |
| 07  | FP-205216   | Seal, O-Ring                 | 1   | 1   | 1   |
| 08  | FP-203426   | Pin, Roll                    | 1   | 1   | 1   |
| 09  | FP-207245   | Retainer, Injector Cup       | 1   | 1   | 1   |
| 11  | FP-207244   | Ring, Injector Sealing       | 1   | 1   | 1   |
| 12  | FP-3037292  | Plunger & Bushing            | 1   |     |     |
| 13  | FP-3001314  | Cup, Injector (10-.0085-10°) | 1   | 1   | 1   |
| 13  | FP-3005963  | Cup, Injector (9-.0075-10°)  | 1   | 1   | 1   |
| 13  | FP-3003932  | Cup, Injector (9-.0085-7°)   | 1   |     |     |
| 13  | FP-3003933  | Cup, Injector (9-.0085-10°)  | 1   | 1   |     |

# KT, KTA Series

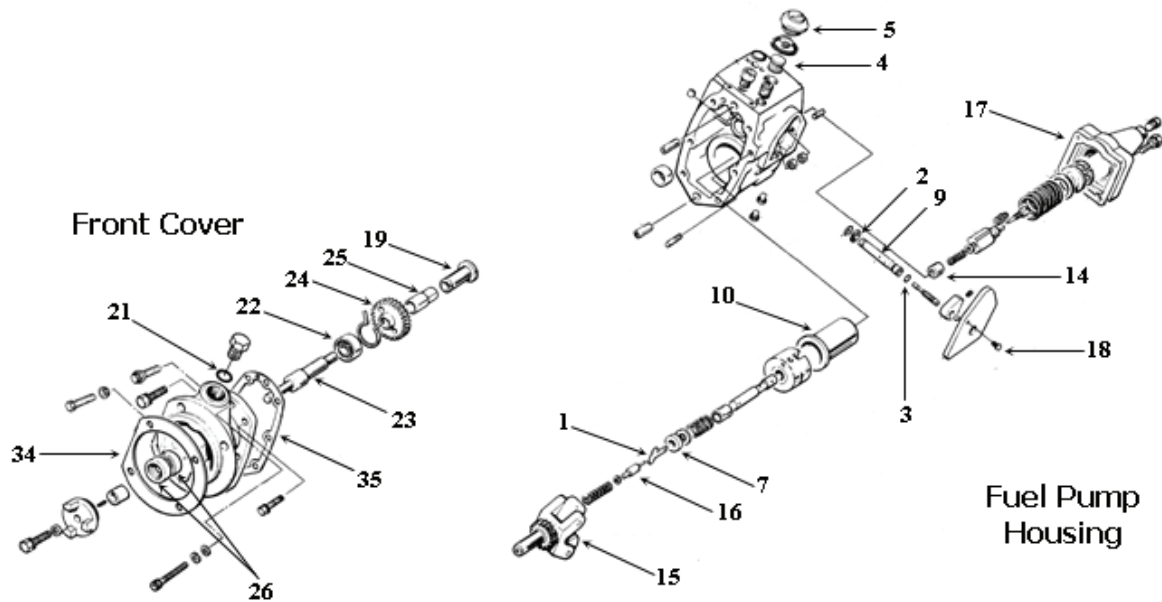


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive



**Fuel Pump Housing**

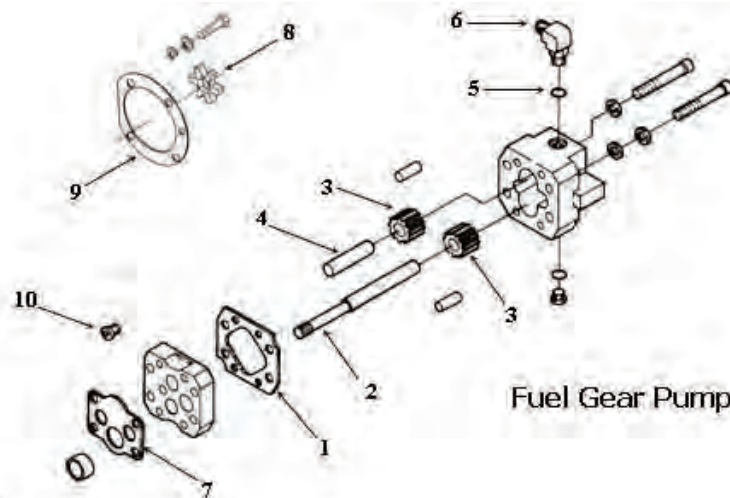
| Ref | Part Number  | Description                     | K19 | K38 | K50 |
|-----|--------------|---------------------------------|-----|-----|-----|
| 00  | FP-141629    | Button, #20                     |     |     | 1   |
| 01  | FP-70690     | Driver, Governor Plunger        | 1   | 1   | 1   |
| 02  | FP-100478    | Seal, O-Ring                    | 1   | 1   | 1   |
| 03  | FP-213768    | Seal, O-Ring                    | 1   | 1   | 1   |
| 04  | FP-146483    | Screen, Filter                  | 1   | 1   | 1   |
| 05  | FP-157088    | Cap, Filter                     | 1   |     |     |
| 06  | FP-3009380   | Plunger, Governor               | 1   | 1   | 1   |
| 06  | FP-300938010 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938011 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938012 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938013 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938014 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938015 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-300938016 | Piston, Governor (Oversize)     | 1   | 1   | 1   |
| 06  | FP-3040750   | Plunger, Governor               | 1   |     |     |
| 07  | FP-3027633   | Bearing, Thrust                 | 1   | 1   | 1   |
| 08  | FP-3035230   | Bearing, Thrust                 | 1   | 1   | 1   |
| 10  | FP-3036970   | Housing, Spring                 | 1   | 1   | 1   |
| 11  | FP-145504    | Seal, O-Ring                    | 1   | 1   | 1   |
| 14  | FP-139894    | Plunger, Idler Spring           | 1   |     |     |
| 15  | FP-3024991   | Governor Carrier Assembly       | 1   | 2   |     |
| 16  | FP-144178    | Plunger, Governor Weight Assist | 1   | 1   | 1   |
| 17  | FP-70705     | Gasket, Flange                  | 1   | 1   | 1   |
| 18  | FP-S2286     | Screw, Drive (Name Plate)       | 2   | 2   | 4   |

**Fuel Pump Front Cover & Weight Assembly**

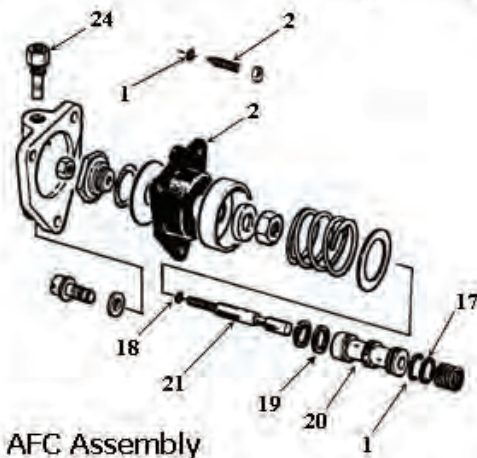
| Ref | Part Number | Description                    | K19 | K38 | K50 |
|-----|-------------|--------------------------------|-----|-----|-----|
| 00  | FP-212602   | Gear, Tachometer Drive         | 1   | 1   | 1   |
| 00  | FP-212603   | Seal, Oil                      | 1   | 1   | 1   |
| 00  | FP-212607   | Shaft, Tachometer Drive        | 1   | 1   | 1   |
| 19  | FP-163944   | Bushing, Fuel Pump             | 1   | 2   |     |
| 22  | FP-S16052   | Bearing, Ball                  | 1   | 1   | 1   |
| 23  | FP-212601   | Shaft, Fuel Pump Drive         | 1   | 1   | 1   |
| 26  | FP-3062676  | Seal, Oil                      | 2   | 2   | 2   |
| 27  | FP-201745   | Washer, Lock                   | 1   | 1   | 1   |
| 29  | FP-211633   | Shaft, Governor                | 1   | 1   | 1   |
| 30  | FP-211635   | Pin, Governor                  | 2   | 2   | 2   |
| 33  | FP-200998   | Gasket, Fuel Pump              | 1   | 1   | 1   |
| 34  | FP-4026171  | Gasket, Front Cover To Drive   | 1   | 1   | 1   |
| 35  | FP-3063052  | Gasket, Front Cover To Housing | 1   | 1   | 1   |



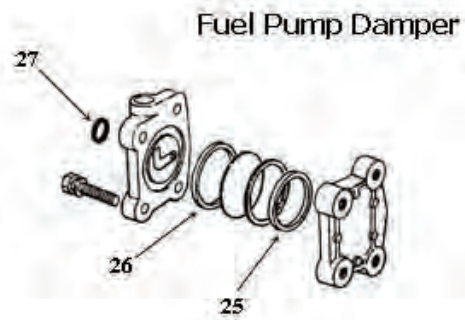
## Fuel Gear Pump



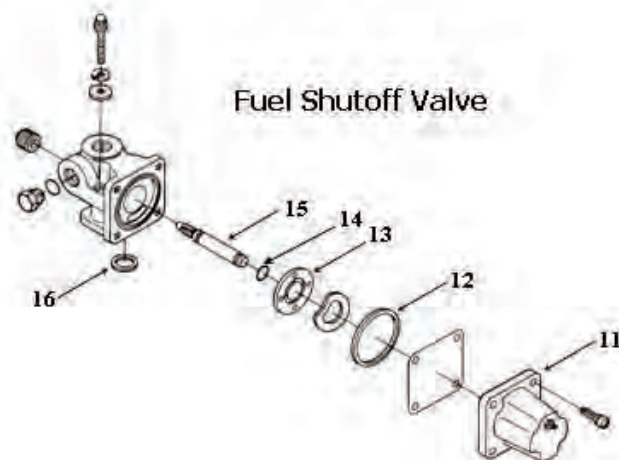
Fuel Gear Pump



AFC Assembly



Fuel Pump Damper



Fuel Shutoff Valve

## Fuel Gear Pump

| Ref | Part Number | Description                                       | K19 | K38 | K50 |
|-----|-------------|---|-----|-----|-----|
| 00  | FP-3010240  | Gasket Set, PT Type G Pressure Regulator          | 1   | 1   | 1   |
| 00  | FP-3034245  | Assembly, Fuel Pump Gear (1" Pressurized R.H.)    | 1   | 1   | 1   |
| 00  | FP-3034243  | Assembly, Fuel Pump Gear (3/4")                   | 1   |     |     |
| 00  | FP-3034221  | Assembly, Fuel Pump Gear (1 1/4" Heavy Duty R.H.) |     |     | 1   |
| 01  | FP-110855   | Gasket, Fuel Pump                                 | 1   | 1   |     |
| 02  | FP-100216   | Shaft, Fuel Pump Drive (1" Gear)                  | 1   | 1   | 1   |
| 02  | FP-100215   | Shaft, Fuel Pump Drive (3/4" Gear)                | 1   | 1   |     |
| 02  | FP-100217   | Shaft, Fuel Pump Drive (1 1/4" Gear)              |     |     | 1   |
| 03  | FP-170942   | Gear (1 " Pump)                                   | 2   | 2   | 2   |
| 03  | FP-119363   | Gear (3/4" Pump)                                  | 2   | 2   |     |
| 03  | FP-119364   | Gear (1 1/4" Pump)                                |     | 2   | 2   |
| 06  | FP-3033740  | Valve, Check Ball Elbow                           | 1   | 1   |     |
| 07  | FP-3069017  | Gasket, Fuel Pump                                 | 1   | 1   | 1   |
| 08  | FP-3046200  | Coupling, Spider                                  | 1   | 1   | 1   |
| 09  | FP-4026171  | Gasket, Fuel Pump Front Cover                     | 1   | 1   | 1   |
| 10  | FP-3050624  | Gasket, Fuel Pump Valve Pressure Regulator        | 1   | 1   | 1   |

## Fuel Shutoff Valve

| Ref | Part Number | Description                              | K19 | K38 | K50 |
|-----|-------------|--|-----|-----|-----|
| 11  | FP-3408421  | Solenoid (Fuel Shutoff Valve), (12 Volt) | 1   | 1   |     |
| 12  | FP-129888   | Seal, Rectangular (Fuel Shutoff Valve)   | 1   | 1   | 1   |
| 13  | FP-3030970  | Disc, Valve                              | 1   | 1   |     |
| 14  | FP-190876   | Seal, O-Ring                             | 1   |     |     |
| 15  | FP-3013036  | Shaft (Fuel Shutoff Valve)               | 1   | 1   | 1   |
| 16  | FP-154087   | Seal, Rectangular                        | 1   | 1   | 1   |

## AFC Assembly

| Ref | Part Number | Description               | K19 | K38 | K50 |
|-----|-------------|---------------------------|-----|-----|-----|
| 00  | FP-S631     | Washer, Plain             | 1   | 3   |     |
| 00  | FP-3066914  | Seal, O-Ring              | 1   | 1   | 1   |
| 00  | FP-3010242  | Gasket Set, AFC-VS        | 1   | 1   |     |
| 00  | FP-145505   | Seal, O-Ring              | 1   | 1   |     |
| 00  | FP-214144   | Valve, Needle AFC No. 162 | 1   | 1   |     |
| 00  | FP-3042542  | Seal, O-Ring              |     |     | 1   |
| 17  | FP-145504   | Seal, O-Ring              | 1   | 1   |     |
| 18  | FP-68061A   | Seal, O-Ring              | 2   | 2   |     |
| 19  | FP-3045986  | Seal, O-Ring              | 1   | 1   |     |
| 20  | FP-3021068  | Barrel, Air Fuel Control  | 1   |     |     |
| 21  | FP-3021676  | Plunger, Air Fuel Control | 1   |     |     |
| 23  | FP-3013811  | Diaphragm                 | 1   | 1   | 1   |
| 24  | FP-3015522  | Valve, Check              | 1   |     |     |

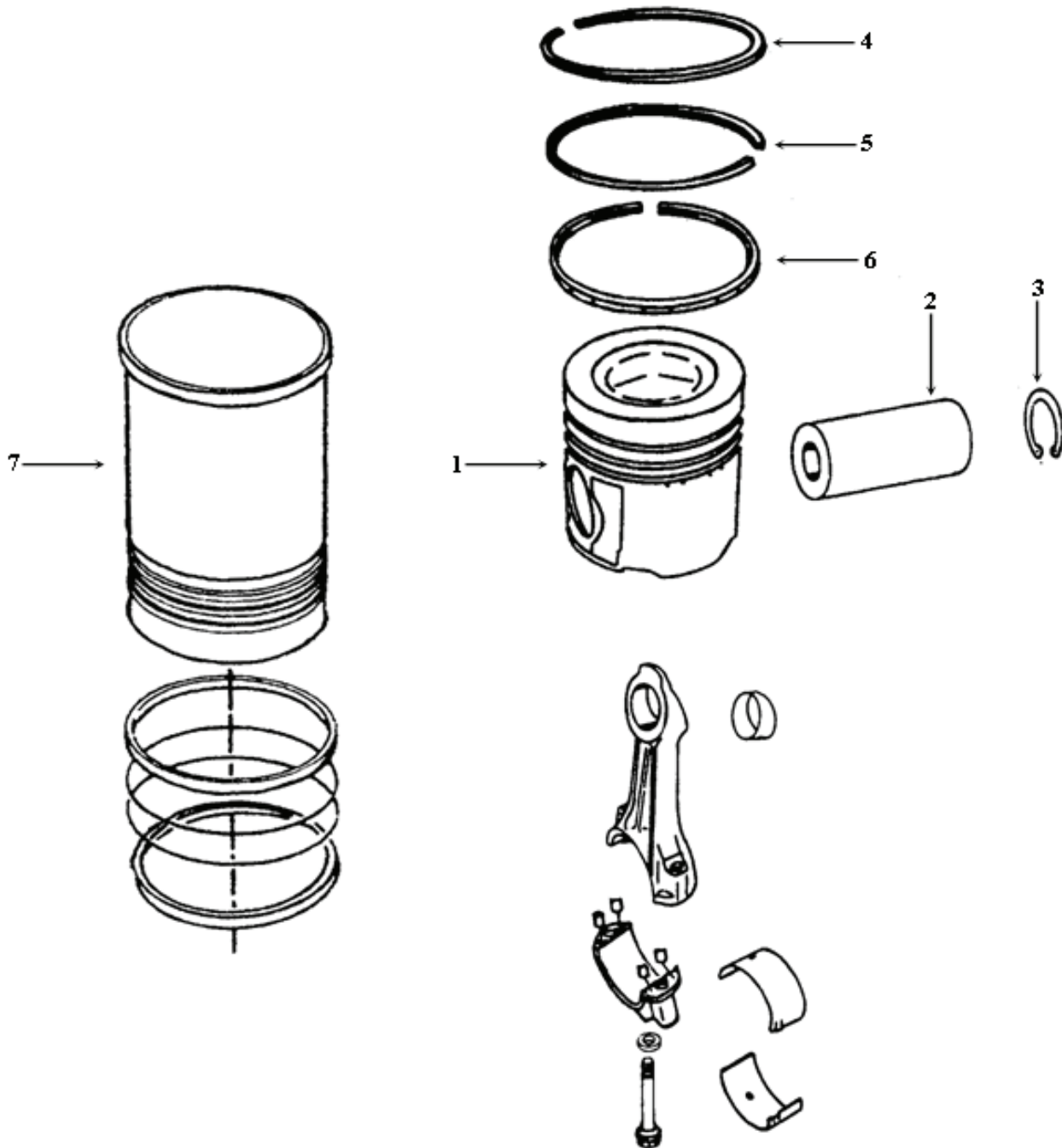
## Fuel Pump Damper

| Ref | Part Number | Description            | K19 | K38 | K50 |
|-----|-------------|------------------------|-----|-----|-----|
| 25  | FP-100099   | Seal, Rectangular Ring | 1   | 1   | 1   |
| 26  | FP-139988   | Seal, Rectangular Ring | 1   | 1   | 1   |
| 27  | FP-151900   | Seal, Rectangular Ring | 1   | 1   | 1   |

# KT, KTA Series



## Piston & Liner Kits



## Piston & Liner Kits

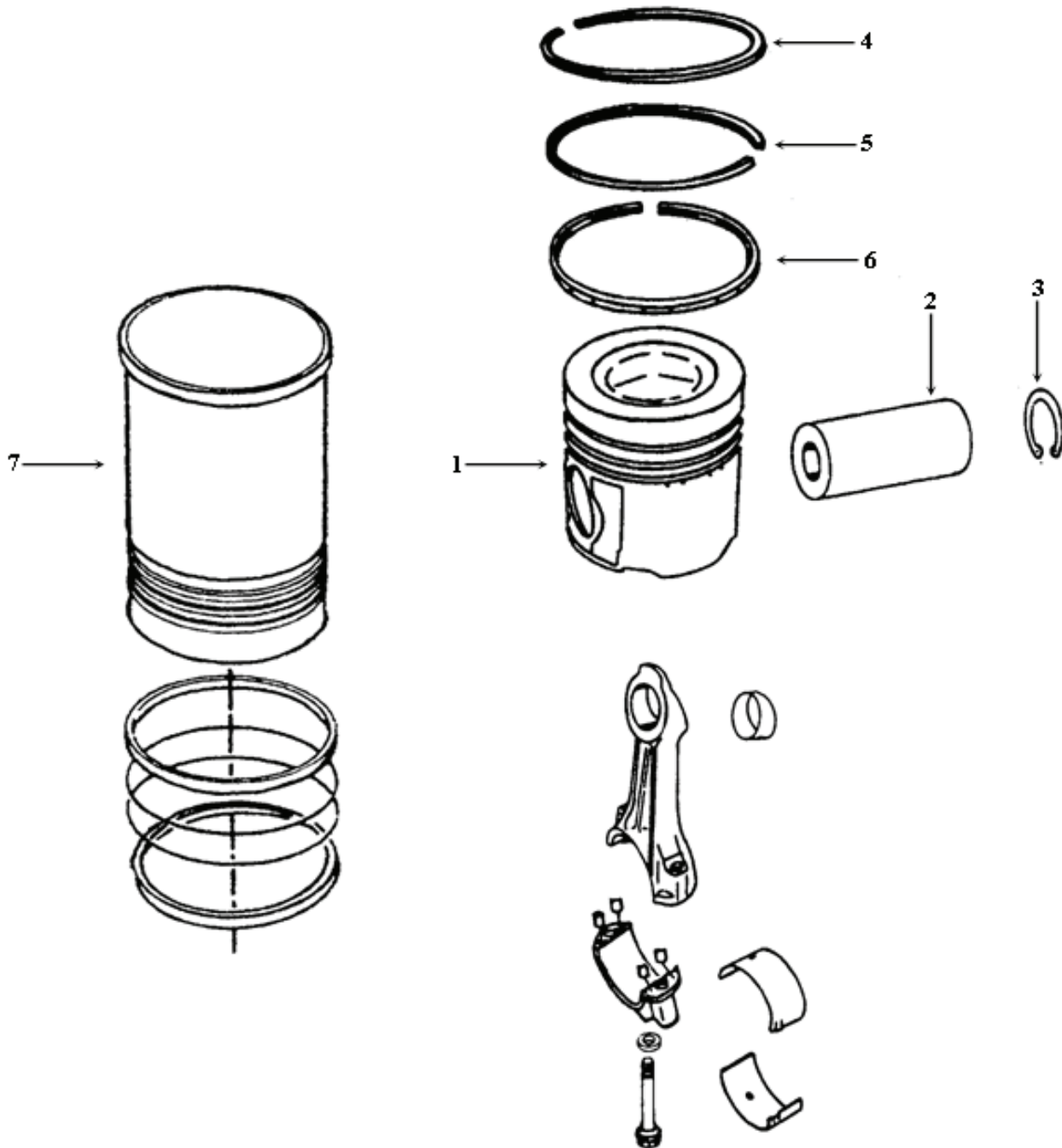
| Ref | Part Number                    | Description  | K19 | K38 | K50 |
|-----|--------------------------------|--|-----|-----|-----|
| 00  | FP-3007525                     | Kit, Cylinder Liner (Std.)                                     |     | 12  | 16  |
| 07  | FP-3012611                     | Kit, Cylinder Liner (.010 O.S.)                                |     | 12  | 16  |
| 07  | FP-3012612                     | Kit, Cylinder Liner (.020 O.S.)                                |     | 12  | 16  |
| 07  | FP-3801268                     | Kit, Cylinder Liner (.030 O.S.)                                |     | 12  | 16  |
| 07  | FP-3801269                     | Kit, Cylinder Liner (.040 O.S.)                                |     | 12  | 16  |
| 07  | FP-4024767                     | Kit, Cylinder Liner (Std.), (Previously FP-3028434)            | 6   |     |     |
| 07  | FP-4024768                     | Kit, Cylinder Liner (.020 O.S.), (Previously FP-3028430)       | 6   |     |     |
| 07  | FP-4024769                     | Kit, Cylinder Liner (.040 O.S.), (Previously FP-3028431)       | 6   |     |     |
| 07  | FP-4024771                     | Kit, Cylinder Liner (.083 O.S.), (Previously FP-3024726)       | 6   |     |     |
| 07  | FP-4024772                     | Kit, Cylinder Liner (.095 O.S.), (Previously FP-3028433)       | 6   |     |     |
| 07  | FP-4024773                     | Kit, Cylinder Liner (.020/.020), (Previously FP-3803505)       | 6   |     |     |
| 07  | FP-4024774                     | Kit, Cylinder Liner (.060/.020), (Previously FP-3803509)       | 6   |     |     |
| 07  | FP-4024775                     | Kit, Cylinder Liner (.060 O.S.), (Previously FP-3803510)       | 6   |     |     |
| 00  | <b>FP-3026333</b>              | <b>Kit, Piston 15.5:1 C/R (Early KT450)</b>                    | 6   |     |     |
| 01  | FP-3026270                     | Body, Piston   | 6   |     |     |
| 02  | FP-4095009                     | Piston Bolt  | 6   |     |     |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  |     |     |
| 00  | <b>FP-3631241<sup>10</sup></b> | <b>Kit, Piston 13.9:1 C/R (Previously FP-3803312)</b>          | 6   | 12  | 16  |
| 01  | FP-3096685                     | Body, Piston (Previously FP-3070703)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3631242<sup>10</sup></b> | <b>Kit, Piston 13.5:1 C/R (Previously FP-3803313)</b>          | 6   | 12  | 16  |
| 01  | FP-3096683                     | Body, Piston (Previously FP-3070705)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3631243<sup>10</sup></b> | <b>Kit, Piston 15.7:1 C/R (Previously FP-3803617)</b>          | 6   | 12  | 16  |
| 01  | FP-3096684                     | Body, Piston (Previously FP-3070704)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3631244<sup>10</sup></b> | <b>Kit, Piston 14.5:1 C/R (Previously FP-3803314)</b>          | 6   | 12  | 16  |
| 01  | FP-3096682                     | Body, Piston (Previously FP-3070706)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3631245<sup>10</sup></b> | <b>Kit, Piston 15.5:1 C/R (Previously FP-3803315)</b>          | 6   | 12  | 16  |
| 01  | FP-3096681                     | Body, Piston (Previously FP-3070707)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3631246<sup>10</sup></b> | <b>Kit, Piston 13.8:1 C/R (Previously FP-3803316)</b>          | 6   | 12  | 16  |
| 01  | FP-3096680                     | Body, Piston (Previously FP-3070708)                           | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-3803530</b>              | <b>Piston, Kit</b>   | 6   | 12  | 16  |
| 01  | FP-3628731                     | Piston   | 6   | 12  | 16  |
| 02  | FP-4095009                     | Piston Bolt  | 6   | 12  | 16  |
| 03  | FP-205269                      | Retainer, Piston Pin   | 12  | 24  | 32  |
| 00  | <b>FP-4024770</b>              | <b>Kit, Cylinder Liner UPF (Std.), (Previously FP-3009549)</b> | 6   |     |     |
| 07  | FP-4009227                     | Cylinder Liner UPF (Std.), (Previously FP-3007710)             | 6   |     |     |
| 00  | <b>FP-4089500</b>              | <b>Rings Kit (All Top Pistons)</b>                             | 6   | 12  | 16  |

<sup>10</sup>New Offset Piston Pin Design

# KT, KTA Series



## Piston & Liner Kits





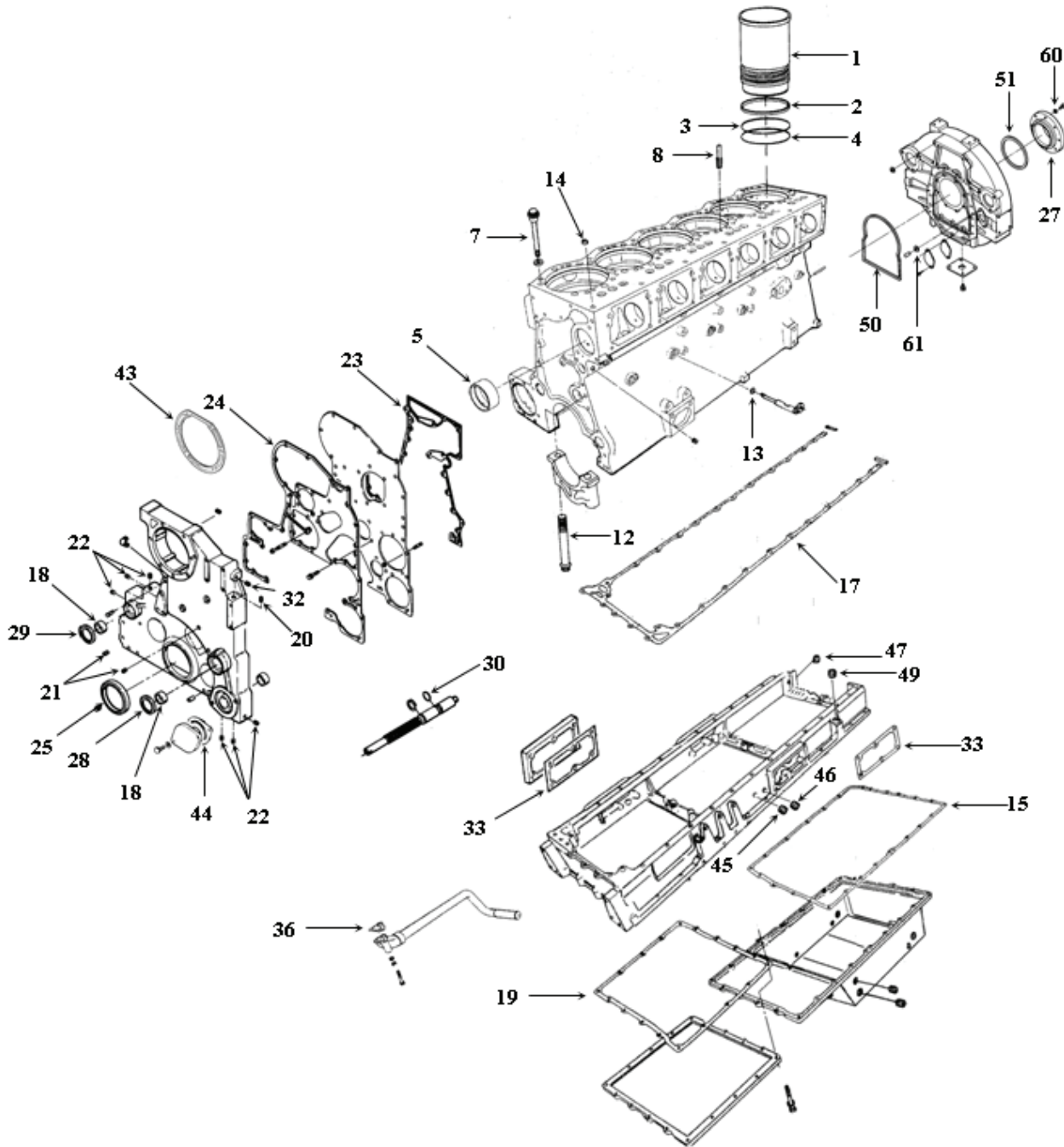
**Piston & Liner Kits (Cont.)**

| Ref | Part Number       | Description                                     | K19 | K38 | K50 |
|-----|-------------------|---|-----|-----|-----|
| 00  | <b>FP-4089501</b> | Piston Rings Kit (Use Only With Piston 3628731) | 6   | 12  | 16  |
| 05  | FP-3068813        | Ring, Piston (Second Compression)               | 6   | 12  | 16  |
| 00  | <b>FP-AR12313</b> | Kit, Piston 14.5:1 C/R (Early KT450)            | 6   |     |     |
| 01  | FP-3004730        | Body, Piston                                    | 6   |     |     |
| 02  | FP-4095009        | Piston Bolt                                     | 6   |     |     |
| 03  | FP-205269         | Retainer, Piston Pin                            | 12  |     |     |

# QSK19 Series



## Cylinder Block





# QSK19 Series



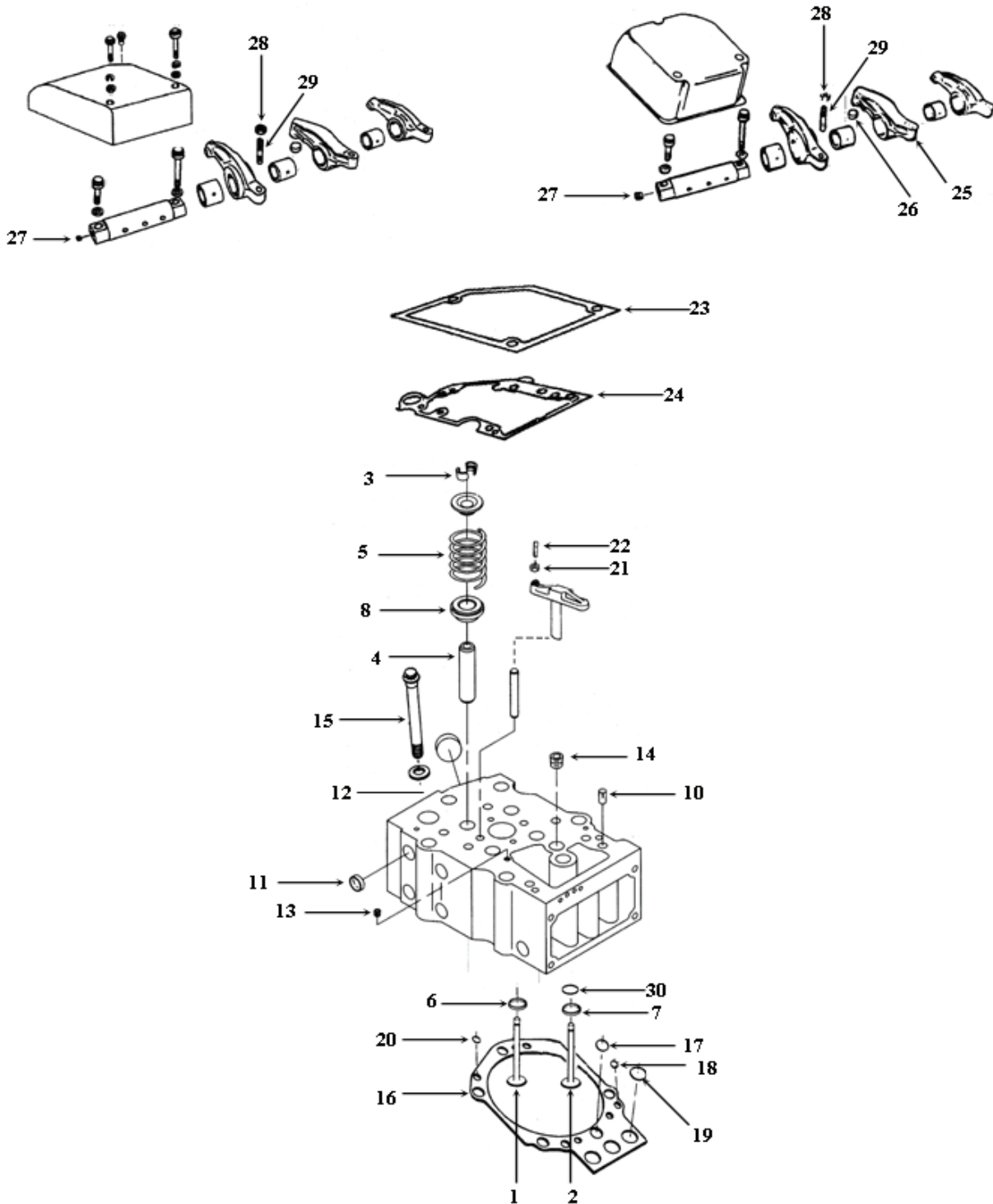
## Cylinder Block

| Ref | Part Number       | Description                                     | QSK19    |
|-----|-------------------|---|----------|
| 00  | FP-4089390        | Gasket Set, Lower (QSK19) (Formerly FP-3801006) | 1        |
| 00  | FP-IFKQSK19RR     | In Frame Kit w/o Piston Crown                   | 1        |
| 06  | 3804664           | Nozzle Assy                                     | 6        |
| 06  | 4081128           | Nozzle  | 1        |
| 07  | 3081837           | Bolt  | 36       |
| 08  | FP-68445          | Pin   | 12       |
| 09  | 3081677           | Bushing   | 7        |
| 13  | 3081494           | Seal, O-Ring                                    | 1        |
| 15  | FP-3042590        | Gasket, Oil Pan                                 | 1        |
| 17  | 4000595           | Gasket, Oil Pan Adapter (Formerly 3086280)      | 1        |
| 18  | FP-132770         | Bushing   | 2        |
| 19  | FP-3073213        | Gasket  | 1        |
| 20  | FP-3201125        | Seal, O-Ring                                    | 1        |
| 21  | FP-3046201        | Seal, O-Ring                                    | 2        |
| 23  | 3090320           | Gasket  | 1        |
| 24  | 4080829           | Gasket  | 1        |
| 25  | 3096478           | Seal, Oil                                       | 1        |
| 27  | 3090297           | Seal, Oil                                       | 1        |
| 28  | FP-3200287        | Seal, Oil                                       | 1        |
| 29  | 3086120           | Ring, Seal                                      | 1        |
| 31  | FP-3201125        | Seal, Oil                                       | 1        |
| 32  | 127362            | Seal, O-Ring                                    | 1        |
| 33  | FP-3042586        | Gasket  | 3        |
| 36  | 3079754           | Gasket  | 1        |
| 44  | FP-3201388        | Gasket  | 1        |
| 45  | 181C              | Bolt  | 2        |
| 46  | FP-3037537        | Seal, O-Ring                                    | 2        |
| 47  | FP-3037537        | Seal, O-Ring                                    | 5        |
| 48  | 4910518           | Strip, Seal                                     | 2        |
| 49  | FP-153518         | Seal  | 4        |
| 50  | FP-3096260        | Seal Ring Assy                                  | 1        |
| 51  | FP-205247         | O-Ring  | 1        |
| 60  | FPS631            | Washer, Plain                                   | 8        |
| 61  | FP-172648         | Seal, O-Ring                                    | 12       |
| 01  | <b>FP-4024767</b> | <b>Kit, Cylinder Liner w/Seals</b>              | <b>6</b> |
| 02  | FP-4009220        | Liner, Cylinder                                 | 1        |
| 03  | FP-3081489        | Seal Assy                                       | 1        |
| 04  | FP-3011076        | O-Ring  | 1        |
| 05  | FP-3014668        | O-Ring  | 1        |

# QSK19 Series



## Cylinder Head



# QSK19 Series



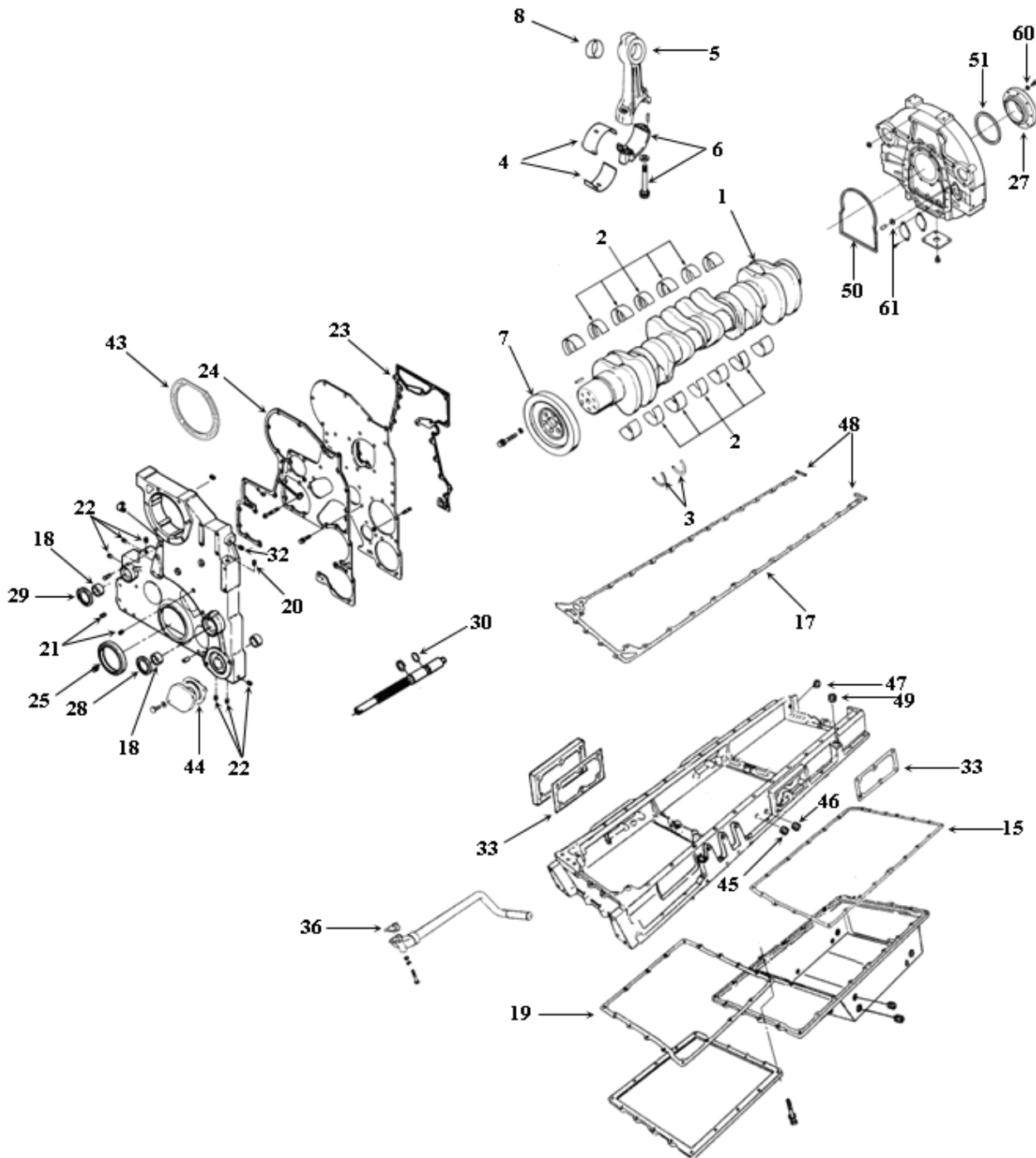
## Cylinder Head

| Ref | Part Number | Description                    | QSK19 |
|-----|-------------|--------------------------------|-------|
| 00  | 3278093     | Plug                           | 6     |
| 00  | 3331752     | Retainer, Spring               | 24    |
| 00  | FP-203933   | Plug 1/4"                      | 6     |
| 00  | FP-206224   | Plug                           | 12    |
| 00  | FP-3170134  | Seal                           | 24    |
| 01  | FP-3090469  | Valve, Exhaust                 | 12    |
| 02  | 4016438     | Valve, Intake                  | 12    |
| 03  | 3641537     | Collet                         | 48    |
| 04  | FP-3170135  | Guide, Valve                   | 24    |
| 05  | FP-4957806  | Spring, Valve                  | 24    |
| 06  | 3086192     | Insert, Valve                  | 12    |
| 07  | 3086193     | Insert, Valve                  | 12    |
| 08  | 4086649     | Roto Cap (Formerly FP-3085961) | 24    |
| 09  | 3090377     | Rod, Push                      | 12    |
| 10  | FP-68445    | Pin                            | 12    |
| 11  | FP-205401   | Plug                           | 48    |
| 12  | FP-206224   | Plug                           | 12    |
| 13  | 3056416     | Plug                           | 6     |
| 14  | 3046202     | Plug                           | 12    |
| 15  | 3081837     | Bolt                           | 36    |
| 16  | 3634664     | Gasket, Cylinder Head          | 6     |
| 21  | 3028349     | Seal, O-Ring                   | 6     |
| 22  | 3085978     | Ball                           | 6     |
| 23  | 3081898     | Gasket                         | 6     |
| 24  | 3090495     | Cover                          | 3     |
| 25  | 4065632     | Lever                          | 18    |
| 26  | 3085980     | Socket                         | 18    |
| 27  | 3089716     | Shaft                          | 6     |
| 28  | 3680057     | Nut                            | 18    |
| 29  | 3090007     | Bolt                           | 18    |

# QSK19 Series



## Crankshaft



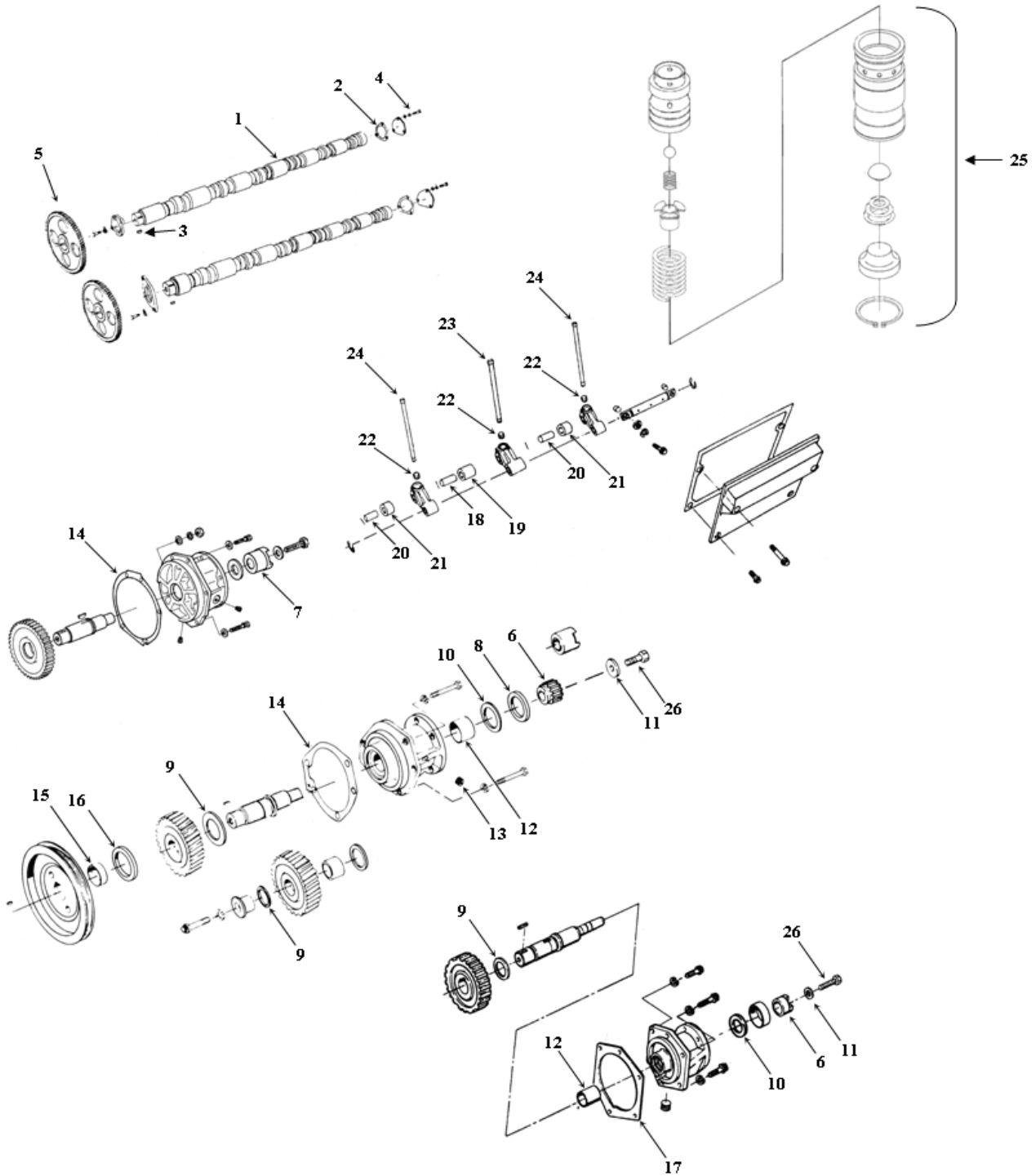
## Crankshaft

| Ref | Part Number | Description  | QSK19 |
|-----|-------------|--|-------|
| 00  | 206904      | Key  | 1     |
| 00  | 3090484     | Gear   | 1     |
| 00  | 69558       | Ring   | 24    |
| 01  | FP-3096362  | Crankshaft   | 1     |
| 03  | FP-205112   | Thrust Washer (Std.)                               | 4     |
| 03  | FP-3001197  | Thrust Washer (.020 OS)                            | A/R   |
| 04  | FP-205840   | Bearing, Connecting Rod (Std.)                     | 12    |
| 04  | FP-205841   | Bearing, Connecting Rod (.25mm)                    | A/R   |
| 04  | FP-205842   | Bearing, Connecting Rod (.50mm)                    | A/R   |
| 04  | FP-205843   | Bearing, Connecting Rod (.75mm)                    | A/R   |
| 07  | 3081040     | Damper   | 1     |
| 08  | FP-3043909  | Bushing  | 6     |
| 15  | FP-3042590  | Gasket, Oil Pan                                    | 1     |
| 17  | 4000595     | Gasket, Oil Pan Adapter (Formerly 3086280)         | 1     |
| 27  | 3090297     | Seal, Oil  | 1     |
| 50  | FP-3096260  | Seal   | 1     |
| 51  | FP-205247   | Seal   | 1     |
| 02  | FP-AR12270  | Bearing Set, Main (Std.) (Includes Thrust Washers) | 1     |
| 02  | FP-AR12271  | Bearing Set, Main (.010) (Includes Thrust Washers) | 1     |
| 02  | FP-AR12272  | Bearing Set, Main (.020) (Includes Thrust Washers) | 1     |
| 02  | FP-AR12273  | Bearing Set, Main (.030) (Includes Thrust Washers) | 1     |

# QSK19 Series



## Camshaft, Cam Follower & Accessory Drive



## Camshaft, Cam Follower & Accessory Drive

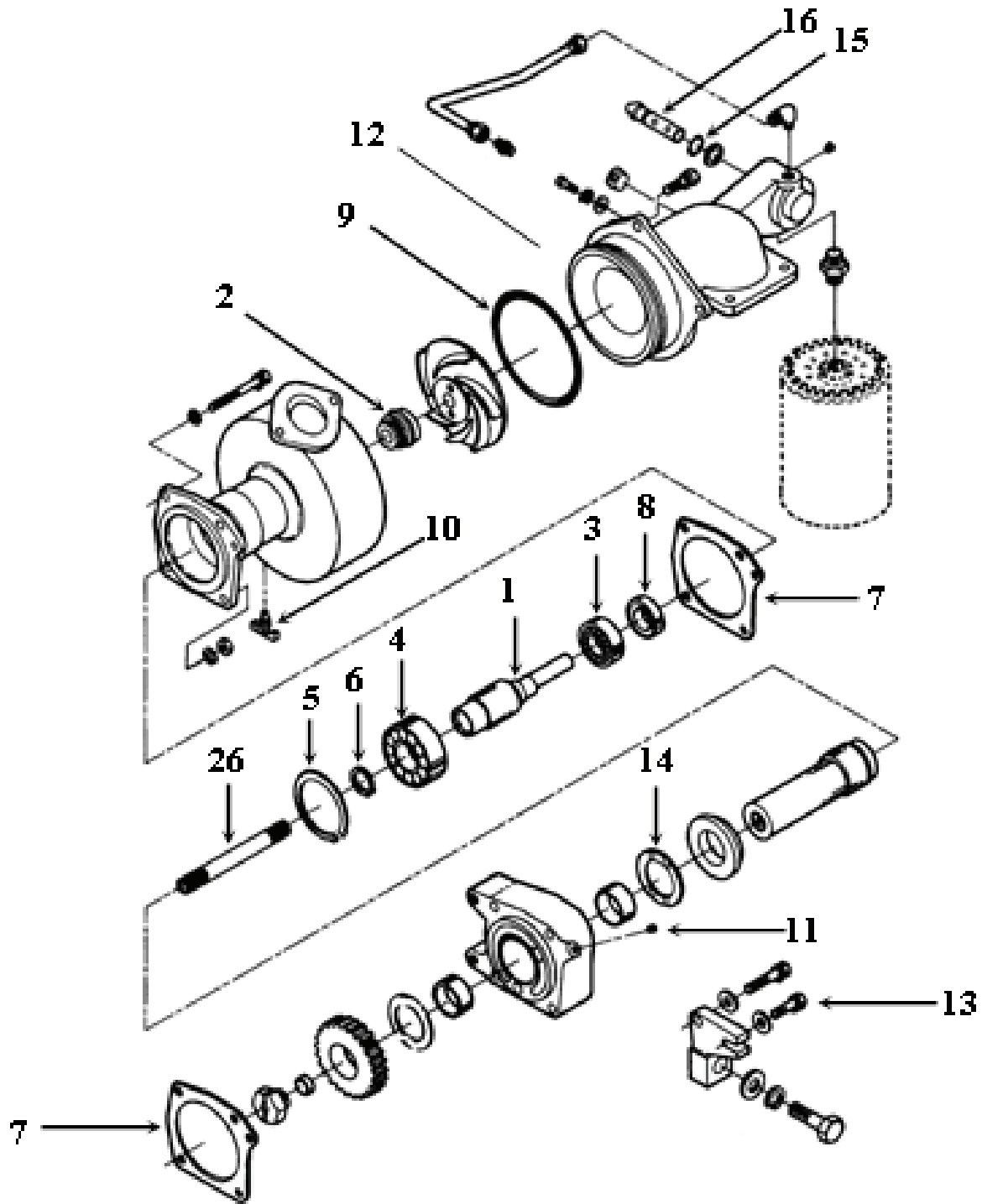
| Ref | Part Number | Description  | QSK19 |
|-----|-------------|--|-------|
| 01  | 3090000     | Camshaft   | 1     |
| 03  | 3081261     | Gasket   | 1     |
| 03  | S 302       | Key  | 1     |
| 04  | 3014766     | Bolt, w/Washer   | 2     |
| 05  | 3329533     | Gear   | 1     |
| 06  | FP-3000175  | coupling   | 1     |
| 08  | 3090358     | Bearing, Thrust  | 2     |
| 09  | 130083      | Bearing, Thrust  | 2     |
| 10  | FP-3014103  | Washer   | 1     |
| 11  | 3045136     | Washer   | 1     |
| 12  | 3090256     | Bushing  | 1     |
| 13  | 3402170     | Ring   | 1     |
| 14  | FP-3410171  | Gasket   | 1     |
| 15  | 130083      | Metal, Thrust  | 1     |
| 16  | 3090358     | Bearing, Thrust  | 1     |
| 17  | FP-3410171  | Gasket   | 1     |
| 18  | 4065751     | Pin  | 12    |
| 19  | 3090009     | Roller   | 12    |
| 20  | 3090010     | Roller   | 12    |
| 21  | 3090010     | Roller   | 12    |
| 22  | 3090377     | Rod, Push  | 12    |
| 23  | 3408259     | Rod, Push  | 12    |
| 25  | FP-3075381  | Tappet Assy (HVT, STC Fuel Systems Pre 1991)                   | 6     |
| 25  | FP-3075383  | Tappet Assy (HVT, STC Fuel Systems 1991 - Up, Mushroom Design) | 6     |
| 26  | 3045137     | Bolt, w/Washer   | 1     |



# QSK19 Series



## Water Pump



# QSK19 Series



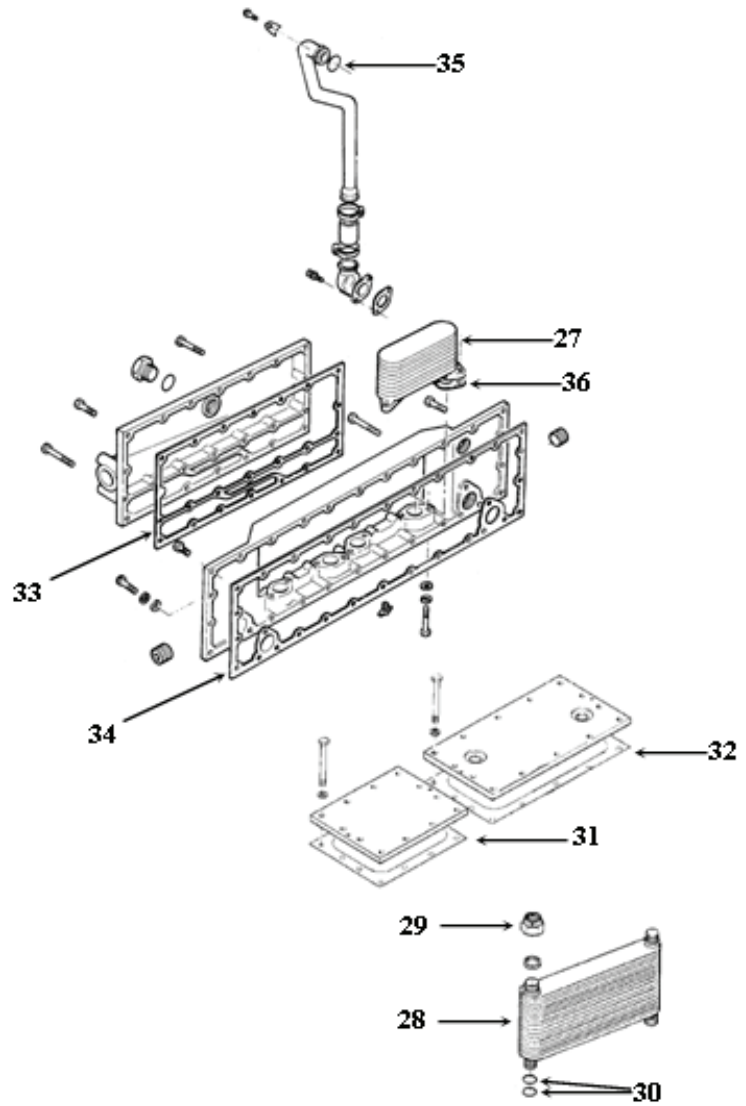
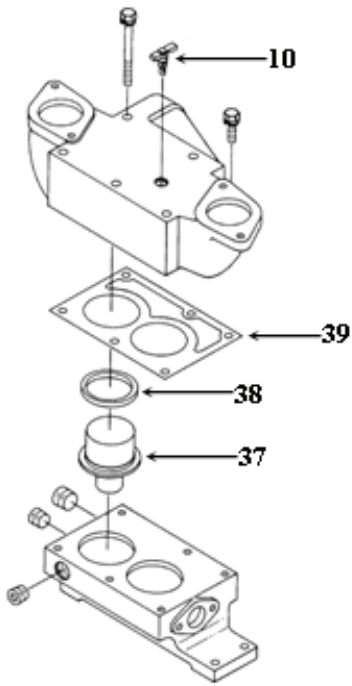
## Water Pump

| Ref | Part Number | Description      | QSK19 |
|-----|-------------|------------------|-------|
| 01  | FP-3042827  | Shaft            | 1     |
| 02  | 3609826     | Seal             | 1     |
| 03  | FP-S16002   | Bearing, Ball    | 1     |
| 04  | FP-S16069   | Bearing, Ball    | 1     |
| 05  | FP-70183    | Ring, Snap       | 1     |
| 06  | FP-205258   | Ring, Snap       | 1     |
| 07  | FP-3202283  | Gasket           | 1     |
| 08  | FP-206948   | Bearing, Ball    | 1     |
| 09  | FP-145623   | Seal, O-Ring     | 1     |
| 10  | FP-S962E    | Cock, Drain      | 1     |
| 11  | 3056003     | Plug             | 1     |
| 13  | 3012474     | Bolt             | 1     |
| 13  | FP-3012472  | Bolt -FP-3012472 | 1     |
| 14  | 3034721     | Retainer         | 1     |

# QSK19 Series



## Thermostat & Coolers



# QSK19 Series



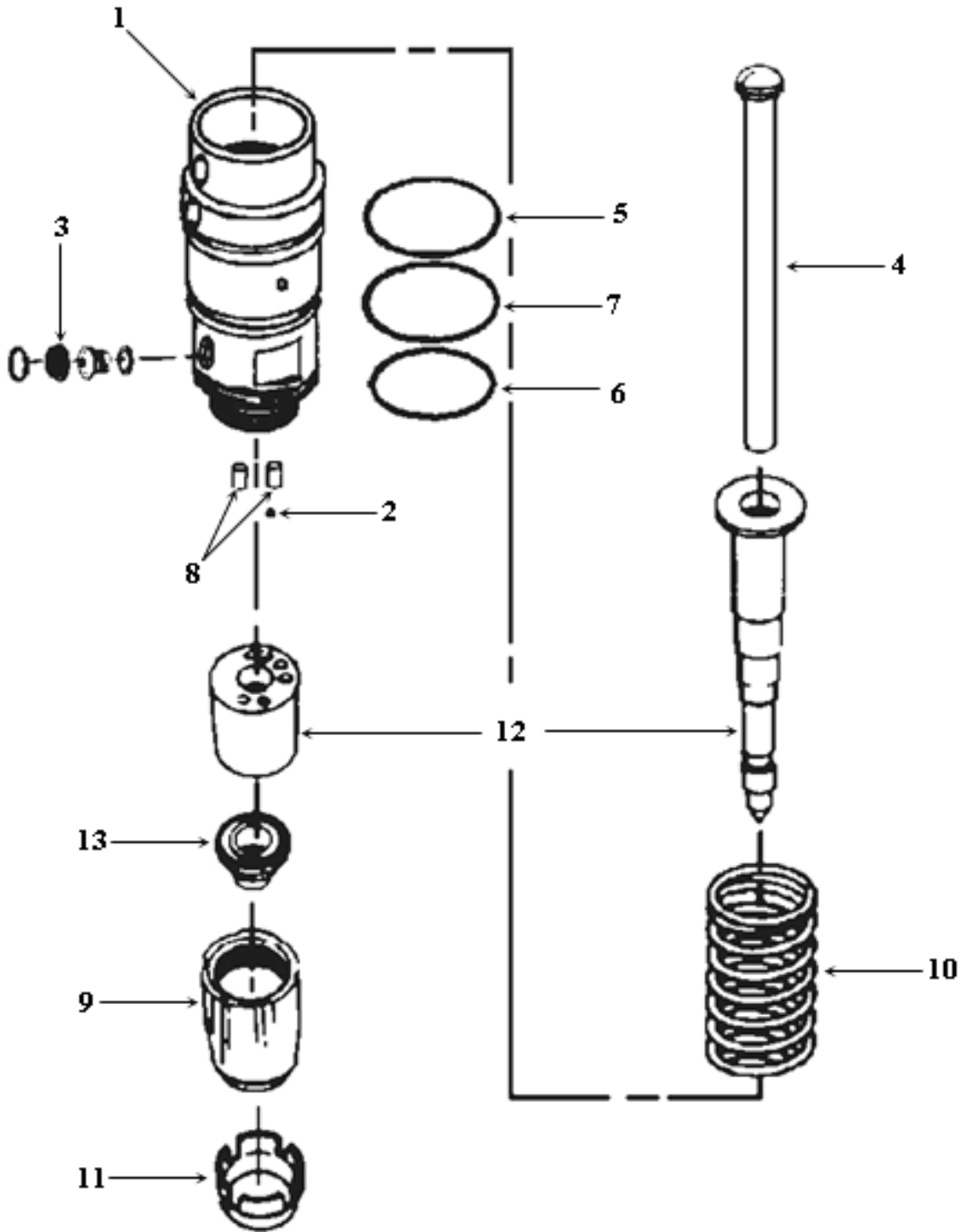
## Thermostat, Oil Cooler & Aftercooler

| Ref | Part Number       | Description               | QSK19 |
|-----|-------------------|---------------------------|-------|
| 10  | 3087691           | Cock, Drain               | 1     |
| 27  | 4095096           | Core                      | 1     |
| 29  | 3002126           | Nut                       | 2     |
| 30  | FP-212161         | Seal                      | 8     |
| 31  | 3065792           | Gasket                    | 1     |
| 32  | FP-3065791        | Gasket                    | 1     |
| 33  | 3200988           | Gasket                    | 1     |
| 34  | FP-3200550        | Gasket (FP-3065790)       | 1     |
| 35  | 3086052           | Seal                      | 1     |
| 36  | FP-206973         | Gasket                    | 1     |
| 37  | FP-3076489        | Thermostat                | 2     |
| 38  | FP-186780         | Seal                      | 2     |
| 39  | 3090170           | Gasket                    | 1     |
| 00  | <b>FP-3804935</b> | <b>Kit, Oil Cooler</b>    | 2     |
| 28  | FP-4095097        | Core, Oil Cooler          | 1     |
| 00  | FP-3078053        | Bolt, Oil Cooler Mounting | 4     |

# QSK19 Series



## Fuel Injectors



## Fuel Injectors

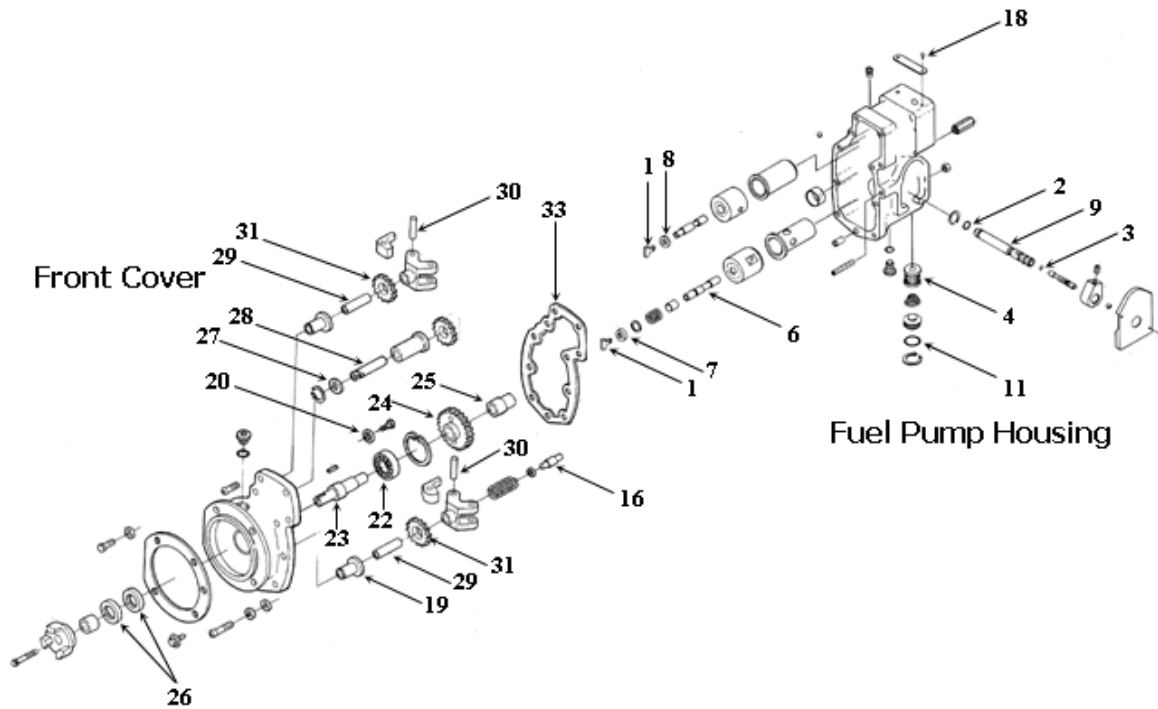
| Ref | Part Number | Description  | QSK19 |
|-----|-------------|--------------|-------|
| 01  | 4010578     | Housing      | 6     |
| 02  | FP-167157   | Ball         | 12    |
| 03  | 3045047     | Orifice      | 6     |
| 04  | 4087871     | Plunger      | 6     |
| 05  | 3347937     | Seal, O-Ring | 6     |
| 06  | 3867651     | Seal, O-Ring | 6     |
| 07  | 4010577     | Seal, O-Ring | 6     |
| 08  | 203426      | Pin          | 12    |
| 09  | 3329999     | Retainer     | 6     |
| 10  | 3417290     | Spring       | 6     |
| 11  | 3867687     | Seal         | 6     |
| 12  | 4010026     | Nozzle       | 6     |
| 13  | 4009692     | Filter       | 6     |

# QSK19 Series

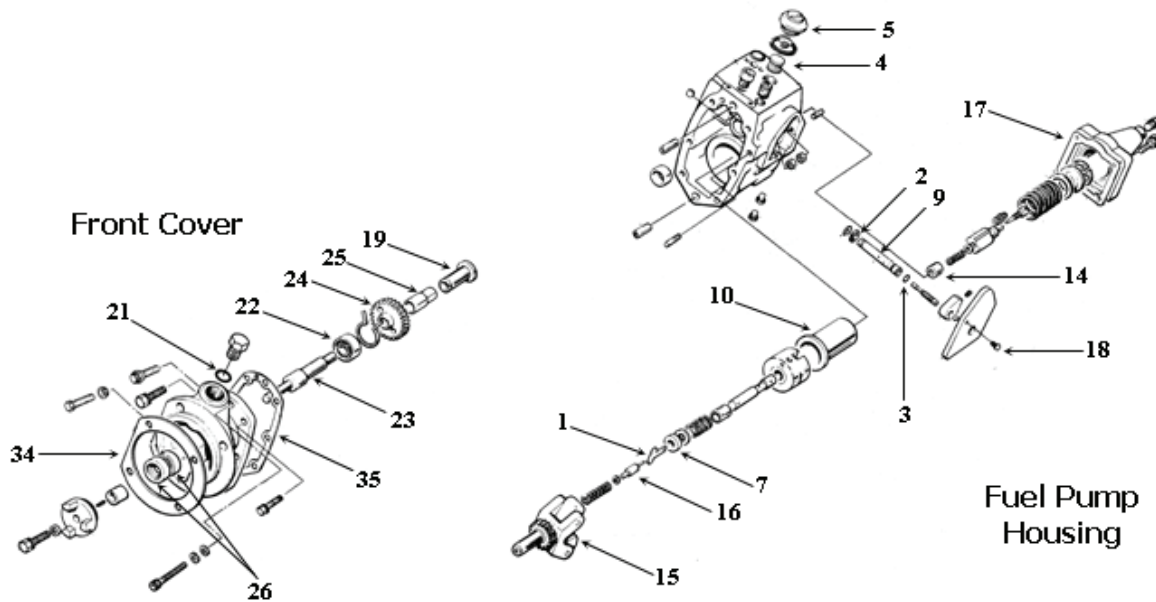


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive







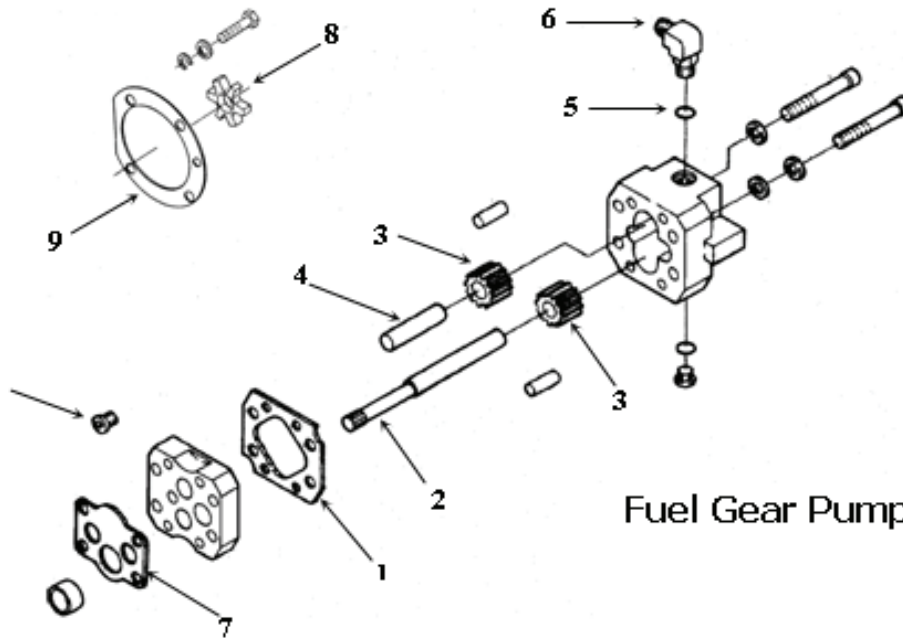
## Fuel Pump Housing

| Ref | Part Number | Description  | QSK19 |
|-----|-------------|--------------|-------|
| 00  | 4001979     | Pump, Fuel   | 1     |
| 00  | 4010509     | Module, Fuel | 1     |
| 00  | 4010510     | Module, Fuel | 1     |
| 00  | FP-129888   | Seal         | 2     |
| 00  | FP-134076   | Solenoid     | 1     |
| 00  | FP-3037537  | Seal, O-Ring | 6     |
| 00  | FP-3037537  | Seal, O-Ring | 1     |
| 00  | FP-3922794  | Seal, O-Ring | 3     |

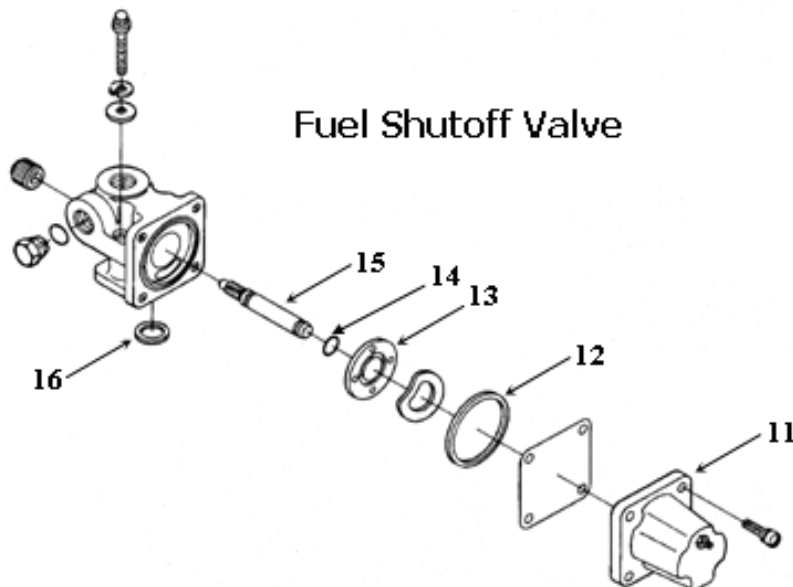
# QSK19 Series



## Fuel Gear Pump



Fuel Gear Pump



Fuel Shutoff Valve

# QSK19 Series



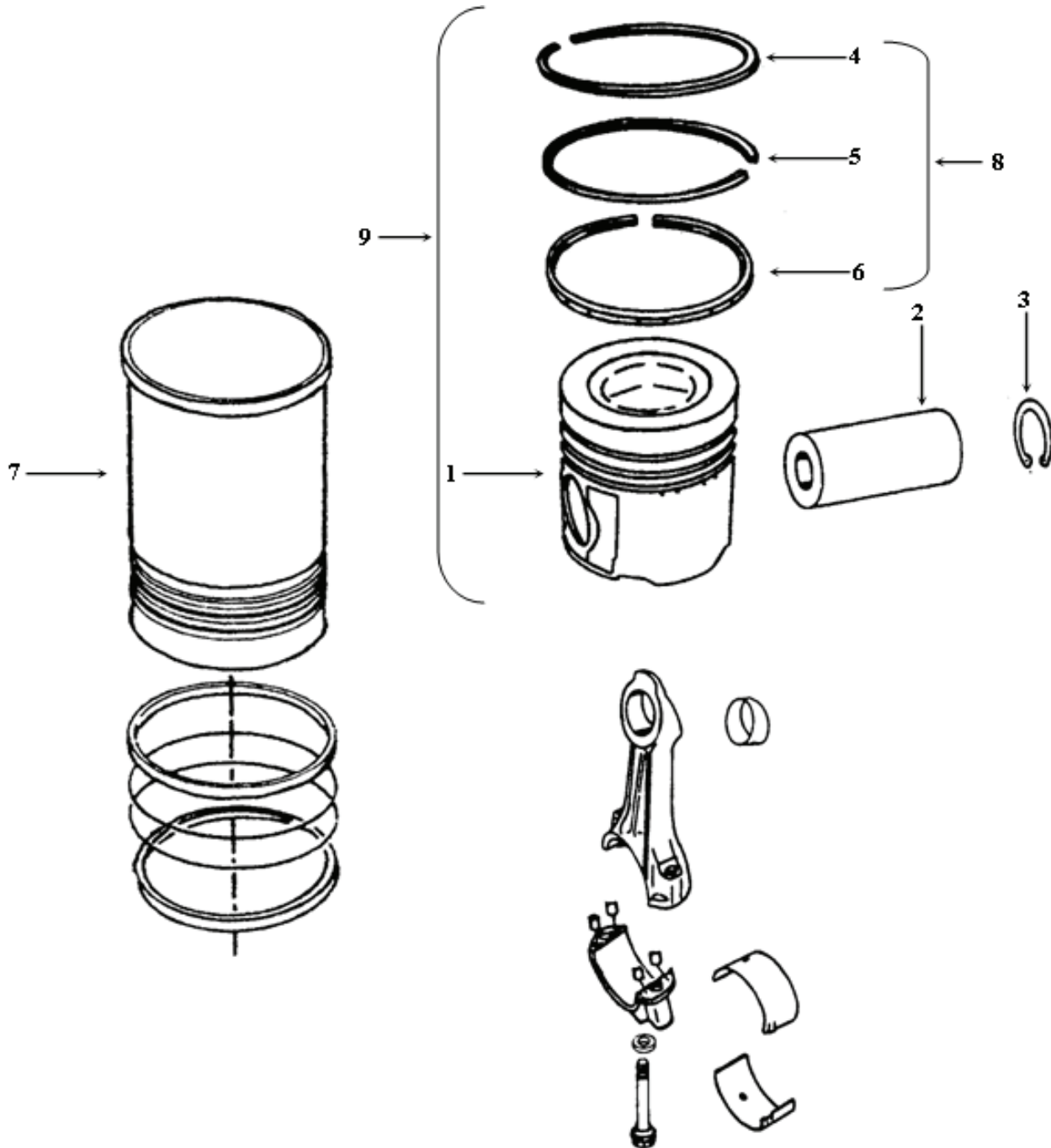
## Fuel Gear Pump

| Ref | Part Number | Description           | QSK19 |
|-----|-------------|-----------------------|-------|
| 01  | 3330764     | Seal, O-Ring          | 2     |
| 02  | 4001717     | Shaft, Drive          | 1     |
| 03  | 3867578     | Gear                  | 4     |
| 04  | 3417162     | Shaft, Drive          | 2     |
| 05  | FP-3035228  | Seal, Oring           | 1     |
| 06  | 3867410     | Valve, Check          | 1     |
| 07  | 3348618     | Seal, O-Ring          | 2     |
| 08  | FP-3046200  | Gear                  | 1     |
| 09  | FP-4026171  | Gasket                | 1     |
| 11  | FP-134076   | Solenoid - FP-3021420 | 1     |
| 12  | FP-129888   | Seal                  | 1     |
| 13  | 196057      | Disc                  | 1     |
| 14  | 3348652     | Seal, O-Ring          | 1     |

# QSK19 Series



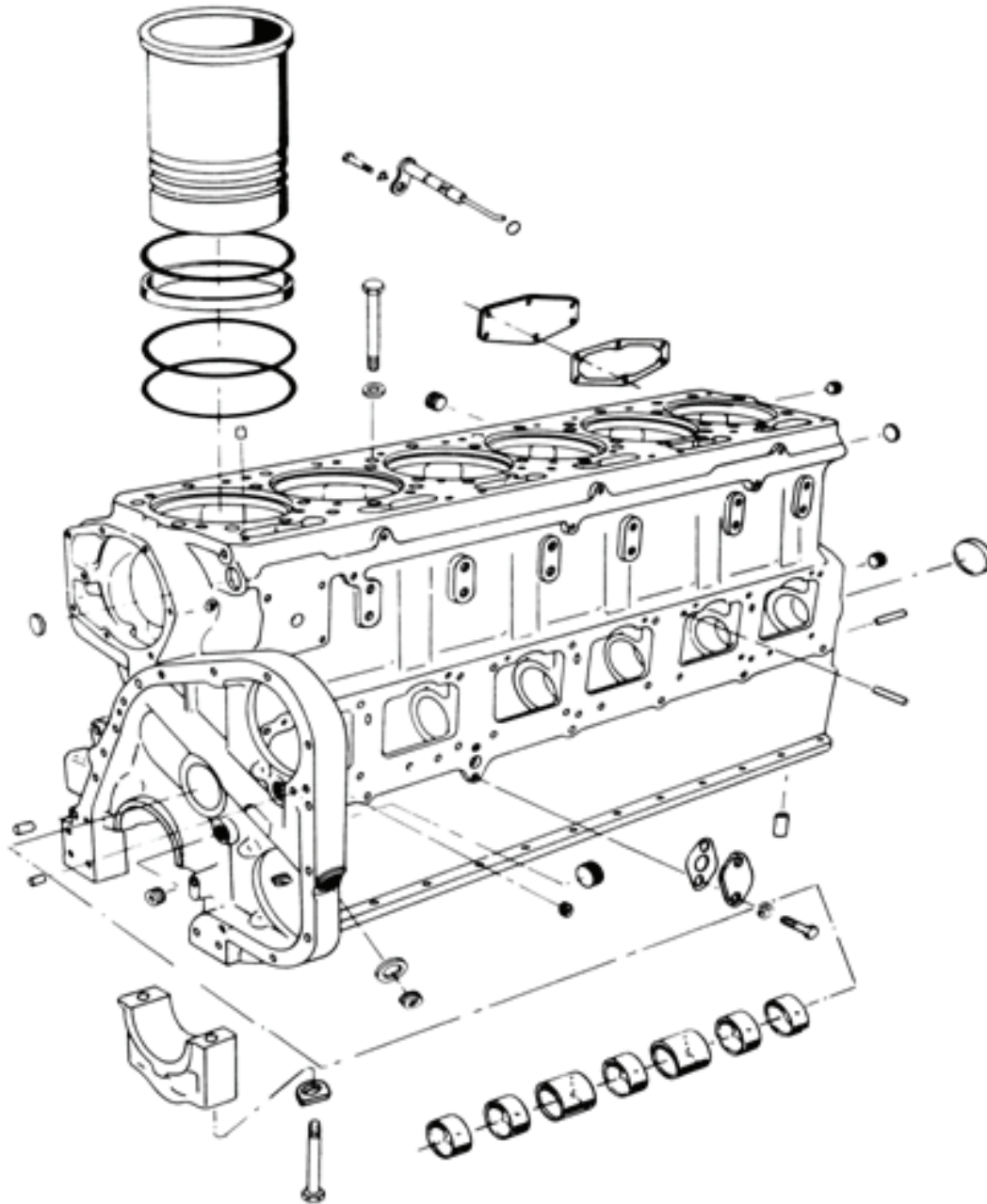
## Piston & Liner Kits



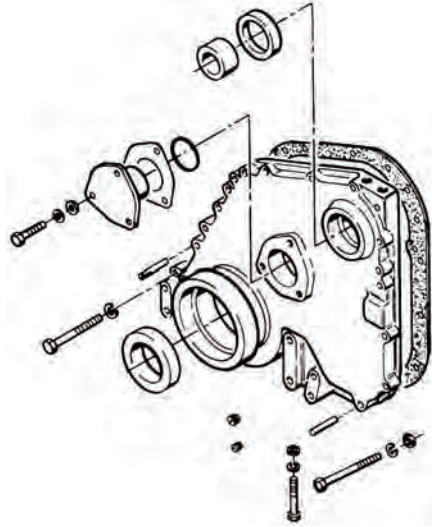
## Piston & Liner Kits

| Ref | Part Number       | Description  | QSK19 |
|-----|-------------------|--|-------|
| 02  | FP-4095009        | Pin, Piston (Exc. Articulated Pistons)                   | 6     |
| 02  | FP-4095010        | Pin, Piston (Articulated Piston Only)                    | 6     |
| 03  | FP-205269         | Retaining Ring, Piston Pin                               | 12    |
| 07  | FP-4009220        | Liner, Cylinder  | 6     |
| 07  | FP-4024767        | Kit, Cylinder Liner (Std.), (Previously FP-3028434)      | 6     |
| 07  | FP-4024768        | Kit, Cylinder Liner (.020 O.S.), (Previously FP-3028430) | 6     |
| 07  | FP-4024769        | Kit, Cylinder Liner (.040 O.S.), (Previously FP-3028431) | 6     |
| 07  | FP-4024771        | Kit, Cylinder Liner (.083 O.S.), (Previously FP-3024726) | 6     |
| 07  | FP-4024772        | Kit, Cylinder Liner (.095 O.S.), (Previously FP-3028433) | 6     |
| 07  | FP-4024773        | Kit, Cylinder Liner (.020/.020), (Previously FP-3803505) | 6     |
| 07  | FP-4024774        | Kit, Cylinder Liner (.060/.020), (Previously FP-3803509) | 6     |
| 07  | FP-4024775        | Kit, Cylinder Liner (.060 O.S.), (Previously FP-3803510) | 6     |
| 09  | <b>FP-3631245</b> | <b>Piston Kit w/Pin and Retainers</b>                    | 6     |
| 01  | FP-3096681        | Piston Body w/o Pin                                      |       |
| 02  | FP-4095009        | Pin, Piston  |       |
| 03  | FP-205269         | Retaining Ring, Piston Pin                               |       |
| 08  | <b>FP-4089500</b> | <b>Piston Ring Set</b>                                   | 6     |
| 04  | 4081176           | Ring, Compression (Top) (Not Sold Separately)            | -     |
| 05  | 3090460           | Ring, Compression (Intermediate) (Not Sold Separately)   | -     |
| 06  | 3090450           | Ring, Oil Control (Not Sold Separately)                  | -     |
| 00  | <b>FP-PKQSK19</b> | <b>Crownless Piston Kit</b>                              | 6     |
| 01  | FP-3090067        | Skirt, Piston  | 6     |
| 02  | FP-4095010        | Pin, Piston (Articulated Piston Only)                    | 6     |
| 03  | FP-205269         | Retainer, Piston Pin                                     | 12    |
| 08  | FP-4089500        | Piston Ring Set  |       |





**Exploded View of Typical 855 Series Engine**



**Front Cover**

| Engine | Part Number | Description               | Comment            |
|--------|-------------|---------------------------|--------------------|
| 855    | FP-AR1176   | Shim Kit                  | Cam Thrust         |
| 855    | FP-3021705  | Gasket, Front Cover       | Split Type         |
| 855    | FP-3021704  | Gasket, Front Cover       | Single Piece       |
| 855    | FP-3008530  | Support                   | Flangless Camshaft |
| 855    | FP-3004316  | Seal, Oil Accessory Drive |                    |
| 855    | FP-215705   | Packing, Support          |                    |
| 855    | FP-190397   | Sleeve, Accessory Drive   |                    |
| 855    | FP-132770   | Bushing                   | Front Cover        |



## Small Cam Gasket Sets

| Complete O / H            | Upper Set     | Lower Set                | Comments                           | Single Head Set | Head Gasket |
|---------------------------|---------------|--------------------------|------------------------------------|-----------------|-------------|
|                           | FP-4058790S   |                          | In-Frame Overhaul FFC              | FP-4024958      | FP-4058790  |
|                           | FP-4024956    |                          | w/Solid Head Gasket                |                 | FP-4058790  |
|                           | FP-3804276S   |                          | In-Frame Overhaul FFC O/S Grommets | FP-4024958      | FP-4058790  |
|                           | FP-3804276-OS | FP-3014459 <sup>15</sup> | 0.010 O/S Head Gasket              |                 | FP-3098985  |
|                           | FP-3801397    | FP-3801464 <sup>15</sup> | NT855 Non FFC                      | FP-3801324      | FP-4058790  |
| FP-3011472 <sup>14</sup>  | FP-3804276    | FP-3014459 <sup>15</sup> | Standard FFC and Piston Cooling    | FP-4024958      | FP-4058790  |
| FP-3801337 <sup>11</sup>  | FP-3804276    | FP-3801465 <sup>11</sup> | 855 NTA                            | FP-4024958      | FP-4058790  |
| FP-3801348C <sup>15</sup> | FP-3804276    | FP-3014459 <sup>15</sup> | 0.010" O/S Water Grommet           | FP-4024958      | FP-4058790  |

## Big Cam In-Frame Gasket Sets

| Complete O / H | Upper Set     | Lower Set | Comments                                   | Single Head Set | Head Gasket |
|----------------|---------------|-----------|--|-----------------|-------------|
|                | FP-4024953S   |           | In-Frame Set BC I, II, III NTC 475         |                 | FP-4058790  |
|                | FP-4024920S10 |           | In-Frame Set BC IV 0.010 O/S Grommets      |                 | FP-4058790  |
|                | FP-4024920S   |           | In-Frame Set Big Cam IV Standard           |                 | FP-4058790  |
|                | FP-4024919S   |           | In-Frame Set Big Cam IV, STC               |                 | FP-4058790  |
|                | FP-4024918S10 |           | In-Frame Set NT88 BC IV 0.010 O/S Grommets |                 | FP-4058790  |
|                | FP-4024918S   |           | In-Frame Set NT88 Big Cam IV               |                 | FP-4058790  |
|                | FP-3804276S   |           | In-Frame Set Standard Big Cam              |                 | FP-4058790  |
|                | FP-4024919S10 |           | In-Frame Set BC IV 0.010 O/S Grommets      |                 | FP-4058790  |

## Big Cam I, II, III Gasket Sets

| Complete O / H           | Upper Set                | Lower Set                 | Comments                                  | Single Head Set | Head Gasket |
|--------------------------|--------------------------|---------------------------|---|-----------------|-------------|
|                          | FP-3804276-OS            |                           | 0.010 O/S Head Gasket                     |                 | FP-3098985  |
|                          | FP-3804276               | FP-3801469 <sup>15</sup>  | Big Cam I, II NTC 475 and NTCC            | FP-4024958      | FP-4058790  |
|                          | FP-3804276               | FP-3801468D <sup>15</sup> | Big Cam I, II, III Special For Wet Clutch |                 | FP-4058790  |
|                          | FP-3804276               | FP-3801468 <sup>15</sup>  | Big Cam I, II, III                        | FP-4024958      | FP-4058790  |
|                          | FP-3804276               | FP-3801235 <sup>15</sup>  | Big Cam III NTC 400 & Below               | FP-4024958      | FP-4058790  |
|                          | FP-3013479 <sup>35</sup> | FP-3801470 <sup>15</sup>  | NTE (European) NTE 290                    | FP-4024958      | FP-4058790  |
| FP-3801335 <sup>15</sup> | FP-4024953               | FP-3801529 <sup>15</sup>  | Big Cam I, II, III NTC 475 & NTCC w/MVT   | FP-4024958      | FP-4058790  |

## Big Cam IV Gasket Sets

| Complete O / H              | Upper Set     | Lower Set                | Comments                  | Single Head Set | Head Gasket |
|-----------------------------|---------------|--------------------------|---------------------------|-----------------|-------------|
|                             | FP-4024920-OS | FP-3801454 <sup>15</sup> | 0.010 O/S Head Gasket     |                 | FP-3098985  |
|                             | FP-4024920 10 | FP-3801454 <sup>15</sup> | 0.010 O/S Water Grommet   | FP-4024921 10   | FP-4058790  |
|                             | FP-4024920    | FP-3801454 <sup>15</sup> | NTC BC IV FFC Standard    | FP-4024921      | FP-4058790  |
|                             | FP-4024919-OS | FP-3801454 <sup>15</sup> | 0.010 O/S Head Gasket     |                 | FP-3098985  |
|                             | FP-4024919    | FP-3803041 <sup>15</sup> | NTC 444 STC BC IV FFC     | FP-4024921      | FP-4058790  |
|                             | FP-4024919    | FP-3801454 <sup>15</sup> | Big Cam IV S.T.C.         | FP-4024922      | FP-4058790  |
|                             | FP-4024918-OS | FP-3803041 <sup>15</sup> | 0.010 O/S Head Gasket     |                 | FP-3098985  |
|                             | FP-4024918    | FP-3803041 <sup>15</sup> | NTC 365/400 STC BC IV FFC | FP-4024921      | FP-4058790  |
|                             | FP-3801350    | FP-3803041 <sup>15</sup> | NTC BC IV FFC             | FP-4024921      | FP-4058790  |
| FP-3356174 <sup>15</sup>    | FP-4024920    | FP-3801454 <sup>15</sup> | Big Cam IV Standard       | FP-4024921      | FP-4058790  |
| FP-3801754C10 <sup>15</sup> | FP-4024919 10 | FP-3801454 <sup>15</sup> | 0.010 O/S Water Grommet   | FP-4024922 10   | FP-4058790  |
| FP-3803040C <sup>15</sup>   | FP-4024918    | FP-3803041 <sup>15</sup> | NT88 Big Cam IV           | FP-4024952      | FP-4058790  |
| FP-3803040C10 <sup>15</sup> | FP-4024918 10 | FP-3803041 <sup>15</sup> | 0.010 O/S Water Grommet   | FP-4024952 10   | FP-4058790  |

<sup>14</sup>W/O Crankshaft Seals <sup>14</sup>W/Rear Crankshaft Seal Only <sup>15</sup>w/Front & Rear Crankshaft Seals <sup>35</sup>Discontinued

Note: A Complete Overhaul Set Can Be Any Combination Of 1 Upper .1 Lower Gasket Set Based On Individual Needs



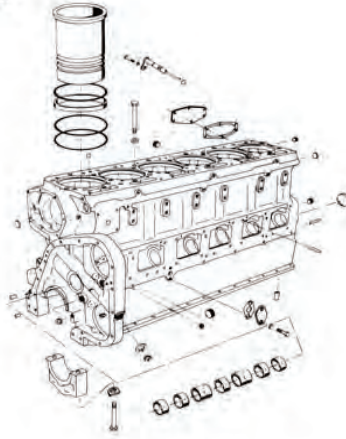
## Specialty Kits & Gasket Sets

| Engine                   | Part Number | Description                                 | Comment                                      |
|--------------------------|-------------|---|--|
| Big Cam IV (85-87)       | FP-3801606  | Gasket Set C-Brake® 5 Hole                  |  |
| B/C I, II, III, IV       | FP-3801640  | Gasket Set Jake Brake®                      | Small Cam and Big Cam                        |
| 855 Big Cam              | FP-3803017  | MVT Seal Kit                                |  |
| 855 Series               | FP-90004    | Accessory Drive Repair Kit                  |  |
| NT855                    | FP-90012    | Turbo Installation Kit                      |  |
| Small & Big Cam          | FP-940014   | Major Tune-Up Kit Jake Brake®               | Includes Gasket Set FP-3801640               |
| Small & Big Cam          | FP-940015   | Major Tune-Up Kit Jake Brake®               |  |
| 855 Series (Natural Gas) | PG1330NG    | Gasket Set, Cylinder Head .010 O/S Grommets | Accommodates Three Cylinder Heads            |
| 855 Big Cam              | PGC100      | Big Cam Follower Gasket Set                 |  |
| 855 Small Cam            | PGC101      | Small Cam Follower Gasket Set               |  |
| 855 Series               | PGC1014     | Rear Crankshaft Seal Set                    | Seal And Gasket                              |
| 855 Small & Big Cam      | PGC110      | Overhead Gasket Set                         |  |
| NH855                    | PGC175      | Front Cover Gasket Set                      | W/ FP-3020183 Front Seal                     |
| NTC855 Small & Big Cam   | PGC176      | Front Cover Gasket Set                      | W/ FP-3006736 Front Seal                     |
| 88 Big Cam IV            | PGC-20      | Gasket Set C-Brake® 7 Hole                  |  |
| 855                      | PGC200      | Gasket Set Oil Cooler FP-142608 (16")       | Non-Piston Cooled                            |
| NTC855                   | PGC202      | Gasket Set Oil Cooler FP-3021581 (12 1/2")  |  |
| 855                      | PGC204      | Gasket Set Oil Cooler                       | Low Mount Oil Cooler                         |
| NTC855                   | PGC205      | Aftercooler Gasket Set For FP-214836        | Single Pass Small Cam                        |
| NTC855                   | PGC206      | Aftercooler Gasket Set For FP-3068724       | Three Pass Big Cam                           |
| 855 Series               | PGC300      | Pan Set                                     | Includes Seals For Suction Tube & Drain Plug |
| 855                      | PGJ-10      | Gasket Set Jake Brake®                      | Small Cam and Big Cam                        |
| Big Cam I, II, III, IV   | PGJ-15      | Gasket Set Jake Brake® 5 Hole               |  |
| 88 Big Cam IV            | PGJ-20      | Gasket Set Jake Brake® 7 Hole               |  |
| 855 Small Cam            | PGJ-5       | Gasket Set Early Jake Brake®                |  |

# NT855



## Liners & Liner Kits



## NT855

| Engine | Liner Kit  | Bare Liner | Liner Seal Kit: | Crevice Seal | Liner Seal     | Comment           |
|--------|------------|------------|-----------------|--------------|----------------|-------------------|
| NT855  | FP-3801826 | FP-3055099 | FP-AR51477      | FP-215090    | FP-3032874 (2) | Standard LPF      |
| 855TT  | FP-3801387 | FP-3046325 | FP-AR51477      | FP-215090    | FP-3032874 (2) | 0.020" UPF        |
|        | FP-3803219 | FP-3065405 | FP-AR51477      | FP-215090    | FP-3032874 (2) | 0.020"/0.040" LPF |

## Small & Medium Vee Engines

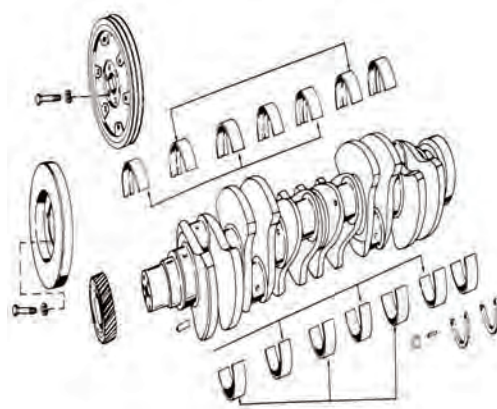
| Engine | Liner Kit  | Bare Liner | Liner Seal Kit: | Crevice Seal | Liner Seal    | Comment  |
|--------|------------|------------|-----------------|--------------|---------------|----------|
| VT378  | FP-3277592 | FP-3022530 |                 | FP-216283    | FP-216284 (2) | Standard |
| VT504  | FP-3277592 | FP-3022530 |                 | FP-216283    | FP-216284 (2) | Standard |

### Cam Bushings & Sets

| Engine    | Part Number | Description      | Location  | Comments   |
|-----------|-------------|------------------|-----------|------------|
| N743      | FP-BM27253  | Set, Cam Bushing | NH220     | All Models |
| NH, NT855 | FP-BM27253  | Set, Cam Bushing | Small Cam |            |
| NTC855    | FP-3007689  | Set, Cam Bushing | Big Cam   | 7 Required |
| NTC855    | FP-3007689S | Cam Bearing Set  | Big Cam   | 1 Required |
| NTC855    | FP-3801106  | Set, Cam Bushing | Big Cam   |            |

### Block Upper Deck Repair Sleeves & Liners Shims (855)

| Engine | Part Number    | Description                   | Location | Comments                        |
|--------|----------------|-------------------------------|----------|---------------------------------|
| 855    | FP-202226 10   | Upper Deck Repair Sleeve      |          | .010 (Should Be .006 Depth)     |
| 855    | FP-202226 20   | Upper Deck Repair Sleeve      |          | .020 (Should Be .006 Depth)     |
| 855    | FP-202226 30   | Upper Deck Repair Sleeve      |          | .030 (Should Be .006 Depth)     |
| 855    | FP-202226 5    | Upper Deck Repair Sleeve      |          | .005 (Should Be .006 Depth)     |
| 855    | FP-202226 Std. | Upper Deck Repair Sleeve      |          | Standard (Should Be .006 Depth) |
| 855    | FP-202227      | Upper Deck Repair Sleeve      |          | Semi- Finished                  |
| 855    | FP-3019955     | Liner Shim                    |          | .007 Thick Standard Liner       |
| 855    | FP-3019956     | Liner Shim                    |          | .008 Thick Standard Liner       |
| 855    | FP-3019957     | Liner Shim                    |          | .009 Thick Standard Liner       |
| 855    | FP-3019959     | Liner Shim                    |          | .0315 Thick Standard Liner      |
| 855    | FP-3019960     | Liner Shim                    |          | .062 Thick Standard Liner       |
| 855    | FP-3054948     | Liner Shim                    |          | .0205 Thick Standard Liner      |
| 855    | FP-3065406     | Seal Ring                     |          | 0.0205 Thick .020/.040 Liner    |
| 855    | FP-3066843     | Seal Ring                     |          | .018 Thick .020/.040 Liner      |
| 855    | FP-3066844     | Seal Ring                     |          | .0220 Thick .020/.040 Liner     |
| 855    | FP-3376382     | Upper Deck Repair Sleeve      |          | .020 Upper Press Fit            |
| 855    | FP-3822959     | Upper Deck Repair Sleeve Std. |          | O.D. 6.750 Lower Press Fit      |
| 855    | FP-3822960     | Upper Deck Repair Sleeve .010 |          | O.D. 6.760 Lower Press Fit      |
| 855    | FP-3822961     | Upper Deck Repair Sleeve .020 |          | O.D. 6.770 Lower Press Fit      |
| 855    | FP-3822963     | Upper Deck Repair Sleeve .030 |          | O.D. 6.780 Lower Press Fit      |
| 855    | FP-AR51478     | Shim Kit                      |          | Contains One Each Next 6 Items  |

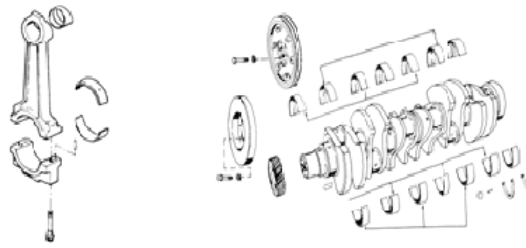


**Crankshafts, Seals And Vibration Dampers**

| Engine | Crankshaft            | Front Gear | Front Seal | Front Sleeve | Rear Seal Dry / Wet      | Rear Sleeve |
|--------|-----------------------|------------|------------|--------------|--------------------------|-------------|
| NT855  | FP-3029340 Taper Nose | FP-142804  | FP-3010457 |              | FP-3006737               | FP-3006743  |
| NTC855 | FP-3608833 Snub Nose  | FP-3014614 | FP-3006736 | FP-3006742   | FP-3006737<br>FP-3006738 | FP-3006743  |

**Vibration Dampers**

| Engine                           | Part Number | Size       | Description             |
|----------------------------------|-------------|------------|-------------------------|
| 855 Snub Nose Crankshaft (Qty 6) | FP-204165   |            | Bolt, Damper & Flywheel |
| 855 Snub Nose Except NTC400      | FP-211915   | 12.3 Inch  | Damper                  |
| 855 Tapered Nose                 | FP-217321   | 13.55 Inch | Damper                  |
| KTA19, NTA370, NTA420            | FP-217322   | 13.55 Inch | Damper                  |
| 855 Snub Nose NTC400-Up          | FP-217323   | 13.55 Inch | Damper                  |
| 855 Snub Nose Crankshaft (Qty 6) | FP-200861   |            | Washer, Flywheel Bolt   |



**Main Bearing Sets**

| Engine       | Standard   | .010       | .020       | .030       | .040       | Thrust Washer            | Comments                 |
|--------------|------------|------------|------------|------------|------------|--------------------------|--------------------------|
| N743 / NH220 | FP-3801260 | FP-3801261 | FP-3801262 | FP-3801263 | FP-3801264 | FP-3067568 Std. (4 req.) | FP-3067568 Std. (4 req.) |
| NH, NT855    | FP-3801260 | FP-3801261 | FP-3801262 | FP-3801263 | FP-3801264 | FP-3074361 0.010"        | FP-3074361 0.010"        |

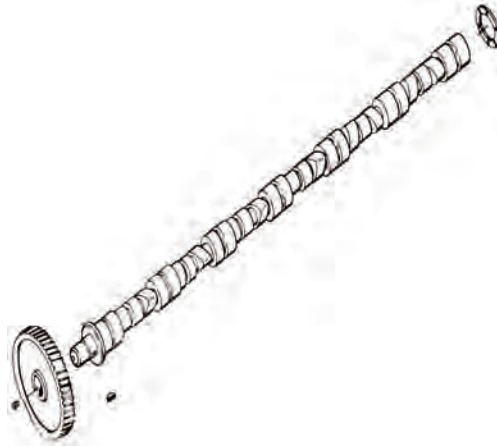
**Connecting Rod Bearings**

| Engine        | Standard  | .010      | .020      | .030      | .040      | Rod Bushing | Rod Bolt                | Rod Nut  |
|---------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------------------|----------|
| NH, NT855 S/C | FP-203660 | FP-203661 | FP-203662 | FP-203663 | FP-203664 | FP-187420   | FP-9195-3 <sup>17</sup> | FP-69936 |
| NTC855 B/C    | FP-214950 | FP-214951 | FP-214952 | FP-214953 | FP-214954 | FP-187420   | FP-219153               |          |

<sup>17</sup>Rod Bolt Nut Requires Washer # FP-200861

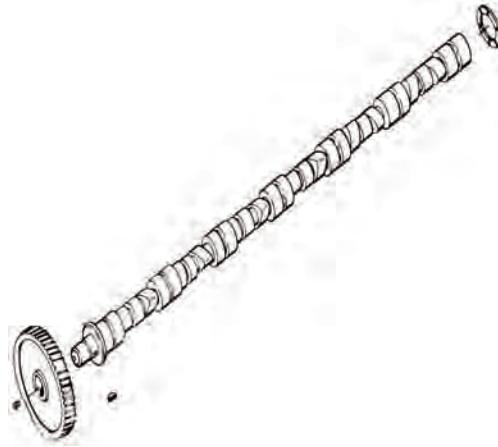
**Connecting Rods, New**

| Engine      | Conn Rod   | Rod Bushing | Rod Bolt  | Rod Nut |
|-------------|------------|-------------|-----------|---------|
| 855 Big Cam | FP-3013930 | FP-187420   | FP-219153 |         |



### 855 Camshaft Keys

| Engine | Camshaft   | Description        | Comment |
|--------|------------|--------------------|---------|
| N855   | FP-3021592 | Cam Key 3/4"       |         |
| N855   | FP-3021593 | Cam Key 3/4"       |         |
| N855   | FP-3021594 | Cam Key 3/4"       |         |
| N855   | FP-3021595 | Cam Key 3/4"       |         |
| N855   | FP-3021596 | Cam Key 3/4"       |         |
| N855   | FP-3021597 | Cam Key 3/4"       |         |
| N855   | FP-3021598 | Cam Key 3/4"       |         |
| N855   | FP-3021599 | Cam Key 3/4"       |         |
| N855   | FP-3021600 | Cam Key 3/4"       |         |
| N855   | FP-3021601 | Cam Key 3/4"       |         |
| N855   | FP-69550   | Cam Key 1"         |         |
| NTC855 | FP-3022352 | Cam Key 3/4" (MVT) |         |
| NTC855 | FP-3022353 | Cam Key 3/4" (MVT) |         |



**Camshafts By CPL**

| Engine    | Camshaft                 | Control Parts List (CPL)  | Comment                     |
|-----------|--------------------------|---|-----------------------------|
| NH, NT855 | FP-3023177               | 002, 005, 021, 022, 069, 077, 081, 093, 100, 101, 107, 123, 132, 133, 135, 144, 147, 155, 161, 166, 173, 201, 202, 204, 215, 217, 221, 226, 227, 230, 246, 256, 259, 260, 272, 276, 280, 285, 288, 288, 299, 300, 316, 317, 318, 319, 325, 326, 331, 346, 370, 371, 407, 411, 412, 416, 437, 488, 511, 547, 572   | Small Cam 5½" Bore          |
| NH, NT855 | FP-3801030               | 018, 026, 121, 172, 200, 258, 271, 312, 356, 357, 544   | Small Cam 5½" Bore          |
| NTC855    | FP-3026972               | 330, 454, 455, 456, 457, 458, 459, 518, 523, 702, 658, 1183, 1197   | Big Cam 5½" Bore            |
| NTC855    | FP-3049024               | 462, 463, 470, 512, 517, 538, 539, 540, 541, 542, 543, 545, 553, 554, 566, 567, 573, 574, 579, 582, 583, 585, 588, 609, 611, 612, 650, 657, 675, 700, 701, 706, 719, 732, 733, 743, 744, 745, 811, 832, 849, 909, 1171, 1180, 1204, 1205, 1252, 1411, 1415, 1416, 1417, 1418  | Big Cam 5½" Bore Flangeless |
| NTC855    | FP-3608786               | 838, 840, 1187, 1352  | Big Cam 5½" Bore            |
| NTC855    | FP-3801426               | 586, 614, 615, 616, 617, 677, 794, 795  | Big Cam MVT                 |
| NTC855    | FP-3801448 <sup>18</sup> | 642, 647, 651, 659, 676, 814  | Hi-Lift Big Cam IV          |
| NTC855    | FP-3801668               | 653, 654, 880, 908, 989, 991, 1167, 1179, 1193, 1314  | Big Cam S.T.C.              |
| NTC855    | FP-3801749               | 806, 821, 833, 903  | Big Cam S.T.C.              |
| NTC855    | FP-3801763               | 199, 214, 218, 222, 233, 254, 266, 267, 294, 298, 306, 307, 308, 309, 310, 315, 322, 323, 324, 327, 328, 329, 332, 338, 339, 344, 345, 349, 353, 354, 360, 362, 363, 364, 365, 369, 373, 374, 375, 376, 394, 395, 396, 397, 402, 414, 431, 432, 433, 435, 449, 450, 460, 461, 471, 481, 482, 483, 485, 491, 492, 499, 500, 506, 516, 529, 530, 536, 551, 552, 581, 606, 749, 769, 796, 797, 812, 891, 963625, 632, 634, 669, 674, 718, 1188, 1211 | Big Cam 5½" Bore Flanged    |
| NTC855    | FP-3803903 <sup>18</sup> | 1188, 1211  | Hi-Lift Big Cam IV          |

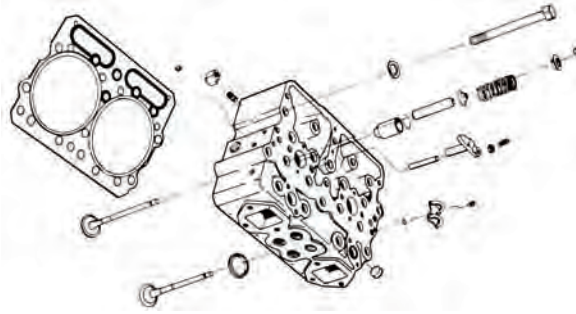
<sup>18</sup>Hi-Lift Cams Must Use Piston # FP-3028706, FP-3028685 or FP-3028686 (Which Have .340" Valve Relief)

**855 Camshaft Components**

| Engine         | Camshaft                | Description             | Comment             |
|----------------|-------------------------|-------------------------|---------------------|
| 855            | FP-9235-1               | Thrust Washer, Camshaft | Small Cam           |
| N855           | FP-215966               | Cam Gear                | Small & Big Cam     |
| N855           | FP-AR1176               | Shim Kit                | Small & Big Cam     |
| NTC855         | FP-215233               | Thrust Washer, Camshaft | Big Cam             |
| NTC855         | FP-3002901              | Cam Gear                | Big Cam II, III, IV |
| NTC855 Big Cam | FP-3008530              | Camshaft Support        | Flangeless Cam      |
| NTC855 Big Cam | FP-708124 <sup>35</sup> | Camshaft Support        | Flanged Cam         |

<sup>35</sup>Discontinued





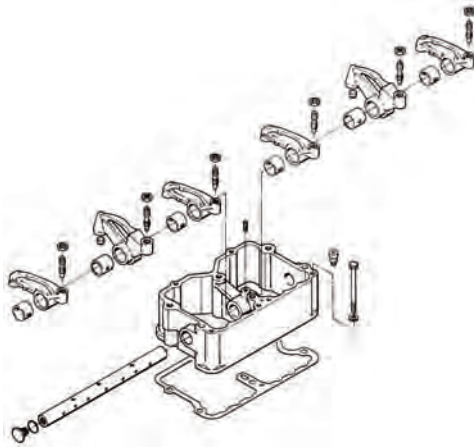
**Cylinder Heads & Components**

| Engine              | Head / Bare | Head W/ Valves | Injector Tube | Inj. Tube Seal | Head Bolt  | Comment     | Comment  |
|---------------------|-------------|----------------|---------------|----------------|------------|-------------|----------|
| NH, NT855 Small Cam | FP-3041992  | FP-3041993     | FP-3070486    | FP-3007759     | FP-209700  | Quantity 36 | 6¼" Long |
| NTC855 Big Cam      | FP-3041992  | FP-3041993     | FP-3070486    | FP-3007759     | FP-3013623 | Quantity 36 | 7¼" Long |

| Engine                  | Intake Valve Kit<br>Valve / Bare | Exhaust Valve<br>Kit Valve / Bare | Locks, Valve | Spring, Valve | Guide, Valve  | Seal, Valve<br>Guide | Insert, Intake<br>Insert, Exhaust                                       |
|-------------------------|----------------------------------|-----------------------------------|--------------|---------------|---|----------------------|---|
| NT855                   | FP-3803512<br>(FP-135957)        | FP-3803524<br>(FP-145701)         | FP-127554    | FP-211999     | FP-3006456 <sup>20</sup> (Std.)<br>FP-3006457 <sup>20</sup> (0.010")<br>FP-3006458 <sup>20</sup> (0.015") | FP-156641            | FP-200354 <sup>21,35</sup><br>FP-3017759 (Std.)<br>FP-30177593 (0.003") |
| 88 B/C IV <sup>20</sup> | FP-3803512<br>(FP-135957)        | FP-3803519<br>(FP-3040830)        | FP-127554    | FP-3081212    |   | FP-156641            | FP-3054590<br>FP-3054600  |

<sup>20</sup>Check Cummins Service Topics 93T2-2 <sup>21</sup>Check Availability <sup>35</sup>Discontinued

| Engine        | Retainer Valve<br>Spring | Seat Valve<br>Spring | Crosshead Intake<br>and Exhaust | Crosshead<br>Guide | Push Rod<br>Intake Valve | Push Rod<br>Exhaust Valve | Push Rod<br>Injector |
|---------------|--------------------------|----------------------|---------------------------------|--------------------|--------------------------|---------------------------|----------------------|
| 855 Small Cam | FP-170296                | FP-3042745           | FP-3030038                      | FP-123558          | FP-3053377               | FP-3046418                | FP-3046431           |
| 855 Big Cam   | FP-170296                | FP-3042745           | FP-3028293                      | FP-123558          | FP-3046420               | FP-3046420                | FP-3046430           |
| NTC855BC IV   | FP-3036966               | FP-3047395           |                                 |                    |                          |                           |                      |



**Rocker Arm Bushings & Components**

| Engine        | Bushing, Valve Rocker Lever | Bushing, Injector Rocker Lever | Adjusting Screw, Rocker Arm Crosshead | Nut, R / A Adjusting Screw Crosshead | Socket, Lever Injector | Shaft, Rocker, Plug                 | Gasket, Rocker Housing | Gasket Valve Cover |
|---------------|-----------------------------|--------------------------------|---------------------------------------|--------------------------------------|------------------------|-------------------------------------|------------------------|--------------------|
| 855 Small Cam | FP-140330                   | FP-218153                      | FP-168306                             | FP-S212                              | FP-194037              | FP-3038904<br>FP-3038903            | FP-3017750             | FP-3054841         |
| 855 Big Cam   | FP-140330                   | FP-218153                      | FP-168306                             | FP-S212                              | FP-194037              | FP-3038904<br>FP-3038903            | FP-3017750             | FP-3054841         |
| 88 Big Cam IV | FP-3058462                  | 3063296 <sup>11</sup>          | FP-168306<br>FP-147389                | FP-S212<br>FP-203131                 | FP-194037              | 3044399 <sup>22</sup><br>FP-3044789 | FP-3049187S            | FP-3058532         |

<sup>11</sup>W/O Crankshaft Seals <sup>22</sup>Not Available From FP Diesel

O-Rings, End Plugs, N743-4V and 855 Rocker Shafts: S/C, B/C I, II- Use FP-3000521, B/C III- Use FP-3058653, B/C IV- Use FP-3058654, 2 Ea. Per Shaft Req

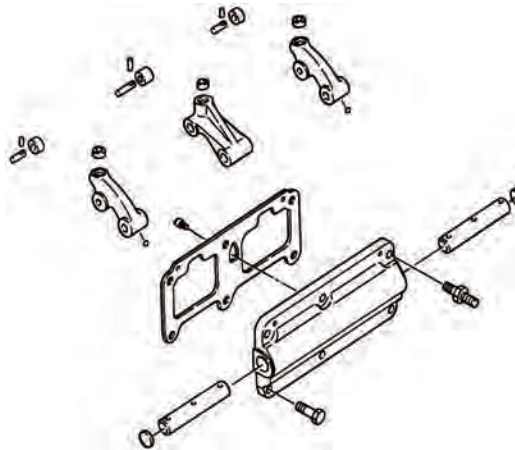
**Miscellaneous 855 Cylinder Head Components**

| Engine | Part Number | Description                  | Comment          |
|--------|-------------|------------------------------|------------------|
| 855    | FP-147100   | Fuel Crossover               | 2 Per Head Req.  |
| 855    | FP-131026   | O-Ring, Fuel Crossover       | 12 Per Head Req. |
| 855    | FP-70772    | Screw, Fuel Crossover        | 12 Per Head Req. |
| 855    | FP-181213   | Fitting                      | 90 Degrees       |
| 855    | FP-213394   | Cup Plug, Expansion (1 Req.) | ¾"               |
| 855    | FP-213395   | Cup Plug, Expansion (6 Req.) | 1"               |
| 855    | FP-216524   | Cup Plug, Expansion (2 Req.) | 1¼"              |
| 855    | FP-3823681  | Insert, Water                | Threaded         |
| 855    | FP-CWB008   | Insert, Brass                |                  |

# NT855



## Cam Follower And Components

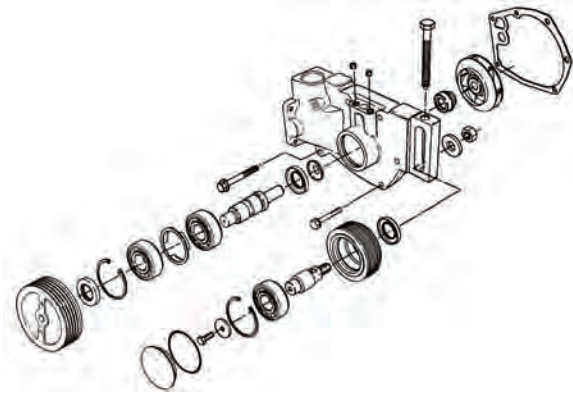


### NH NT855

| Engine                       | Housing, Shaft                         | Lock Pin, Valve | Lock Pin, Injector | Valve Roller | Injector Roller | Pin, Valve Roller | Pin, Injector Roller | Socket, Intake And Exhaust Valve | Pin, Valve Roller |
|------------------------------|--|-----------------|--------------------|--------------|-----------------|-------------------|----------------------|----------------------------------|-------------------|
| 855 Big Cam (Cam Follower)   | FP-3065125<br>FP-3065125<br>FP-3016887 | FP-118939       | FP-118939          | FP-3036933   | FP-3036934      | FP-3013331        | FP-3013330           | FP-118378                        | FP-118377         |
| 855 Small Cam (Cam Follower) | FP-3016887                             | FP-118939       | FP-118939          | FP-9260-1    | FP-3062096      | FP-68513          | FP-3017544           | FP-118378                        | FP-118377         |

### Cam Follower Gaskets

| Engine               | Part Number | Thickness     | Part Number | Thickness     | Part Number | Thickness     | Part Number                            | Thickness                                       |
|----------------------|-------------|---------------|-------------|---------------|-------------|---------------|--|---|
| 855 Small Cam / N927 | FP-9266-A   | 0.006"-0.008" | FP-9266     | 0.014"-0.020" | FP-3011272  | 0.020"-0.024" | FP-120819                              | 0.027"-0.033"                                   |
| 855 Big Cam          | FP-3074401  | 0.006"-0.008" | FP-3074400  | 0.014"-0.020" | FP-3074402  | 0.020"-0.024" | FP-3011273<br>FP-3074403<br>FP-3074404 | 0.037"-0.041"<br>0.018"-0.025"<br>0.026"-0.036" |
| 855 MVT              | FP-3029416  | Mtg Gasket    |             |               |             |               |  |   |



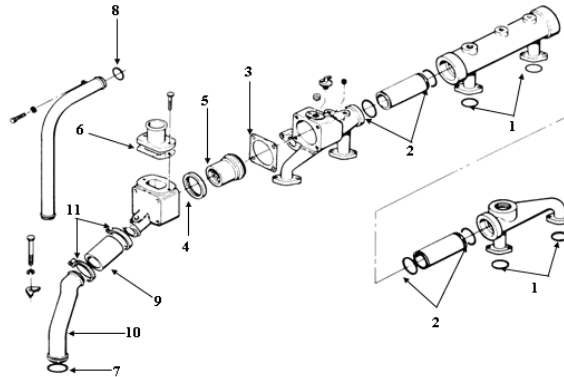
**Water Pump & Components**

| Engine                                     | W / P Assy.<br>Mtg. Gasket             | Repair<br>Kit  | Idler Assy.<br>W / P Pulley                | Shaft<br>Retainer                    | Impeller Seal<br>Assy.   | Bearing, Inner<br>Bearing, Outer | Thermostat<br>And Seal                             |
|--|--|--|--|--------------------------------------|--------------------------|----------------------------------|--|
| 5-1/8 S/S                                  | FP-9097                                |  |  |                                      | FP-3029099               | FP-177596                        | FP-186780  |
| NH855 Small Cam<br>Pancake, Non-FFC        | FP-AR4284<br>FP-130240<br>FP-130226    |  | FP-154966                                  | FP-199410<br>FP-S16255<br>FP-112302  | FP-3020479<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-135675 <sup>26</sup><br>FP-186780               |
| NTC230 Small Cam (Short Suit Case)         | FP-3801713<br>FP-130226                | FP-3801714<br>(250 HP & Below)                       | FP-3064920<br>(2 Ranuras)                  | FP-3050394<br>FP-S16255              | FP-3010646<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-204586<br>FP-186780                             |
| NTC855 Big Cam (Short Suit Case)           | FP-3801711<br>FP-130226                | FP-3801714<br>(250 HP & Below)                       | FP-3064919<br>(Multi-Groove)               | FP-3050394<br>FP-S16255              | FP-3010646<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-204586<br>FP-186780                             |
| NT855 Small Cam<br>FFC                     | FP-3801715<br>FP-3002385               | FP-3801716<br>(Above 250 HP)                         | FP-3064920<br>FP-3007075<br>(2 Ranuras)    | FP-3050394<br>FP-S16255<br>FP-112302 | FP-3007637<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-135675 <sup>26</sup><br>FP-201737 <sup>27</sup> |
| NTC855 Big Cam I, II                       | FP-3801788<br>FP-3002385               | FP-3801712   | FP-3064919<br>FP-3025935<br>(Multi-Groove) | FP-3050394<br>FP-S16255<br>FP-112302 | FP-3000888<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-204586<br>FP-186780                             |
| NTC855 BC I, II, III<br>& Early Big Cam IV | FP-3801708 <sup>26</sup><br>FP-3002385 | FP-3801712   | FP-3064919<br>FP-3025935<br>(Poly-Vee)     | FP-3050394<br>FP-S16255<br>FP-112302 | FP-3000888<br>FP-3029099 | FP-3063246<br>FP-3063246         | FP-201737 <sup>27</sup><br>FP-186780               |
| NTC855 88 BC IV                            | FP-3803138<br>FP-3002385               | FP-3803345 <sup>24</sup><br>FP-3803139 <sup>25</sup> |  |                                      |                          | FP-3063246<br>FP-3063246         | FP-3052877   |
| NH,NT 855                                  |  | FP-3803202 (4.5"<br>Impeller)                        |  |                                      | FP-3000888               | FP-3063246                       |  |
| NH,NT 855                                  |  | FP-3803203 (5"<br>Impeller)                          |  |                                      | FP-3007637               | FP-3063246                       |  |
| NH,NT855 BC/SC                             |  | FP-3801709<br>(Carbon Seal<br>W/O Impeller)          |  |                                      | FP-3029099               | FP-3063246                       |  |

<sup>26</sup>Vented <sup>27</sup>Non Vented

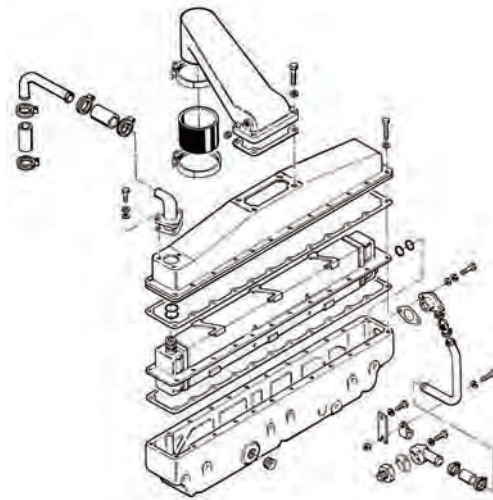
**855 Water Pump Impellers**

| Impeller Part Number                  | Comment        | Impeller Part Number | Comment     | 855 Water Pump Belts |
|---------------------------------------|----------------|----------------------|-------------|----------------------|
| FP-3010646 Short Suit Case            | 4.00" Diameter | FP-3602788           | Cast Iron   | 4.60" Diameter       |
| FP-3000888 BC I, II, III, Early BC IV | 4.50" Diameter | FP-201766            | NH743       | 4.75" Diameter       |
| FP-3020479 Pancake Pump               | 4.75" Diameter | FP-208134            | 855 Komatsu | 5.25" Diameter       |
| FP-3007637 Small Cam FFC              | 5.00" Diameter |                      |             |                      |



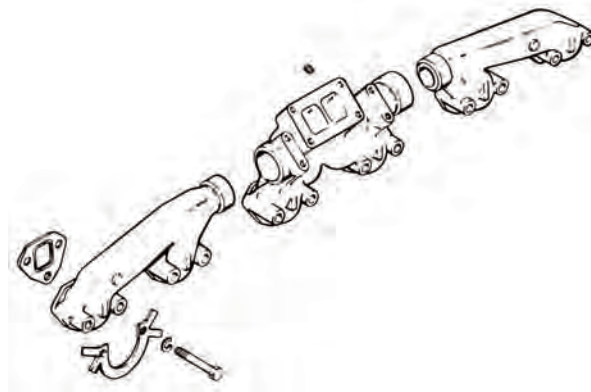
**Thermostat, Water Manifold Components**

| Engine | Part Number | Description                                       | Comment                   |
|--------|-------------|---|---------------------------|
|        | FP-3064455  | Thermostat (175°F)                                | Big Cam IV-LFC Engs. Only |
|        | FP-3064454  | Thermostat (175°F)                                | NTC 444, 855NT-FFC        |
|        | FP-3064453  | Thermostat (175°F)                                | Big Cam IV-LFC Engs. Only |
|        | FP-3062069  | Seal Ring, Thermostat (For 3049000, 3061649 only) | 88NT                      |
|        | FP-3049000  | Thermostat (By Pass)                              | 88NT                      |
| 00     | FP-3063618  | O-Ring, Multiple Water Restrictor in Big Cam IV   | Quantity 6                |
| 00     | FP-3050667  | O-Ring, Transfer Multiple Big Cam IV              | Quantity 6                |
| 00     | FP-215041   | Tube, Connector                                   |                           |
| 00     | FP-179901   | Gate Valve, 3/8" Pipe-3/8" Heater Hose            |                           |
| 00     | FP-157098   | Gate Valve, 3/8" Pipe-5/8" Heater Hose            |                           |
| 00     | FP-130394   | Tube, Transfer                                    |                           |
| 1      | FP-3024709  | Seal Ring, Water Manifold                         | Quantity 6                |
| 10     | FP-213485   | Pipe, Water By-Pass                               | Quantity 1                |
| 11     | FP-43828B   | Clamp, Hose Type Water By-Pass                    | Quantity 2                |
| 2      | FP-70624    | O-Ring, Ends of Tube Type 'Coupling'              | Quantity 4                |
| 3      | FP-208128   | Gasket, Thermostat Housing                        |                           |
| 4      | FP-186780   | Seal, Thermostat Housing                          |                           |
| 5      | FP-3076489  | Thermostat (180°F)                                | No Sale                   |
| 5      | FP-204586   | Thermostat (175°F)                                |                           |
| 5      | FP-146076   | Thermostat (160°F)                                |                           |
| 5      | FP-135675   | Thermostat (180°F)                                | Vented                    |
| 6      | FP-3019158  | Gasket, Water Outlet                              |                           |
| 7      | FP-43643A   | O-Ring, Towards The Front Of The Tube Of By-Pass  | Quantity 1                |
| 8      | FP-212161   | O-Ring, Water Transfer Tube                       | Quantity 2                |
| 9      | FP-102522   | Hose, Water By-Pass                               | Quantity 1                |



**Aftercooler Components**

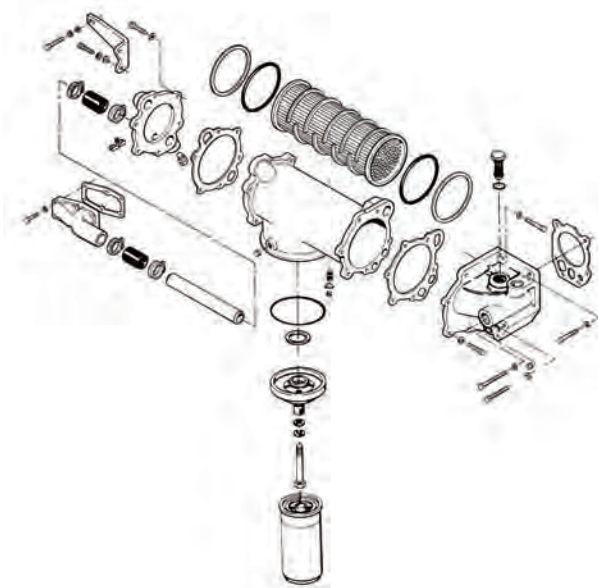
| Engine     | Part Number      | Description                              | Comment                        |
|------------|------------------|--|--------------------------------|
| 855        | FP-3069098       | Gasket, For The Base Of The Water Outlet |                                |
| 855        | FP-3012972       | Gasket, Connector Type Cooler            |                                |
| 855        | FP-214836        | Element, Aftercooler                     | Simple Flow for Small Cam      |
| KT19-KTA19 | FP-3032161       | Gasket, Connection Cooler Lid            | Quantity 1                     |
| KT19-KTA19 | FP-3023066       | O-Ring, Transfer Tube                    | Quantity 2                     |
| KT19-KTA19 | FP-3014304       | Sleeve, Rubber                           | Quantity 24                    |
| KT19-KTA19 | FP-3002158       | Plug, Air Connector 1/8"                 | Quantity 1                     |
| KT19-KTA19 | FP-3001305       | Gasket, Cooler Lid Side                  | Quantity 2                     |
| KT19-KTA19 | FP-3001304       | Gasket, To Cover Cooler                  | Quantity 2                     |
| KT19-KTA19 | FP-206808        | Seal                                     | Quantity 24                    |
| KT19-KTA19 | FP-109557        | Lockwasher, 1/4" Flat                    | Quantity 4                     |
| NTC855     | FP-3411460       | Element, Aftercooler                     | 3 Holes, Big Cam               |
| 855        | <b>FP-PGC205</b> | <b>Gasket Kit</b>                        | Only Applies To The FP-214836  |
|            | FP-216486        | Gasket, Cooler (Sup. E Inf.)             | Quantity 2                     |
|            | FP-195952        | Seal, Aftercooler Core                   | Quantity 4                     |
|            | FP-3032348       | Gasket, Side Water Inlet                 |                                |
|            | FP-215044        | Gasket, For The Base Of The Water Outlet |                                |
|            | FP-195950        | Gasket, Cooler                           |                                |
|            | FP-216487        | Gasket, Top of Cooler Base               |                                |
|            | FP-109080        | O-Ring                                   |                                |
|            | FP-215045        | Gasket, For The Base Of The Water Outlet | Quantity 3                     |
|            | FP-3008591       | Gasket, Air Inlet                        |                                |
| NTC855     | <b>FP-PGC206</b> | <b>Gasket Kit</b>                        | Only Applies To The FP-3411460 |
|            | FP-109080        | O-Ring                                   |                                |
|            | FP-195952        | O-Ring                                   | Quantity 4                     |
|            | FP-215044        | Gasket, For The Base Of The Water Outlet |                                |
|            | FP-216486        | Gasket, Cooler (Sup. E Inf.)             |                                |
|            | FP-216487        | Gasket, Top of Cooler Base               |                                |
|            | FP-217037        | O-Ring                                   |                                |
|            | FP-3008591       | Gasket, Air Inlet                        | Quantity 3                     |
|            | FP-3032348       | Gasket, Side Water Inlet                 |                                |



## Exhaust Manifold

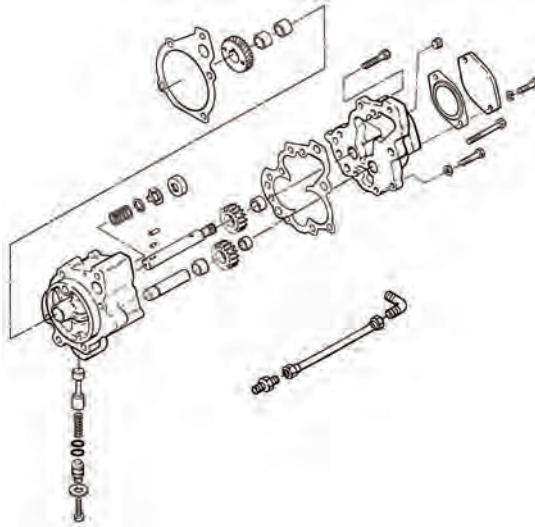
| Engine    | Part Number       | Description                       | Comment                         |
|-----------|-------------------|-----------------------------------|---------------------------------|
| 4BT3.9    | FP-3905443        | Gasket, Exhaust Manifold          | Quantity 4                      |
| 6BT5.9    | FP-3905443        | Gasket, Exhaust Manifold          | Quantity 6                      |
| 6CT8.3    | FP-3932063        | Gasket, Exhaust Manifold          | Quantity 6                      |
| KT19      | FP-3043097        | Gasket, Exhaust Manifold          | Quantity 6                      |
| KT38      | FP-3037821        | Gasket, Exhaust Manifold          | Quantity 12                     |
| KT50      | FP-3037821        | Gasket, Exhaust Manifold          | Quantity 16                     |
| L10/M11   | FP-3328948        | Gasket, Exhaust Manifold          | Quantity 6                      |
| N14       | FP-3020943        | Gasket, Exhaust Manifold          | Quantity 6                      |
| N743      | FP-3020943        | Gasket, Exhaust Manifold          | Quantity 6 (4 Overhead Valve)   |
| N743      | FP-147263         | Gasket, Exhaust Manifold          | Quantity 3 (2 Overhead Valve)   |
| N927      | FP-3020943        | Gasket, Exhaust Manifold          | Quantity 6                      |
| NH, NT855 | FP-3020943        | Gasket, Exhaust Manifold          | Quantity 6                      |
| NH, NT855 | FP-116982         | Lock Plate                        | Log Type Manifold               |
| NH, NT856 | FP-200566         | Manifold, Center                  | Log Type Manifold               |
| NT855     | FP-3801915MK      | Exhaust Manifold Mounting Kit     |                                 |
| V, VT1710 | FP-3045941        | Gasket, Exhaust Manifold          | Quantity 12                     |
| V, VT903  | FP-3028665        | Gasket, Exhaust Manifold          | Quantity 6                      |
| V378      | FP-556356         | Gasket, Exhaust Manifold          | Quantity 2                      |
| V504      | FP-556355         | Gasket, Exhaust Manifold          | Quantity 2                      |
| V555      | FP-556355         | Gasket, Exhaust Manifold          | Quantity 2                      |
| NTC855    | <b>FP-3800231</b> | <b>Sub Kit, Exhaust Manifold</b>  |                                 |
|           | FP-3043647        | Screw, Multiple-Type Pulsating    | Quantity 12 in: 7/16"-14x3 3/4" |
|           | FP-3020943        | Gasket, Exhaust Manifold          | Quantity 6                      |
|           | FP-3010915        | Stud, Turbo Mounting              | Quantity 4: 3/8" NF x 1 7/8"    |
|           | FP-219138         | Nut, Turbo Mounting               | Quantity 4                      |
|           | FP-3027653        | Seal Kit With Spiral Washer       | Quantity 2                      |
|           | FP-202994         | Hose, Turbo                       | Quantity 1                      |
|           | FP-3069177        | Gasket, Turbo Mounting            | Quantity 1                      |
|           | FP-216487         | Gasket, For The Air Base Junction | Quantity 1                      |
| NT855     | <b>FP-3801915</b> | <b>Kit, Pulse Manifold</b>        | Includes Mounting Hardware      |
|           | FP-3052859        | Manifold, Center                  |                                 |
|           | FP-3053138        | Manifold, Front                   |                                 |
|           | FP-3053137        | Manifold, Rear                    |                                 |

## Oil Coolers & Components



| Engine                         | Oil Cooler | Mounting Gasket                        | Seal           | Retainers      | Gasket Set                     | Comment                          |
|--------------------------------|------------|--|----------------|----------------|--------------------------------|----------------------------------|
| NH855                          | FP-110848  | FP-68210<br>FP-3008017                 | FP-3019116 (2) | FP-110827      |                                | 6 1/2" Non FFC                   |
| NT855<br>Big Cam I, II and III | FP-142608  | FP-146309<br>FP-203922                 | FP-3007713 (2) | FP-3006745 (2) | PGC200                         | 16" Core                         |
| NTC855<br>Small and Big Cam    | FP-3021581 | FP-218245<br>FP-3008017                | FP-3007713 (2) | FP-3006745 (2) | FP-3801198<br>PGC202<br>PGC204 | 13" Core<br>Low Mount Oil Cooler |
| NTC855<br>Big Cam III and IV   | FP-3412285 | FP-3047464<br>FP-3047465<br>FP-3069014 | FP-3018695     |                | FP-3801199                     |                                  |





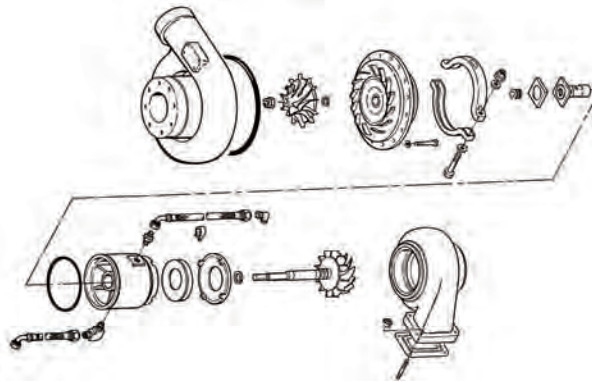
**Oil Pumps & Components**

| Engine              | Part Number | Description                | Comment                    |
|---------------------|-------------|----------------------------|----------------------------|
|                     | FP-551079   | Spring, Pressure Regulator |                            |
|                     | FP-3201388  | Gasket, Tube To Pump       |                            |
|                     | FP-3201388  | Gasket, Tube To Pump       |                            |
|                     | FP-3201388  | Gasket, Tube To Pump       |                            |
|                     | FP-3004242  | Gasket, Cover Pump         |                            |
|                     | FP-183014   | Spring, Pressure Regulator |                            |
|                     | FP-183014   | Spring, Pressure Regulator |                            |
|                     | FP-183014   | Valve, Pressure Regulator  |                            |
|                     | FP-157551   | Gasket, Tube To Pump       |                            |
| Big Cam I           | FP-109333   | Valve, Pressure Regulator  |                            |
| Big Cam II, III, IV | FP-3067613  | Gasket, Pump To Block      | Cooling                    |
| NH, NT855           | FP-AR10172  | Pump, Oil (New)            | NTC270-NTC400              |
| NTC855              | FP-3821572  | Pump, Oil (New)            | Continuous Flow            |
| Small Cam           | FP-3067613  | Spring, Pressure Regulator |                            |
| Todos               | FP-216484   | Dipstick Oil Level         | 90" Length, Universal Type |
| Todos               | FP-154916   | Gasket, Steering Pump      |                            |
| Todos               | FP-101322   | Cap, Oil Fill, 2"          |                            |
| V                   | FP-AR60801  | Pump, Oil (New)            | V6                         |
| VT504               | FP-3275912  | Pump, Oil (New)            | V8 Turbo Charged           |

**855 Nozzle, Piston Cooling**

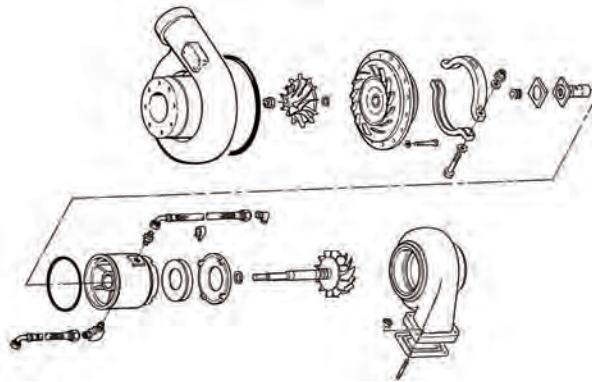
| Engine    | Part Number | Description           | Comment    |
|-----------|-------------|-----------------------|------------|
| NH, NT855 | FP-3013591  | Piston Cooling Nozzle | Quantity 6 |

Turbocharger Components



| Part Number | Description                           | Turbocharger Model | Comment                 |
|-------------|---------------------------------------|--------------------|-------------------------|
| FP-206576   | Gasket, Turbocharger Mounting         |                    | K-Series                |
| FP-217736   | Diffuser                              |                    |                         |
| FP-3014354  | Adapter                               |                    |                         |
| FP-3069177  | Gasket, Turbocharger Mounting         |                    | 4 Holes (190849)        |
| FP-3202117  | Gasket, Turbocharger Drain            |                    | K-Series                |
| FP-3901356  | Gasket, Turbocharger Mounting         |                    | B-Series                |
| FP-3911941  | Gasket, Turbocharger Mounting         |                    | C-Series                |
| FP-206576   | Gasket, Turbocharger Mounting         | HC-3               |                         |
| FP-3751948  | O-Ring, Turbo Charger Shaft           | HC-3               |                         |
| FP-70502    | Ring, Type Safe For Turbo Bushings    | HC-3               | Has 4 Parts             |
| FP-3521441  | Seal, Split Ring                      | HT3B               |                         |
| FP-3521442  | Seal, Split Ring                      | HT3B               |                         |
| FP-3801522  | Kit, Seal                             | HT3B               |                         |
| FP-3801523  | Kit, Seal & Bearing                   | HT3B               |                         |
| FP-3709510  | Ring, Retaining                       | HT3B, HC-3         |                         |
| FP-201048   | Gasket, To Return Basis Lubrication   | HT3B, HT4B         |                         |
| FP-201049   | Gasket, For Lubrication Input Base    | HT3B, HT4B         |                         |
| FP-3010915  | Stud, Turbo Mounting                  | HT3B, HT4B         | Has 4 Parts             |
| FP-156420   | Bushings, Turbo Shaft Type for "Dual" | ST50, VT50         |                         |
| FP-156444   | Seal, Coupling W/Propellant Plate     | ST50, VT50         |                         |
| FP-167299   | Nut, Clamp                            | ST50, VT50         | Has 2 Parts; 1/4"       |
| FP-171570   | Cover, Seal Central Body to esc.      | ST50, VT50         |                         |
| FP-186917   | Clamp, Turbo To Exit                  | ST50, VT50         |                         |
| FP-202457   | O-Ring, Central Body                  | ST50, VT50         |                         |
| FP-211375   | O-Ring, Central Body                  | ST50, VT50         |                         |
| FP-3034736  | Seal, Ring Type                       | ST50, VT50         | Previous FP-195840      |
| FP-3038745  | Body, Central Base Bushings           | ST50, VT50         | Previous FP-202376      |
| FP-S222A    | Locknut                               | ST50, VT50         | Quantity 2              |
| FP-S631     | Washer, Clamp                         | ST50, VT50         | Has 4 Parts; 1/4"       |
| FP-100918   | Gasket, Compressor Housing            | ST-50, VT-50       | NT855, NTC855 (8 Holes) |
| FP-3000560  | Connector, For Oil Output             | ST-50, VT-50       | 45°                     |
| FP-202853   | O-Ring, Retention For Turbo           | T-18A              |                         |

Turbocharger Components (Cont'd)

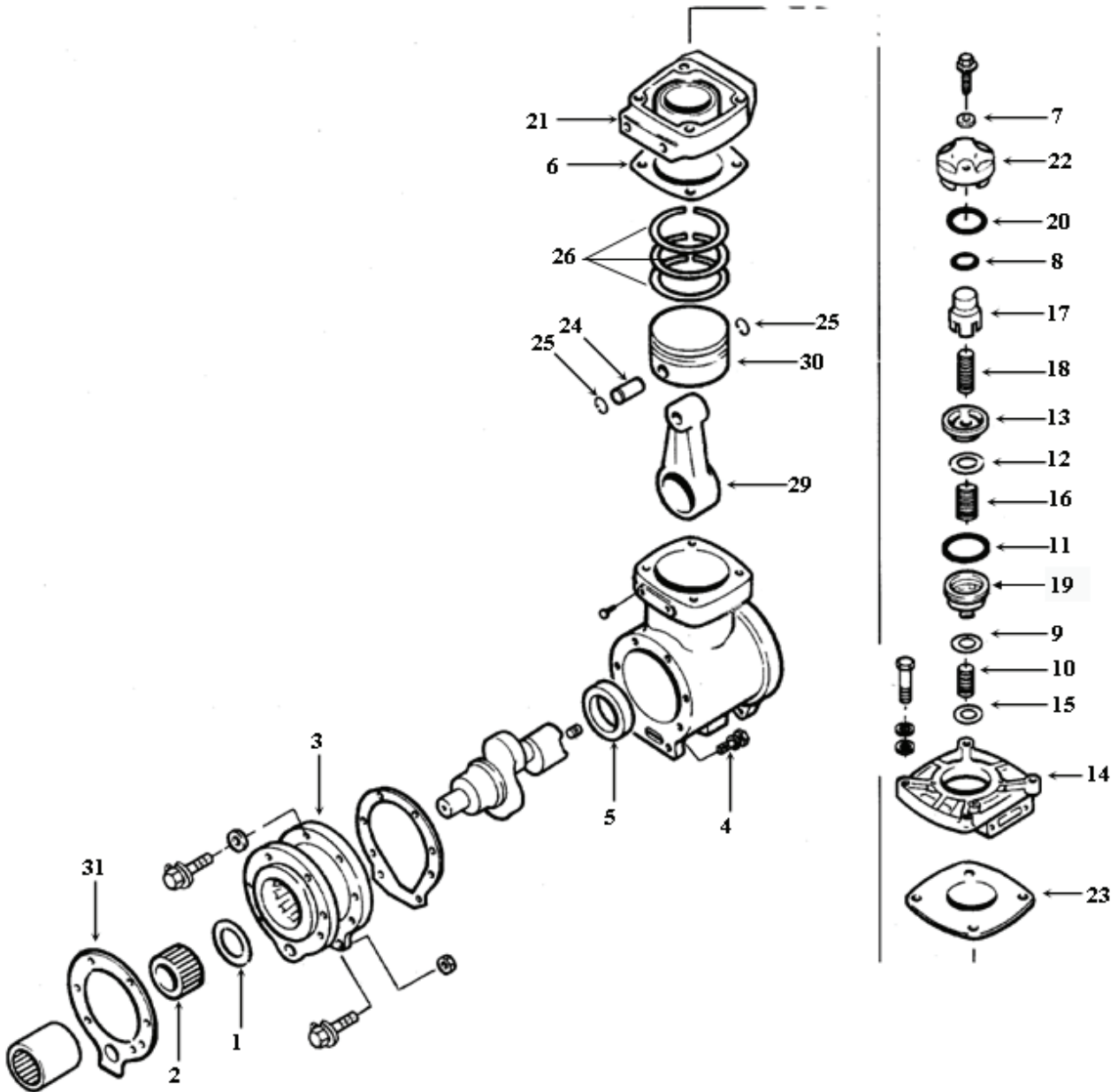


| Part Number     | Description                              | Turbocharger Model   | Comment                             |
|-----------------|--|----------------------|-------------------------------------|
| FP-202859       | O-Ring, Central Body                     | T-18A                |                                     |
| FP-202860       | O-Ring, Base Turbo                       | T-18A                |                                     |
| FP-202868       | Clamp, Turbo To Exit                     | T-18A                |                                     |
| FP-207431       | Ring, For Turbo                          | T-18A                |                                     |
| FP-3032634      | Kit, Turbo Installation                  | T-18A                |                                     |
| FP-114753       | Gasket, Turbocharger Mounting            | T-35                 | 6 Holes                             |
| FP-3034736      | Seal, Ring Type                          | T-46                 | VTA28                               |
| FP-3801096      | Kit, Seal & Bearing                      | T50, ST50, VT50, T46 |                                     |
| FP-3801101      | Kit, Seal, Bearing & Sleeve              | T50, ST50, VT50, T46 |                                     |
| FP-3803042      | Kit, Major Repair                        | T50, ST50, VT50, T46 | Includes Seals, Bushings And Sleeve |
| FP-209955       | Hose, Turbocharger Feed                  | Todos                | 22" Long                            |
| FP-209956       | Hose, Turbocharger Feed                  | Todos                | 28" Long                            |
| FP-209957       | Hose, Turbocharger Feed                  | Todos                | 29" Long                            |
| FP-209958       | Hose, Turbocharger Feed                  | Todos                | 34" Long                            |
| FP-209959       | Hose, Turbocharger Feed                  | Todos                | 36" Long                            |
| FP-209960       | Hose, Turbocharger Feed                  | Todos                | 37" Long                            |
| FP-209961       | Hose, Turbocharger Feed                  | Todos                | 39" Long                            |
| FP-209962       | Hose, Turbocharger Feed                  | Todos                | 50" Long                            |
| FP-209963       | Hose, Turbocharger Feed                  | Todos                | 54" Long                            |
| FP-209964       | Hose, Turbocharger Feed                  | Todos                | 58" Long                            |
| FP-213806       | Shaft & Wheel Turbine (Impelente Escape) | VT50                 | NT335, NTC350, VT903                |
| FP-216794       | Wheel, Compressor                        | VT-50                |                                     |
| FP-AR7051       | Kit, Major Repair                        | VT-50                | With Hub to Casing                  |
| FP-216802       | Sleeve, Shaft And Turbine Wheel          | VT-50, T-46          |                                     |
| FP-216804       | Support, Turbo Seal                      | VT-50, T-46          |                                     |
| <b>FP-90012</b> | <b>Kit, Turbo Installation</b>           |                      |                                     |
| FP-202994       | Hose, Turbo                              |                      |                                     |
| FP-208326       | Clamp, Hose Turbo                        |                      | Has 2 Parts                         |
| FP-219138       | Nut, Hex                                 |                      | Has 4 Parts                         |
| FP-3069177      | Gasket, Turbocharger Mounting            |                      |                                     |

# NT855



## Air Compressor (13.2 CFM)



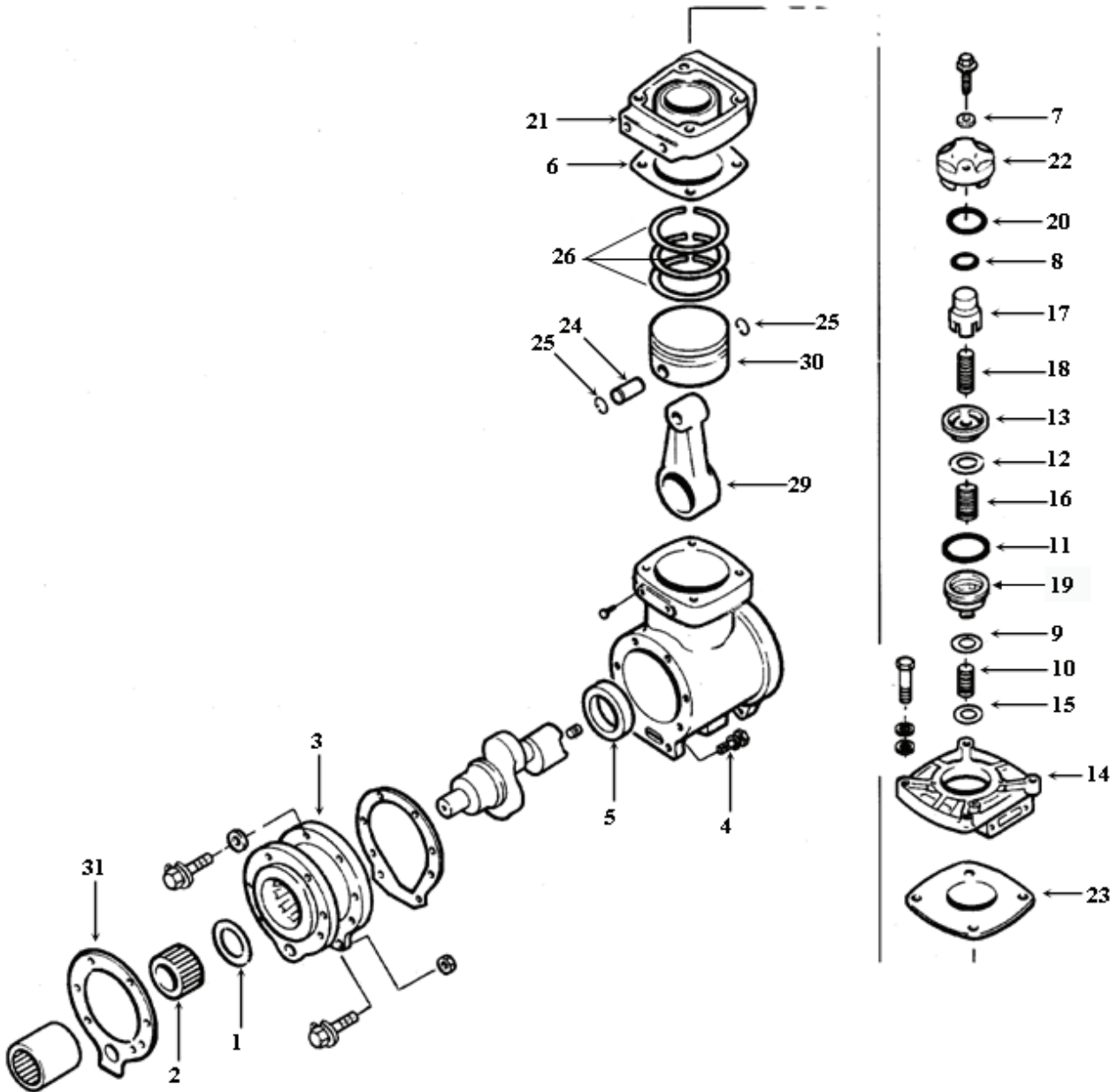
**Air Compressor (13.2 CFM)**

| Ref | Part Number       | Description  | Qty |
|-----|-------------------|--|-----|
| 00  | FP-3018153        | Bushing, Connecting Rod  | 1   |
| 00  | FP-3038060        | Tube, Copper (Water Inlet Compressor)                                  | 1   |
| 01  | FP-211662         | Washer, Bearing Thrust   | 1   |
| 02  | FP-3000174        | Hub, Spline Coupling   | 1   |
| 04  | FP-3012472        | Screw, With Washer 3/8" - 16 x 1 1/2"                                  | 2   |
| 05  | FP-147610         | Bushing  | 1   |
| 06  | FP-154018         | Gasket, Air Compressor   | 1   |
| 07  | FP-109557         | Washer, Flat Base Valve for Compressor Head                            | 2   |
| 08  | FP-127936         | Seal, Rectangular Ring   | 1   |
| 09  | FP-127940         | Exhaust Valve  | 1   |
| 10  | FP-128080         | Spring, Compression  | 1   |
| 11  | FP-128086         | Seal, O-Ring Valve Seat Compressor Head                                | 1   |
| 12  | FP-144948         | Valve, Intake  | 1   |
| 13  | FP-145028         | Seat, Compression Intake Valve   | 1   |
| 14  | FP-153964         | Cover, Air Compressor  | 1   |
| 15  | FP-183429         | Plate, Compression Spring  | 1   |
| 16  | FP-190334         | Spring, Valve  | 1   |
| 17  | FP-191037         | Cap, Unloader  | 1   |
| 18  | FP-3023101        | Spring, Compression  | 1   |
| 20  | FP-3043995        | Seal, O-Ring Compression Spring  | 1   |
| 21  | FP-3558762        | Head, Compressor   | 1   |
| 22  | FP-3046298        | Body, Central Compressor Valve in Head                                 | 1   |
| 23  | FP-3047159        | Gasket, Air Compressor   | 1   |
| 29  | FP-3018151        | Rod, Compressor Connecting   | 1   |
| 31  | FP-3820922        | Gasket, To Support Air Compressor Motor                                | 1   |
| 00  | <b>FP-3803930</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>   | 1   |
| 30  | FP-3045670        | Piston (std.)  | 1   |
| 00  | FP-AR73350        | Ring Set (Std.)  | 1   |
| 24  | FP-119810         | Bolt, Piston   | 1   |
| 25  | FP-3558754        | Ring, Piston Pin   | 2   |
| 00  | <b>FP-3803931</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (0.010")</b> | 1   |
| 30  | FP-3045671        | Piston (0.010".)   | 1   |
| 00  | FP-AR73351        | Ring Set (0.010")  | 1   |
| 24  | FP-119810         | Bolt, Piston   | 1   |
| 25  | FP-3558754        | Ring, Piston Pin   | 2   |
| 00  | <b>FP-3803932</b> | <b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (0.020")</b> | 1   |
| 30  | FP-3045672        | Piston (0.020".)   | 1   |
| 00  | FP-AR73352        | Ring Set (0.020")  | 1   |
| 24  | FP-119810         | Bolt, Piston   | 1   |
| 25  | FP-3558754        | Ring, Piston Pin   | 2   |
| 00  | FP-AR73353        | Ring Set (0.030")  | 1   |
| 24  | FP-119810         | Bolt, Piston   | 1   |
| 25  | FP-3558754        | Ring, Piston Pin   | 2   |

# NT855



## Air Compressor (13.2 CFM)



# NT855 Repair Kits



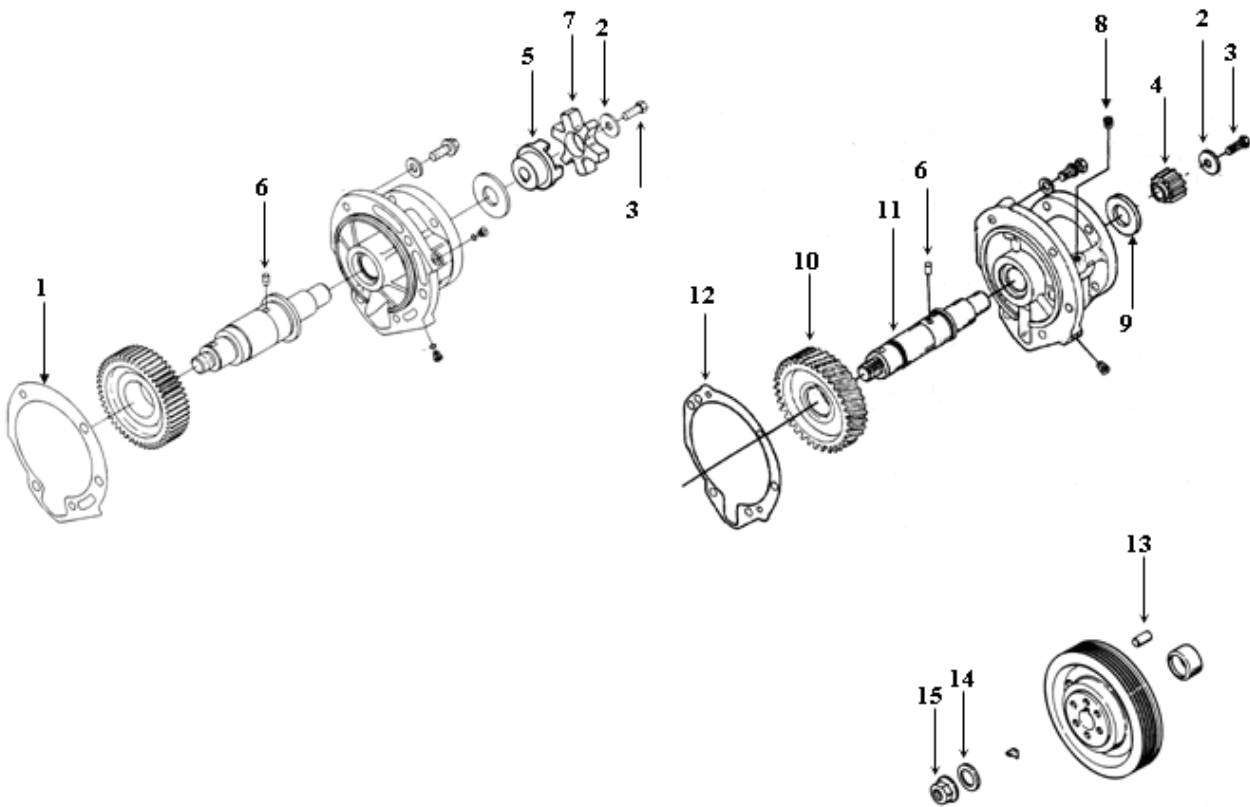
## Air Compressor (13.2 CFM)

| Ref | Part Number       | Description                                 | Qty |
|-----|-------------------|---|-----|
| 00  | <b>FP-3801728</b> | <b>Kit, Compressor Head Repair (Major)</b>  | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                           | 1   |
| 13  | FP-145028         | Seat, Compressor Intake Valve               | 1   |
| 17  | FP-191037         | Cap, Spring Compression (13.2 CFM)          | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve              | 1   |
| 22  | FP-3046298        | Body, Central Compressor Valve in Head      | 1   |
| 00  | <b>FP-3801733</b> | <b>Kit, Compressor Head Repair (Major)</b>  | 1   |
| 00  | FP-AR12719        | Kit, Valve Repair                           | 1   |
| 13  | FP-145028         | Seat, Compressor Intake Valve               | 1   |
| 17  | FP-191037         | Cap, Unloader (13.2 CFM)                    | 1   |
| 19  | FP-144714         | Seat, Compressor Exhaust Valve              | 1   |
| 00  | <b>FP-AR12719</b> | <b>Kit, Valve Repair</b>                    | 1   |
| 07  | FP-109557         | Washer, Flat Base Valve for Compressor Head | 1   |
| 08  | FP-127936         | Seal, Rectangular Head Valve Compressor     | 1   |
| 09  | FP-127940         | Exhaust Valve                               | 1   |
| 10  | FP-128080         | Spring, Compression                         | 1   |
| 11  | FP-128086         | Seal, O-Ring Valve Seat Compressor Head     | 1   |
| 12  | FP-144948         | Valve, Admission                            | 1   |
| 15  | FP-183429         | Plate, Spring Compression                   | 1   |
| 16  | FP-190334         | Spring, Valve                               | 1   |
| 18  | FP-3023101        | Spring, Compression                         | 1   |
| 20  | FP-3043995        | Seal, O-Ring Cover Compression Spring       | 1   |
| 00  | FP-128085         | Seal, O-Ring Compressor Head                | 1   |
| 00  | <b>FP-AR73308</b> | <b>Gasket Kit, Compressor 13.2 CFM</b>      | 1   |
| 08  | FP-127936         | Seal, Rectangular Head Valve Compressor     | 1   |
| 00  | FP-128085         | O-Ring, Compressor Head                     | 1   |
| 11  | FP-128086         | Seal, O-Ring Valve Seat Compressor Head     | 1   |
| 06  | FP-154018         | Gasket, Air Compressor                      | 1   |
| 00  | FP-176027         | Gasket, To Base a Compressor Body           | 1   |
| 20  | FP-3043995        | Seal, O-Ring Cover Compression Spring       | 1   |
| 23  | FP-3047159        | Gasket, Air Compressor                      | 1   |
| 00  | FP-3201386        | Gasket, For Base Oil Return Tube            | 1   |

# NT855



## Accessory Drive





**Accessory Drive**

| Ref | Part Number       | Description                                      | Qty |
|-----|-------------------|--|-----|
| 00  | FP-3005133        | Drive, Accessory                                 | 1   |
| 00  | FP-4026171        | Gasket, Drive To Fuel Pump                       | 1   |
| 05  | FP-3000175        | Coupling, Clamp Type Compressor                  | 1   |
| 07  | FP-162426         | Spider, Jaw Coupling (Black)                     | 1   |
| 07  | FP-3046200        | Spider, Jaw Coupling (Green)                     | 1   |
| 08  | FP-S911B          | Plug, Pipe                                       | 1   |
| 10  | FP-142689         | Gear, Accessory Drive                            | 1   |
| 13  | FP-70550          | Bolt, PTO Pulley                                 | 1   |
| 14  | FP-193136         | Washer, Flat for PTO Pulley                      | 1   |
| 15  | FP-3012526        | Nut, Hexagon Flange (7/18" 14 UNF)               | 1   |
| 00  | <b>FP-3006483</b> | <b>Kit, Accessory Drive Shaft</b>                | 1   |
| 02  | FP-170664         | Washer, Flat for Coupling                        | 1   |
| 11  | FP-3000171        | Shaft, Accessory Drive                           | 1   |
| 03  | FP-3000173        | Screw, Hexagon Head Cap                          | 1   |
| 04  | FP-3000174        | Hub, Splin Coupling                              | 1   |
| 00  | FP-3008947        | Wedge to PTO pulley                              | 1   |
| 06  | FP-3034438        | Bolt, PTO Shaft                                  | 1   |
| 00  | <b>FP-90004</b>   | <b>Repair Kit, Accessory Drive</b>               | 1   |
| 00  | FP-116391         | Bushing, Drive Support                           | 1   |
| 00  | FP-132770         | Bushing, Gear Cover                              | 1   |
| 00  | FP-190397         | Sleeve, Pulley                                   | 1   |
| 00  | FP-3004316        | Seal, Front Cover                                | 1   |
| 00  | FP-3008947        | Seal, Accessory Drive Shaft                      | 1   |
| 00  | FP-3014103        | Washer, Flat to the Coupling of the PTO, 1 1/32" | 1   |
| 00  | FP-3026556        | Thrust Washer, Accessory Drive                   | 1   |
| 00  | FP-3026557        | Thrust Washer, Accessory Drive                   | 1   |
| 12  | FP-3069101        | Gasket, Accessory Drive Support                  | 1   |
| 00  | FP-3069102        | Gasket, Compressor To Accessory Drive            | 1   |

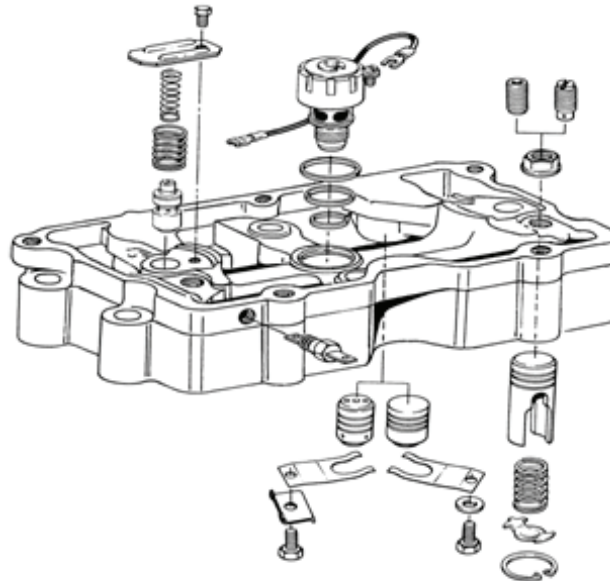
**Fan Belts**

| Ref | Part Number | Description                    | Qty |
|-----|-------------|--------------------------------|-----|
| 00  | FP-3034946  | Belt, Ribbed (8) 62.5 X 1.125W | 1   |
| 00  | FP-3911557  | Belt, Ribbed (8) 56.0 X 1.125W | 1   |
| 00  | FP-3911558  | Belt, Ribbed (8) 59.0 X 1.125W | 1   |
| 00  | FP-3911559  | Belt, Ribbed (8) 62.0 X 1.125W | 1   |
| 00  | FP-3911563  | Belt, Ribbed (8) 60.5 X 1.125W | 1   |
| 00  | FP-3911564  | Belt, Ribbed (8) 64.5 X 1.125W | 1   |
| 00  | FP-3911565  | Belt, Ribbed (8) 58.0 X 1.125W | 1   |
| 00  | FP-3911566  | Belt, Ribbed (8) 63.0 X 1.125W | 1   |
| 00  | FP-3911568  | Belt, Ribbed (8) 57.0 X 1.125W | 1   |
| 00  | FP-3911572  | Belt, Ribbed (8) 61.5 X 1.125W | 1   |
| 00  | FP-3911575  | Belt, Ribbed (8) 63.0 X 1.125W | 1   |
| 00  | FP-3911582  | Belt, Ribbed (8) 70.0 X 1.125W | 1   |
| 00  | FP-3911587  | Belt, Ribbed (8) 53.5 X 1.125W | 1   |
| 00  | FP-3911588  | Belt, Ribbed (8) 56.0 X 1.125W | 1   |

**Fan Hub Components**

| Ref | Part Number | Description   | Qty |
|-----|-------------|---|-----|
| 00  | FP-106276   | Oil Seal (None FFC Fan Hub)                               | 1   |
| 00  | FP-200307   | Oil Seal (FFC Fan Hub)                                    | 1   |
| 00  | FP-217638   | Belt, Poly-Vee (Qty 1)                                    | 1   |
| 00  | FP-3005592  | Gasket, Type Of Fan Pulley Spacer (Applies To All Models) | 1   |
| 00  | FP-3058383  | Belt, Water Pump (Qty 2)                                  | 2   |

Engine Brake



Typical Engine Brake

| Engine                | C.P.L. Numbers   | Turbo        | Lash Kit             | Contents                  | Recess Depth  |
|-----------------------|--|--------------|----------------------|---------------------------|---------------|
| Big Cam<br>I, II, III | 222, 233, 322, 323, 353, 354, 433, 471, 529, 579, 585  | Single Entry | FP-3801677<br>Blue   | FP-3045117<br><br>FP-S276 | 0.008"-0.009" |
| Big Cam<br>I, II, III | 266, 306, 327, 332, 369, 393, 449, 450, 530, 531, 543, 588, 611, 625, 632, 634, 743, 744, 745, 769 | Twin Entry   | FP-3801677<br>Blue   | FP-3045117<br><br>FP-S276 | 0.008"-0.009" |
| Big Cam<br>I, II, III | 266, 306, 327, 332, 369, 450, 530, 543, 611, 642, 650, 674, 675, 676, 814, 832                     | Single Entry | FP-3801603<br>Green  | FP-3047195<br><br>FP-S276 | 0.103"-0.106" |
| Big Cam<br>I, II, III | 673, 718, 749, 796, 797, 811, 812, 813, 905  | Twin Entry   | FP-3801603<br>Green  | FP-3047195<br><br>FP-S276 | 0.103"-0.106" |
| Big Cam<br>I, II, III | 393, 449, 531, 588   | Single Entry | FP-3801809<br>Yellow | FP-3046355<br><br>FP-S276 | 0.114"-0.115" |
| Big Cam<br>I, II, III | 222, 233, 322, 323, 353, 354, 579, 633   | Twin Entry   | FP-3801678<br>None   | FP-3045174<br><br>FP-S276 | 0.114"-0.115" |
| Small Cam             | Para todos los C.P.L.  | Single Entry | FP-3801809<br>Yellow | FP-3046355<br><br>FP-S276 | 0.114"-0.115" |
| Small Cam             | Para todos los C.P.L.  | Twin Entry   | Not Applicable       |                           |               |

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## Jake Brake® Components

| Part Number | Description                     | Model 420         | Model 425         | Model 425A        | Model 430A        | Model 140A        |
|-------------|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             |                                 | NT855             | NT855             | NT855             | B / C IV          | N14               |
| FP-001023   | O-Ring, Retainer                | 2                 | 2                 | 2                 |                   |                   |
| FP-001030   | Washer                          | 2                 | 2                 | 2                 | 2                 | 2                 |
| FP-001081   | Seal, Ring Type                 | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-001082   | Seal, Ring Type                 | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-001083   | Seal, Ring Type                 | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-001094   | Nut, Hex                        |                   |                   |                   | 6                 | 6                 |
| FP-001219   | Switch Assembly Fuel Pump       | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-001234   | Spacer                          | 4                 | 4                 | 4                 | 1                 |                   |
| FP-001519   | Spring, Control Valve, External |                   |                   | 2                 |                   |                   |
| FP-003678   | Screw, Injector Lever           | 2                 |                   |                   |                   |                   |
| FP-004205   | Solenoid, 12 Volt               | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-007447   | Spring, Straight                |                   |                   |                   | 2                 |                   |
| FP-007500   | Spring, Control Valve, Inside   | 2                 | 2                 | 2                 | 2                 | 2                 |
| FP-010180   | Seal, Ring Type                 | 1                 | 1                 | 1                 |                   |                   |
| FP-011930   | Control Valve                   |                   |                   | 2                 | 2                 | 2                 |
| FP-012261   | Switch Assembly Clutch          | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-013294   | Gasket, Brake To Rocker         | A/R <sup>31</sup> | A/R <sup>31</sup> | A/R <sup>31</sup> |                   |                   |
| FP-014619   | Harness, Solenoid               | 1                 | 1                 | 1                 | 1                 | 1                 |
| FP-014848   | Gasket, Brake To Rocker         |                   |                   |                   | A/R <sup>31</sup> |                   |
| FP-014928   | Cover, Control Valve            |                   |                   | 2                 |                   |                   |
| FP-015561   | O-Ring, Retainer                |                   |                   | 2                 |                   |                   |
| FP-147389   | Screw (016765)                  | 2                 | 2                 | 2                 |                   |                   |
| FP-203131   | Nut (016766)                    | 2                 | 2                 | 2                 |                   |                   |
| FP-216487   | Gasket, Crossover               | A/R <sup>31</sup> | A/R <sup>31</sup> | A/R <sup>31</sup> |                   |                   |
| FP-3012972  | Gasket, Crossover               | A/R <sup>31</sup> | A/R <sup>31</sup> | A/R <sup>31</sup> |                   |                   |
| FP-3017750  | Gasket, Rocker Housing          | A/R <sup>31</sup> | A/R <sup>31</sup> | A/R <sup>31</sup> |                   |                   |
| FP-3049187S | Gasket, Rocker Housing          |                   |                   |                   | A/R <sup>31</sup> |                   |
| FP-3054841  | Gasket, Valve Cover             | A/R <sup>31</sup> | A/R <sup>31</sup> | A/R <sup>31</sup> |                   |                   |
| FP-3058532  | Gasket, Valve Cover             |                   |                   |                   | A/R <sup>31</sup> |                   |
| FP-3066311  | Gasket, Valve Cover             |                   |                   |                   |                   | A/R <sup>31</sup> |
| FP-3068135  | Gasket, Brake To Rocker         |                   |                   |                   |                   | A/R <sup>31</sup> |
| FP-3871248  | Without Screw Nut               | 4                 | 4                 | 4                 | 2                 | 2                 |
| FP-4058981  | Gasket, Rocker Housing          |                   |                   |                   |                   | A/R <sup>31</sup> |

<sup>31</sup>As Required

All Quantities are per housing except where noted.

Note: Please see Specialty Kits \_Gasket page for Jake Brake® and C-Brake gasket sets and repair kits.

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## Fuel Injectors & Components

| Engine | Injector Part No.          | Description       | Body      | P And B Assy. | Cup, Injector | Spring, Injector | Screen     |
|--------|----------------------------|-------------------|-----------|---------------|---------------|------------------|------------|
| V378   | FP-3275538                 | Injector, New     |           | FP-AR40063    | FP-3275265    | FP-166009        | FP-3008706 |
| V504   | FP-3275539                 | Injector, New     |           | FP-AR40063    | FP-3275266    | FP-166009        | FP-3008706 |
| V555   | FP-3275989                 | Injector, New     |           | FP-AR73665    | FP-3275266    | FP-166009        | FP-3008706 |
| L10    | FP-3045102                 | Injector, New     |           | FP-3049996    | FP-3028068    | FP-166009        | FP-3008706 |
| L10    | FP-3066486                 | Injector, Rebuilt |           |               |               |                  |            |
| L10    | FP-3069759PR <sup>35</sup> | Injector, Rebuilt |           |               |               |                  |            |
| KTA19  | FP-3016675                 | Injector, New     | FP-205463 | FP-3037292    | FP-3003933    |                  | FP-3008706 |
| KTA19  | FP-3016676                 | Injector, New     | FP-205463 | FP-3037292    | FP-3001314    |                  | FP-3008706 |
| KTA38  | FP-3052255                 | Injector, New     |           |               |               |                  | FP-3054999 |
| KTA50  | FP-3053124                 | Injector, New     |           |               |               |                  | FP-3054999 |

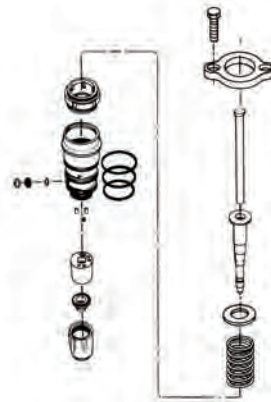
## PTD Standard

| Engine     | Injector Part No.          | Description       | Body      | P And B Assy. | Cup, Injector | Spring, Injector | Screen     |
|------------|----------------------------|-------------------|-----------|---------------|---------------|------------------|------------|
| NH, NT855  | FP-3054058                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012537    | FP-166009        | FP-3008706 |
| NH, NT855  | FP-3054250                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012536    | FP-166009        | FP-3008706 |
| NT, NTC855 | FP-3054211                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012537    | FP-166009        | FP-3008706 |
| NT, NTC855 | FP-3054086                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012536    | FP-166009        | FP-3008706 |
| NT, NTC855 | FP-3054218                 | Injector, New     | FP-185139 | FP-3047964    | FP-3012536    | FP-166009        | FP-3008706 |
| NTC855     | FP-3054246                 | Injector, New     | FP-185140 | FP-3054532    | FP-3012535    | FP-166009        | FP-3008706 |
|            | FP-3054246PR <sup>35</sup> | Injector, Rebuilt |           |               |               |                  |            |
| NTC855     | FP-3054247                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012536    | FP-166009        | FP-3008706 |
| NTC855     | FP-3054249                 | Injector, New     | FP-185139 | FP-3018324    | FP-3012537    | FP-166009        | FP-3008706 |

## PTD Top Stop

| Engine | Injector Part No.          | Description       | Body       | P And B Assy. | Cup, Injector | Spring, Injector | Screen     |
|--------|----------------------------|-------------------|------------|---------------|---------------|------------------|------------|
| NTC855 | FP-3054228                 | Injector, New     | FP-3000464 | FP-3022968    | FP-3012536    | FP-166009        | FP-3008706 |
| NTC855 | FP-3054071                 | Injector, New     | FP-3000464 | FP-3022968    | FP-3012538    | FP-166009        | FP-3008706 |
| NTC855 | FP-3054231                 | Injector, New     | FP-3000464 | FP-3047963    | FP-3012538    | FP-166009        | FP-3008706 |
|        | FP-3054231PR <sup>35</sup> | Injector, Rebuilt |            |               |               |                  |            |
| NTC855 | FP-3054068                 | Injector, New     | FP-3000464 | FP-3022968    | FP-3012538    | FP-166009        | FP-3008706 |
| NTC855 | FP-3054232                 | Injector, New     | FP-3000464 | FP-3022968    | FP-3023556    | FP-166009        | FP-3008706 |
| NTC855 | FP-3047973                 | Injector, New     | FP-3000464 | FP-3047963    | FP-3023556    | FP-166009        | FP-3008706 |
| NTC855 | FP-3069767                 | Injector, New     | FP-3000464 |               |               | FP-166009        | FP-3008706 |

<sup>35</sup>Discontinued



## Cups

| Part Number | Number Of Orifice | Size Of Orifice | Angle Of Spray |
|-------------|-------------------|-----------------|----------------|
| FP-3000798  | 9                 | 0.007"          | 4 Degrees      |
| FP-3001314  | 10                | 0.0085"         | 10 Degrees     |
| FP-3003929  | 7                 | 0.0075"         | 4 Degrees      |
| FP-3003930  | 7                 | 0.008"          | 4 Degrees      |
| FP-3003931  | 7                 | 0.0075"         | 6 Degrees      |
| FP-3003932  | 9                 | 0.0085"         | 7 Degrees      |
| FP-3003933  | 9                 | 0.0085"         | 10 Degrees     |
| FP-3004054  | 9                 | 0.007"          | 6 Degrees      |
| FP-3005963  | 10                | 0.0075"         | 10 Degrees     |
| FP-3006540  | 8                 | 0.006"          | 2 Degrees      |
| FP-3006543  | 9                 | 0.0065"         | 2 Degrees      |
| FP-3006545  | 8                 | 0.008"          | 14 Degrees     |
| FP-3010511  | 7                 | 0.007"          | 4 Degrees      |
| FP-3012535  | 8                 | 0.007"          | 18 Degrees     |
| FP-3012537  | 8                 | 0.0065"         | 18 Degrees     |
| FP-3012538  | 9                 | 0.008"          | 18 Degrees     |
| FP-3015236  | 8                 | 0.008"          | 18 Degrees     |
| FP-3018813  | 10                | 0.0065"         | 18 Degrees     |
| FP-3018814  | 10                | 0.007"          | 18 Degrees     |
| FP-3018860  | 7                 | 0.007"          | 17 Degrees     |
| FP-3018861  | 7                 | 0.006"          | 20 Degrees     |
| FP-3018862  | 8                 | 0.009"          | 18 Degrees     |
| FP-3018863  | 7                 | 0.007"          | 21 Degrees     |
| FP-3020793  | 8                 | 0.005"          | 4 Degrees      |
| FP-3022154  | 8                 | 0.006"          | 4 Degrees      |
| FP-3023556  | 9                 | 0.0085"         | 18 Degrees     |
| FP-3024148  | 9                 | 0.009"          | 18 Degrees     |
| FP-3028068  | 9                 | 0.007"          | 10 Degrees     |
| FP-3052229  | 8                 | 0.0093"         | 18 Degrees     |
| FP-3052630  | 8                 | 0.009"          | 18 Degrees     |
| FP-3053742  | 9                 | 0.0086"         | 18 Degrees     |
| FP-3055135  | 10                | 0.007"          | 10 Degrees     |
| FP-3056341  | 10                | 0.006"          | 10 Degrees     |
| FP-3059423  | 8                 | 0.007"          | 14 Degrees     |
| FP-3069024  | 10                | 0.0095"         | 10 Degrees     |
| FP-3275265  | 7                 | 0.0055"         | 4 Degrees      |
| FP-3275266  | 7                 | 0.006"          | 4 Degrees      |
| FP-3275267  | 7                 | 0.006"          | 3 Degrees      |

## Plunger & Barrels

| Part Number | Comment          |
|-------------|------------------|
| FP-3018324  | High Flow        |
| FP-3018325  |                  |
| FP-3018366  | High Flow        |
| FP-3018587  | Direct Feed H.F. |
| FP-3022968  | High Flow        |
| FP-3047963  | Direct Feed      |
| FP-3047964  | Direct Feed H.F. |
| FP-3052222  | S.T.C.           |
| FP-3052223  | S.T.C.           |
| FP-3052224  | S.T.C.           |
| FP-3054532  | Direct Feed      |
| FP-3054533  | Direct Feed      |

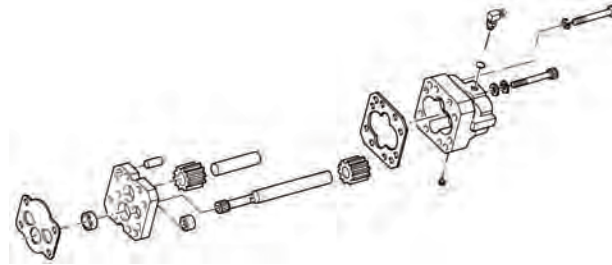
## Injector Mounting O-Rings

| Engine         | Part Number | Quantity |
|----------------|-------------|----------|
| V378           | FP-193736   | 18       |
| V504           | FP-193736   | 24       |
| V555           | FP-193736   | 24       |
| NH, NTC855     | FP-193736   | 18       |
| V903           | FP-193736   | 24       |
|                | FP-193736   | 6        |
| N927           | FP-193736   | 18       |
| L10 Non-Celect | FP-193736   | 18       |
| V, VT1710      | FP-193736   | 36       |
|                | FP-204216   | 6        |
| Series K       | FP-3010510  | 6        |
| N14            | FP-3070136  | 6        |
| M11 Celect     | FP-3070136  | 6        |
|                | FP-3070137  | 6        |
|                | FP-3070137  | 6        |
|                | FP-3070138  | 6        |
|                | FP-3070138  | 6        |

# All Engine Models



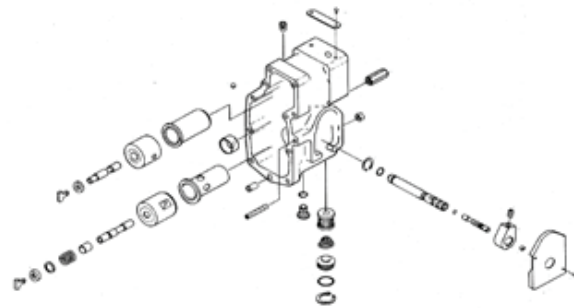
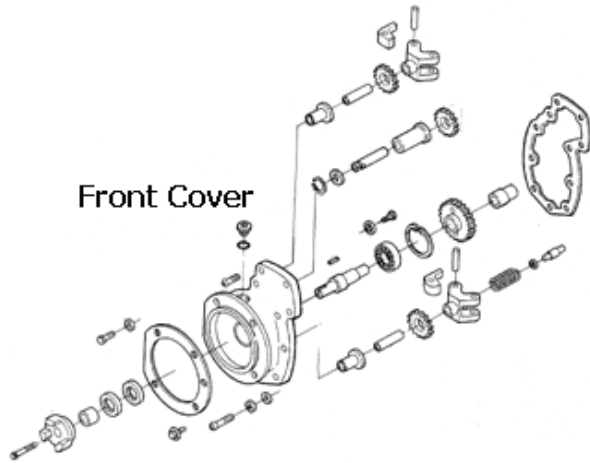
## Fuel Gear Pumps



| Engine         | Gear Pump  | Size and Rotation      | Gear (2)  | Splined Drive Shaft | Idler     | Mounting Gasket | Body Gasket |
|----------------|------------|------------------------|-----------|---------------------|-----------|-----------------|-------------|
| V, VT378       | FP-3034216 | 7/16" L.H. Standard    | FP-167166 | FP-167169           | FP-175866 | FP-3026163      | FP-110855   |
| V, VT504       | FP-3034216 | 7/16" L.H. Standard    | FP-167166 | FP-167169           | FP-175866 | FP-3026163      | FP-110855   |
| V, VT555       | FP-3034244 | 3/4" L.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| L10            | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| L10 Select     |            | 1 1/4"                 | FP-119364 |                     | FP-175865 | FP-3080837      | FP-110855   |
| M11 Industrial |            | 3/4" R.H.              | FP-119363 | FP-100215           | FP-175864 | FP-3080837      | FP-110855   |
| M11 Select     |            | 1 1/4"                 | FP-119364 |                     | FP-175865 | FP-3080837      | FP-110855   |
| NH220, 743     | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| 855            | FP-3034215 | 7/16" R.H. Standard    | FP-167166 | FP-167169           | FP-175866 | FP-3026163      | FP-110855   |
| 855            | FP-3034216 | 7/16" L.H. Standard    | FP-167166 | FP-167169           | FP-175866 | FP-3026163      | FP-110855   |
| 855            | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| 855            | FP-3034244 | 3/4" L.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| 855            | FP-3034245 | 1" R.H. Standard       | FP-170942 | FP-100216           | FP-100133 | FP-3026163      | FP-110855   |
| 855            | FP-3034221 | 1 1/4" R.H. Heavy Duty | FP-119364 | FP-100217           | FP-175865 | FP-3026163      | FP-110855   |
| 855            | FP-3034215 | 7/16" R.H. Standard    | FP-167166 | FP-167169           | FP-175866 | FP-3069017      | FP-110855   |
| 855            | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3069017      | FP-110855   |
| 855            | FP-3034245 | 1" R.H.                |           |                     |           |                 |             |
| V, VT903       | FP-3034244 | 3/4" L.H. Standard     | FP-119363 | FP-100215           | FP-175864 |                 | FP-110855   |
| V, VT903       | FP-3034246 | 1" L.H. Standard       | FP-170942 | FP-100216           | FP-100133 |                 | FP-110855   |
| V, VT903       | FP-3034246 | 1" L.H. Standard       |           |                     |           |                 |             |
| V, VT1710      | FP-3034246 | 1" L.H. Standard       | FP-170942 | FP-100216           | FP-100133 | FP-3026163      | FP-110855   |
| V, VT1710      | FP-3034222 | 1 1/4" L.H. Heavy Duty | FP-119364 | FP-100217           | FP-175865 | FP-3026163      | FP-110855   |
| V28            | FP-3034222 | 1 1/4" L.H. Heavy Duty |           |                     |           |                 |             |
| KT1150         | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| KTA19          | FP-3034245 | 1" R.H. Standard       | FP-170942 | FP-100216           | FP-100133 | FP-3026163      | FP-110855   |
| KT2300         | FP-3034243 | 3/4" R.H. Standard     | FP-119363 | FP-100215           | FP-175864 | FP-3026163      | FP-110855   |
| KTA38          | FP-3034245 | 1" R.H. Standard       | FP-170942 | FP-100216           | FP-100133 | FP-3026163      | FP-110855   |
| KT3067         | FP-3034245 | 1" R.H. Standard       | FP-170942 | FP-100216           | FP-100133 | FP-3026163      | FP-110855   |
| KTA50          | FP-3034221 | 1 1/4" R.H. Heavy Duty | FP-119364 | FP-100217           | FP-175865 | FP-3026163      | FP-110855   |
| KTA50          | FP-3034245 | 1" R.H. Pressurized    | FP-170942 | FP-100216           | FP-100133 | FP-3069017      | FP-110855   |

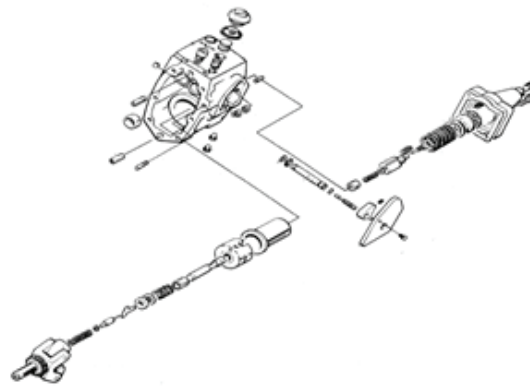
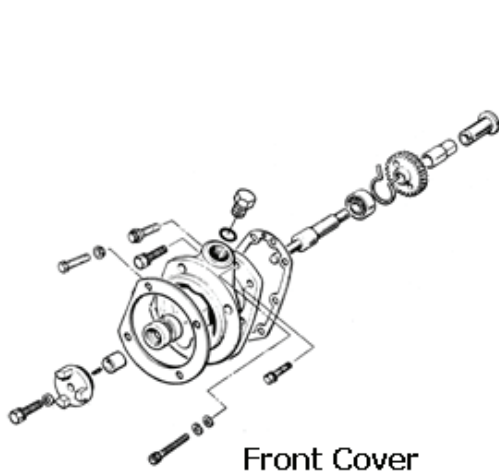
*AFC & PTG Fuel Pump Components*

*PTG-VS/AFC Industrial*



Fuel Pump Housing

*PTG Automotive*



Fuel Pump Housing

# AFC & PTG Fuel Pump Components



## Typical AFC Pump

| Part Number  | Description                          |
|--------------|--------------------------------------|
| FP-100099    | Seal Ring                            |
| FP-100478    | O-Ring                               |
| FP-110855    | Gasket                               |
| FP-129888    | O-Ring                               |
| FP-134075    | Coil 12V 2 Terminal                  |
| FP-137808    | Screen                               |
| FP-139988    | Seal Ring                            |
| FP-144178    | Plunger                              |
| FP-144302    | Spacer                               |
| FP-145504    | O-Ring                               |
| FP-146160    | Washer                               |
| FP-146483    | Screen                               |
| FP-149767    | Screen                               |
| FP-151900    | O-Ring                               |
| FP-154087    | O-Ring                               |
| FP-154088    | Seal                                 |
| FP-157088    | Cap, Central Body                    |
| FP-163944    | Bushing                              |
| FP-175836    | Check Valve                          |
| FP-190876    | O-Ring                               |
| FP-193734    | O-Ring                               |
| FP-200743    | Screen                               |
| FP-212601    | Main Shaft                           |
| FP-212602    | Gear, Tach Drive                     |
| FP-212605    | Gear                                 |
| FP-212607    | Tach Shaft                           |
| FP-213079    | O-Ring                               |
| FP-213603    | Seal                                 |
| FP-214144    | Valve, Needle                        |
| FP-3013810   | Piston                               |
| FP-3020739-1 | Plunger                              |
| FP-3020739-2 | Plunger                              |
| FP-3021068   | Barrel                               |
| FP-3021676   | Plunger                              |
| FP-3024991   | Wt & Carrier                         |
| FP-3027633   | Thrustwasher                         |
| FP-3030970   | Valve                                |
| FP-3033740   | Check Valve                          |
| FP-3048017   | O-Ring                               |
| FP-3054291   | Coil 32V 2 Terminal                  |
| FP-3054291   | Coil 24V 2 Terminal                  |
| FP-3054609   | Coil 24V 1 Terminal                  |
| FP-3062676   | Seal (2)                             |
| FP-3069017   | Gasket                               |
| FP-3408421   | Coil 12V 1 Terminal                  |
| FP-4026171   | Gasket                               |
| FP-68061A    | O-Ring                               |
| FP-70690     | Crosshead for Shaft Control Governed |

## Typical AFC Pump

| Part Number | Description  |
|-------------|--------------|
| FP-70704    | Washer       |
| FP-70704    | Washer       |
| FP-70705    | Gasket       |
| FP-S16052   | Ball Bearing |

## Typical PTG Pump

| Part Number | Description                         |
|-------------|-------------------------------------|
| FP-100099   | O-Ring                              |
| FP-100192   | Main Shaft                          |
| FP-100478   | O-Ring                              |
| FP-101918   | Coupling                            |
| FP-104087   | Tach Shaft                          |
| FP-110855   | Gasket                              |
| FP-134075   | Coil 12V 2 Terminal                 |
| FP-137808   | Screen                              |
| FP-139988   | O-Ring                              |
| FP-143847   | Spring                              |
| FP-144178   | Plunger                             |
| FP-144302   | Spacer                              |
| FP-146483   | Screen                              |
| FP-149767   | Screen                              |
| FP-151900   | Seal                                |
| FP-154087   | Seal                                |
| FP-154088   | Seal (2)                            |
| FP-163944   | Bushing                             |
| FP-175836   | Check Valve                         |
| FP-190876   | O-Ring                              |
| FP-200743   | Screen                              |
| FP-3000266  | Shaft                               |
| FP-3027633  | Thrustwasher                        |
| FP-3030970  | Valve                               |
| FP-3033740  | Check Valve                         |
| FP-3054291  | Coil 24V 2 Terminal                 |
| FP-3054291  | Coil 32V 2 Terminal                 |
| FP-3054609  | Solenoid Coil Fuel Stop 24V, 2 Term |
| FP-3062676  | Retainer (2)                        |
| FP-3069017  | Gasket                              |
| FP-3408421  | Solenoid Coil Fuel Stop 12V, 1 Term |
| FP-43696A   | O-Ring                              |
| FP-69793    | Screw                               |
| FP-70690    | Governor Drive Shaft                |
| FP-70704    | Washer                              |
| FP-70705    | Gasket                              |
| FP-70732    | Gasket                              |
| FP-70809    | Retainer (2)                        |
| FP-S2286    | Screw                               |

## 855 Gasket Sets, Fuel Pump

| Part Number | Description                                  |
|-------------|--|
| FP-3010240  | PT Type G Pressure Regulated                 |
| FP-3010242  | Seal Kit Type G and AFC-VS Standard Governor |
| FP-BM68356  | Seal Kit Type G Standard Governor            |
| FP-BM98776  | Seal Kit MVS Governor                        |



# Governor Plungers



## PTG Pump

| Part Number             | Size     | Color Code |
|-------------------------|----------|------------|
| FP-169660               | Standard | Red        |
| FP-169660-8             | 8        |            |
| FP-169660-9             | 9        |            |
| FP-169660-10            | 10       |            |
| FP-169660-11            | 11       |            |
| FP-169660-12            | 12       |            |
| FP-169660-13            | 13       |            |
| FP-169660-14            | 14       |            |
| FP-169660-15            | 15       |            |
| FP-169660-16            | 16       |            |
| FP-169660-17            | 17       |            |
| FP-169660-18            | 18       |            |
| FP-169660-19            | 19       |            |
| FP-169660-20            | 20       |            |
| FP-169661               | 0.3749"  | Blue       |
| FP-169662               | 0.3751"  | Green      |
| FP-169663 <sup>35</sup> | 0.3753"  | Yellow     |
| FP-169664               | 0.3755"  | Orange     |
| FP-169665               | 0.3757"  | Black      |
| FP-169666               | 0.3759"  | Gray       |
| FP-169667               | 0.3761"  | Violet     |

## AFC With Tapered Seat

| Part Number   | Size     | Color Code |
|---------------|----------|------------|
| FP-3003980    | Standard | Red        |
| FP-3003980-8  | 8        |            |
| FP-3003980-9  | 9        |            |
| FP-3003980-10 | 10       |            |
| FP-3003980-11 | 11       |            |
| FP-3003980-12 | 12       |            |
| FP-3003980-13 | 13       |            |
| FP-3003980-14 | 14       |            |
| FP-3003980-15 | 15       |            |
| FP-3003980-16 | 16       |            |
| FP-3003980-17 | 17       |            |
| FP-3003980-18 | 18       |            |
| FP-3003980-19 | 19       |            |
| FP-3003980-20 | 20       | Blue       |
| FP-3003981    | 0.37474" | Blue       |
| FP-3003982    | 0.37484" | Green      |
| FP-3003983    | 0.37494" | Yellow     |
| FP-3003984    | 0.37504" | Orange     |
| FP-3003985    | 0.37514" | Black      |
| FP-3003986    | 0.37524" | Gray       |
| FP-3003987    | 0.37534" | Violet     |

## AFC & PTG

| Part Number  | Size     | Color Code |
|--------------|----------|------------|
| FP-203350    | Standard | Red        |
| FP-203350-8  | 8        |            |
| FP-203350-9  | 9        |            |
| FP-203350-10 | 10       |            |
| FP-203350-11 | 11       |            |
| FP-203350-12 | 12       |            |
| FP-203350-13 | 13       |            |
| FP-203350-14 | 14       |            |
| FP-203350-15 | 15       |            |
| FP-203350-16 | 16       |            |
| FP-203350-17 | 17       |            |
| FP-203350-18 | 18       |            |
| FP-203350-19 | 19       |            |
| FP-203350-20 | 20       |            |
| FP-203351    | 0.37474" | Blue       |
| FP-203352    | 0.37484" | Green      |
| FP-203353    | 0.37494" | Yellow     |
| FP-203354    | 0.37504" | Orange     |
| FP-203355    | 0.37514" | Black      |
| FP-203356    | 0.37524" | Gray       |
| FP-203357    | 0.37534" | Violet     |

## AFC

| Part Number   | Size     | Color Code |
|---------------|----------|------------|
| FP-3040750    | Standard | Red        |
| FP-3040750-8  | 8        |            |
| FP-3040750-9  | 9        |            |
| FP-3040750-10 | 10       |            |
| FP-3040750-11 | 11       |            |
| FP-3040750-12 | 12       |            |
| FP-3040750-13 | 13       |            |
| FP-3040750-14 | 14       |            |
| FP-3040750-15 | 15       |            |
| FP-3040750-16 | 16       |            |
| FP-3040750-17 | 17       | Red        |
| FP-3040750-18 | 18       |            |
| FP-3040750-19 | 19       |            |
| FP-3040750-20 | 20       | Blue       |
| FP-3040751    | 0.37474  | Blue       |
| FP-3040752    | 0.37484  | Green      |
| FP-3040753    | 0.37494  | Yellow     |
| FP-3040754    | 0.37504  | Orange     |
| FP-3040755    | 0.37514  | Black      |
| FP-3040756    | 0.37524  | Gray       |

<sup>35</sup>Discontinued

## AFC Throttle Shafts - STD Capacity

| Part Number   | Size    | Color Code |
|---------------|---------|------------|
| FP-3006350    | 0.5006  | Red        |
| FP-3006350-8  | 8       |            |
| FP-3006350-9  | 9       |            |
| FP-3006350-10 | 10      |            |
| FP-3006350-11 | 11      |            |
| FP-3006350-12 | 12      |            |
| FP-3006350-13 | 13      |            |
| FP-3006350-14 | 14      |            |
| FP-3006350-15 | 15      |            |
| FP-3006350-16 | 16      |            |
| FP-3006350-17 | 17      |            |
| FP-3006350-18 | 18      |            |
| FP-3006350-19 | 19      |            |
| FP-3006350-20 | 20      |            |
| FP-3006351    | 0.501"  | Blue       |
| FP-3006352    | 0.5012" | Green      |
| FP-3006353    | 0.5014" | Yellow     |
| FP-3006354    | 0.5016" | Orange     |
| FP-3006355    | 0.5018" | Black      |
| FP-3006356    | 0.502"  | Gray       |
| FP-3006357    | 0.5022" | Purple     |
| FP-3006360    | 0.5028" | Cream      |

## AFC Throttle Shafts

| Part Number   | Size    | Color Code |
|---------------|---------|------------|
| FP-3046680    | 0.5006" | Red        |
| FP-3046680-11 | 0.503"  |            |
| FP-3046680-12 | 0.5032" |            |
| FP-3046680-13 | 0.5034" |            |
| FP-3046680-14 | 0.5036" |            |
| FP-3046680-15 | 0.5038" |            |
| FP-3046680-16 | 0.504"  |            |
| FP-3046680-17 | 0.5042" |            |
| FP-3046680-18 | 0.5044" |            |
| FP-3046680-19 | 0.5046" |            |
| FP-3046680-20 | 0.5048" |            |
| FP-3046680-8  | 8       |            |
| FP-3046680-9  | 9       |            |
| FP-3046680-10 | 10      |            |
| FP-3046681    | 0.501"  | Blue       |
| FP-3046682    | 0.5012" | Green      |
| FP-3046683    | 0.5014" | Yellow     |
| FP-3046684    | 0.5016" | Orange     |
| FP-3046685    | 0.5018" | Black      |
| FP-3046686    | 0.502"  | Gray       |
| FP-3046687    | 0.5022" | Purple     |

## Idler Spring Plunger Buttons

| Part Number             | Size | Color Code      |
|-------------------------|------|-----------------|
| FP-137370               | 40   | 0.2785"/0.2815" |
| FP-138862               | 45   | 0.2885"/0.2915" |
| FP-139618               | 52   | 0.3035"/0.3065" |
| FP-139619               | 55   | 0.3085"/0.3115" |
| FP-139894               | 15   | 0.2285"/0.2315" |
| FP-140417               | 17   | 0.2335"/0.2365" |
| FP-140418               | 37   | 0.2735"/0.2765" |
| FP-140922               | 35   | 0.2685"/0.2715" |
| FP-140923               | 42   | 0.2835"/0.2865" |
| FP-140924               | 47   | 0.2935"/0.2965" |
| FP-140925               | 50   | 0.2985"/0.3015" |
| FP-140926               | 57   | 0.3135"/0.3165" |
| FP-140927               | 60   | 0.3185"/0.3215" |
| FP-141624               | 7    | 0.2135"/0.2165" |
| FP-141625               | 10   | 0.2185"/0.2215" |
| FP-141626               | 12   | 0.2235"/0.2265" |
| FP-141629               | 20   | 0.2385"/0.2415" |
| FP-141630               | 22   | 0.2435"/0.2465" |
| FP-141631               | 25   | 0.2485"/0.2515" |
| FP-141632               | 27   | 0.2535"/0.2565" |
| FP-141633               | 30   | 0.2585"/0.2615" |
| FP-141634               | 32   | 0.2635"/0.2665" |
| FP-141636               | 62   | 0.3235"/0.3265" |
| FP-141637               | 65   | 0.3285"/0.3315" |
| FP-141638               | 67   | 0.3335"/0.3365" |
| FP-145947               | 170  | 0.3385"/0.3415" |
| FP-145948               | 172  | 0.3435"/0.3465" |
| FP-145949               | 175  | 0.3485"/0.3515" |
| FP-145950               | 177  | 0.3535"/0.3565" |
| FP-145951               | 180  | 0.3585"/0.3615" |
| FP-145952               | 182  | 0.3635"/0.3665" |
| FP-145953 <sup>35</sup> | 185  | 0.3685"/0.3715" |
| FP-145954               | 187  | 0.3735"/0.3735" |
| FP-145955 <sup>35</sup> | 190  | 0.3785"/0.3815" |
| FP-145956 <sup>35</sup> | 192  | 0.3835"/0.3865" |
| FP-145957 <sup>35</sup> | 195  | 0.3885"/0.3915" |
| FP-145958 <sup>35</sup> | 197  | 0.3935"/0.3965" |
| FP-145959 <sup>35</sup> | 200  | 0.3985"/0.4015" |
| FP-145960               | 202  |                 |

<sup>35</sup>Discontinued

## 743 Natural Gas Components

## 855 Natural Gas Components

| Part Number  | Description                    | Comment                |
|--------------|--------------------------------|------------------------|
| FP-108692    | Gasket, Valve Cover            |                        |
| FP-135675    | Thermostat                     |                        |
| FP-175755    | Retainers                      | Quantity 2             |
| FP-181449    | Packing                        |                        |
| FP-184400    | Liner                          |                        |
| FP-186780    | Seal, Thermostat               |                        |
| FP-188329    | Bolt, Cylinder Head            | Quantity 18            |
| FP-200730    | Piston                         |                        |
| FP-203070    | Piston Bolt                    |                        |
| FP-203670    | Bearing, Connecting Rod (Std.) | Quantity 12            |
| FP-203671    | Bearing, Connecting Rod .010   | Quantity 12            |
| FP-203672    | Bearing, Connecting Rod .020   | Quantity 12            |
| FP-203673    | Bearing, Connecting Rod .030   | Quantity 12            |
| FP-203674    | Bearing, Connecting Rod .040   | Quantity 12            |
| FP-214633-R1 | Gasket, Front Cover            |                        |
| FP-215983    | Crevice Seal                   |                        |
| FP-216879    | Packing                        |                        |
| FP-3004316   | Seal, Front Cover              |                        |
| FP-3006737   | Seal, Rear Crankshaft          |                        |
| FP-3010457   | Seal, Front Crankshaft         |                        |
| FP-3029341   | Crankshaft                     |                        |
| FP-3226064   | Valve                          | Intake and Exhaust     |
| FP-3349820   | Gasket, Oil Pan                |                        |
| FP-3801030   | Camshaft                       | Prior To S/N 2511994   |
| FP-3801260   | Main Bearings Kit Std.         |                        |
| FP-3801261   | Main Bearings Kit .010         |                        |
| FP-3801262   | Main Bearings Kit .020         |                        |
| FP-3801263   | Main Bearings Kit .030         |                        |
| FP-3801264   | Main Bearings Kit .040         |                        |
| FP-3802075   | Lower Gasket Kit               |                        |
| FP-3802077   | Upper Gasket Kit               |                        |
| FP-4062902   | Spring, Valve                  | Quantity 24            |
| FP-66890     | Guide, Valve                   | Quantity 24            |
| FP-90210009  | Rotator                        |                        |
| FP-90210020  | Insert, Valve                  | Quantity 24            |
| FP-90210035  | Adapter                        | Spark Plug             |
| FP-AR12098   | Piston Rings Kit               |                        |
| FP-AR2883    | Gasket, Cylinder Head          |                        |
| FP-AR7460    | Piston, Kit                    | 12:1 Ratio Compression |
| FP-BM27253   | Cam Bearings Kit               |                        |
| FP-BM98224   | Liner, Kit                     | 4 Valves In The Lead   |
| FP-S2037     | Lock Half, Valve               | Quantity 48            |

| Part Number  | Description                    | Comment                |
|--------------|--------------------------------|------------------------|
| FP-127554    | Lock Half, Valve               | Quantity 48            |
| FP-135675    | Thermostat                     |                        |
| FP-166630    | Piston                         |                        |
| FP-175755    | Retainers                      | Quantity 2             |
| FP-186780    | Seal, Thermostat               |                        |
| FP-191970    | Piston Pin                     |                        |
| FP-203660    | Bearing, Connecting Rod (Std.) | Quantity 12 Small Cam  |
| FP-203661    | Bearing, Connecting Rod .010   | Quantity 12 Small Cam  |
| FP-203662    | Bearing, Connecting Rod .020   | Quantity 12 Small Cam  |
| FP-203663    | Bearing, Connecting Rod .030   | Quantity 12 Small Cam  |
| FP-203664    | Bearing, Connecting Rod .040   | Quantity 12 Small Cam  |
| FP-209700    | Bolt, Cylinder Head            | Quantity 36, 6¼"       |
| FP-214950    | Bearing, Connecting Rod (Std.) | Quantity 12 Big Cam    |
| FP-214951    | Bearing, Connecting Rod .010   | Quantity 12 Big Cam    |
| FP-214952    | Bearing, Connecting Rod .020   | Quantity 12 Big Cam    |
| FP-214953    | Bearing, Connecting Rod .030   | Quantity 12 Big Cam    |
| FP-214954    | Bearing, Connecting Rod .040   | Quantity 12 Big Cam    |
| FP-215090    | Crevice Seal                   | Quantity 1             |
| FP-3006456   | Guide, Valve                   | Quantity 24            |
| FP-3006736   | Seal, Front Crankshaft         | Snub-Nose              |
| FP-3006737   | Seal, Rear Crankshaft          |                        |
| FP-3006742   | Sleeve, Front Crank            | Snub-Nose              |
| FP-3006743   | Sleeve, Rear Crank             |                        |
| FP-3010457   | Seal, Front Crankshaft         | Tapered Nose           |
| FP-3013623   | Bolt, Cylinder Head            | Quantity 36, 7¼"       |
| FP-3029340   | Crankshaft                     | Conical                |
| FP-3032874   | Packing                        | Quantity 2             |
| FP-3055099   | Liner                          |                        |
| FP-3406659   | Valve                          | Intake and Exhaust     |
| FP-3608833   | Crankshaft                     | Snub-Nose              |
| FP-3801106   | Cam Bearings Kit               | Big Cam                |
| FP-3801260   | Main Bearings Kit Std.         |                        |
| FP-3801261   | Main Bearings Kit .010         |                        |
| FP-3801262   | Main Bearings Kit .020         |                        |
| FP-3801263   | Main Bearings Kit .030         |                        |
| FP-3801264   | Main Bearings Kit .040         |                        |
| FP-3801826   | Liner, Kit                     |                        |
| FP-4089810   | Piston Rings Kit               |                        |
| FP-4957806   | Spring, Valve                  | Quantity 24            |
| FP-80210020  | Insert, Valve                  | Quantity 24            |
| FP-90210011  | Rotator                        | Quantity 24            |
| FP-90210035  | Adapter                        | Spark Plug             |
| FP-AR3560    | Piston, Kit                    |                        |
| FP-BM27253   | Cam Bearings Kit               | Small Cam              |
| FP-LK166630  | Cylinder, Kit                  | 12:1 Ratio Compression |
| FP-PG1330NG  | Head Gaskets Kit               | Water Seal O/S         |
| FP-PG1330SNG | Head Gaskets Kit               | Std Head Board         |
| FP-PG1331NGB | Lower Gasket Kit               | Gas Natural            |

## Cylinder Kits By CPL

| Avail | CPL# | Engine     | Comp Ratio  | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|------------|---|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1    | NT855 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 2    | NT855 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 3    | NT855 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 4    | NT855 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 5    | NT290/365  | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 6    | NT855 S/C  | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 7    | NT855 S/C  | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 8    | NTA380 S/C | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 9    | NT380 S/C  | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 10   | NTA380 S/C | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 11   | NTA380 S/C | SAME AS LINE 10 (NON-AFTERCOOLED CANNOT USE DUAL-NI PISTON) |             |                                   |                      |                           |                |                                    |  |   | YES & NO           |
| ✓     | 12   | NT380 S/C  | SAME AS LINE 10 (NON-AFTERCOOLER CANNOT USE DUAL-NI PISTON) |             |                                   |                      |                           |                |                                    |  |   | YES & NO           |
| ✓     | 13   | NTA400 S/C | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 14   | NHCT270    | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 16   | NHCT-CT    | SAME AS LINE 14   |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 17   | NH250 S/C  | 15.5:1  | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 18   | NT280 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 19   | NT280-B1   | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 20   | NT335M     | SAME AS LINE 19   |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 21   | NTC350     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 22   | NTC370     | 13.5:1  | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 23   | NTA420 S/C | SAME AS LINE 22   |             |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 24   | NHTF295    | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 25   | NTF365     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 26   | NH230 S/C  | 15.5:1  | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 69   | NTC335 S/C | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 70   | NT335 S/C  | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 71   | NT310      | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 75   | NT335-B1   | SAME AS LINE 71   |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 76   | NT855-R2   | 13.5:1  | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | NO                 |
| ✓     | 77   | NHTC270    | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 85   | NT380M     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801769                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 101  | NTC290     | SAME AS LINE 85   |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 102  | NT280-IF   | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 104  | NT310      | SAME AS LINE 102  |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 107  | NTA420 S/C | 13.5:1  | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 108  | NT855-R    | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 109  | NT335      | SAME AS LINE 108  |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 113  | NTC270     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 117  | NHCT270    | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 120  | NT280      | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 121  | NH230/250T | 15.5:1  | FP-3042320  |                                   | FP-3801774           | FP-3801775                |                | FP-3801767                         | FP-3803210                             |   | NO                 |
| ✓     | 123  | NT280-IF   | SAME AS LINE 120  |             |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 132  | NTC335-E   | 14.5:1  | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 135  | NTA400/420 | 13.5:1  | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 144  | NTA380     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 146  | NTA855     | SAME AS LINE 144  |             |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 147  | NTC350     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 152  | NTA855 S/C | SAME AS LINE 144  |             |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 154  | NTC350     | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 155  | NT290/365  | 14.5:1  | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine     | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 156  | NTC290-R   | SAME AS    | LINE 155    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 160  | NTC350     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 161  | NT855-400  | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 162  | NTA400     | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 163  | NTA370     | SAME AS    | LINE 162    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 164  | N855-250   | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 166  | NT855-310  | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 168  | NT855-R2   | SAME AS    | LINE 166    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 170  | N855       | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 172  | NHC250     | SAME AS    | LINE 170    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 173  | NT855-280  | 14.5:1     | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 174  | NTC290/335 | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 175  | PT270      | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 176  | NTC250     | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 178  | NTC230     | SAME AS    | LINE 176    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 180  | NT855-280  | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 181  | PT270      | SAME AS    | LINE 180    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 182  | NTC335     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 187  | NTF295     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 188  | NTC230     | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 189  | NTC250     | SAME AS    | LINE 188    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 190  | NTCC335    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 196  | NTC350-Y   | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 197  | NTC335-E   | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 198  | NTC355     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 199  | NTC290     | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 200  | N855-B     | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 201  | NT855 S/C  | 14.5:1     | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 202  | NTA855-GS  | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 204  | NTCC350    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 205  | NTA400 B/C | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 207  | PT270      | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 214  | N855-250   | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 215  | NTC290-E   | 14.5:1     | FP-3017349  |                                   | FP-3801872           | FP-3801873                |                |                                    | FP-3803226                             |   | NO                 |
| ✓     | 217  | NTC290     | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 220  | NTC230     | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 221  | NTC250-E   | SAME AS    | LINE 220    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 222  | NTC250     | SAME AS    | LINE 220    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 226  | NTA380 S/C | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 227  | NTC290     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 233  | NTC290 B/C | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 246  | NTFE295    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 248  | NTC350 B/C | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 249  | NTCC290    | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 250  | NTCC350    | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES                |
| ✓     | 254  | NTC350 B/C | SAME AS    | LINE 250    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 255  | N855       | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 256  | NT855      | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 258  | N855       | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 259  | NTA855-420 | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | YES                |
| ✓     | 260  | NTA855-350 | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 266  | NTC350     | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES                |
| ✓     | 267  | NTC400 B/C | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine        | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus .020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|---------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|---|---|--------------------|
| ✓     | 270  | NTCC230       | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                              |   | NO                 |
| ✓     | 271  | NT855-250     | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 272  | NTA855-400    | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                              |   | YES                |
| ✓     | 276  | NT855         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 277  | NTCC250       | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 278  | NTC350 S/C    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 281  | NTCC400       | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 288  | NT855-R4      | SAME AS    | LINE 281    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 294  | NTCC350       | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 298  | NTC350 B/C    | SAME AS    | LINE 294    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 299  | NTCE365       | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 300  | NT855GS       | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 306  | NTCC290       | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 307  | NTC350 B/C    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 308  | NTCC350       | SAME AS    | LINE 307    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 309  | NTC350        | SAME AS    | LINE 307    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 310  | NTCC400       | SAME AS    | LINE 307    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 312  | N855M         | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 314  | NTC350-Y      | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 315  | NTC350        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 316  | NTA855-400    | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                              |   | YES                |
| ✓     | 317  | NTA855-360    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 318  | NT855-335     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 319  | NTA855-GS     | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                              |   | YES                |
| ✓     | 320  | NTE290        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 322  | NTC290        | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                              |   | NO                 |
| ✓     | 323  | NTC250        | SAME AS    | LINE 322    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 324  | NTC400        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 325  | NT855M        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 326  | NT855M        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 327  | NTC350        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 328  | NTCC350       | SAME AS    | LINE 327    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 329  | NTC350        | SAME AS    | LINE 327    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 330  | NTC475 B/C II | 14.0:1     | FP-3031227  |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES/MVT            |
| ✓     | 331  | NT380         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 332  | NTCC290       | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 338  | NTC290        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 339  | NTC350        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 344  | NTC290        | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                              |   | NO                 |
| ✓     | 345  | NTC250        | SAME AS    | LINE 344    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 346  | NT855 S/C     | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 347  | NTE350 B/C    | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 348  | NTE370        | SAME AS    | LINE 347    |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 349  | NTC400 B/C II | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 353  | NTC290        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 354  | NTC250        | SAME AS    | LINE 353    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 356  | N855CP        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 357  | N855CLP       | SAME AS    | LINE 356    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 358  | NT855C        | SAME AS    | LINE 356    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 359  | NT855CP       | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 360  | NT855CPLR     | SAME AS    | LINE 359    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 362  | NT855P        | SAME AS    | LINE 359    |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 363  | NTA360        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine         | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 364  | NTA855P        | SAME AS    | LINE 363    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 365  | NTA855CPR      | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 366  | NTA855PR       | SAME AS    | LINE 365    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 369  | NTC350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 370  | NTCE290        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 371  | NTCE250        | 16.0:1     | FP-3051553  |                                   | FP-3801764           | FP-3801765                |                | FP-3801920                         | FP-3803211                             |   | NO                 |
| ✓     | 372  | NTC230         | SAME AS    | LINE 371    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 373  | NTC250         | SAME AS    | LINE 371    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 374  | NTC290         | SAME AS    | LINE 371    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 375  | NTC350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 376  | NTC400         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 377  | NTE290         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                             |   | NO                 |
| ✓     | 380  | NTCC290        | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES                |
| ✓     | 381  | NTCC350        | SAME AS    | LINE 380    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 382  | NTCC400        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 384  | NTC350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 391  | NTE370 B/C II  | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FPL-3801768               | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 392  | NTE350 B/C II  | SAME AS    | LINE 391    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 393  | NTC400 B/C     | SAME AS    | LINE 391    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 394  | NT855M         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 395  | NTA855M        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 396  | NTA855G        | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | NO                 |
| ✓     | 397  | NTA855G        | SAME AS    | LINE 396    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 402  | NTC290         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                             |   | NO                 |
| ✓     | 407  | NTC230         | 15.0:1     | FP-3017348  |                                   | FP-3801874           | FP-3801875                |                |                                    | FP-3803223                             |   | NO                 |
| ✓     | 408  | NTCC230        | SAME AS    | LINE 407    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 413  | N855           | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 414  | NTC300         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES                |
| ✓     | 416  | NTA400         | 13.5:1     | FP-3051557  |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                             |   | NO                 |
| ✓     | 419  | NTE350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 431  | NTC350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 432  | NTC290         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES                |
| ✓     | 433  | NTC300         | SAME AS    | LINE 432    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 435  | NTE370         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 436  | NTC350         | SAME AS    | LINE 435    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 437  | NT240/250      | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 448  | NTCC230        | SAME AS    | LINE 437    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 449  | NTC400 B/C II  | 14.0:1     | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                             | FP-3803217                                  | YES                |
| ✓     | 450  | NTC350 B/C II  | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 454  | NTCC400 B/C II | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES / MVT          |
| ✓     | 455  | NTCC350 B/C II | SAME AS    | LINE 454    |                                   |                      |                           |                |                                    |  |   | YES / MVT          |
| ✓     | 456  | NTCC300 B/C II | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                             | FP-3803215                                  | YES / MVT          |
| ✓     | 457  | NTCC400 B/C II | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES / MVT          |
| ✓     | 458  | NTCC350 B/C II | SAME AS    | LINE 457    |                                   |                      |                           |                |                                    |  |   | YES / MVT          |
| ✓     | 459  | NTCC300 B/C II | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                             |   | YES / MVT          |
| ✓     | 460  | NT855G         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 461  | NT855G         | SAME AS    | LINE 460    |                                   |                      |                           |                |                                    |  |   | NO                 |
| ✓     | 462  | NTA360         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 463  | NT855          | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 469  | NTA855P        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 470  | NT855P         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                             |   | NO                 |
| ✓     | 471  | NTC300 B/C II  | 15.5:1     | FP-3042320  |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                             | FP-3803218                                  | YES                |
| ✓     | 472  | NTC250         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                             |   | NO                 |



## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine         | Comp Ratio | Piston Body      | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus .020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------------|------------|------------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|---|---|--------------------|
| ✓     | 473  | NTC290         |            | SAME AS LINE 472 |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 479  | NTE290         |            | SAME AS LINE 472 |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 481  | NTC400         | 14.0:1     | FP-3051556       |                                   | FP-3801780           | FP-3801781                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 482  | NTC350         |            | SAME AS LINE 481 |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 483  | NTC350         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 485  | NTC300         | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 488  | NTC230         | 15.0:1     | FP-3017348       |                                   | FP-3801874           | FP-3801785                |                |                                    | FP-3803223                              |   | NO                 |
| ✓     | 491  | NTC270 B/C II  | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 492  | NTC270         |            | SAME AS LINE 491 |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 494  | NHHTCC290      | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | YES                |
| ✓     | 495  | NHHTCC350      | 14.5:1     | FP-3051555       |                                   | FP-3801769           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | YES                |
| ✓     | 497  | NTC240         | 15.0:1     | FP-3017348       |                                   | FP-3801874           | FP-3801875                |                |                                    | FP-3803223                              |   | NO                 |
| ✓     | 498  | NTC240         | 15.5:1     | FP-3048650       |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 499  | NT855          | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 500  | NTE370/400     | 14.0:1     | FP-3051556       |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801778                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 506  | FLEET270       | 15.5:1     | FP-3042320       |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 509  | NTC350         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 510  | NTC400         | 14.0:1     | FP-3051556       |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801778                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 511  | NT855C         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 516  | NTC350         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 517  | NTA855C        | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 518  | NTTC475 B/C II | 14.0:1     | FP-3031227       |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES / MVT          |
| ✓     | 523  | NTTA855G       | 14.0:1     | FP-3031227       |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES                |
| ✓     | 527  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 528  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 529  | NTC300 B/C III | 15.5:1     | FP-3042320       |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 530  | NTC350 B/C III | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 531  | NTC400 B/C III | 14.0:1     | FP-3051556       |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 534  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 535  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 536  | NTC300         | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 537  | N855           | 15.5:1     | FP-3048650       |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 538  | NT855C         | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 539  | NT855          | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 540  | NT855G         |            | SAME AS LINE 539 |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 541  | NTA855P        | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 542  | NTA855G        | 13.5:1     | FP-3051557       |                                   | FP-3801781           | FP-3801782                |                |                                    | FP-3803228                              |   | YES                |
| ✓     | 543  | NTC350         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 544  | NH230          | 15.5:1     | FP-3048650       |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO;                |
| ✓     | 545  | NTA855P        | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 547  | NTC240/270     | 15.0:1     | FP-3017348       |                                   | FP-3801874           | FP-3801875                |                |                                    | FP-3803223                              |   | NO                 |
| ✓     | 551  | NTA855F        | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 552  | NT855F         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 553  | NTA855         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 554  | NTA855 B/C III | 14.0:1     | FP-3051556       |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 558  | NTCC240        | 15.5:1     | FP-3048650       |                                   | FP-3801795           | FP-                       |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 561  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 562  | L10            |            | FP-3044448       |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 566  | NT855P         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 567  | N855P          | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 572  | NTC350         | 14.5:1     | FP-3051555       |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 573  | NTA855G        | 15.0:1     | FP-3051554       |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 574  | NTA855G        |            | SAME AS LINE 573 |                                   |                      |                           |                |                                    |   |   | YES                |



## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine           | Comp Ratio | Piston Body  | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus .020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|------------------|------------|--------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|---|---|--------------------|
| ✓     | 575  | NTA855R          | 14.0:1     | FP-3051556   |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 578  | NTE290           | 15.0:1     | FP-3051554   |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 579  | NTC270 B/C III   | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                |                | FP-3801767                         | FP-3803210                              |   | NO                 |
| ✓     | 580  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 581  | FLEET270 B/C III | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 582  | NT855G           | 15.0:1     | FP-3051554   |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 583  | NT855G           | SAME AS    | LINE 582     |                                   |                      |                           |                |                                    |   |   | NO                 |
| ✓     | 585  | NTC300 B/C III   | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 586  | NTC475 B/C III   | 14.0:1     | FP-3031227   |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES                |
| ✓     | 588  | NTC400 B/C III   | 14.0:1     | FP-3051556   |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 596  | 6B               |            | FP-3906223   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 599  | 6B               |            | FP-3907156   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 600  | 6B               |            | FP-3907156   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 602  | 6C               |            | FP-3923163   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 603  | 6C               |            | FP-3923163   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 604  | 6C               |            | FP-3923164   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 606  | FLT300 B/C III   | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 608  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 609  | NT855            | 15.0:1     | FP-3051554   |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 611  | NTC350           | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 612  | NTC270           | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                |                | FP-3801767                         | FP-3803210                              |   | NO                 |
| ✓     | 613  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 614  | NTCC400 B/C III  | 15.5:1     | FP-3050366   |                                   |                      |                           | FP-3801822     |                                    | FP-3803218                              |   | YES / MVT          |
| ✓     | 615  | NTCC350 B/C III  | SAME AS    | LINE 614     |                                   |                      |                           |                |                                    |   |   | YES / MVT          |
| ✓     | 616  | NTCC300 B/C III  | CALL FOR   | AVAILABILITY |                                   |                      |                           |                |                                    |   |   | YES / MVT          |
| ✓     | 617  | NTCC240          | CALL FOR   | AVAILABILITY |                                   |                      |                           |                |                                    |   |   | YES / MVT          |
| ✓     | 625  | NTC400 B/C III   | 14.0:1     | FP-3051556   |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 626  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 631  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 632  | NTC350 B/C III   | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 633  | NTC300 B/C III   | CALL FOR   | AVAILABILITY |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 634  | FLT300 B/C III   | CALL FOR   | AVAILABILITY |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 635  | NTC475 B/C III   | 14.0:1     | FP-3031227   |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES / MVT          |
| ✓     | 636  | NTC300 S/C       | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 637  | NTC350 S/C       | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 638  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 641  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 642  | NTC400 B/CIV     | 14.0:1     | FP-3028685   |                                   |                      | FP-3801796                | FP-3801746     | FP-3801811                         | FP-3803209                              | FP-3803233                                  | YES                |
| ✓     | 643  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 647  | NTC320           | 15.3:1     | FP-3028706   |                                   |                      | FP-3801230                |                |                                    |   |   | YES                |
| ✓     | 649  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 650  | NTA855 B/C III   | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3800817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 651  | NTE430           | 14.0:1     | FP-3028685   |                                   |                      | FP-3801796                | FP-3801746     | FP-3801811                         | FP-3803209                              | FP-3803233                                  | YES                |
| ✓     | 653  | NTTA855          | 14.0:1     | FP-3031227   |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES                |
| ✓     | 654  | NTTA855A         | SAME AS    | LINE 653     |                                   |                      |                           |                |                                    |   |   | YES                |
| ✓     | 657  | NTA8555 B/C III  | 14.0:1     | FP-3051556   |                                   | FP-3801783           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 658  | NTTA855          | 14.0:1     | FP-3031227   |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES                |
| ✓     | 659  | NTE350           | 14.0:1     | FP-3028685   |                                   |                      | FP-3801796                | FP-3801746     | FP-3801811                         | FP-3803209                              | FP-3803233                                  | YES                |
| ✓     | 662  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 669  | NTC350           | 14.5:1     | FP-3051555   |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 670  | NT855-R5         | 15.0:1     | FP-3051554   |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         |   |   | NO                 |
| ✓     | 671  | L10              |            | FP-3044448   |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 673  | FLT300 B/C IV    | 15.0:1     | FP-3042319   |                                   |                      | FP-3801798                | FP-3801824     |                                    | FP-3803224                              | FP-3803215                                  | YES                |
| ✓     | 674  | NTC300 B/C IV    | 15.5:1     | FP-3042320   |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine         | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus .020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|---|---|--------------------|
| ✓     | 675  | NTC350 B/C IV  | 15.5:1     | FP-3042318  |                                   |                      | FP-3801797                | FP-3801817     |                                    | FP-3803225                              | FP-3803216                                  | YES                |
| ✓     | 676  | NTC400 B/C IV  | 14.0:1     | FP-3028685  |                                   |                      | FP-3801796                | FP-3801746     | FP-3801811                         | FP-3803209                              | FP-3803233                                  | YES                |
| ✓     | 677  | NHHTC300       | 15.5:1     | FP-3050366  |                                   |                      | FP-3801822                |                |                                    | FP-3803218                              |   | YES                |
| ✓     | 691  | 6B             |            | FP-3906223  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 695  | NTC400 S/C     | 14.0:1     | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 698  | 6B             |            | FP-3907156  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 699  | NT855G         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 700  | NTA855M        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 701  | NTA855M        | SAME AS    | LINE 700    |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 702  | NTTA855G       | 14.0:1     | FP-3031227  |                                   |                      | FP-3801783                |                |                                    | FP-3803227                              |   | YES                |
| ✓     | 703  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 704  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 706  | NTA855C        | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 707  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 708  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 709  | NHC250         | 15.5:1     | FP-3048650  |                                   | FP-3801795           |                           |                |                                    | FP-3803221                              |   | NO                 |
| ✓     | 713  | 6B             |            | FP-3907156  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 714  | 6B             |            | FP-3906223  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 715  | 6B             |            | FP-3907156  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 717  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 718  | FLT300 B/C IV  | 14.5:1     | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |   | FP-3803216                                  | YES                |
|       | 718  |                |            | DUAL NI-RES |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 719  | NT855          | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                              | FP-3803215                                  | YES                |
| ✓     | 726  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 729  | 6B             |            | FP-3907163  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 731  | NT855M         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                              |   | NO                 |
| ✓     | 732  | NT855C         | 15.0:1     | FP-3051554  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                              |   | NO                 |
| ✓     | 733  | NT855G         | SAME AS    | LINE 732    |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 742  | 6B             |            | FP-3907156  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 743  | NTC300         | 15.5:1     | FP-3042320  |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                              | FP-3803218                                  | YES                |
| ✓     | 744  | NTC350         | 14.5:1     | FP-3051555  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                              | FP-3803216                                  | YES                |
| ✓     | 745  | NTC400         | 14.0:1     | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 748  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 749  | NTC315         | 15.0:1     | FP-3042319  |                                   |                      | FP-3801798                |                |                                    | FP-3803224                              | FP-3803215                                  | YES                |
| ✓     | 750  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 751  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 753  | 6C             |            | FP-3923163  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 754  | 6C             |            | FP-3923164  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 755  | 6C             |            | FP-3923164  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 757  | NTA855G        | 14.0:1     | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                              | FP-3803217                                  | YES                |
| ✓     | 761  | 6B             |            | FP-3907163  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 769  | NTC350 B/C III | 14.5:1     | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |   | FP-3803216                                  | YES                |
|       | 769  |                |            | DUAL NI-RES |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 770  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 771  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 772  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 773  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 774  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 775  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 776  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 777  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 778  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 779  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 782  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |
| ✓     | 783  | L10            |            | FP-3044448  |                                   |                      |                           |                |                                    |   |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine         | Comp Ratio            | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------------|-----------------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 784  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 785  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 786  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 788  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 791  | 6B             |                       | FP-3906223  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 792  | 6B             |                       | FP-3907156  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 794  | NTCC315 B/C IV | 15.5:1                | FP-3050366  |                                   |                      | FP-3801822                | FP-3801822     |                                    |  | FP-3803218                                  | YES / MVT          |
|       | 794  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 795  | NTCC350 B/C IV | SAME AS               | LINE 794    |                                   |                      |                           |                |                                    |  |   | YES / MVT          |
| ✓     | 796  | NTC315         | 15.0:1                | FP-3048809  |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
|       | 796  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   | NEW B/C IV         |
| ✓     | 797  | NTC350         | 14.5:1                | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
| ✓     | 798  | NTC400         | 14.0:1                | FP-3048808  |                                   |                      | FP-3801823                |                |                                    | FP-3803217                             |   | NEW B/C IV         |
|       | 798  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 802  | 6B             |                       | FP-3906223  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 804  | 6B             |                       | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 806  | 400 / 444      |                       |             |                                   |                      |                           |                |                                    |  |   | NEW B/C IV         |
| ✓     | 806  | NTCC365        | CALL FOR AVAILABILITY |             |                                   |                      |                           |                |                                    |  |   | YES/STC            |
| ✓     | 807  | 6B             |                       | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 808  | NTA855G        | 14.0:1                | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                             | FP-3803217                                  | YES                |
| ✓     | 811  | NTC300 B/C IV  | 15.5:1                | FP-3050366  |                                   |                      |                           | FP-3801822     |                                    |  | FP-3803218                                  | YES                |
| ✓     | 812  | NTC315 B/C IV  | 15.0:1                | FP-3048809  |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
| ✓     | 813  | NTC350 B/C IV  | 14.5:1                | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
| ✓     | 814  | NTC400 B/C IV  | 14.0:1                | FP-3050480  |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES                |
|       | 814  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 815  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 819  | 6C             |                       | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 821  | NTC444         | 14.0:1                | FP-3050480  |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES / STC          |
| ✓     | 827  | NTC365/400     | 15.5:1                | FP-3052794  |                                   |                      |                           | FP-3801956     |                                    |  |   | YES / STC          |
|       | 827  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 828  | 6C             |                       | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 830  | 6C             |                       | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 831  | 6C             |                       | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 832  | NTC300 B/C IV  | 15.5:1                | FP-3050366  |                                   |                      |                           | FP-3801822     |                                    |  | FP-3803218                                  | YES                |
| ✓     | 833  | NTC365/400     | 14.0:1                | FP-3050480  |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES/STC            |
| ✓     | 834  | 6B             |                       | FP-3907156  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 835  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 836  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 838  | NTC300/315     | 17.0:1                | FP-3069212  |                                   |                      |                           | FP-3803346     |                                    |  |   | YES                |
|       | 838  |                |                       | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 840  | NTC350         | SAME AS               | LINE 838    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 842  | L10            |                       | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 845  | 6B             |                       | FP-3906223  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 849  | NT855G         | 14.0:1                | FP-3051556  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                             | FP-3803217                                  | YES                |
| ✓     | 880  | NTA855M        | SAME AS               | LINE 849    |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 881  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 882  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 891  | NTC400         | 14.0:1                | FP-3048808  |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 893  | 6C             |                       | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 894  | L10            |                       | FP-3044448  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 903  | NTC444         | 14.0:1                | FP-3050480  |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES/STC            |
| ✓     | 904  | NTC365/400     | SAME AS               | LINE 903    |                                   |                      |                           |                |                                    |  |   | YES/STC            |
| ✓     | 905  | NTC300/320     | 14.5:1                | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
| ✓     | 907  | NTC300         | 15.5:1                | FP-3050366  |                                   |                      |                           | FP-3801822     |                                    |  | FP-3803218                                  | YES                |
| ✓     | 908  | NTA855C        | 14.0:1                | FP-3048808  |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine        | Comp Ratio            | Piston Body                 | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 0.020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|---------------|-----------------------|-----------------------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 910  | NTC444        | CALL FOR AVAILABILITY |                             |                                   |                      |                           |                |                                    |  |   | YES/STC            |
|       | 910  |               |                       |                             |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 911  | NT315E        | 15.5:1                | FP-3052794                  |                                   |                      |                           | FP-3801956     |                                    |  |   |                    |
|       | 911  |               |                       | DUAL NI-RES                 |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 912  | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 919  | L10           |                       | FP-3044448                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 921  | L10           |                       | FP-3044448                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 938  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 939  | L10           |                       | FP-3055622                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 940  | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 943  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 947  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 948  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 950  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 955  | 6C            |                       | FP-3923163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 956  | L10           |                       | FP-3055622                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 958  | L10           |                       | FP-3044448                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 959  | 6C            |                       | FP-3923164                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 960  | 6B            |                       | FP-3906223                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 961  | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 962  | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 970  | 6B            |                       | FP-3911400                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 972  | NT855         | 15.0:1                | FP-3051554                  |                                   | FP-3801776           | FP-3801777                | FP-3801824     | FP-3801778                         | FP-3803212                               | FP-3803215                                  | YES                |
| ✓     | 974  | NTC365/400    | 14.5:1                | FP-3051555                  |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                               | FP-3803216                                  | YES                |
| ✓     | 978  | L10           |                       | FP-3044448                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 980  | L10           |                       | FP-3055622                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 982  | 6C            |                       | FP-3923164                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 983  | 6B            |                       | FP-3907156 OR<br>FP-3907163 |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 984  | 6C            |                       | FP-3923164                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 985  | 6C            |                       | FP-3923163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 987  | 6B            |                       | FP-3917619                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 989  | NTA855G       | 14.0:1                | FP-3031227                  |                                   |                      | FP-3801783                |                |                                    | FP-3803227                               |   | YES                |
| ✓     | 990  | NTA855G/GS    | SAME AS               | LINE 989                    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 991  | NTA855G2      | SAME AS               | LINE 989                    |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 992  | NT350E        | 15.5:1                | FP-3052794                  |                                   |                      |                           | FP-3801956     |                                    |  |   | YES                |
| ✓     | 994  | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 995  | L10           |                       | FP-3055622                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 996  | L10           |                       | FP-3055622                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 998  | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 999  | 6B            |                       | FP-3906223                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1071 | 6B            |                       | FP-3928673                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1160 | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1163 | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1167 | NTA855M       | 14.0:1                | FP-3051556                  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                               | FP-3803217                                  | YES                |
| ✓     | 1168 | 6B            |                       | FP-3907163                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1171 | NTA855/370    | 14.0:1                | FP-3051556                  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                               | FP-3803217                                  | YES                |
| ✓     | 1174 | 6B            |                       | FP-3907156                  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1179 | NTA855M2      | SAME AS               | LINE 1171                   |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1180 | NT855R2       | 15.0:1                | FP-3051554                  |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                               |   | NO                 |
| ✓     | 1181 | NTA855R1      | 14.5:1                | FP-3051555                  |                                   | FP-3801779           | FP-3801768                |                | FP-3801769                         | FP-3803213                               |   | YES                |
| ✓     | 1182 | NTA855R1      | SAME AS               | LINE 1181                   |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1183 | NTA855G       | 14.0:1                | FP-3051556                  |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                               | FP-3803217                                  | YES                |
| ✓     | 1185 | NTC365/400    | 15.5:1                | FP-3052794                  |                                   |                      |                           | FP-3801956     |                                    |  |   | YES                |
|       | 1185 |               |                       | DUAL NI-RES                 |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 1186 | NTE465 B/C IV | 14.0:1                | FP-3050480                  |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine        | Comp Ratio | Piston Body           | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|---------------|------------|-----------------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1187 | FLT285 B/C IV | 17.0:1     | FP-3069212            |                                   |                      |                           | FP-3803346     |                                    |  |   | YES                |
|       | 1187 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 1188 | FLT350 B/C IV | 15.5:1     | FP-3052794            |                                   |                      |                           | FP-3801956     |                                    |  |   | YES                |
|       | 1188 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   | 88 BC4             |
| ✓     | 1189 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1193 | NTA855        | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
|       | 1193 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1194 | NTA855        | 14.0:1     | FP-3051556            |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                             | FP-3803217                                  | YES                |
| ✓     | 1197 | NNTA855       | SAME AS    | LINE 1194             |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1203 | N855C         | 15.5:1     | FP-3048650            |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 1204 | NTA855        | 14.5:1     | FP-3051555            |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 1205 | NT855         | 15.0:1     | FP-3051554            |                                   | FP-3801776           | FP-3801777                |                | FP-3801778                         | FP-3803212                             |   | NO                 |
| ✓     | 1209 | 6B            |            | FP-3907156            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1210 | NTC444        |            | CALL FOR AVAILABILITY |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1211 | NTC365/400    | 15.5:1     | FP-3052794            |                                   |                      |                           | FP-3801956     |                                    |  |   | YES                |
|       | 1211 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1212 | 6C            |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1215 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1215 | NTC444/450    | 14.0:1     | FP-3050480            |                                   |                      |                           | FP-3801746     |                                    |  | FP-3803233                                  | YES                |
| ✓     | 1222 | 6C            |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1223 | L10           |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1224 | L10           |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1226 | L10           |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1234 | L10           |            | FP-3044448            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1241 |               |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1245 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1248 | 6C            |            | FP-3923163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1252 | NTA855/400    | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 1255 | L10           |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1255 | NTA855/360    | 14.5:1     | FP-3045978            |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
|       | 1255 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1256 | NTC444        |            | CALL FOR AVAILABILITY |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1260 | 6B            |            | FP-3919041            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1261 | 6B            |            | FP-3917619            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1262 | 6C            |            | FP-3917707            |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1263 | 6C            |            | 3925673               |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1266 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1270 | 6C            |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1273 | 6C            |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1274 | 6C            |            | FP-3923163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1275 | 6C            |            | FP-3923163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1279 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1280 | NTC444        |            | CALL FOR AVAILABILITY |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1281 | 6C            |            | FP-3923163            |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1282 | 6C            |            | 3926790               |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1288 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1289 | 6B            |            | FP-3907163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1309 | NTA14         |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | YES                |
| ✓     | 1310 | NT855 B/C III | 15.5:1     | FP-3048650            |                                   | FP-3801795           |                           |                |                                    | FP-3803221                             |   | NO                 |
| ✓     | 1314 | NTA855        | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
|       | 1314 |               |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1315 | NTA855R3,4    | 15.5:1     | FP-3042320            |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         |  | FP-3803218                                  | YES                |
| ✓     | 1320 | 6B            |            | FP-3906223            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1321 | 6C            |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1321 | L10           |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |



## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine      | Comp Ratio | Piston Body           | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|-------------|------------|-----------------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1322 | 6B          |            | FP-3911400            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1324 | N14E-460    |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1346 | L10         |            | FP-3055622            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1347 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1348 | L10         |            | 4070311               | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1349 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1350 | NTC400      | 14.0:1     | FP-3028685            |                                   | FP-3801796           |                           | FP-3801823     | FP-3801811                         | FP-3803209                             | FP-3803217                                  | YES                |
| ✓     | 1351 | 6B          |            | FP-3919041            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1352 | FLT300      | 17.0:1     | FP-3069212            |                                   |                      |                           | FP-3803346     |                                    |  |   |                    |
|       | 1352 |             |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1356 | 6C          |            | FP-3923163            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1358 | 6B          |            | FP-3917619            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1362 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1367 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1373 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1374 | N14-370     |            | FP-3081269            |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
|       | 1375 | L10         |            | 4070311               | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1377 | 6C          |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1380 | N14-330/350 |            | FP-3081267            |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
| ✓     | 1381 | NT855G      | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
|       | 1381 |             |            | DUAL NI-RES           |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1382 | NT855G      |            | CALL FOR AVAILABILITY |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1383 | NTA855G     | 15.3:1     | FP-3028706            |                                   | FP-3801230           |                           |                |                                    |  |   | YES                |
| ✓     | 1384 | N14E-460    |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1385 | N14E-430    |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1386 | N14E-430    |            | FP-3081266            |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1389 | N14E-370    |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1390 | N14E-370    |            | FP-3081268            |                                   |                      |                           | FP-3083755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1391 | N14E-350    |            | FP-3081266            |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1392 | N14E-330    |            | FP-3081266            |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1393 | N14E-330    |            | FP-3081266            |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1394 | N14E-310    |            | FP-3081266            |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1395 | N14-310/330 |            | FP-3081267            |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
| ✓     | 1401 | NTA855R1    | 14.5:1     | FP-3051555            |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 1402 | NTAA410     | 15.5:1     | FP-3042320            |                                   | FP-3801774           | FP-3801775                | FP-3801822     | FP-3801767                         | FP-3803210                             | FP-3803218                                  | YES                |
| ✓     | 1403 | 6B          |            | FP-3906223            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1405 | N14-410     |            | FP-3081269            |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
| ✓     | 1406 | 6C          |            | FP-3917707            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1409 | NTA855C     | 14.5:1     | FP-3051555            |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 1410 | NTA855      |            | SAME AS LINE 1409     |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1411 | NTA855-400  | 14.0:1     | FP-3051556            |                                   | FP-3801780           | FP-3801771                | FP-3801823     | FP-3801772                         | FP-3803214                             | FP-3803217                                  | YES                |
| ✓     | 1413 | L10         |            | FP-3044448            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1414 | L10         |            | FP-3044448            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1415 | NTA855      | 14.5:1     | FP-3051555            |                                   | FP-3801779           | FP-3801768                | FP-3801817     | FP-3801769                         | FP-3803213                             | FP-3803216                                  | YES                |
| ✓     | 1416 | NTA855      | 14.5:1     | FP-3045948            |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
| ✓     | 1417 | NTA855      | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 1418 | NTA855      |            | SAME AS LINE 1417     |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1419 | 6C          |            | FP-3923164            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1420 | L10         |            | FP-3068090            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1421 | NTA855C     |            | SAME AS LINE 1417     |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1422 | 6B          |            | FP-3917619            |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1425 | NTA855      | 15.0:1     | FP-3048809            |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
| ✓     | 1426 | N14E-410    |            | FP-3081268            |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
|       | 1428 | L10         |            | 4070311               | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1436 | NTA855G     | 14.0:1     | FP-3048808            |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine      | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|-------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1439 | 6C          |            | 3925673     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1441 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1442 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1445 | N14E-370    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1446 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1447 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1448 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1449 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1450 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1464 | 6C          |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1501 | NTA855C     | 14.5:1     | FP-3045948  |                                   |                      |                           | FP-3801817     |                                    |  | FP-3803216                                  | YES                |
| ✓     | 1502 | NTA855/400  | 15.0:1     | FP-3048809  |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
| ✓     | 1507 | N14-350P    |            | FP-3081267  |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
|       | 1511 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
|       | 1512 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
|       | 1513 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1514 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1527 | 6B          |            | FP-3917619  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1529 | N14-350P    |            | FP-3081267  |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
| ✓     | 1530 | NTA14-330   |            | FP-3081267  |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
| ✓     | 1532 | N14-350P    |            | FP-3081267  |                                   |                      |                           | FP-3803757     |                                    |  |   | AIR TO AIR         |
| ✓     | 1533 | N14E-370    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1534 | N14E-370    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1535 | N14E-350    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1536 | N14E-330    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1537 | N14E-330    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1538 | N14E-310    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1540 | N14E-330    |            | FP-3081266  |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1546 | NTA855/400  | 15.0:1     | FP-3048809  |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
| ✓     | 1548 | N14E-460    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1549 | 6B          |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1550 | 6B          |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1551 | 6B          |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1552 | 6B          |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1553 | 6B          |            | FP-3926632  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1557 | NTA360/375  | 14.0:1     | FP-3048808  |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 1558 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1559 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1560 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1561 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1562 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1563 | 6C          |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1564 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1565 | 6C          |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1566 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1568 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1569 | 6C          |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1572 | N14-460E    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1573 | N14E370/430 |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1574 | N14E310/350 |            | FP-3081266  |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1575 | N14-460E    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
|       | 1576 |             |            | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1576 | NTA855CP    | 14.0:1     | FP-3048808  |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 1577 | 6B          |            | FP-3917619  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1578 | 6B          |            | FP-3919041  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1579 | 6B          |            | FP-3919041  |                                   |                      |                           |                |                                    |  |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine      | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|-------------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1580 | N14-460E    |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1582 | 6B          |            | FP-3917619  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1583 | N14E370/460 |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
|       | 1587 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
|       | 1588 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1589 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1590 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1597 | NTA855CP    | 14.0:1     | FP-3048808  |                                   |                      |                           | FP-3801823     |                                    |  | FP-3803217                                  | YES                |
| ✓     | 1600 | NTA855C     | SAME AS    | LINE 1597   |                                   |                      |                           |                |                                    |  |   | YES                |
| ✓     | 1601 | 6B          |            | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1606 | 6B          |            | FP-3919041  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1607 | N14-370/410 |            | FP-3081269  |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
| ✓     | 1608 | 6B          |            | FP-3906223  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1609 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1611 | N14E440/500 |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1612 | 6C          |            | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1613 | 6B          |            | FP-3911400  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1615 | 6C          |            | FP-3917707  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1617 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1619 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1620 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1621 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1622 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1623 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1624 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1625 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1626 | L10         |            | 4060420     | 4025174                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1627 | 6B          |            | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1633 | 6C          |            | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1639 | 6C          |            | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1642 | L10         |            | FP-3068090  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1646 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1648 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1649 | N14-300E    |            | FP-3081266  |                                   |                      |                           | FP-3803753     |                                    |  |   | AIR TO AIR         |
| ✓     | 1650 | NTA855-400  | 15.0:1     | FP-3048809  |                                   |                      |                           | FP-3801824     |                                    |  | FP-3803215                                  | YES                |
|       | 1650 |             |            | DUAL NI-RES |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1652 | N14-330     |            | FP-3081269  |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
|       | 1658 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1661 | 6C          |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1669 | L10         |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1675 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1676 | L10         |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1677 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1678 | L10         |            | FP-3055622  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1683 | 6B CNG      |            | FP-3922687  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1685 | 6B          |            | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1807 | N14-370E    |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1809 | N14-410     |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
|       | 1811 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1812 | 6C          |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1815 | 6B          |            | FP-3922572  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1816 | 6B          |            | FP-3922572  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1819 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1820 | 6C          |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1821 | 6C          |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1824 | 6B          |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1825 | 6B          |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |



## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine   | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 1831 | N14-430E |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   |                    |
| ✓     | 1832 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1833 | N14-330  |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1839 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1841 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1844 | N14-410  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1848 | 6B       |            | FP-3919041  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1852 | N14-500E |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1855 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1856 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1857 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1863 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1866 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1867 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1868 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1869 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1870 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1871 | L10      |            | FP-3893751  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1878 | N14-430  |            | FP-3081269  |                                   |                      |                           | FP-3803759     |                                    |  |   |                    |
| ✓     | 1885 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1889 | 6B       |            | FP-3930187  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1896 | N14-410  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1897 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1903 | 6C       |            | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1905 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1914 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1915 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1916 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1917 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1918 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1920 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1921 | N14-C    |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
|       | 1922 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1923 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1924 | N14-525  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1928 | 6B       |            | FP-3911400  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1929 | 6C       |            | 3926790     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1943 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1944 | N14-430  |            | FP-3081268  |                                   |                      |                           | FP-3803755     |                                    |  |   | AIR TO AIR         |
| ✓     | 1948 | 6B       |            | FP-3928473  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 1949 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1956 | N14-350  |            | FP-3081269  |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
| ✓     | 1957 | N14-410  |            | FP-3081269  |                                   |                      |                           | FP-3803759     |                                    |  |   | AIR TO AIR         |
| ✓     | 1959 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1961 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1962 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1968 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1972 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1973 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 1983 | L10      |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
| ✓     | 1987 | N14-350  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1988 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 1991 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1992 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 1993 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 1999 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2000 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine   | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 2001 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2003 | N14-500E |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2007 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2011 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2012 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2013 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2018 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2019 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2022 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2023 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2024 | ISB      |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2025 | N14-525E |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2026 | N14      |            | FP-3865113X | FP-3804636                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2027 | N14      |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2033 | NTA14-M  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
|       | 2034 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2035 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2036 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2037 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2038 | NTA14-C  |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2040 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2041 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2042 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2049 | 6B       |            | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2050 | 6B       |            | 3921888     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2055 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2056 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2057 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2058 | 6C       |            | FP-3923164  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2060 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2063 | 6B       |            | FP-3930187  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2066 | L10      |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
|       | 2067 | L10      |            | 4070311     | 4025167                           |                      |                           |                |                                    |  |   |                    |
|       | 2068 | L10      |            | 3895864     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2069 | L10      |            | 3895864     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2072 | 6B       |            | 3930314     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2075 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2076 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2077 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2078 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2079 | ISB      |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2080 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2097 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 2098 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2099 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2100 | 6C       |            | FP-3917707  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2101 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2102 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2103 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2104 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2105 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2106 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2107 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2108 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2110 | L10 CNG  |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2111 | L10 CNG  |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2114 | 6C       |            | 3926961     |                                   |                      |                           |                |                                    |  |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine   | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 2119 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2120 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2132 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2138 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2140 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2141 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2143 | N14-525  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2150 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2161 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2162 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2165 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2174 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2175 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2178 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2182 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2183 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2185 | 6C       |            | FP-3929161  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2189 | L10 CNG  |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2190 | L10 CNG  |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2192 | L10      |            | 3895864     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2193 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2194 | 6C       |            | FP-3925878  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2201 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2204 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2207 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2228 | N14-530  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
|       | 2243 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2249 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2252 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2253 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2261 | N14-525  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
|       | 2262 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2263 | ISB      |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2265 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2268 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2279 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2280 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2282 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2283 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2284 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2285 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2287 | NTA14-G  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2292 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2296 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2306 | N530     |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2308 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2330 | NTA14-C  |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2336 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2339 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2343 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2344 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2345 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2346 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2347 | 6B       |            | FP-3926631  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2349 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2363 | M11//ISM |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2367 | 6C       |            | FP-3917707  |                                   |                      |                           |                |                                    |  |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine   | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 2368 | 6C       |            | FP-3917707  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2370 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2371 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2372 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2373 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2378 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2388 | N14E     |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2389 | NTA14-E  |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2390 | N14-370E |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2391 | NTA14-E  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2398 | N14      |            | FP-3865113X | FP-3804636                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2403 | N14-480  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2405 | 6B       |            | FP-3919041  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2406 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2407 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2408 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2409 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2410 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2411 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2413 | 6B       |            | FP-3907163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2415 | ISB      |            | FP-3946050  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2417 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2425 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2445 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 2446 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2447 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2448 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2449 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2450 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2451 | ISB      |            | 3944073     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2453 | NTA14-M  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2479 | 6B       |            | FP-3930187  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2480 | L10 CNG  |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2491 | 6B       |            | FP-3922571  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2492 | N520E    |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2496 | ISB      |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2498 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2503 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 2512 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2513 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2514 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2515 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2516 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2517 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2518 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2519 | ISB      |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2529 | NTA14-M  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2539 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2540 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2541 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2542 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2543 | M11/ISM  |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2544 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2545 | 6C       |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2551 | 6B       |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2569 | ISB      |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2570 | ISB      |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |

## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine    | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|-----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 2571 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2572 | ISB       |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2573 | ISB       |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2574 | ISB       |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2575 | N14       |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2590 | NTA14-E   |            | FP-3087635X | FP-3803740                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2591 | N14-475E  |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2592 | NTA14-E   |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2595 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2596 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2597 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2616 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2617 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2618 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2619 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2620 | 6C        |            | FP-3923163  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2624 | ISB       |            | FP-3958675  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2637 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2638 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2639 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2643 | ISB       |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2644 | ISB       |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2645 | ISB       |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2646 | ISB       |            | 3943708     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2659 | N14-525   |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2662 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2682 | ISB       |            | 3948465     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2683 | ISB       |            | 3948465     |                                   |                      |                           |                |                                    |  |   |                    |
|       | 2684 | ISB       |            | 3948471     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2685 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2686 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2687 | ISB       |            | FP-3946153  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2809 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2811 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2812 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2868 | 6B        |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2897 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2898 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2899 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 2916 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2917 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 2918 | M11/ISM   |            | FP-4059901T | FP-4025162                        |                      |                           |                |                                    |  |   |                    |
|       | 2998 | ISB       |            | 3949808     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 3868 | 6B        |            | FP-3928673  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8023 | N14       |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 8024 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8025 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8026 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8027 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8028 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8029 | L10 CNG   |            | FP-3606732  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8159 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
|       | 8161 | ISL/CM850 |            | 4933749     |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8218 | ISB       |            | FP-3958675  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8220 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8223 | ISB       |            | FP-3958675  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8346 | ISB       |            | FP-3970192  |                                   |                      |                           |                |                                    |  |   |                    |



## Cylinder Kits By CPL (Cont'd)

| Avail | CPL# | Engine    | Comp Ratio | Piston Body | Cylinder Kit - Articulated Piston | Premium Cylinder Kit | Premium Plus Cylinder Kit | Dual Ni-Resist | Premium Plus .020 UPF Cylinder Kit | Premium Plus 020/.040 LPF Cylinder Kit | Dual Ni-Resist .020 / .040 LPF Cylinder Kit | After Cooler Model |
|-------|------|-----------|------------|-------------|-----------------------------------|----------------------|---------------------------|----------------|------------------------------------|--|---|--------------------|
| ✓     | 8350 | ISB       |            | FP-3970192  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8430 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8494 | ISL/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8535 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8536 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8537 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8538 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8539 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8569 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 8570 | ISC/CM850 |            | FP-4933120  |                                   |                      |                           |                |                                    |  |   |                    |
| ✓     | 9921 | N14-480   |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 9925 | N14-525   |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |
| ✓     | 9951 | N14-525   |            | FP-3087634X | FP-3803742                        |                      |                           |                |                                    |  |   |                    |

## Piston Supersession

| Original Piston (Obsolete) | Comp Ratio | Current Piston           | Comp Ratio | Optional Dual-Ni | Comp Ratio | Comment                     |
|----------------------------|------------|--------------------------|------------|------------------|------------|-----------------------------|
| 135980 <sup>33</sup>       | 14.9:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 167700 <sup>33</sup>       | 15.3:1     | FP-3048650               | 15.5:1     |                  |            | Non Piston Cooled           |
| 195850 <sup>33</sup>       | 13.5:1     | FP-3051557               | 13.5:1     |                  |            |                             |
| 198660 <sup>33</sup>       | 15.5:1     | FP-3042320 <sup>32</sup> | 15.5:1     | FP-3050366       | 15.5:1     | Piston Cooled & Aftercooled |
| 198660 <sup>33</sup>       | 15.5:1     | FP-3048650               | 15.5:1     |                  |            | Non Piston Cooled           |
| 198670 <sup>33</sup>       | 16.0:1     | FP-3051553               | 16.0:1     |                  |            |                             |
| 200390 <sup>33</sup>       | 14.1:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 200400 <sup>33</sup>       | 15.0:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 203090 <sup>33</sup>       | 14.5:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 214190 <sup>33</sup>       | 15.5:1     | FP-3042320 <sup>32</sup> | 15.5:1     | FP-3050366       | 15.5:1     | Piston Cooled & Aftercooled |
| 214190 <sup>33</sup>       | 15.5:1     | FP-3048650               | 15.5:1     |                  |            | Non Piston Cooled           |
| 214480 <sup>33</sup>       | 14.1:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 214870 <sup>33</sup>       | 13.5:1     | FP-3051557               | 13.5:1     |                  |            |                             |
| 215040 <sup>33</sup>       | 16.2:1     | FP-3051553               | 16.0:1     |                  |            |                             |
| 215420 <sup>33</sup>       | 14.5:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 216020 <sup>33</sup>       | 14.5:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 218269 <sup>33</sup>       | 14.7:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 218520 <sup>33</sup>       | 13.4:1     | FP-3051557               | 13.5:1     |                  |            |                             |
| 218860 <sup>33</sup>       | 16.5:1     | FP-3048650               | 15.5:1     |                  |            | Non Piston Cooled           |
| 219110 <sup>33</sup>       | 15.9:1     | FP-3051553               | 16.0:1     |                  |            |                             |
| 3007244 <sup>33</sup>      | 15.5:1     | FP-3042320 <sup>32</sup> | 15.5:1     | FP-3050366       | 15.5:1     | Piston Cooled & Aftercooled |
| 3007244 <sup>33</sup>      | 15.5:1     | FP-3048650               | 15.5:1     |                  |            | Non Piston Cooled           |
| 3007245 <sup>33</sup>      | 14.3:1     | FP-3051555               | 15.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 3007246 <sup>33</sup>      | 16.0:1     | FP-3051553               | 16.0:1     |                  |            |                             |
| 3008472 <sup>33</sup>      | 14.3:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 3009626 <sup>33</sup>      | 15.0:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 3010570 <sup>33</sup>      | 13.7:1     | FP-3051556 <sup>32</sup> | 14.0:1     | FP-3048808       | 14.0:1     | Piston Cooled & Aftercooled |
| 3012424 <sup>33</sup>      | 15.0:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 3017008 <sup>33</sup>      | 15.0:1     | FP-3051554               | 15.0:1     | FP-3048809       | 15.0:1     | Piston Cooled & Aftercooled |
| 3020944 <sup>33</sup>      | 13.7:1     | FP-3031277               | 14.0:1     |                  |            |                             |
| 3024675 <sup>33</sup>      | 13.9:1     | FP-3051556 <sup>32</sup> | 14.0:1     | FP-3048808       | 14.0:1     | Piston Cooled & Aftercooled |
| 3024676 <sup>33</sup>      | 14.5:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 3025476 <sup>33</sup>      | 13.7:1     | FP-3051556 <sup>32</sup> | 14.0:1     | FP-3048808       | 14.0:1     | Piston Cooled & Aftercooled |
| 3025477 <sup>33</sup>      | 14.1:1     | FP-3051556 <sup>32</sup> | 14.0:1     | FP-3048808       | 14.0:1     | Piston Cooled & Aftercooled |
| 3031139 <sup>33</sup>      | 14.0:1     | FP-3051556 <sup>32</sup> | 14.0:1     | FP-3048808       | 14.0:1     | Piston Cooled & Aftercooled |
| 3031140 <sup>33</sup>      | 14.5:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |
| 3037285 <sup>33</sup>      | 15.4:1     | FP-3050366               | 15.5:1     | FP-3050366       | 15.5:1     | Piston Cooled & Aftercooled |
| 3037346 <sup>33</sup>      | 13.4:1     | FP-3051557               | 13.5:1     |                  |            |                             |
| 3053500 <sup>33</sup>      | 14.0:1     | FP-3050480               | 14.0:1     | FP-3050480       | 14.0:1     | Piston Cooled & Aftercooled |
| 3053526 <sup>33</sup>      | 17.0:1     | FP-3069212               | 17.0:1     | FP-3069212       | 17.0:1     | Piston Cooled & Aftercooled |
| 3150043 <sup>33</sup>      | 14.3:1     | FP-3017349               | 14.5:1     |                  |            | Non Piston Cooled           |
| 3150043 <sup>33</sup>      | 14.3:1     | FP-3051555               | 14.5:1     | FP-3045948       | 14.5:1     | Piston Cooled & Aftercooled |

<sup>32</sup>Must Be Used In Complete Sets To Maintain Engine Balance <sup>33</sup>Not Offered By FP Diesel, See Corresponding "Current Piston Number" Column For Active Number  
 Non Piston cooled engines must use piston part number FP-3017348 or FP-3048650.

# 855 Series



## Piston Kits (4 Rings)



| Piston Kit* | Piston Kit With Pin** | Piston Body | Piston Pin | Description      | Piston Pin Retainers( 2 ) | Comp Ratio | Comment                            |
|-------------|-----------------------|-------------|------------|------------------|---------------------------|------------|------------------------------------|
| FP-3801057  | FP-3801057-WP         | FP-3017348  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.0:1     | Non Piston Cooled (Barrel Profile) |
| FP-3801058  | FP-3801058-WP         | FP-3017349  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     | Non Piston Cooled (Barrel Profile) |
| FP-3801229  | FP-3801229-WP         | FP-3028706  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.3:1     | .34" Valve Relief for Hi Lift Cams |
| FP-3801231  | FP-3801231-WP         | FP-3028686  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     | .34" Valve Relief for Hi Lift Cams |
| FP-3801233  | FP-3801233-WP         | FP-3028685  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.0:1     | .34" Valve Relief for Hi Lift Cams |
| FP-3801393  | FP-3801393-WP         | FP-3051557  | FP-191970  | Single Ni-Resist | FP-175755                 | 13.5:1     |                                    |
| FP-3801424  | FP-3801424-WP         | FP-3031227  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.0:1     |                                    |
| FP-3801533  | FP-3801533-WP         | FP-3042318  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     |                                    |
| FP-3801534  | FP-3801534-WP         | FP-3045948  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 14.5:1     | Piston Cooled & Aftercooled        |
| FP-3801535  | FP-3801535-WP         | FP-3042320  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.5:1     | Turbo Piston Cooled                |
| FP-3801660  | FP-3801660-WP         | FP-3042319  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.0:1     |                                    |
| FP-3801703  | FP-3801703-WP         | FP-3048650  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.5:1     | Piston Cooled                      |
| FP-3801744  | FP-3801744-WP         | FP-3050480  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 14.0:1     | Piston Cooled & Aftercooled        |
| FP-3801766  | FP-3801766-WP         | FP-3051553  | FP-191970  | Single Ni-Resist | FP-175755                 | 16.0:1     | Barrel Profile                     |
| FP-3801770  | FP-3801770-WP         | FP-3051555  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     | Piston Cooled Only                 |
| FP-3801773  | FP-3801773-WP         | FP-3051556  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.0:1     |                                    |
| FP-3801818  | FP-3801818-WP         | FP-3050366  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 15.5:1     | Piston Cooled & Aftercooled        |
| FP-3801819  | FP-3801819-WP         | FP-3048808  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 14.0:1     | Piston Cooled & Aftercooled        |
| FP-3801820  | FP-3801820-WP         | FP-3048809  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 15.0:1     | Piston Cooled & Aftercooled        |
| FP-3801876  | FP-3801876-WP         | FP-3051554  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.0:1     |                                    |
| FP-3801954  | FP-3801954-WP         | FP-3052794  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 15.5:1     | Piston Cooled & Aftercooled        |
| FP-3803344  | FP-3803344-WP         | FP-3069212  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 17.0:1     | Piston Cooled & Aftercooled        |
| FP-PK3102   | FP-PK3102-WP          | FP-3023102  | FP-191970  | Single Ni-Resist | FP-175755                 | 13.9:1     | Barrel Profile                     |
| FP-PK5516   | FP-PK5516-WP          | FP-3025516  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.5:1     | Barrel Profile                     |

\* Includes Piston Body Retainers \*\* Includes Piston Body, Pin Retainers

Warning: Dual-Ni resist pistons must be used with piston cooled and aftercooled engines.

Warning: Do not mix Single-Ni and Dual-Ni pistons in an engine.

Warning: Hi-Lift cams(FP-3801448 FP-3803903) must use piston P/N's FP-3028685, FP-3028686, FP-3028706 (.34" valve relief



# 855 Series



## Piston Kits (3 Rings)



| Piston Kit* | Piston Kit With Pin** | Piston Body | Piston Pin | Description      | Piston Pin Retainers( 2 ) | Comp Ratio | Comment      |
|-------------|-----------------------|-------------|------------|------------------|---------------------------|------------|--------------|
| FP-3804318  |                       | FP-3095711  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.5:1     | Premium      |
| FP-3804321  |                       | FP-3095702  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.0:1     | Premium      |
| FP-3804324  |                       | FP-3095703  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     | Premium      |
| FP-3804327  |                       | FP-3095704  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.0:1     | Premium      |
| FP-3804329  |                       | FP-3095705  | FP-191970  | Single Ni-Resist | FP-175755                 | 13.5:1     | Premium      |
| FP-3804330  |                       | FP-3076813  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 16.5:1     | Premium      |
| FP-3804332  |                       | FP-3076816  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 15.5:1     | Premium      |
| FP-3804333  |                       | FP-3076810  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 15.0:1     | Premium      |
| FP-3804336  |                       | FP-3076811  | FP-191970  | Dual Ni-Resist   | FP-175755                 | 14.5:1     | Premium      |
| FP-3804406  |                       | FP-3095757  | FP-191970  | Single Ni-Resist | FP-175755                 | 16.0:1     | Premium Plus |
| FP-3804411  |                       | FP-3095738  | FP-191970  | Single Ni-Resist | FP-175755                 | 15.0:1     | Premium Plus |
| FP-3804414  |                       | FP-3095739  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.5:1     | Premium Plus |
| FP-3804417  |                       | FP-3095740  | FP-191970  | Single Ni-Resist | FP-175755                 | 14.0:1     | Premium Plus |
| FP-3804419  |                       | FP-3095741  | FP-191970  | Single Ni-Resist | FP-175755                 | 13.5:1     | Premium Plus |
| FP-3804420  |                       | FP-3095064  | FP-191970  | Dual Ni-Anodized | FP-175755                 | 16.5:1     | Premium Plus |
| FP-3804422  |                       | FP-3095067  | FP-191970  | Dual Ni-Anodized | FP-175755                 | 15.0:1     | Premium Plus |
| FP-3804423  |                       | FP-3095061  | FP-191970  | Dual Ni-Anodized | FP-175756                 | 14.5:1     | Premium Plus |
| FP-3804426  |                       | FP-3095062  | FP-191970  | Dual Ni-Anodized | FP-175755                 | 14.0:1     | Premium Plus |

\* Includes Piston Body Retainers \*\* Includes Piston Body, Pin Retainers

Warning: Dual-Ni resist pistons must be used with piston cooled and aftercooled engines.

Warning: Do not mix Single-Ni and Dual-Ni pistons in an engine.

Warning: Hi-Lift cams(FP-3801448 FP-3803903) must use piston P/N's FP-3028685, FP-3028686, FP-3028706 (.34" valve relief



## 4-Ring Cylinder Kits

| Kit, Cylinder | Description     | Liner, Cylinder | Body, Piston    | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|-----------------|-----------------|-----------------|------------------|-------------|----------------------|-------------|------------|
| FP-3801230    | Prem+Cyl Kit    | FP-3055099      | FP-3028706 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801229  | 15.3:1     |
| FP-3801232    | Prem+Cyl Kit    | FP-3055099      | FP-3028686 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801231  | 14.5:1     |
| FP-3801746    | Prem+DN Cyl Kit | FP-3055099      | FP-3050480 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801744  | 14.0:1     |
| FP-3801764    | Prem+Cyl Kit    | FP-3055099      | FP-3051553 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801766  | 16.0:1     |
| FP-3801765    | Prem+Cyl Kit    | FP-3055099      | FP-3051553 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801766  | 16.0:1     |
| FP-3801767    | Prem+Cyl Kit    | FP-3046325      | FP-3042320 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801535  | 15.5:1     |
| FP-3801768    | Prem+Cyl Kit    | FP-3055099      | FP-3051555 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801770  | 14.5:1     |
| FP-3801769    | Prem+Cyl Kit    | FP-3046325      | FP-3051555 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801770  | 14.5:1     |
| FP-3801771    | Prem+Cyl Kit    | FP-3055099      | FP-3051556 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801773  | 14.0:1     |
| FP-3801772    | Prem+Cyl Kit    | FP-3046325      | FP-3051556 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801773  | 14.0:1     |
| FP-3801774    | Prem+Cyl Kit    | FP-3055099      | FP-3042320 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801535  | 15.5:1     |
| FP-3801775    | Prem+Cyl Kit    | FP-3055099      | FP-3042320 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801535  | 15.5:1     |
| FP-3801776    | Prem Cyl Kit    | FP-3055099      | FP-3051554 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801876  | 15.0:1     |
| FP-3801777    | Prem+Cyl Kit    | FP-3055099      | FP-3051554 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801876  | 15.0:1     |
| FP-3801778    | Prem+Cyl Kit    | FP-3046325      | FP-3051554 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801876  | 15.0:1     |
| FP-3801779    | Prem Cyl Kit    | FP-3055099      | FP-3051555 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801770  | 14.5:1     |
| FP-3801780    | Prem Cyl Kit    | FP-3055099      | FP-3051556 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801773  | 14.0:1     |
| FP-3801781    | Prem Cyl Kit    | FP-3055099      | FP-3051557 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801393  | 13.5:1     |
| FP-3801782    | Prem+Cyl Kit    | FP-3055099      | FP-3051557 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801393  | 13.5:1     |
| FP-3801783    | Prem+Cyl Kit    | FP-3055099      | FP-3031227 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801424  | 14.0:1     |
| FP-3801795    | Prem Cyl Kit    | FP-3055099      | FP-3048650 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801703  | 15.5:1     |
| FP-3801796    | Prem+Cyl Kit    | FP-3055099      | FP-3028685 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801233  | 14.0:1     |
| FP-3801797    | Prem+Cyl Kit    | FP-3055099      | FP-3042318 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801533  | 14.5:1     |
| FP-3801798    | Prem+Cyl Kit    | FP-3055099      | FP-3042319 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801660  | 15.0:1     |
| FP-3801811    | Prem+Cyl Kit    | FP-3046325      | FP-3028685 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801233  | 14.0:1     |
| FP-3801817    | Prem+DN Cyl Kit | FP-3055099      | FP-3045948 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801534  | 14.5:1     |
| FP-3801822    | Prem+DN Cyl Kit | FP-3055099      | FP-3050366 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801818  | 15.5:1     |
| FP-3801823    | Prem+DN Cyl Kit | FP-3055099      | FP-3048808 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801819  | 14.0:1     |
| FP-3801824    | Prem+DN Cyl Kit | FP-3055099      | FP-3048809 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801820  | 15.0:1     |
| FP-3801872    | Prem Cyl Kit    | FP-3055099      | FP-3017349 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801058  | 14.5:1     |
| FP-3801873    | Prem+Cyl Kit    | FP-3055099      | FP-3017349 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801058  | 14.5:1     |
| FP-3801874    | Prem Cyl Kit    | FP-3055099      | FP-3017348 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801057  | 15.0:1     |
| FP-3801875    | Prem+Cyl Kit    | FP-3055099      | FP-3017348 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801057  | 15.0:1     |
| FP-3801920    | Prem+Cyl Kit    | FP-3046325      | FP-3051553 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3051553  | 16.0:1     |
| FP-3801956    | Prem+DN Cyl Kit | FP-3055099      | FP-3052794 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801954  | 15.5:1     |
| FP-3803209    | Prem+Cyl Kit    | FP-3065405      | FP-3028685 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801233  | 14.0:1     |
| FP-3803210    | Prem+Cyl Kit    | FP-3065405      | FP-3042320 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801535  | 15.5:1     |
| FP-3803211    | Prem+Cyl Kit    | FP-3065405      | FP-3051553 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801766  | 16.0:1     |
| FP-3803212    | Prem+Cyl Kit    | FP-3065405      | FP-3051554 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801876  | 15.0:1     |
| FP-3803213    | Prem+Cyl Kit    | FP-3065405      | FP-3051555 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801770  | 14.5:1     |
| FP-3803214    | Prem+Cyl Kit    | FP-3065405      | FP-3051556 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801773  | 14.0:1     |
| FP-3803215    | Prem+DN Cyl Kit | FP-3055099      | FP-3048809 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801820  | 15.0:1     |
| FP-3803216    | Prem+DN Cyl Kit | FP-3065405      | FP-3045948 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801534  | 14.5:1     |
| FP-3803217    | Prem+DN Cyl Kit | FP-3065405      | FP-3048808 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801819  | 14.0:1     |
| FP-3803218    | Prem+DN Cyl Kit | FP-3065405      | FP-3050366 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801954  | 15.5:1     |
| FP-3803221    | Prem+Cyl Kit    | FP-3065405      | FP-3048650 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801703  | 15.5:1     |
| FP-3803223    | Prem+Cyl Kit    | FP-3065405      | FP-3017348 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801057  | 15.0:1     |
| FP-3803224    | Prem+Cyl Kit    | FP-3065405      | FP-3042319 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801660  | 15.0:1     |
| FP-3803225    | Prem+Cyl Kit    | FP-3065405      | FP-3042318 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801533  | 14.5:1     |
| FP-3803226    | Prem+Cyl Kit    | FP-3065405      | FP-3017349 (BP) | FP-4089811       | FP-191970   | FP-175755            | FP-3801058  | 14.5:1     |
| FP-3803227    | Prem+Cyl Kit    | FP-3065405      | FP-3031227 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801424  | 14.0:1     |

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.



## 4-Ring Cylinder Kits (Cont'd)

| Kit, Cylinder | Description     | Liner, Cylinder | Body, Piston    | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|-----------------|-----------------|-----------------|------------------|-------------|----------------------|-------------|------------|
| FP-3803228    | Prem+Cyl Kit    | FP-3065405      | FP-3051557 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801393  | 13.5:1     |
| FP-3803233    | Prem+DN Cyl Kit | FP-3065405      | FP-3050480 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801744  | 14.0:1     |
| FP-3803346    | Prem+DN Cyl Kit | FP-3055099      | FP-3069212 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3803344  | 17.0:1     |

## Custom Cylinder Kits (Standard LPF Liners)

| Kit, Cylinder  | Description  | Liner, Cylinder | Body, Piston    | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|----------------|--------------|-----------------|-----------------|------------------|-------------|----------------------|-------------|------------|
| FP-CK3102-5099 | Prem Cyl Kit | FP-3055099      | FP-3023102 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-PK3102   | 13.9:1     |
| FP-CK5516-5099 | Prem Cyl Kit | FP-3055099      | FP-3025516 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-PK5516   | 15.5:1     |

## Custom Cylinder Kits (020/040 Liners)

| Kit, Cylinder  | Description  | Liner, Cylinder | Body, Piston    | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|----------------|--------------|-----------------|-----------------|------------------|-------------|----------------------|-------------|------------|
| FP-CK1553-5405 | Prem Cyl Kit | FP-3065405      | FP-3051553 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801766  | 16.0:1     |
| FP-CK1554-5405 | Prem Cyl Kit | FP-3065405      | FP-3051554 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801876  | 15.0:1     |
| FP-CK1555-5405 | Prem Cyl Kit | FP-3065405      | FP-3051555 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801770  | 14.5:1     |
| FP-CK1556-5405 | Prem Cyl Kit | FP-3065405      | FP-3051556 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801773  | 14.0:1     |
| FP-CK1557-5405 | Prem Cyl Kit | FP-3065405      | FP-3051557 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801393  | 13.5:1     |
| FP-CK2320-5405 | Prem Cyl Kit | FP-3065405      | FP-3042320 (SR) | FP-4089810       | FP-191970   | FP-175755            | FP-3801535  | 15.5:1     |
| FP-CK5516-5405 | Prem Cyl Kit | FP-3065405      | FP-3025516 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-PK5516   | 15.5:1     |
| FP-CK7348-5405 | Prem Cyl Kit | FP-3065405      | FP-3017348 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801057  | 15.0:1     |
| FP-CK7349-5405 | Prem Cyl Kit | FP-3065405      | FP-3017349 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801058  | 14.5:1     |
| FP-CK8650-5405 | Prem Cyl Kit | FP-3065405      | FP-3048650 (BP) | FP-4089810       | FP-191970   | FP-175755            | FP-3801703  | 15.5:1     |

## Custom Cylinder Kits (020/040 Liners)(Prem+Dual Ni)

| Kit, Cylinder  | Description     | Liner, Cylinder | Body, Piston    | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|----------------|-----------------|-----------------|-----------------|------------------|-------------|----------------------|-------------|------------|
| FP-CK2794-5405 | Prem+DN Cyl Kit | FP-3065405      | FP-3052794 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3801954  | 15.5:1     |
| FP-CK9212-5405 | Prem+DN Cyl Kit | FP-3065405      | FP-3069212 (SR) | FP-4089811       | FP-191970   | FP-175755            | FP-3803344  | 17.0:1     |

## 3-Ring Cylinder Kits

| Kit, Cylinder | Description  | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|--------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804346    | Prem Cyl Kit | FP-3055099      | FP-3095757   | FP-4089489       | FP-191970   | FP-175755            | FP-3804406  | 16.0:1     |
| FP-3804348    | Prem Cyl Kit | FP-3055099      | FP-3095711   | FP-4089489       | FP-191970   | FP-175755            | FP-3804318  | 15.5:1     |
| FP-3804351    | Prem Cyl Kit | FP-3055099      | FP-3095702   | FP-4089489       | FP-191970   | FP-175755            | FP-3804321  | 15.0:1     |
| FP-3804354    | Prem Cyl Kit | FP-3055099      | FP-3095703   | FP-4089489       | FP-191970   | FP-175755            | FP-3804324  | 14.5:1     |
| FP-3804357    | Prem Cyl Kit | FP-3055099      | FP-3095704   | FP-4089489       | FP-191970   | FP-175755            | FP-3804327  | 14.0:1     |
| FP-3804359    | Prem Cyl Kit | FP-3055099      | FP-3095705   | FP-4089489       | FP-191970   | FP-175755            | FP-3804329  | 13.5:1     |

## Prem 3 Ring Cylinder Kit (020/040 Liners)

| Kit, Cylinder | Description  | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|--------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804376    | Prem Cyl Kit | FP-3065405      | FP-3095757   | FP-4089489       | FP-191970   | FP-175755            | FP-3804406  | 16.0:1     |
| FP-3804378    | Prem Cyl Kit | FP-3065405      | FP-3095711   | FP-4089489       | FP-191970   | FP-175755            | FP-3804318  | 15.5:1     |
| FP-3804381    | Prem Cyl Kit | FP-3065405      | FP-3095702   | FP-4089489       | FP-191970   | FP-175755            | FP-3804321  | 15.0:1     |
| FP-3804384    | Prem Cyl Kit | FP-3065405      | FP-3095703   | FP-4089489       | FP-191970   | FP-175755            | FP-3804324  | 14.5:1     |
| FP-3804387    | Prem Cyl Kit | FP-3065405      | FP-3095704   | FP-4089489       | FP-191970   | FP-175755            | FP-3804327  | 14.0:1     |
| FP-3804389    | Prem Cyl Kit | FP-3065405      | FP-3095705   | FP-4089489       | FP-191970   | FP-175755            | FP-3804329  | 13.5:1     |

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.



## Prem Plus 3 Ring Cylinder Kit

| Kit, Cylinder | Description  | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|--------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804436    | Prem+Cyl Kit | FP-3055099      | FP-3095757   | FP-4089489       | FP-191970   | FP-175755            | FP-3804406  | 16.0:1     |
| FP-3804441    | Prem+Cyl Kit | FP-3055099      | FP-3095738   | FP-4089489       | FP-191970   | FP-175755            | FP-3804411  | 15.0:1     |
| FP-3804444    | Prem+Cyl Kit | FP-3055099      | FP-3095739   | FP-4089489       | FP-191970   | FP-175755            | FP-3804414  | 14.5:1     |
| FP-3804447    | Prem+Cyl Kit | FP-3055099      | FP-3095740   | FP-4089489       | FP-191970   | FP-175755            | FP-3804417  | 14.0:1     |
| FP-3804449    | Prem+Cyl Kit | FP-3055099      | FP-3095741   | FP-4089489       | FP-191970   | FP-175755            | FP-3804419  | 13.5:1     |

## Prem Plus 3 Ring Cylinder Kit (020/040 Liners)

| Kit, Cylinder | Description  | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|--------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804466    | Prem+Cyl Kit | FP-3065405      | FP-3095757   | FP-4089489       | FP-191970   | FP-175755            | FP-3804406  | 16.0:1     |
| FP-3804471    | Prem+Cyl Kit | FP-3065405      | FP-3095738   | FP-4089489       | FP-191970   | FP-175755            | FP-3804411  | 15.0:1     |
| FP-3804474    | Prem+Cyl Kit | FP-3065405      | FP-3095739   | FP-4089489       | FP-191970   | FP-175755            | FP-3804414  | 14.5:1     |
| FP-3804477    | Prem+Cyl Kit | FP-3065405      | FP-3095740   | FP-4089489       | FP-191970   | FP-175755            | FP-3804417  | 14.0:1     |
| FP-3804479    | Prem+Cyl Kit | FP-3065405      | FP-3095741   | FP-4089489       | FP-191970   | FP-175755            | FP-3804419  | 13.5:1     |

## Prem 3 Ring Dual Ni Cylinder Kits

| Kit, Cylinder | Description     | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|-----------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804360    | Prem+DN Cyl Kit | FP-3055099      | FP-3076813   | FP-4089489       | FP-191970   | FP-175755            | FP-3804330  | 16.5:1     |
| FP-3804362    | Prem+DN Cyl Kit | FP-3055099      | FP-3076816   | FP-4089489       | FP-191970   | FP-175755            | FP-3804332  | 15.5:1     |
| FP-3804363    | Prem+DN Cyl Kit | FP-3055099      | FP-3076810   | FP-4089489       | FP-191970   | FP-175755            | FP-3804333  | 15.0:1     |
| FP-3804366    | Prem+DN Cyl Kit | FP-3055099      | FP-3076811   | FP-4089489       | FP-191970   | FP-175755            | FP-3804336  | 14.5:1     |

## Prem 3 Ring Dual Ni Cylinder Kits (020/040 Liners)

| Kit, Cylinder | Description     | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|-----------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804390    | Prem+DN Cyl Kit | FP-3065405      | FP-3076813   | FP-4089489       | FP-191970   | FP-175755            | FP-3804330  | 16.5:1     |
| FP-3804392    | Prem+DN Cyl Kit | FP-3065405      | FP-3076816   | FP-4089489       | FP-191970   | FP-175755            | FP-3804332  | 15.5:1     |
| FP-3804393    | Prem+DN Cyl Kit | FP-3065405      | FP-3076810   | FP-4089489       | FP-191970   | FP-175755            | FP-3804333  | 15.0:1     |
| FP-3804396    | Prem+DN Cyl Kit | FP-3065405      | FP-3076811   | FP-4089489       | FP-191970   | FP-175755            | FP-3804336  | 14.5:1     |

## Prem Plus 3 Ring Dual Ni Anodized Cylinder Kits

| Kit, Cylinder | Description  | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|--------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804450    | Prem+Cyl Kit | FP-3055099      | FP-3095064   | FP-4089489       | FP-191970   | FP-175755            | FP-3804420  | 16.5:1     |
| FP-3804452    | Prem+Cyl Kit | FP-3055099      | FP-3095067   | FP-4089489       | FP-191970   | FP-175755            | FP-3804422  | 15.0:1     |
| FP-3804453    | Prem+Cyl Kit | FP-3055099      | FP-3095061   | FP-4089489       | FP-191970   | FP-175755            | FP-3804423  | 14.5:1     |
| FP-3804456    | Prem+Cyl Kit | FP-3055099      | FP-3095062   | FP-4089489       | FP-191970   | FP-175755            | FP-3804426  | 14.0:1     |

## Prem Plus 3 Ring Dual Ni Anodized Cylinder Kits (020/040 Liners)

| Kit, Cylinder | Description     | Liner, Cylinder | Body, Piston | Ring Set, Piston | Pin, Piston | Retainer, Piston Pin | Kit, Piston | Comp Ratio |
|---------------|-----------------|-----------------|--------------|------------------|-------------|----------------------|-------------|------------|
| FP-3804480    | Prem+DN Cyl Kit | FP-3065405      | FP-3095064   | FP-4089489       | FP-191970   | FP-175755            | FP-3804420  | 16.5:1     |
| FP-3804482    | Prem+DN Cyl Kit | FP-3065405      | FP-3095067   | FP-4089489       | FP-191970   | FP-175755            | FP-3804422  | 15.0:1     |
| FP-3804483    | Prem+DN Cyl Kit | FP-3065405      | FP-3095061   | FP-4089489       | FP-191970   | FP-175755            | FP-3804423  | 14.5:1     |
| FP-3804486    | Prem+DN Cyl Kit | FP-3065405      | FP-3095062   | FP-4089489       | FP-191970   | FP-175755            | FP-3804426  | 14.0:1     |

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.

# C464, 743, Small & Medium Vee



## Cylinder Kits

| Engine      | Cylinder Kit | Liner, Cylinder | Body, Piston | Ring Set, Piston | Piston Pin | Retainer, Piston Pin | Kit, Piston             | Comp Ratio |
|-------------|--------------|-----------------|--------------|------------------|------------|----------------------|-------------------------|------------|
| HR-6        | FP-AR7375    | FP-184400       | FP-200680    | FP-AR12098       | FP-203070  | FP-175755            | FP-AR7420 <sup>34</sup> | 15.5:1     |
| NS743       | FP-AR7399    | FP-184400       | FP-200710    | FP-AR12098       | FP-203070  | FP-175755            | FP-AR7440 <sup>34</sup> | 14:1       |
| NT743/NH220 | FP-AR7383    | FP-184400       | FP-199821    | FP-AR12098       | FP-203070  | FP-175755            | FP-AR7510 <sup>34</sup> | 15:1       |

Above Cylinder Kits Include Items In Shaded Area Plus (1) FP-181449, FP-216879 Seal Rings (1) FP-215983 Crevice Seal

<sup>34</sup>Piston Kits Include Piston Body, Piston Pin And Retainers  
The Above Piston Kits Contain Piston Body, retainers And Teflon Inserts.

# Numerical Index



| Part Number | Page             | Part Number | Page    | Part Number | Page     |
|-------------|------------------|-------------|---------|-------------|----------|
| 118227      | 69               | 3012474     | 235     | 3068935     | 177      |
| 127362      | 227              | 3013768     | 105     | 3069707     | 115      |
| 130083      | 233              | 3014754     | 121     | 3069708     | 115      |
| 135980      | 303              | 3014766     | 233     | 3070072     | 123      |
| 142207      | 121              | 3015865     | 175     | 3073569     | 115      |
| 143066      | 59, 105          | 3016770     | 83, 125 | 3073571     | 115      |
| 148555      | 121              | 3016771     | 83, 125 | 3073572     | 115      |
| 160540      | 131              | 3016772     | 85, 127 | 3073574     | 115      |
| 167700      | 303              | 3016774     | 125     | 3079589     | 123      |
| 170664      | 131              | 3016780     | 83, 125 | 3079754     | 227      |
| 173086      | 115              | 3016781     | 83, 125 | 3081040     | 231      |
| 179063      | 121              | 3016782     | 85, 127 | 3081261     | 233      |
| 181C        | 227              | 3016784     | 125     | 3081494     | 227      |
| 195850      | 303              | 3017008     | 303     | 3081677     | 227      |
| 196057      | 129, 243         | 3020944     | 303     | 3081837     | 227, 229 |
| 198660      | 303              | 3021123     | 131     | 3081898     | 229      |
| 198670      | 303              | 3024675     | 303     | 3084445     | 125      |
| 199349      | 71               | 3024676     | 303     | 3085615     | 129      |
| 200390      | 303              | 3025476     | 303     | 3085978     | 229      |
| 200400      | 303              | 3025477     | 303     | 3085980     | 229      |
| 203090      | 303              | 3027106     | 125     | 3086052     | 237      |
| 203426      | 239              | 3027232     | 69      | 3086120     | 227      |
| 206741      | 123              | 3028309     | 131     | 3086192     | 229      |
| 206904      | 231              | 3028349     | 229     | 3086193     | 229      |
| 214190      | 303              | 3029920     | 123     | 3087691     | 237      |
| 214480      | 303              | 3031139     | 303     | 3089025     | 183      |
| 214870      | 303              | 3031140     | 303     | 3089716     | 229      |
| 215040      | 303              | 3032693     | 61, 107 | 3090000     | 233      |
| 215420      | 303              | 3033719     | 131     | 3090007     | 229      |
| 216020      | 303              | 3034721     | 235     | 3090009     | 233      |
| 218269      | 303              | 3037285     | 303     | 3090010     | 233      |
| 218520      | 303              | 3037346     | 303     | 3090170     | 237      |
| 218860      | 303              | 3041042     | 131     | 3090256     | 233      |
| 219110      | 303              | 3041043     | 131     | 3090297     | 227, 231 |
| 2830704     | 23               | 3041048     | 131     | 3090320     | 227      |
| 2830705     | 23               | 3044360     | 123     | 3090358     | 233      |
| 2830706     | 23               | 3044399     | 258     | 3090377     | 229, 233 |
| 2830707     | 23               | 3045047     | 239     | 3090450     | 245      |
| 3002126     | 237              | 3045136     | 233     | 3090460     | 245      |
| 3004258     | 59, 105          | 3045137     | 233     | 3090484     | 231      |
| 3007244     | 303              | 3045850     | 123     | 3090495     | 229      |
| 3007245     | 303              | 3046202     | 229     | 3095356     | 129, 131 |
| 3007246     | 303              | 3053500     | 303     | 3096478     | 227      |
| 3008446     | 121              | 3053526     | 303     | 3102499     | 135      |
| 3008465     | 123              | 3055742     | 115     | 3102649     | 135      |
| 3008466     | 121              | 3056003     | 235     | 3102723     | 135      |
| 3008468     | 19, 59, 105, 121 | 3056416     | 229     | 3102901     | 129      |
| 3008469     | 19, 69           | 3063296     | 258     | 3150043     | 303      |
| 3008470     | 59, 105, 121     | 3064621     | 123     | 3200988     | 237      |
| 3008472     | 303              | 3065792     | 237     | 3278093     | 229      |
| 3009330     | 121, 123, 183    | 3066693     | 115     | 3289135     | 69       |
| 3009626     | 303              | 3066695     | 115     | 3289257     | 33       |
| 3009953     | 129              | 3066707     | 115     | 3328379     | 123      |
| 3010570     | 303              | 3067804     | 139     | 3328617     | 183      |
| 3012424     | 303              | 3068860     | 115     | 3328637     | 123      |





# Numerical Index

| Part Number | Page                 | Part Number | Page     | Part Number | Page        |
|-------------|----------------------|-------------|----------|-------------|-------------|
| 3329533     | 233                  | 3679314     | 177      | 3800775     | 187         |
| 3329999     | 239                  | 3679336     | 179      | 3800940     | 189         |
| 3330478     | 173                  | 3679418     | 175      | 3800941     | 189         |
| 3330764     | 243                  | 3679537     | 175      | 3802917     | 37          |
| 3331752     | 229                  | 3679551     | 175      | 3802918     | 37          |
| 3335550     | 135                  | 3679770     | 183      | 3802919     | 37          |
| 3347937     | 239                  | 3679880     | 183      | 3802925     | 37          |
| 3348618     | 243                  | 3679929     | 179      | 3802926     | 37          |
| 3348652     | 243                  | 3679930     | 179      | 3802927     | 37          |
| 3348747     | 29                   | 3679931     | 179      | 3802928     | 37          |
| 3401439     | 129                  | 3679932     | 179      | 3802929     | 37          |
| 3402170     | 233                  | 3679933     | 179      | 3803971     | 139         |
| 3408259     | 233                  | 3679934     | 179      | 3803978     | 139         |
| 3408346     | 29                   | 3679937     | 175      | 3803980     | 139         |
| 3408438     | 29                   | 3679954     | 183      | 3804501     | 171         |
| 3411880     | 183                  | 3680057     | 229      | 3804639     | 171         |
| 3411881     | 183                  | 3680095     | 173      | 3804653     | 171         |
| 3411882     | 183                  | 3680173     | 179      | 3804664     | 227         |
| 3412284     | 179                  | 3680201     | 173      | 3804930     | 37          |
| 3412352     | 175                  | 3680202     | 177      | 3804931     | 37          |
| 3412426     | 175                  | 3680239     | 173      | 3804932     | 37          |
| 3417162     | 243                  | 3680318     | 175      | 3804980     | 37          |
| 3417290     | 239                  | 3680324     | 187      | 3804981     | 37          |
| 3417769     | 123                  | 3680329     | 183      | 3804982     | 37          |
| 3418883     | 183                  | 3680373     | 173      | 3813247     | 175         |
| 3558515     | 135                  | 3680420     | 173      | 3819974     | 125         |
| 35589549    | 73                   | 3680453     | 183      | 3820320     | 183         |
| 3608888     | 177                  | 3680465     | 187      | 3820749     | 123         |
| 3609826     | 135, 235             | 3680534     | 173, 177 | 3821160     | 123         |
| 3634664     | 229                  | 3680542     | 177      | 3821725     | 121         |
| 3641537     | 229                  | 3680580     | 175      | 3822067     | 129         |
| 3678488     | 179                  | 3680581     | 175      | 3867410     | 243         |
| 3678506     | 173, 175             | 3680593     | 183      | 3867578     | 243         |
| 3678507     | 173                  | 3680595     | 183      | 3867651     | 239         |
| 3678555     | 177                  | 3680596     | 183      | 3867687     | 239         |
| 3678556     | 177                  | 3680712     | 183      | 3871558     | 179         |
| 3678574     | 177                  | 3680713     | 183      | 3882586     | 183         |
| 3678590     | 189                  | 3680714     | 183      | 3882793     | 133         |
| 3678603     | 173, 175             | 3680781     | 173      | 3883123     | 131         |
| 3678606     | 173, 175, 177, 183   | 3680884     | 175      | 3883963     | 187         |
| 3678610     | 173                  | 3680955     | 175      | 3892692     | 183         |
| 3678611     | 175                  | 3681046     | 173, 189 | 3895831     | 123         |
| 3678724     | 181                  | 3681071     | 175      | 3895864     | 298, 299    |
| 3678737     | 173                  | 3681145     | 173      | 3896046     | 131         |
| 3678738     | 173, 189             | 3681204     | 179      | 3896335     | 129         |
| 3678739     | 177                  | 3681710     | 179      | 3896970     | 125         |
| 3678751     | 173, 175             | 3681737     | 189      | 3900068     | 19          |
| 3678756     | 173                  | 3681738     | 189      | 3900227     | 29, 67, 111 |
| 3678804     | 175                  | 3800298     | 177      | 3900257     | 19, 59, 105 |
| 3678921     | 19, 59, 105, 183     | 3800316     | 75       | 3900629     | 19          |
| 3678922     | 19, 59, 105          | 3800453     | 189      | 3900677     | 33, 69      |
| 3678923     | 19, 59, 61, 105, 107 | 3800751     | 183      | 3900955     | 19          |
| 3678924     | 19, 59, 61, 105, 107 | 3800753     | 183      | 3900956     | 19, 105     |
| 3679122     | 175                  | 3800770     | 187      | 3900958     | 19          |
| 3679139     | 187                  | 3800774     | 187      | 3901447     | 63          |

# Numerical Index



| Part Number | Page               | Part Number | Page               | Part Number | Page          |
|-------------|--------------------|-------------|--------------------|-------------|---------------|
| 3901846     | 59, 105, 175       | 3938706     | 21, 29             | 3945094     | 23, 61, 107   |
| 3902332     | 29, 67             | 3939352     | 59, 105            | 3945095     | 23            |
| 3902343     | 19                 | 3939367     | 27                 | 3945097     | 61, 107       |
| 3902460     | 179                | 3940152     | 61, 107            | 3945098     | 61, 107       |
| 3903112     | 173                | 3941140     | 61                 | 3945920     | 109           |
| 3904181     | 59                 | 3941253     | 23                 | 3945921     | 109           |
| 3904483     | 27, 65, 109        | 3941786     | 105                | 3946050     | 37            |
| 3905401     | 59, 105            | 3941910     | 19                 | 3946053     | 37            |
| 3906216     | 105                | 3941927     | 23                 | 3946054     | 37            |
| 3906619     | 33, 69             | 3941928     | 23                 | 3946168     | 23            |
| 3907860     | 69                 | 3941934     | 61                 | 3947530     | 23            |
| 3910248     | 59                 | 3941937     | 61, 107            | 3948465     | 37, 301       |
| 3910787     | 59                 | 3942087     | 109                | 3948466     | 37            |
| 3910960     | 29, 59, 105        | 3942567     | 29                 | 3948467     | 37            |
| 3911678     | 175                | 3942645     | 107                | 3948468     | 37            |
| 3913638     | 19                 | 3942730     | 23                 | 3948469     | 37            |
| 3914369     | 55                 | 3943445     | 61                 | 3948471     | 298, 299, 301 |
| 3915787     | 33                 | 3943449     | 23                 | 3948888     | 107           |
| 3917883     | 67, 111            | 3943450     | 23                 | 3949808     | 301           |
| 3918776     | 65, 109            | 3943626     | 23                 | 3950135     | 67, 111       |
| 3920400     | 19                 | 3943708     | 298, 299, 300, 301 | 3950549     | 75, 119       |
| 3920706     | 19, 23, 61, 107    | 3943765     | 29                 | 3954829     | 33            |
| 3921816     | 19                 | 3943767     | 29                 | 3957492     | 21            |
| 3921888     | 298                | 3943769     | 29                 | 3959045     | 115           |
| 3921992     | 19                 | 3943771     | 29                 | 3959128     | 23            |
| 3924147     | 19, 59             | 3943773     | 23, 29             | 3959291     | 105           |
| 3924148     | 19, 59, 105, 109   | 3943775     | 23, 29             | 3959798     | 107           |
| 3924962     | 19                 | 3943777     | 29                 | 3959799     | 63            |
| 3925009     | 33                 | 3943933     | 61                 | 3960043     | 63, 107       |
| 3925344     | 71                 | 3944001     | 67, 111            | 3963990     | 67            |
| 3925673     | 293, 294, 295      | 3944073     | 298, 299, 300      | 3964028     | 105           |
| 3926790     | 293, 297           | 3944153     | 65, 109            | 3964141     | 61            |
| 3926846     | 19                 | 3944154     | 65, 109            | 3964142     | 61            |
| 3926961     | 295, 296, 297, 298 | 3944155     | 65, 109            | 3964143     | 61            |
| 3927155     | 29                 | 3944156     | 109                | 3964712     | 61            |
| 3927948     | 19                 | 3944157     | 109                | 3964713     | 61            |
| 3928174     | 43                 | 3944158     | 65, 109            | 3964714     | 61            |
| 3928499     | 33                 | 3944159     | 65, 109            | 3964715     | 61            |
| 3929751     | 19                 | 3944160     | 65, 109            | 3964720     | 61            |
| 3930314     | 298                | 3944161     | 109                | 3964721     | 61            |
| 3930910     | 69                 | 3944162     | 109                | 3964722     | 61            |
| 3931077     | 69                 | 3944163     | 65, 109            | 3964796     | 61, 107       |
| 3931084     | 69                 | 3944164     | 65, 109            | 3964797     | 61            |
| 3932290     | 19                 | 3944165     | 65, 109            | 3964908     | 23            |
| 3932296     | 19                 | 3944166     | 109                | 3965006     | 65            |
| 3932514     | 37                 | 3944167     | 109                | 3965010     | 109           |
| 3933581     | 37                 | 3944174     | 61                 | 3965721     | 107, 115      |
| 3933582     | 37                 | 3944203     | 27                 | 3965966     | 67, 111       |
| 3934147     | 105                | 3944204     | 27                 | 3966244     | 109           |
| 3934278     | 69                 | 3944452     | 63, 107            | 3966365     | 69            |
| 3934410     | 69                 | 3944679     | 109                | 3966431     | 67, 111       |
| 3935892     | 23                 | 3944816     | 19                 | 3966522     | 71            |
| 3935945     | 23, 61             | 3944833     | 29                 | 3966656     | 113           |
| 3935946     | 23                 | 3944874     | 69                 | 3966658     | 61, 107       |
| 3938163     | 67                 | 3945093     | 61, 107            | 3966708     | 61, 107       |





# Numerical Index

| Part Number | Page                         | Part Number | Page                    | Part Number | Page              |
|-------------|------------------------------|-------------|-------------------------|-------------|-------------------|
| 3966721     | 119                          | 4026587     | 179                     | 4910518     | 227               |
| 3966722     | 119                          | 4026588     | 179                     | 4918688     | 177               |
| 3966976     | 19, 69                       | 4026621     | 173                     | 4920470     | 175               |
| 3967195     | 33                           | 4026622     | 173                     | 4923748     | 189               |
| 3967265     | 61                           | 4026657     | 175                     | 4925971     | 177               |
| 3967346     | 109                          | 4026684     | 173, 177                | 4925972     | 177               |
| 3967347     | 109                          | 4026691     | 183                     | 4925973     | 177               |
| 3968074     | 61, 107                      | 4026791     | 175                     | 4925975     | 177               |
| 3968187     | 67, 113                      | 4059905     | 139                     | 4925976     | 177               |
| 3968404     | 75                           | 4059948     | 139                     | 4925977     | 177               |
| 3969637     | 63                           | 4060420     | 139, 296                | 4926316     | 175               |
| 3970548     | 21                           | 4064582     | 123                     | 4931365     | 35                |
| 3972080     | 29                           | 4065632     | 229                     | 4933749     | 301               |
| 3975796     | 19                           | 4065751     | 233                     | 4934063     | 61                |
| 3976831     | 33                           | 4070311     | 294, 295, 296, 297, 298 | 4937311     | 59                |
| 3990084     | 29, 63, 107                  | 4080829     | 227                     | 4939178     | 23                |
| 3990127     | 23                           | 4081128     | 227                     | 4947667     | 21                |
| 3991123     | 69                           | 4081176     | 245                     | 4955204     | 75                |
| 4000595     | 227, 231                     | 4086649     | 229                     | 4955594     | 173               |
| 4001717     | 243                          | 4087871     | 239                     | 4955595     | 173               |
| 4001902     | 173                          | 4088750     | 67                      | 4955643     | 61                |
| 4001979     | 241                          | 4089153     | 189                     | 4962603     | 177               |
| 4009692     | 239                          | 4089154     | 189                     | 4962705     | 177               |
| 4010026     | 239                          | 4089173     | 19                      | 4965569     | 177               |
| 4010296     | 131                          | 4089207     | 137                     | 4965688     | 177               |
| 4010509     | 241                          | 4089209     | 137                     | 4965868     | 175               |
| 4010510     | 241                          | 4089211     | 137                     | 68274       | 69                |
| 4010519     | 29, 105                      | 4089213     | 137                     | 69558       | 231               |
| 4010577     | 239                          | 4089386     | 139                     | FP-001023   | 275               |
| 4010578     | 239                          | 4089405     | 177                     | FP-001030   | 275               |
| 4010643     | 105                          | 4089406     | 189                     | FP-001081   | 275               |
| 4016438     | 229                          | 4089644     | 119                     | FP-001082   | 275               |
| 4022532     | 139                          | 4089645     | 75                      | FP-001083   | 275               |
| 4022914     | 133                          | 4089646     | 119                     | FP-001094   | 275               |
| 4023086     | 123                          | 4089761     | 61                      | FP-001219   | 275               |
| 4024844     | 139                          | 4089762     | 61                      | FP-001234   | 275               |
| 4024938     | 139                          | 4089845     | 177                     | FP-001519   | 275               |
| 4024939     | 139                          | 4089846     | 177                     | FP-002856   | 275               |
| 4024940     | 139                          | 4089908     | 181                     | FP-003678   | 275               |
| 4024941     | 139                          | 4089978     | 61                      | FP-004205   | 275               |
| 4025107     | 19                           | 4090016     | 177                     | FP-007447   | 275               |
| 4025108     | 19                           | 4090017     | 177                     | FP-007500   | 275               |
| 4025124     | 125                          | 4095096     | 237                     | FP-010180   | 275               |
| 4025138     | 19                           | 4101454     | 175                     | FP-010843   | 275               |
| 4025139     | 19                           | 4101507     | 189                     | FP-011930   | 275               |
| 4025158     | 139                          | 4891179     | 27                      | FP-012261   | 275               |
| 4025160     | 139                          | 4902780     | 113                     | FP-012292   | 275               |
| 4025167     | 139, 294, 295, 296, 297, 298 | 4902921     | 133                     | FP-013294   | 275               |
| 4025174     | 139, 296                     | 4902952     | 113                     | FP-014619   | 275               |
| 4025175     | 139                          | 4903442     | 131                     | FP-014848   | 275               |
| 4026423     | 175                          | 4903443     | 131                     | FP-014928   | 275               |
| 4026488     | 173                          | 4907151     | 177                     | FP-015561   | 275               |
| 4026490     | 173                          | 4907152     | 177                     | FP-017337   | 275               |
| 4026522     | 179                          | 4907153     | 177                     | FP-100099   | 89, 167, 221, 280 |
| 4026523     | 179                          | 4907154     | 177                     | FP-100192   | 280               |

# Numerical Index



| Part Number | Page  | Part Number | Page  | Part Number  | Page   |
|-------------|---|-------------|---|--------------|--|
| FP-100215   | 89, 113, 167, 221, 278                                      | FP-135957   | 257   | FP-145956    | 282  |
| FP-100216   | 221, 278  | FP-137370   | 282   | FP-145957    | 282  |
| FP-100217   | 221, 278  | FP-137808   | 280   | FP-145958    | 282  |
| FP-100478   | 165, 219, 280   | FP-138862   | 282   | FP-145959    | 282  |
| FP-100918   | 266   | FP-139618   | 282   | FP-145960    | 282  |
| FP-101322   | 49, 93, 145, 265  | FP-139619   | 282   | FP-146076    | 261  |
| FP-101918   | 280   | FP-139894   | 219, 282  | FP-146160    | 280  |
| FP-102522   | 261   | FP-139988   | 89, 131, 167, 221, 280                                      | FP-146309    | 264  |
| FP-103009   | 197, 205, 207   | FP-140330   | 258   | FP-146483    | 165, 219, 280                                    |
| FP-104087   | 280   | FP-140417   | 165, 282  | FP-147100    | 145, 258   |
| FP-106276   | 273   | FP-140418   | 282   | FP-147263    | 263  |
| FP-107738   | 205   | FP-140922   | 282   | FP-147389    | 79, 199  |
| FP-107981   | 145, 205  | FP-140923   | 282   | FP-147389    | 258  |
| FP-108172   | 195, 201  | FP-140924   | 282   | FP-147389    | 275  |
| FP-108692   | 283   | FP-140925   | 282   | FP-147610    | 51, 71, 97, 101, 155, 159, 211, 215, 269         |
| FP-109080   | 163, 262  | FP-140926   | 282   | FP-149767    | 280  |
| FP-109333   | 265   | FP-140927   | 282   | FP-150631    | 101, 159, 215                                    |
| FP-109557   | 51, 53, 97, 99, 155, 157, 159, 209, 211, 213, 262, 269, 271 | FP-141624   | 282   | FP-151355    | 197  |
| FP-110827   | 264   | FP-141625   | 282   | FP-151900    | 89, 167, 221, 280                                |
| FP-110848   | 264   | FP-141626   | 282   | FP-153518    | 197, 203, 227                                    |
| FP-110855   | 89, 113, 131, 167, 221, 278, 280                            | FP-141629   | 219, 282  | FP-153964    | 51, 97, 155, 211, 269                            |
| FP-112302   | 95, 260   | FP-141630   | 282   | FP-154018    | 51, 53, 71, 97, 99, 155, 157, 211, 213, 269, 271 |
| FP-114753   | 267   | FP-141631   | 282   | FP-154087    | 87, 167, 221, 280                                |
| FP-116391   | 153, 205, 273   | FP-141632   | 282   | FP-154088    | 280  |
| FP-116982   | 263   | FP-141633   | 282   | FP-154916    | 163, 265   |
| FP-118377   | 259   | FP-141634   | 282   | FP-154966    | 260  |
| FP-118378   | 259   | FP-141636   | 282   | FP-156420    | 266  |
| FP-118939   | 259   | FP-141637   | 282   | FP-156444    | 266  |
| FP-119363   | 89, 113, 167, 221, 278                                      | FP-141638   | 282   | FP-157088    | 165, 219, 280                                    |
| FP-119364   | 131, 167, 221, 278  | FP-142608   | 264   | FP-157098    | 261  |
| FP-120819   | 259   | FP-142689   | 151, 273  | FP-157551    | 141, 149, 265                                    |
| FP-123558   | 79, 257   | FP-142804   | 253   | FP-160586    | 95, 135  |
| FP-127554   | 257, 283  | FP-143847   | 280   | FP-162426    | 273  |
| FP-127936   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-144178   | 165, 219, 280   | FP-163944    | 89, 165, 219, 280                                |
| FP-127940   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-144302   | 280   | FP-166009    | 276  |
| FP-127950   | 215   | FP-144714   | 51, 53, 97, 99, 101, 157, 271                               | FP-166630    | 283  |
| FP-128080   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-144948   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-167157    | 91, 117, 217, 239                                |
| FP-128085   | 53, 99, 157, 159, 213, 271                                  | FP-145028   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 215, 269, 271      | FP-167166    | 278  |
| FP-128086   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-145504   | 163, 219, 221, 280  | FP-167169    | 278  |
| FP-129768   | 280   | FP-145505   | 221   | FP-167299    | 266  |
| FP-129888   | 87, 129, 167, 185, 221, 241, 243, 280                       | FP-145551   | 151, 161, 163   | FP-168306    | 79, 199, 258                                     |
| FP-130226   | 260   | FP-145600   | 197   | FP-169660    | 281  |
| FP-130240   | 260   | FP-145623   | 207, 235  | FP-169660-10 | 281  |
| FP-130394   | 261   | FP-145701   | 257   | FP-169660-11 | 281  |
| FP-131026   | 145, 258  | FP-145947   | 282   | FP-169660-12 | 281  |
| FP-132770   | 141, 149, 153, 195, 201, 227, 248, 273                      | FP-145948   | 282   | FP-169660-13 | 281  |
| FP-134075   | 280   | FP-145949   | 282   | FP-169660-14 | 281  |
| FP-134076   | 241, 243  | FP-145949   | 282   | FP-169660-15 | 281  |
| FP-135308   | 145   | FP-145950   | 282   | FP-169660-16 | 281  |
| FP-135527   | 265   | FP-145951   | 282   | FP-169660-17 | 281  |
| FP-135675   | 260, 261, 283   | FP-145952   | 282   | FP-169660-18 | 281  |
|             |   | FP-145953   | 282   | FP-169660-19 | 281  |
|             |   | FP-145954   | 282   | FP-169660-20 | 281  |
|             |   | FP-145955   | 282   |              |  |



# Numerical Index

| Part Number | Page  | Part Number  | Page                            | Part Number | Page               |
|-------------|---|--------------|---------------------------------|-------------|--------------------|
| FP-169660-8 | 281   | FP-196844    | 161                             | FP-203426   | 91, 115, 217       |
| FP-169660-9 | 281   | FP-196932    | 266                             | FP-203660   | 254, 283           |
| FP-169661   | 281   | FP-199347    | 101, 159, 215                   | FP-203661   | 254, 283           |
| FP-169662   | 281   | FP-199410    | 260                             | FP-203662   | 254, 283           |
| FP-169663   | 281   | FP-199821    | 309                             | FP-203663   | 254, 283           |
| FP-169664   | 281   | FP-200307    | 151, 163, 273                   | FP-203664   | 254, 283           |
| FP-169665   | 281   | FP-200566    | 263                             | FP-203670   | 283                |
| FP-169666   | 281   | FP-200680    | 309                             | FP-203671   | 283                |
| FP-169667   | 281   | FP-200710    | 309                             | FP-203672   | 283                |
| FP-170296   | 257   | FP-200730    | 283                             | FP-203673   | 283                |
| FP-170664   | 89, 151, 205, 273   | FP-200743    | 280                             | FP-203674   | 283                |
| FP-170942   | 221, 278  | FP-200861    | 141, 149, 195, 253              | FP-203922   | 264                |
| FP-171570   | 266   | FP-200998    | 165, 219                        | FP-203933   | 145, 199, 229      |
| FP-172648   | 197, 203, 227   | FP-201008    | 165, 219                        | FP-204165   | 141, 149, 253      |
| FP-175755   | 283, 304, 305, 306, 307, 308, 309                           | FP-201048    | 169, 266                        | FP-204216   | 277                |
| FP-175756   | 305   | FP-201049    | 169, 266                        | FP-204586   | 209, 260, 261      |
| FP-175830   | 197   | FP-201737    | 260                             | FP-205068   | 205                |
| FP-175831   | 197, 203  | FP-201745    | 165, 219                        | FP-205071   | 205                |
| FP-175836   | 280   | FP-201766    | 260                             | FP-205091   | 199                |
| FP-175864   | 89, 113, 167, 221, 278                                      | FP-202226    | 252                             | FP-205093   | 199                |
| FP-175865   | 131, 167, 221, 278  | FP-202226 10 | 252                             | FP-205112   | 201, 231           |
| FP-175866   | 278   | FP-202226 20 | 252                             | FP-205112S  | 201                |
| FP-176027   | 53, 99, 155, 157, 213, 271                                  | FP-202226 30 | 252                             | FP-205169   | 199                |
| FP-177150   | 165   | FP-202226 5  | 252                             | FP-205216   | 217                |
| FP-177596   | 260   | FP-202227    | 252                             | FP-205230   | 195                |
| FP-179901   | 261   | FP-202457    | 266                             | FP-205241   | 197, 203           |
| FP-181213   | 167, 258  | FP-202853    | 266                             | FP-205247   | 197, 203, 227, 231 |
| FP-181449   | 283   | FP-202859    | 267                             | FP-205258   | 207, 235           |
| FP-183014   | 265   | FP-202860    | 267                             | FP-205269   | 191, 193, 225, 245 |
| FP-183429   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-202868    | 267                             | FP-205288   | 207                |
| FP-184240   | 99, 159, 211, 215   | FP-202994    | 263, 267                        | FP-205289   | 207                |
| FP-184400   | 283, 309  | FP-203070    | 283, 309                        | FP-205401   | 151, 199, 229      |
| FP-184420   | 101   | FP-203097    | 161                             | FP-205462   | 217                |
| FP-185138   | 91  | FP-203131    | 5, 9, 43, 47, 79, 199, 258, 275 | FP-205463   | 217                |
| FP-185573   | 141, 149  | FP-203350    | 281                             | FP-205492   | 205                |
| FP-185848   | 215   | FP-203350-10 | 281                             | FP-205571   | 195                |
| FP-186780   | 93, 161, 163, 209, 237                                      | FP-203350-11 | 281                             | FP-205840   | 201, 231           |
| FP-186780   | 260   | FP-203350-12 | 281                             | FP-205841   | 201, 231           |
| FP-186780   | 261, 283  | FP-203350-13 | 281                             | FP-205842   | 201, 231           |
| FP-186917   | 266   | FP-203350-14 | 281                             | FP-205843   | 201, 231           |
| FP-187420   | 254   | FP-203350-15 | 281                             | FP-205844   | 201                |
| FP-188329   | 283   | FP-203350-16 | 281                             | FP-205852   | 199                |
| FP-190334   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-203350-17 | 281                             | FP-205855   | 199                |
| FP-190397   | 153, 195, 205, 248, 273                                     | FP-203350-18 | 281                             | FP-205858   | 199                |
| FP-190876   | 87, 167, 221, 280   | FP-203350-19 | 281                             | FP-206013   | 197, 203           |
| FP-191037   | 51, 53, 97, 99, 101, 155, 157, 159, 211, 215, 269, 271      | FP-203350-20 | 281                             | FP-206021   | 209                |
| FP-191970   | 283, 304, 305, 306, 307, 308                                | FP-203350-8  | 281                             | FP-206177   | 195                |
| FP-193136   | 151, 161, 273   | FP-203350-9  | 281                             | FP-206193   | 207                |
| FP-193734   | 280   | FP-203351    | 281                             | FP-206224   | 195, 199, 229      |
| FP-193736   | 91, 115, 217, 277   | FP-203352    | 281                             | FP-206407   | 197                |
| FP-194037   | 199, 258  | FP-203353    | 281                             | FP-206416   | 207                |
| FP-195950   | 262   | FP-203354    | 281                             | FP-206443   | 209                |
| FP-195952   | 262   | FP-203355    | 281                             | FP-206455   | 207                |
|             |   | FP-203356    | 281                             | FP-206457   | 207                |
|             |   | FP-203357    | 281                             | FP-206576   | 266                |

# Numerical Index



| Part Number  | Page                                 | Part Number   | Page  | Part Number   | Page                             |
|--------------|--------------------------------------|---------------|---|---------------|----------------------------------|
| FP-206808    | 209, 262                             | FP-214952     | 254, 283                                      | FP-3001318    | 197                              |
| FP-206948    | 207, 235                             | FP-214953     | 254, 283                                      | FP-3002158    | 77, 197, 199, 203, 205, 209, 262 |
| FP-206973    | 209, 237                             | FP-214954     | 254, 283                                      | FP-3002385    | 260                              |
| FP-207117    | 215                                  | FP-215041     | 261   | FP-3002731    | 266                              |
| FP-207244    | 217                                  | FP-215044     | 262   | FP-3002834    | 195                              |
| FP-207245    | 217                                  | FP-215045     | 262   | FP-3002901    | 151, 256                         |
| FP-207431    | 267                                  | FP-215090     | 251   | FP-3003929    | 277                              |
| FP-207448    | 199                                  | FP-215090     | 283   | FP-3003930    | 277                              |
| FP-207551    | 195                                  | FP-215090     | 143   | FP-3003931    | 277                              |
| FP-208084    | 87, 199                              | FP-215090 (1) | 171   | FP-3003932    | 217, 277                         |
| FP-208128    | 261                                  | FP-215233     | 151, 256                                      | FP-3003933    | 217, 276, 277                    |
| FP-208134    | 260                                  | FP-215705     | 141, 149, 248                                 | FP-3003980    | 281                              |
| FP-208326    | 267                                  | FP-215966     | 256   | FP-3003980-10 | 281                              |
| FP-209700    | 257, 283                             | FP-215983     | 283   | FP-3003980-11 | 281                              |
| FP-209955    | 267                                  | FP-216283     | 251   | FP-3003980-12 | 281                              |
| FP-209956    | 267                                  | FP-216284 (2) | 251   | FP-3003980-13 | 281                              |
| FP-209957    | 267                                  | FP-216484     | 77, 265                                       | FP-3003980-14 | 281                              |
| FP-209958    | 267                                  | FP-216486     | 262   | FP-3003980-15 | 281                              |
| FP-209959    | 267                                  | FP-216487     | 262, 263, 275                                 | FP-3003980-16 | 281                              |
| FP-209960    | 267                                  | FP-216524     | 258   | FP-3003980-17 | 281                              |
| FP-209961    | 267                                  | FP-216791     | 266   | FP-3003980-18 | 281                              |
| FP-209962    | 267                                  | FP-216794     | 267   | FP-3003980-19 | 281                              |
| FP-209963    | 267                                  | FP-216802     | 267   | FP-3003980-20 | 281                              |
| FP-209964    | 267                                  | FP-216804     | 267   | FP-3003980-8  | 281                              |
| FP-210179    | 149                                  | FP-216879     | 283   | FP-3003980-9  | 281                              |
| FP-210218    | 280                                  | FP-217037     | 262   | FP-3003981    | 281                              |
| FP-210884    | 141                                  | FP-217321     | 253   | FP-3003982    | 281                              |
| FP-211315    | 101, 159, 215                        | FP-217322     | 201, 253                                      | FP-3003983    | 281                              |
| FP-211375    | 266                                  | FP-217323     | 149, 253                                      | FP-3003984    | 281                              |
| FP-211633    | 165, 219                             | FP-217638     | 161, 260, 273                                 | FP-3003985    | 281                              |
| FP-211635    | 165, 219                             | FP-217736     | 266   | FP-3003986    | 281                              |
| FP-211662    | 51, 97, 101, 155, 159, 211, 215, 269 | FP-218153     | 258   | FP-3003987    | 281                              |
| FP-211915    | 253                                  | FP-218245     | 264   | FP-3004054    | 277                              |
| FP-211999    | 257                                  | FP-219138     | 263, 267                                      | FP-3004242    | 77, 83, 93, 265                  |
| FP-212161    | 209, 237, 261                        | FP-219153     | 254   | FP-3004316    | 141, 149, 153, 248, 273, 283     |
| FP-212601    | 89, 165, 219, 280                    | FP-2863701    | 95, 135                                       | FP-3004730    | 191, 193, 225                    |
| FP-212602    | 219, 280                             | FP-2863702    | 77, 83, 93, 135                               | FP-3005133    | 273                              |
| FP-212603    | 219                                  | FP-2878168    | 77  | FP-3005592    | 273                              |
| FP-212605    | 89, 165, 219, 280                    | FP-2878168S   | 77  | FP-3005885    | 197, 201                         |
| FP-212607    | 219, 280                             | FP-3000139    | 201   | FP-3005886    | 197, 203                         |
| FP-212639    | 89, 165, 219, 280                    | FP-3000171    | 151, 273                                      | FP-3005940    | 195                              |
| FP-213079    | 167, 280                             | FP-3000173    | 89, 131, 151, 205, 273                        | FP-3005963    | 217, 277                         |
| FP-213082    | 161                                  | FP-3000174    | 51, 89, 97, 131, 151, 155, 205, 211, 269, 273 | FP-3006236    | 195, 201                         |
| FP-213394    | 258                                  |               | 151, 165, 205, 233, 273                       | FP-3006237    | 195, 201                         |
| FP-213395    | 258                                  | FP-3000175    | 151, 165, 205, 233, 273                       | FP-3006350    | 282                              |
| FP-213485    | 261                                  | FP-3000266    | 87, 280                                       | FP-3006350-10 | 282                              |
| FP-213559    | 205                                  | FP-3000560    | 266   | FP-3006350-11 | 282                              |
| FP-213603    | 280                                  | FP-3000632    | 197, 203                                      | FP-3006350-12 | 282                              |
| FP-213768    | 165, 219                             | FP-3000798    | 277   | FP-3006350-13 | 282                              |
| FP-213806    | 267                                  | FP-3000888    | 260   | FP-3006350-14 | 282                              |
| FP-214144    | 221, 280                             | FP-3001197    | 201, 231                                      | FP-3006350-15 | 282                              |
| FP-214633-R1 | 283                                  | FP-3001299    | 209   | FP-3006350-16 | 282                              |
| FP-214836    | 262                                  | FP-3001304    | 209, 262                                      | FP-3006350-17 | 282                              |
| FP-214950    | 254, 283                             | FP-3001305    | 209, 262                                      | FP-3006350-18 | 282                              |
| FP-214951    | 254, 283                             | FP-3001314    | 217, 276, 277                                 | FP-3006350-19 | 282                              |



# Numerical Index

| Part Number    | Page                             | Part Number  | Page                              | Part Number     | Page                                 |
|----------------|----------------------------------|--------------|-----------------------------------|-----------------|--------------------------------------|
| FP-3006350-20  | 282                              | FP-300938016 | 219                               | FP-3016675      | 217, 276                             |
| FP-3006350-8   | 282                              | FP-3009738   | 101, 159, 215                     | FP-3016676      | 217                                  |
| FP-3006350-9   | 282                              | FP-3009739   | 101, 159, 215                     | FP-3016676      | 276                                  |
| FP-3006351     | 282                              | FP-3010146   | 77, 121                           | FP-3016760      | 83, 125                              |
| FP-3006352     | 282                              | FP-3010240   | 221, 280                          | FP-3016761      | 83, 125                              |
| FP-3006353     | 282                              | FP-3010242   | 221, 280                          | FP-3016762      | 83, 125                              |
| FP-3006354     | 282                              | FP-3010457   | 253, 283                          | FP-3016763      | 83, 125                              |
| FP-3006355     | 282                              | FP-3010510   | 217, 277                          | FP-3016764      | 83, 125                              |
| FP-3006356     | 282                              | FP-3010511   | 277                               | FP-3016770      | 125                                  |
| FP-3006357     | 282                              | FP-3010536   | 207, 235                          | FP-3016771      | 125                                  |
| FP-3006360     | 282                              | FP-3010646   | 260                               | FP-3016772      | 125                                  |
| FP-3006456     | 257, 283                         | FP-3010915   | 263, 266                          | FP-3016773      | 85, 127                              |
| FP-3006457     | 257                              | FP-3010918   | 209                               | FP-3016780      | 125                                  |
| FP-3006458     | 257                              | FP-3011076   | 191, 193, 227                     | FP-3016781      | 125                                  |
| FP-3006483     | 151, 273                         | FP-3011258   | 266                               | FP-3016782      | 125                                  |
| FP-3006540     | 277                              | FP-3011272   | 259                               | FP-3016783      | 85, 127                              |
| FP-3006543     | 277                              | FP-3011273   | 259                               | FP-3016792      | 197, 201                             |
| FP-3006545     | 277                              | FP-3011472   | 249                               | FP-3016794      | 197, 203                             |
| FP-3006736     | 141, 149, 253, 283               | FP-3011951   | 141                               | FP-3016825      | 205                                  |
| FP-3006737     | 141, 149, 253, 283               | FP-3011952   | 141                               | FP-3016826      | 205                                  |
| FP-3006738     | 253                              | FP-3012472   | 51, 97, 155, 207, 211, 235, 269   | FP-3016887      | 259                                  |
| FP-3006742     | 141, 253, 283                    | FP-3012526   | 151, 161, 273                     | FP-3017348      | 287, 288                             |
| FP-3006743     | 141, 253, 283                    | FP-3012535   | 276, 277                          | FP-3017348      | 304                                  |
| FP-3006745 (2) | 264                              | FP-3012536   | 276                               | FP-3017348 (BP) | 306, 307                             |
| FP-3007075     | 260                              | FP-3012537   | 276, 277                          | FP-3017349      | 284, 285, 303                        |
| FP-3007380     | 195, 201                         | FP-3012538   | 276, 277                          | FP-3017349      | 304                                  |
| FP-3007441     | 195                              | FP-3012611   | 193, 223                          | FP-3017349 (BP) | 306, 307                             |
| FP-3007512     | 207                              | FP-3012612   | 193, 223                          | FP-3017360      | 209                                  |
| FP-3007525     | 193, 223                         | FP-3012972   | 262, 275                          | FP-3017544      | 259                                  |
| FP-3007634     | 145                              | FP-3013036   | 167, 221                          | FP-3017750      | 258, 275                             |
| FP-3007635     | 3, 19, 23, 77, 79, 121, 123, 145 | FP-3013266   | 201                               | FP-3017933      | 167, 221                             |
| FP-3007636     | 145                              | FP-3013300   | 199                               | FP-3017961      | 205                                  |
| FP-3007637     | 260                              | FP-3013330   | 259                               | FP-3018151      | 51, 71, 97, 155, 211, 269            |
| FP-3007689     | 252                              | FP-3013331   | 151, 259                          | FP-3018153      | 51, 97, 101, 155, 159, 211, 215, 269 |
| FP-3007689S    | 252                              | FP-3013479   | 249                               | FP-3018210      | 201                                  |
| FP-3007713 (2) | 264                              | FP-3013591   | 265                               | FP-3018211      | 201                                  |
| FP-3007759     | 79, 145, 257                     | FP-3013623   | 257, 283                          | FP-3018212      | 201                                  |
| FP-3008017     | 264                              | FP-3013786   | 101, 141, 159, 163, 197, 203, 215 | FP-3018324      | 276, 277                             |
| FP-3008400     | 19, 197, 203                     | FP-3013810   | 280                               | FP-3018325      | 277                                  |
| FP-3008403     | 197, 203                         | FP-3013811   | 167, 221                          | FP-3018366      | 277                                  |
| FP-3008530     | 248, 256                         | FP-3013930   | 254                               | FP-3018587      | 277                                  |
| FP-3008591     | 145, 262                         | FP-3014103   | 153, 205, 233, 273                | FP-3018695      | 264                                  |
| FP-3008706     | 91, 115, 217, 276                | FP-3014226   | 193                               | FP-3018772      | 91                                   |
| FP-3008947     | 153, 273                         | FP-3014228   | 193                               | FP-3018813      | 277                                  |
| FP-3009109     | 199                              | FP-3014304   | 209, 262                          | FP-3018814      | 277                                  |
| FP-3009323     | 209                              | FP-3014354   | 266                               | FP-3018818      | 199                                  |
| FP-3009324     | 209                              | FP-3014459   | 249                               | FP-3018860      | 277                                  |
| FP-3009362     | 91                               | FP-3014614   | 149, 253                          | FP-3018861      | 277                                  |
| FP-3009380     | 219                              | FP-3014668   | 191, 193, 227                     | FP-3018862      | 277                                  |
| FP-300938010   | 219                              | FP-3014778   | 163                               | FP-3018863      | 277                                  |
| FP-300938011   | 219                              | FP-3015067   | 195                               | FP-3019116 (2)  | 264                                  |
| FP-300938012   | 219                              | FP-3015068   | 101, 159, 215                     | FP-3019158      | 261                                  |
| FP-300938013   | 219                              | FP-3015236   | 277                               | FP-3019600      | 95, 135                              |
| FP-300938014   | 219                              | FP-3015522   | 87, 93, 221                       | FP-3019733      | 123                                  |
| FP-300938015   | 219                              | FP-3016652   | 103, 139                          | FP-3019955      | 252                                  |

# Numerical Index



| Part Number     | Page  | Part Number     | Page                    | Part Number   | Page   |
|-----------------|---|-----------------|-------------------------|---------------|--|
| FP-3019956      | 252   | FP-3026333      | 223                     | FP-3033234    | 81   |
| FP-3019957      | 252   | FP-3026391      | 197                     | FP-3033247    | 93, 135  |
| FP-3019959      | 141, 252  | FP-3026392      | 197                     | FP-3033248    | 93, 135  |
| FP-3019960      | 141, 252  | FP-3026393      | 197                     | FP-3033292    | 79, 87   |
| FP-3020479      | 260   | FP-3026556      | 153, 205, 207, 273      | FP-3033314    | 79   |
| FP-3020739-1    | 280   | FP-3026557      | 153, 205, 273           | FP-3033740    | 89, 113, 131, 167, 221, 280                        |
| FP-3020739-2    | 280   | FP-3026972      | 256                     | FP-3033915    | 209  |
| FP-3020793      | 277   | FP-3027105      | 83                      | FP-3034215    | 278  |
| FP-3020943      | 145, 263  | FP-3027108      | 83, 125                 | FP-3034216    | 278  |
| FP-3021068      | 221, 280  | FP-3027445      | 93                      | FP-3034221    | 221, 278   |
| FP-3021581      | 264   | FP-3027633      | 165, 219, 280           | FP-3034222    | 278  |
| FP-3021592      | 255   | FP-3027653      | 263                     | FP-3034243    | 89, 167, 221, 278                                  |
| FP-3021593      | 255   | FP-3027675      | 93                      | FP-3034244    | 278  |
| FP-3021594      | 255   | FP-3027924      | 93, 135                 | FP-3034245    | 221, 278   |
| FP-3021595      | 255   | FP-3028066      | 91                      | FP-3034246    | 278  |
| FP-3021596      | 255   | FP-3028068      | 91, 276, 277            | FP-3034438    | 151, 273   |
| FP-3021597      | 255   | FP-3028075      | 141                     | FP-3034736    | 267  |
| FP-3021598      | 255   | FP-3028269      | 141                     | FP-3034855    | 79   |
| FP-3021599      | 151, 255  | FP-3028291      | 207                     | FP-3034946    | 11   |
| FP-3021600      | 255   | FP-3028293      | 257                     | FP-3034946    | 273  |
| FP-3021601      | 151, 255  | FP-3028665      | 263                     | FP-3034986    | 143, 149   |
| FP-3021676      | 221, 280  | FP-3028685      | 289, 290, 294           | FP-3035025    | 123  |
| FP-3021704      | 248   | FP-3028685      | 304                     | FP-3035026    | 79, 123  |
| FP-3021705      | 248   | FP-3028685 (SR) | 306                     | FP-3035228    | 243  |
| FP-3022154      | 277   | FP-3028686      | 304                     | FP-3035230    | 165, 219   |
| FP-3022157      | 193   | FP-3028686 (SR) | 306                     | FP-3035342    | 91   |
| FP-3022197      | 217   | FP-3028706      | 289, 294                | FP-3035344    | 91   |
| FP-3022352      | 255   | FP-3028706      | 304                     | FP-3035580    | 163  |
| FP-3022353      | 255   | FP-3028706 (SR) | 306                     | FP-3035679    | 95   |
| FP-3022530      | 251   | FP-3029099      | 95, 161, 207, 260       | FP-3036117    | 87   |
| FP-3022968      | 276, 277  | FP-3029340      | 253, 283                | FP-3036933    | 151, 259   |
| FP-3023017      | 193   | FP-3029341      | 283                     | FP-3036934    | 259  |
| FP-3023018      | 193   | FP-3029416      | 259                     | FP-3036966    | 257  |
| FP-3023019      | 193   | FP-3029820      | 31                      | FP-3036970    | 165, 219   |
| FP-3023020      | 193   | FP-3029847      | 143, 149                | FP-3037282    | 195, 201   |
| FP-3023066      | 209, 262  | FP-3030038      | 257                     | FP-3037292    | 217, 276   |
| FP-3023101      | 51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271 | FP-3030970      | 87, 167, 221, 280       | FP-3037523    | 87   |
| FP-3023102      | 304   | FP-3031098      | 199                     | FP-3037535    | 163, 169   |
| FP-3023102 (BP) | 307   | FP-3031099      | 199                     | FP-3037537    | 77, 79, 93, 121, 135, 141, 163, 167, 169, 227, 241 |
| FP-3023177      | 256   | FP-3031227      | 286, 288, 289, 290, 292 | FP-3037821    | 199, 263   |
| FP-3023556      | 276, 277  | FP-3031227      | 304                     | FP-3038060    | 155, 269   |
| FP-3024148      | 277   | FP-3031227 (SR) | 306                     | FP-3038745    | 266  |
| FP-3024709      | 261   | FP-3031277      | 303                     | FP-3038903    | 258  |
| FP-3024960      | 161   | FP-3031544      | 195, 201                | FP-3038904    | 258  |
| FP-3024991      | 165, 219, 280   | FP-3032161      | 209, 262                | FP-3038998    | 161  |
| FP-3025296      | 77  | FP-3032348      | 262                     | FP-3040721    | 195, 205   |
| FP-3025390      | 266   | FP-3032633      | 195, 199                | FP-3040722    | 195, 205   |
| FP-3025516      | 304   | FP-3032634      | 267                     | FP-3040750    | 165, 219, 281                                      |
| FP-3025516 (BP) | 307   | FP-3032787      | 77, 83, 121             | FP-3040750-10 | 281  |
| FP-3025935      | 260   | FP-3032874      | 143, 283                | FP-3040750-11 | 281  |
| FP-3026134      | 83, 173   | FP-3032874 (2)  | 171                     | FP-3040750-12 | 281  |
| FP-3026163      | 278   | FP-3032874 (2)  | 251                     | FP-3040750-13 | 281  |
| FP-3026270      | 191, 193, 223   | FP-3033230      | 79                      | FP-3040750-14 | 281  |
| FP-3026296      | 199   | FP-3033232      | 79                      | FP-3040750-15 | 281  |
|                 |   | FP-3033233      | 79                      |               |  |



# Numerical Index

| Part Number     | Page  | Part Number     | Page   | Part Number     | Page   |
|-----------------|---|-----------------|--|-----------------|--|
| FP-3040750-16   | 281   | FP-3045948      | 304  | FP-3048809      | 304  |
| FP-3040750-17   | 281   | FP-3045948 (SR) | 306  | FP-3048809 (SR) | 306  |
| FP-3040750-18   | 281   | FP-3045978      | 293  | FP-3049000      | 261  |
| FP-3040750-19   | 281   | FP-3045986      | 87, 93, 167, 221                             | FP-3049024      | 256  |
| FP-3040750-20   | 281   | FP-3046200      | 89, 151, 167, 215, 221, 243, 273             | FP-3049187S     | 258, 275   |
| FP-3040750-8    | 281   | FP-3046201      | 77, 121, 141, 163, 197, 203, 215, 227        | FP-3049995      | 91   |
| FP-3040750-9    | 281   | FP-3046298      | 51, 53, 97, 155, 157, 211, 269, 271          | FP-3049996      | 91, 276  |
| FP-3040751      | 281   | FP-3046325      | 143, 171, 251, 306                           | FP-3050366      | 304  |
| FP-3040752      | 281   | FP-3046355      | 274  | FP-3050366      | 289, 290, 291, 303   |
| FP-3040753      | 281   | FP-3046420      | 257  | FP-3050366 (SR) | 306  |
| FP-3040754      | 281   | FP-3046680      | 165, 219, 282                                | FP-3050394      | 260  |
| FP-3040755      | 281   | FP-3046680-10   | 282  | FP-3050480      | 291, 292, 293, 303   |
| FP-3040756      | 281   | FP-3046680-11   | 282  | FP-3050480      | 304  |
| FP-3040817      | 89, 163, 165, 167                                 | FP-3046680-12   | 282  | FP-3050480 (SR) | 306, 307   |
| FP-3040830      | 257   | FP-3046680-13   | 282  | FP-3050624      | 89, 167, 221   |
| FP-3040964      | 93  | FP-3046680-14   | 282  | FP-3050667      | 145, 261   |
| FP-3041992      | 257   | FP-3046680-15   | 282  | FP-3051553      | 285, 286, 287, 303   |
| FP-3041993      | 257   | FP-3046680-16   | 282  | FP-3051553      | 304  |
| FP-3042318      | 289, 290, 304                                     | FP-3046680-17   | 282  | FP-3051553      | 306  |
| FP-3042318 (SR) | 306   | FP-3046680-18   | 282  | FP-3051553 (BP) | 306, 307   |
| FP-3042319      | 289, 290, 304                                     | FP-3046680-19   | 282  | FP-3051554      | 285, 286, 287, 288, 289, 290, 292, 293, 303, 304           |
| FP-3042319 (SR) | 306   | FP-3046680-20   | 282  | FP-3051554 (SR) | 306, 307   |
| FP-3042320      | 284, 287, 288, 289, 290, 293, 294, 303, 304       | FP-3046680-8    | 282  | FP-3051555      | 284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 303, 304 |
| FP-3042320 (SR) | 306, 307  | FP-3046680-9    | 282  | FP-3051555 (SR) | 306, 307   |
| FP-3042542      | 87, 93, 101, 159, 167, 211, 215, 221              | FP-3046681      | 282  | FP-3051556      | 287, 288, 289, 290, 291, 292, 293, 294, 303, 304           |
| FP-3042586      | 197, 203, 227                                     | FP-3046682      | 282  | FP-3051556 (SR) | 306, 307   |
| FP-3042587      | 195, 201  | FP-3046683      | 282  | FP-3051557      | 284, 285, 286, 287, 288, 303                               |
| FP-3042588      | 195, 201  | FP-3046684      | 282  | FP-3051557 (SR) | 304  |
| FP-3042590      | 195, 201, 227, 231                                | FP-3046685      | 282  | FP-3051557      | 306, 307   |
| FP-3042612      | 197, 203  | FP-3046686      | 282  | FP-3051557 (SR) | 284, 285, 286, 287, 288, 290, 292, 293                     |
| FP-3042745      | 257   | FP-3046687      | 282  | FP-3051557      | 304  |
| FP-3042827      | 207, 235  | FP-3046852      | 205  | FP-3052222      | 306, 307   |
| FP-3043097      | 199, 263  | FP-3047159      | 51, 53, 97, 99, 155, 157, 211, 213, 269, 271 | FP-3052222      | 277  |
| FP-3043211      | 195, 201  | FP-3047188      | 77, 103, 121, 139                            | FP-3052223      | 277  |
| FP-3043212      | 195, 201  | FP-3047195      | 274  | FP-3052224      | 277  |
| FP-3043213      | 195, 201  | FP-3047390      | 201  | FP-3052229      | 277  |
| FP-3043482      | 167   | FP-3047391      | 201  | FP-3052630      | 277  |
| FP-3043647      | 263   | FP-3047392      | 201  | FP-3052794      | 291, 292, 293  |
| FP-3043909      | 201, 231  | FP-3047393      | 201  | FP-3052794      | 304  |
| FP-3043995      | 51, 53, 97, 99, 155, 157, 159, 211, 213, 269, 271 | FP-3047395      | 257  | FP-3052794 (SR) | 306, 307   |
| FP-3044448      | 103, 288, 289, 290, 291, 292, 293, 294            | FP-3047395      | 257  | FP-3052819      | 199  |
| FP-3044789      | 258   | FP-3047464      | 264  | FP-3052820      | 199  |
| FP-3045102      | 91, 276   | FP-3047465      | 264  | FP-3052859      | 263  |
| FP-3045117      | 274   | FP-3047963      | 276, 277                                     | FP-3052877      | 260  |
| FP-3045174      | 274   | FP-3047964      | 276, 277                                     | FP-3053124      | 217, 276   |
| FP-3045206      | 280   | FP-3047973      | 276  | FP-3053137      | 263  |
| FP-3045670      | 51, 71, 73, 97, 101, 155, 159, 211, 215, 269      | FP-3048017      | 280  | FP-3053138      | 263  |
| FP-3045671      | 51, 97, 101, 155, 159, 211, 215, 269              | FP-3048650      | 284, 285, 286, 287, 288, 290, 293, 303       | FP-3053377      | 257  |
| FP-3045672      | 51, 97, 101, 155, 159, 211, 215, 269              | FP-3048650      | 304  | FP-3053742      | 277  |
| FP-3045907      | 103   | FP-3048650 (BP) | 306, 307                                     | FP-3054058      | 276  |
| FP-3045941      | 263   | FP-3048808      | 304  | FP-3054068      | 276  |
| FP-3045948      | 290, 291, 294, 295, 303                           | FP-3048808      | 291, 293, 294, 295, 296, 303                 | FP-3054071      | 276  |
|                 |   | FP-3048808 (SR) | 306  | FP-3054086      | 276  |
|                 |   | FP-3048809      | 291, 294, 295, 296, 303                      | FP-3054211      | 276  |
|                 |   |                 |  | FP-3054218      | 276  |
|                 |   |                 |  | FP-3054228      | 276  |



# Numerical Index



| Part Number  | Page                              | Part Number     | Page                         | Part Number | Page                         |
|--------------|-----------------------------------|-----------------|------------------------------|-------------|------------------------------|
| FP-3054231   | 276                               | FP-3064406      | 161                          | FP-3069767  | 276                          |
| FP-3054231PR | 276                               | FP-3064453      | 261                          | FP-3070100  | 93                           |
| FP-3054232   | 276                               | FP-3064454      | 261                          | FP-3070136  | 133, 277                     |
| FP-3054246   | 276                               | FP-3064455      | 261                          | FP-3070137  | 133, 277                     |
| FP-3054246PR | 276                               | FP-3064634      | 93, 135                      | FP-3070138  | 133, 277                     |
| FP-3054247   | 276                               | FP-3064919      | 260                          | FP-3070218  | 77                           |
| FP-3054249   | 276                               | FP-3064920      | 260                          | FP-3070460  | 145                          |
| FP-3054250   | 276                               | FP-3065125      | 259                          | FP-3070477  | 163                          |
| FP-3054291   | 280                               | FP-3065405      | 143, 171, 251, 306, 307, 308 | FP-3070486  | 79, 145, 257                 |
| FP-3054532   | 276, 277                          | FP-3065406      | 252                          | FP-3071161  | 145                          |
| FP-3054533   | 277                               | FP-3065791      | 209, 237                     | FP-3071564  | 91                           |
| FP-3054590   | 145                               | FP-3066285      | 163                          | FP-3072321  | 145                          |
| FP-3054609   | 87, 91, 280                       | FP-3066291      | 145                          | FP-3072322  | 145                          |
| FP-3054841   | 258, 275                          | FP-3066311      | 145, 275                     | FP-3072341  | 163                          |
| FP-3054948   | 141, 252                          | FP-3066328      | 161                          | FP-3072369  | 147                          |
| FP-30549486  | 141                               | FP-3066330      | 161                          | FP-3073213  | 195, 201, 227                |
| FP-3054948B  | 141                               | FP-3066486      | 91, 276                      | FP-3073573  | 115                          |
| FP-3054999   | 276                               | FP-3066637      | 165                          | FP-3073707  | 125                          |
| FP-3055069   | 77, 83, 121, 141, 149, 197        | FP-3066638      | 165                          | FP-3073966  | 105                          |
| FP-3055099   | 143, 171, 251, 283, 306, 307, 308 | FP-3066843      | 252                          | FP-3074361  | 254                          |
| FP-3055135   | 277                               | FP-3066844      | 252                          | FP-3074375  | 145                          |
| FP-3055145   | 149                               | FP-3066877      | 205                          | FP-3074376  | 145                          |
| FP-3055145PR | 149                               | FP-3066884      | 205                          | FP-3074400  | 151, 259                     |
| FP-3055146   | 149                               | FP-3066914      | 93, 165, 167, 221            | FP-3074401  | 151, 259                     |
| FP-3055146PR | 149                               | FP-3067568      | 149, 254                     | FP-3074402  | 151, 259                     |
| FP-3055147   | 149                               | FP-3067613      | 163, 265                     | FP-3074403  | 151, 259                     |
| FP-3055148   | 149                               | FP-3067616      | 141, 149                     | FP-3074404  | 259                          |
| FP-3055149   | 149                               | FP-3067618      | 141, 149                     | FP-3074482  | 161                          |
| FP-3055622   | 103, 291, 292, 293, 294, 295, 296 | FP-3067871      | 123                          | FP-3074690  | 197, 201                     |
| FP-3056158   | 169                               | FP-3067932      | 145                          | FP-3075381  | 151, 205, 233                |
| FP-3056341   | 277                               | FP-3068090      | 103, 293, 294, 295, 296      | FP-3075383  | 91, 129, 151, 233            |
| FP-3058148   | 83                                | FP-3068135      | 275                          | FP-3076489  | 93, 161, 163, 209, 237, 261  |
| FP-3058383   | 260, 273                          | FP-3068471      | 151                          | FP-3076515  | 145                          |
| FP-3058462   | 145, 258                          | FP-3068473      | 151                          | FP-3076522  | 161                          |
| FP-3058532   | 258, 275                          | FP-3068474      | 151                          | FP-3076810  | 305, 308                     |
| FP-3059423   | 277                               | FP-3068476      | 151                          | FP-3076811  | 305, 308                     |
| FP-3062069   | 261                               | FP-3068477      | 151                          | FP-3076813  | 305, 308                     |
| FP-3062096   | 259                               | FP-3068519      | 145                          | FP-3076816  | 305, 308                     |
| FP-3062602   | 93                                | FP-3068813      | 225                          | FP-3077646  | 207                          |
| FP-3062676   | 89, 165, 219, 280                 | FP-3069014      | 264                          | FP-3078053  | 209, 237                     |
| FP-3063052   | 89, 165, 219                      | FP-3069017      | 89, 113, 167, 221, 278, 280  | FP-3078399  | 147                          |
| FP-3063246   | 260                               | FP-3069024      | 277                          | FP-3080708  | 121                          |
| FP-3063618   | 261                               | FP-3069098      | 262                          | FP-3080760  | 77, 103, 139                 |
| FP-3064281   | 145                               | FP-3069101      | 153, 273                     | FP-3080770  | 93                           |
| FP-3064295   | 149                               | FP-3069102      | 153, 215, 273                | FP-3080837  | 278                          |
| FP-3064304   | 171                               | FP-3069177      | 169, 263, 267                | FP-3081081  | 199                          |
| FP-3064305   | 171, 189                          | FP-3069212      | 291, 292, 293, 294, 303      | FP-3081212  | 257                          |
| FP-3064309   | 151                               | FP-3069212      | 304                          | FP-3081266  | 171, 294, 295, 296           |
| FP-3064312   | 145                               | FP-3069212 (SR) | 306, 307                     | FP-3081267  | 171, 294, 295                |
| FP-3064313   | 163                               | FP-3069614      | 87                           | FP-3081268  | 171, 293, 294, 295, 296, 297 |
| FP-3064386   | 161                               | FP-3069672      | 145                          | FP-3081269  | 171, 294, 296, 297           |
| FP-3064389   | 161                               | FP-3069692      | 145                          | FP-3081489  | 191, 193, 227                |
| FP-3064390   | 161                               | FP-3069717      | 91                           | FP-3083755  | 294                          |
| FP-3064392   | 161                               | FP-3069718      | 91                           | FP-3084045  | 147                          |
| FP-3064404   | 161                               | FP-3069759PR    | 91, 276                      | FP-3087634  | 171                          |





# Numerical Index

| Part Number | Page                              | Part Number | Page                            | Part Number | Page                    |
|-------------|-----------------------------------|-------------|---------------------------------|-------------|-------------------------|
| FP-3087634X | 296, 297, 298, 299, 300, 301, 302 | FP-3202210  | 199                             | FP-3418040  | 79                      |
| FP-3087635  | 171                               | FP-3202283  | 207, 235                        | FP-3418044  | 79                      |
| FP-3087635X | 296, 297, 298, 299, 300, 301      | FP-3226064  | 283                             | FP-3418045  | 79                      |
| FP-3088298  | 193                               | FP-3275265  | 276, 277                        | FP-3418046  | 79                      |
| FP-3088389  | 199                               | FP-3275266  | 276, 277                        | FP-3418047  | 79                      |
| FP-3088391  | 199                               | FP-3275267  | 277                             | FP-3521439  | 169, 266                |
| FP-3088393  | 199                               | FP-3275354  | 81, 123                         | FP-3521440  | 169, 266                |
| FP-3090469  | 229                               | FP-3275538  | 276                             | FP-3521441  | 169, 266                |
| FP-3090704  | 123                               | FP-3275539  | 276                             | FP-3521442  | 169, 266                |
| FP-3095061  | 305, 308                          | FP-3275912  | 265                             | FP-3536075  | 169, 266                |
| FP-3095062  | 305, 308                          | FP-3275989  | 276                             | FP-3558624  | 53, 99, 155             |
| FP-3095064  | 305, 308                          | FP-3277592  | 251                             | FP-3558762  | 51, 97, 155, 211, 269   |
| FP-3095067  | 305, 308                          | FP-3281721  | 41, 45                          | FP-3600925  | 83                      |
| FP-3095702  | 305, 307                          | FP-3283336  | 5                               | FP-3602788  | 260                     |
| FP-3095703  | 305, 307                          | FP-3283337  | 5                               | FP-3606732  | 103, 298, 299, 300, 301 |
| FP-3095704  | 305, 307                          | FP-3283339  | 5                               | FP-3608786  | 256                     |
| FP-3095705  | 305, 307                          | FP-3283569  | 5                               | FP-3608833  | 253, 283                |
| FP-3095711  | 305, 307                          | FP-3283570  | 5                               | FP-3627961  | 209                     |
| FP-3095738  | 305, 308                          | FP-3283767  | 3, 9                            | FP-3628731  | 223                     |
| FP-3095739  | 305, 308                          | FP-3284623  | 3, 9, 29                        | FP-3628894  | 205                     |
| FP-3095740  | 305, 308                          | FP-3286277  | 11                              | FP-3628895  | 197, 203                |
| FP-3095741  | 305, 308                          | FP-3286278  | 33                              | FP-3628973  | 197                     |
| FP-3095757  | 305, 307, 308                     | FP-3328328  | 123                             | FP-3629006  | 199                     |
| FP-3096260  | 197, 203, 227, 231                | FP-3328379  | 79, 123                         | FP-3630681  | 197, 201                |
| FP-3096362  | 201, 231                          | FP-3328781  | 79                              | FP-3631241  | 223                     |
| FP-3096680  | 223                               | FP-3328785  | 79                              | FP-3631242  | 223                     |
| FP-3096681  | 223, 245                          | FP-3328786  | 123                             | FP-3631243  | 223                     |
| FP-3096682  | 223                               | FP-3328948  | 79, 263                         | FP-3631244  | 223                     |
| FP-3096683  | 223                               | FP-3330202  | 29                              | FP-3631245  | 223, 245                |
| FP-3096684  | 223                               | FP-3330478  | 21                              | FP-3631246  | 223                     |
| FP-3096685  | 223                               | FP-3330537  | 185                             | FP-3633840  | 199                     |
| FP-3098985  | 249                               | FP-3330538  | 185                             | FP-3635074  | 209, 237                |
| FP-3099083  | 143, 149                          | FP-3335341  | 79, 87                          | FP-3678536  | 175                     |
| FP-3102423  | 103, 121, 139                     | FP-3335342  | 79, 87, 123                     | FP-3678786  | 183                     |
| FP-3102500  | 135                               | FP-3335343  | 123                             | FP-3678912  | 21, 59, 105, 173, 183   |
| FP-3126287  | 199                               | FP-3335548  | 135                             | FP-3678925  | 21, 59, 61, 105, 107    |
| FP-3161423  | 123, 151                          | FP-3347939  | 185                             | FP-3679139  | 21                      |
| FP-3166288  | 199                               | FP-3349806  | 149                             | FP-3680883  | 175                     |
| FP-3166388  | 151                               | FP-3349820  | 143, 149, 283                   | FP-3709510  | 169, 266                |
| FP-3166428  | 151                               | FP-3353977  | 41, 45                          | FP-3722366  | 169, 266                |
| FP-3170134  | 229                               | FP-3356174  | 249                             | FP-3751948  | 169, 266                |
| FP-3170135  | 229                               | FP-3376382  | 252                             | FP-3800140  | 103                     |
| FP-3177108  | 197                               | FP-3401290  | 77, 83, 121                     | FP-3800231  | 263                     |
| FP-3177160  | 197                               | FP-3406659  | 283                             | FP-3800256  | 103                     |
| FP-3178076  | 197                               | FP-3408421  | 87, 91, 129, 167, 185, 221, 280 | FP-3800318  | 75                      |
| FP-3179035  | 207                               | FP-3410171  | 205, 233                        | FP-3800319  | 75                      |
| FP-3200287  | 195, 205, 227                     | FP-3411460  | 262                             | FP-3800320  | 75                      |
| FP-3200550  | 209, 237                          | FP-3412285  | 264                             | FP-3800328  | 41, 59, 105, 119        |
| FP-3201125  | 197, 203, 227                     | FP-3412922  | 151                             | FP-3800340  | 63                      |
| FP-3201386  | 53, 99, 157, 211, 213, 271        | FP-3417713  | 81                              | FP-3800341  | 63                      |
| FP-3201388  | 227, 265                          | FP-3417717  | 79, 123                         | FP-3800343  | 59                      |
| FP-3201517  | 199                               | FP-3417778  | 123                             | FP-3800487  | 19                      |
| FP-3201562  | 69                                | FP-3417779  | 123                             | FP-3800636  | 123                     |
| FP-3201659  | 77, 83, 121                       | FP-3418020  | 79                              | FP-3800637  | 123                     |
| FP-3202117  | 169, 266                          | FP-3418021  | 81                              | FP-3800638  | 79                      |

# Numerical Index



| Part Number   | Page          | Part Number   | Page                         | Part Number   | Page  |
|---------------|---------------|---------------|------------------------------|---------------|---|
| FP-3800639    | 81            | FP-3801397    | 249                          | FP-3801767    | 284, 287, 288, 289, 290, 293, 294, 306                          |
| FP-3800643    | 83            | FP-3801424    | 304, 306                     | FP-3801768    | 284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306           |
| FP-3800781    | 37            | FP-3801424-WP | 304                          | FP-3801769    | 284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306           |
| FP-3800782    | 37            | FP-3801426    | 256                          | FP-3801770    | 304, 306, 307   |
| FP-3800783    | 37            | FP-3801448    | 256                          | FP-3801770-WP | 304   |
| FP-3800784    | 37            | FP-3801454    | 249                          | FP-3801771    | 287, 288, 289, 290, 291, 292, 293, 294, 306                     |
| FP-3800785    | 37            | FP-3801464    | 249                          | FP-3801772    | 287, 288, 289, 290, 291, 292, 293, 294, 306                     |
| FP-3800800    | 103           | FP-3801465    | 249                          | FP-3801773    | 304, 306, 307   |
| FP-3800800-NP | 103           | FP-3801468    | 249                          | FP-3801773-WP | 304   |
| FP-3800801    | 103           | FP-3801468D   | 249                          | FP-3801774    | 284, 287, 288, 289, 290, 293, 294, 306                          |
| FP-3800817    | 289           | FP-3801469    | 249                          | FP-3801775    | 284, 287, 288, 289, 290, 293, 294, 306                          |
| FP-3800828    | 49            | FP-3801470    | 249                          | FP-3801776    | 285, 286, 287, 288, 289, 290, 292, 293, 306                     |
| FP-3800838    | 37            | FP-3801522    | 169, 266                     | FP-3801777    | 285, 286, 287, 288, 289, 290, 292, 293, 306                     |
| FP-3800839    | 37            | FP-3801523    | 169                          | FP-3801778    | 285, 286, 287, 288, 289, 290, 292, 293, 306                     |
| FP-3800840    | 37            | FP-3801523    | 266                          | FP-3801779    | 284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306           |
| FP-3800841    | 37            | FP-3801529    | 249                          | FP-3801780    | 287, 288, 289, 290, 291, 292, 293, 294, 306                     |
| FP-3800842    | 37            | FP-3801533    | 304, 306                     | FP-3801781    | 284, 285, 286, 287, 288, 306                                    |
| FP-3800855    | 151           | FP-3801533-WP | 304                          | FP-3801782    | 284, 285, 286, 287, 288, 306                                    |
| FP-3801030    | 256, 283      | FP-3801534    | 304, 306                     | FP-3801783    | 286, 288, 289, 290, 292, 306                                    |
| FP-3801057    | 304, 306, 307 | FP-3801534-WP | 304                          | FP-3801785    | 288   |
| FP-3801057-WP | 304           | FP-3801535    | 304, 306, 307                | FP-3801788    | 260   |
| FP-3801058    | 304, 306, 307 | FP-3801535-WP | 304                          | FP-3801795    | 284, 285, 286, 287, 288, 290, 293, 306                          |
| FP-3801058-WP | 304           | FP-3801598    | 266                          | FP-3801796    | 289, 290, 294, 306  |
| FP-3801096    | 267           | FP-3801603    | 274                          | FP-3801797    | 289, 290, 306   |
| FP-3801101    | 267           | FP-3801606    | 250                          | FP-3801798    | 289, 290, 306   |
| FP-3801106    | 252, 283      | FP-3801640    | 250                          | FP-3801808    | 53, 99  |
| FP-3801154    | 83            | FP-3801660    | 304, 306                     | FP-3801809    | 274   |
| FP-3801179    | 93            | FP-3801660-WP | 304                          | FP-3801811    | 289, 290, 294, 306  |
| FP-3801198    | 264           | FP-3801668    | 256                          | FP-3801817    | 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 306 |
| FP-3801199    | 264           | FP-3801677    | 274                          | FP-3801818    | 304, 306  |
| FP-3801229    | 304, 306      | FP-3801678    | 274                          | FP-3801818-WP | 304   |
| FP-3801229-WP | 304           | FP-3801703    | 304, 306, 307                | FP-3801819    | 304, 306  |
| FP-3801230    | 289, 294, 306 | FP-3801703-WP | 304                          | FP-3801819-WP | 304   |
| FP-3801231    | 304, 306      | FP-3801708    | 260                          | FP-3801820    | 304, 306  |
| FP-3801231-WP | 304           | FP-3801709    | 260                          | FP-3801820-WP | 304   |
| FP-3801232    | 306           | FP-3801711    | 260                          | FP-3801822    | 287, 288, 289, 290, 291, 293, 294, 306                          |
| FP-3801233    | 304, 306      | FP-3801712    | 260                          | FP-3801823    | 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 306           |
| FP-3801233-WP | 304           | FP-3801713    | 260                          | FP-3801824    | 285, 286, 287, 288, 289, 290, 291, 292, 294, 295, 296, 306      |
| FP-3801235    | 249           | FP-3801714    | 260                          | FP-3801826    | 143, 171, 251, 283  |
| FP-3801260    | 149, 254, 283 | FP-3801715    | 260                          | FP-3801872    | 284, 285, 306   |
| FP-3801261    | 149, 254, 283 | FP-3801716    | 260                          | FP-3801873    | 284, 285, 306   |
| FP-3801262    | 149, 254, 283 | FP-3801728    | 53, 71, 157, 271             | FP-3801874    | 287, 288, 306   |
| FP-3801263    | 149, 254, 283 | FP-3801733    | 53, 71, 99, 157, 271         | FP-3801875    | 287, 288, 306   |
| FP-3801264    | 149, 254, 283 | FP-3801735    | 99                           | FP-3801876    | 304, 306, 307   |
| FP-3801268    | 193, 223      | FP-3801744    | 304, 306, 307                |               |   |
| FP-3801269    | 193, 223      | FP-3801744-WP | 304                          |               |   |
| FP-3801324    | 249           | FP-3801746    | 289, 290, 291, 292, 293, 306 |               |   |
| FP-3801335    | 249           | FP-3801749    | 256                          |               |   |
| FP-3801337    | 249           | FP-3801754C10 | 249                          |               |   |
| FP-3801348C   | 249           | FP-3801763    | 256                          |               |   |
| FP-3801350    | 249           | FP-3801764    | 285, 286, 287, 306           |               |   |
| FP-3801356    | 81            | FP-3801765    | 285, 286, 287, 306           |               |   |
| FP-3801387    | 143, 171, 251 | FP-3801766    | 304, 306, 307                |               |   |
| FP-3801393    | 304, 306, 307 | FP-3801766-WP | 304                          |               |   |
| FP-3801393-WP | 304           |               |                              |               |   |



# Numerical Index

| Part Number   | Page               | Part Number | Page       | Part Number   | Page  |
|---------------|--------------------|-------------|------------|---------------|---|
| FP-3801876-WP | 304                | FP-3802249  | 15         | FP-3802630    | 17  |
| FP-3801896    | 195                | FP-3802250  | 15         | FP-3802657    | 57  |
| FP-3801897    | 195                | FP-3802251  | 15         | FP-3802711    | 13  |
| FP-3801915    | 263                | FP-3802252  | 15         | FP-3802712    | 13  |
| FP-3801915MK  | 263                | FP-3802253  | 15         | FP-3802743    | 55  |
| FP-3801920    | 285, 286, 287, 306 | FP-3802263  | 57         | FP-3802750    | 15  |
| FP-3801954    | 304, 306, 307      | FP-3802273  | 11         | FP-3802757    | 15  |
| FP-3801954-WP | 304                | FP-3802280  | 57         | FP-3802758    | 15  |
| FP-3801956    | 291, 292, 293, 306 | FP-3802344  | 57         | FP-3802759    | 15  |
| FP-3802010    | 7, 27              | FP-3802355  | 5          | FP-3802811    | 55  |
| FP-3802011    | 7, 27              | FP-3802356  | 5          | FP-3802863    | 15  |
| FP-3802012    | 7, 27              | FP-3802362  | 3, 5       | FP-3802864    | 15  |
| FP-3802013    | 7, 27              | FP-3802362S | 3          | FP-3802924    | 23  |
| FP-3802014    | 7, 27              | FP-3802363  | 3, 5       | FP-3802951    | 17  |
| FP-3802030    | 15                 | FP-3802363S | 3          | FP-3802967    | 25  |
| FP-3802032    | 15                 | FP-3802364  | 3, 5       | FP-3803017    | 250   |
| FP-3802034    | 15                 | FP-3802364S | 3          | FP-3803040C   | 249   |
| FP-3802040    | 13                 | FP-3802370  | 41         | FP-3803040C10 | 249   |
| FP-3802042    | 13                 | FP-3802372  | 55         | FP-3803041    | 249   |
| FP-3802044    | 13                 | FP-3802375  | 3          | FP-3803042    | 267   |
| FP-3802060    | 13                 | FP-3802376  | 3          | FP-3803138    | 260   |
| FP-3802062    | 13                 | FP-3802388  | 55         | FP-3803139    | 260   |
| FP-3802064    | 13                 | FP-3802389  | 41         | FP-3803153    | 207   |
| FP-3802070    | 7, 27              | FP-3802396  | 57         | FP-3803202    | 260   |
| FP-3802071    | 7, 27              | FP-3802397  | 57         | FP-3803203    | 260   |
| FP-3802072    | 7, 27              | FP-3802398  | 57         | FP-3803209    | 289, 290, 294, 306  |
| FP-3802073    | 7, 27              | FP-3802399  | 55         | FP-3803210    | 284, 287, 288, 289, 290, 294, 306                               |
| FP-3802074    | 7, 27              | FP-3802400  | 55         | FP-3803211    | 285, 286, 287, 306  |
| FP-3802075    | 283                | FP-3802401  | 55         | FP-3803212    | 285, 286, 287, 288, 289, 290, 292, 293, 306                     |
| FP-3802077    | 283                | FP-3802402  | 55         | FP-3803213    | 284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306           |
| FP-3802085    | 43                 | FP-3802403  | 55         | FP-3803214    | 287, 288, 289, 290, 291, 292, 293, 294, 306                     |
| FP-3802090    | 17                 | FP-3802404  | 55         | FP-3803215    | 285, 286, 287, 288, 289, 290, 291, 292, 294, 295, 296, 306      |
| FP-3802092    | 17                 | FP-3802405  | 55         | FP-3803216    | 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 306 |
| FP-3802094    | 17                 | FP-3802406  | 55         | FP-3803217    | 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 306           |
| FP-3802100    | 13                 | FP-3802407  | 41         | FP-3803218    | 287, 288, 289, 290, 291, 293, 294, 306                          |
| FP-3802102    | 13                 | FP-3802421  | 15         | FP-3803219    | 143, 171, 251   |
| FP-3802104    | 13                 | FP-3802422  | 15         | FP-3803221    | 284, 285, 286, 287, 288, 290, 293, 306                          |
| FP-3802110    | 55                 | FP-3802423  | 15         | FP-3803222    | 287, 288, 306   |
| FP-3802132    | 13                 | FP-3802429  | 55, 57, 75 | FP-3803224    | 289, 290, 306   |
| FP-3802134    | 13                 | FP-3802463  | 43         | FP-3803225    | 289, 290, 306   |
| FP-3802160    | 13                 | FP-3802487  | 15         | FP-3803226    | 284, 285, 306   |
| FP-3802170    | 13                 | FP-3802489  | 15         | FP-3803227    | 286, 288, 289, 290, 292, 306                                    |
| FP-3802172    | 13                 | FP-3802490  | 15         | FP-3803228    | 284, 285, 286, 287, 288, 307                                    |
| FP-3802174    | 13                 | FP-3802493  | 15         | FP-3803233    | 289, 290, 291, 292, 293, 307                                    |
| FP-3802210    | 45                 | FP-3802495  | 15         | FP-3803344    | 304, 306, 307   |
| FP-3802211    | 45                 | FP-3802538  | 57, 75     | FP-3803344-WP | 304   |
| FP-3802212    | 45                 | FP-3802561  | 15         | FP-3803345    | 260   |
| FP-3802213    | 45                 | FP-3802562  | 15         | FP-3803346    | 291, 292, 293, 294, 307   |
| FP-3802214    | 45                 | FP-3802563  | 15         | FP-3803360    | 145   |
| FP-3802230    | 13, 15, 17         | FP-3802564  | 15         | FP-3803402    | 93  |
| FP-3802232    | 13, 15, 17         | FP-3802565  | 15         |               |   |
| FP-3802234    | 13, 15, 17         | FP-3802601  | 57         |               |   |
| FP-3802245    | 3, 5               | FP-3802602  | 57         |               |   |
| FP-3802245S   | 3                  | FP-3802609  | 55         |               |   |
| FP-3802248    | 15                 | FP-3802610  | 55         |               |   |

# Numerical Index



| Part Number  | Page                                     | Part Number   | Page          | Part Number   | Page                                 |
|--------------|--|---------------|---------------|---------------|--------------------------------------|
| FP-3803403   | 93                                       | FP-3803996    | 81            | FP-3804471    | 308                                  |
| FP-3803404   | 77                                       | FP-3804276    | 249           | FP-3804474    | 308                                  |
| FP-3803495   | 77                                       | FP-3804276-OS | 249           | FP-3804477    | 308                                  |
| FP-3803512   | 257                                      | FP-3804276S   | 249           | FP-3804479    | 308                                  |
| FP-3803515   | 199                                      | FP-3804296    | 195           | FP-3804480    | 308                                  |
| FP-3803518   | 199                                      | FP-3804300    | 195           | FP-3804482    | 308                                  |
| FP-3803519   | 257                                      | FP-3804301    | 195           | FP-3804483    | 308                                  |
| FP-3803524   | 257                                      | FP-3804318    | 305, 307      | FP-3804486    | 308                                  |
| FP-3803528   | 199                                      | FP-3804321    | 305, 307      | FP-3804630    | 171                                  |
| FP-3803529   | 199                                      | FP-3804324    | 305, 307      | FP-3804636    | 171, 298, 300                        |
| FP-3803530   | 223                                      | FP-3804327    | 305, 307      | FP-3804694    | 103                                  |
| FP-3803596   | 195, 199                                 | FP-3804329    | 305, 307      | FP-3804695    | 103                                  |
| FP-3803597   | 195                                      | FP-3804330    | 305, 308      | FP-3804696    | 103                                  |
| FP-3803600   | 195                                      | FP-3804332    | 305, 308      | FP-3804896    | 3, 5                                 |
| FP-3803601   | 195                                      | FP-3804333    | 305, 308      | FP-3804896S   | 3                                    |
| FP-3803605   | 161                                      | FP-3804336    | 305, 308      | FP-3804897    | 3, 5                                 |
| FP-3803608   | 145                                      | FP-3804346    | 307           | FP-3804897S   | 3                                    |
| FP-3803612   | 161                                      | FP-3804348    | 307           | FP-3804899    | 21                                   |
| FP-3803613   | 141                                      | FP-3804351    | 307           | FP-3804935    | 209, 237                             |
| FP-3803614   | 161                                      | FP-3804354    | 307           | FP-3804990    | 37                                   |
| FP-3803703   | 77, 103, 139                             | FP-3804357    | 307           | FP-3806180    | 49                                   |
| FP-380371610 | 141, 145                                 | FP-3804359    | 307           | FP-3806201    | 37                                   |
| FP-3803726   | 145                                      | FP-3804360    | 308           | FP-3806203    | 37                                   |
| FP-3803739   | 171                                      | FP-3804362    | 308           | FP-3818823    | 11, 35                               |
| FP-3803740   | 171, 296, 297, 298, 299, 300, 301        | FP-3804363    | 308           | FP-3818841    | 93                                   |
| FP-3803741   | 171                                      | FP-3804366    | 308           | FP-3818885    | 197, 207                             |
| FP-3803742   | 171, 296, 297, 298, 299, 300, 301, 302   | FP-3804376    | 307           | FP-3819632    | 93                                   |
| FP-3803752   | 171                                      | FP-3804378    | 307           | FP-3819774    | 83                                   |
| FP-3803753   | 171, 294, 295, 296                       | FP-3804381    | 307           | FP-3819989    | 83                                   |
| FP-3803754   | 171                                      | FP-3804384    | 307           | FP-3820566    | 121                                  |
| FP-3803754   | 171                                      | FP-3804387    | 307           | FP-3820629    | 93                                   |
| FP-3803755   | 171, 293, 294, 295, 296, 297             | FP-3804389    | 307           | FP-3820791    | 95                                   |
| FP-3803756   | 171                                      | FP-3804390    | 308           | FP-3820872    | 79                                   |
| FP-3803757   | 171, 294, 295                            | FP-3804392    | 308           | FP-3820917    | 83                                   |
| FP-3803758   | 171                                      | FP-3804393    | 308           | FP-3820918    | 83, 125                              |
| FP-3803759   | 171, 294, 296, 297                       | FP-3804396    | 308           | FP-3820922    | 51, 97, 101, 137, 155, 159, 211, 269 |
| FP-3803770   | 147                                      | FP-3804406    | 305, 307, 308 | FP-3820945    | 77, 83, 121                          |
| FP-3803854   | 147                                      | FP-3804411    | 305, 308      | FP-3820946    | 77, 83, 121                          |
| FP-3803896   | 83                                       | FP-3804414    | 305, 308      | FP-3821572    | 265                                  |
| FP-3803903   | 256                                      | FP-3804417    | 305, 308      | FP-3822959    | 252                                  |
| FP-3803930   | 51, 73, 97, 101, 155, 159, 211, 215, 269 | FP-3804419    | 305, 308      | FP-3822960    | 252                                  |
| FP-3803931   | 51, 97, 101, 155, 159, 211, 215, 269     | FP-3804420    | 305, 308      | FP-3822961    | 252                                  |
| FP-3803932   | 51, 97, 101, 155, 159, 211, 215, 269     | FP-3804422    | 305, 308      | FP-3822963    | 252                                  |
| FP-3803961   | 103, 139                                 | FP-3804423    | 305, 308      | FP-3823681    | 258                                  |
| FP-3803962   | 103                                      | FP-3804426    | 305, 308      | FP-3865113    | 171                                  |
| FP-3803963   | 103                                      | FP-3804436    | 308           | FP-3865113X   | 298, 300                             |
| FP-3803964   | 103                                      | FP-3804441    | 308           | FP-3865236    | 163                                  |
| FP-3803965   | 103                                      | FP-3804444    | 308           | FP-3865237    | 151                                  |
| FP-3803966   | 103                                      | FP-3804447    | 308           | FP-3867043    | 31                                   |
| FP-3803967   | 103                                      | FP-3804449    | 308           | FP-3871248    | 275                                  |
| FP-3803968   | 103                                      | FP-3804450    | 308           | FP-3882433    | 77, 83                               |
| FP-3803974   | 103                                      | FP-3804452    | 308           | FP-3882433-PS | 77, 83                               |
| FP-3803977   | 103                                      | FP-3804453    | 308           | FP-3882733-PS | 77, 83                               |
| FP-3803995   | 81                                       | FP-3804456    | 308           | FP-3883150    | 77, 83, 121                          |
|              |  | FP-3804466    | 308           | FP-3883220    | 79, 123                              |



# Numerical Index

| Part Number  | Page                       | Part Number  | Page                                  | Part Number  | Page                        |
|--------------|----------------------------|--------------|---------------------------------------|--------------|-----------------------------|
| FP-3883284   | 11, 33, 93                 | FP-3903656WP | 15                                    | FP-3909695   | 5, 9                        |
| FP-3883365   | 93                         | FP-3903787   | 49                                    | FP-3909886   | 43                          |
| FP-3883472   | 77, 123                    | FP-3903977   | 139                                   | FP-3910260   | 59                          |
| FP-3883512   | 79, 123                    | FP-3904105   | 5                                     | FP-3910521   | 43, 47                      |
| FP-3892095   | 93                         | FP-3904166   | 3, 21                                 | FP-3910739   | 11, 49                      |
| FP-3893690   | 135                        | FP-3904369   | 19                                    | FP-3910810   | 5, 9                        |
| FP-3893751   | 103, 295, 296, 297         | FP-3904408   | 5                                     | FP-3910811   | 5, 9                        |
| FP-3893752   | 103                        | FP-3904409   | 5                                     | FP-3910824   | 5, 43                       |
| FP-3893754   | 103                        | FP-3905443   | 5, 263                                | FP-3911400   | 13, 292, 293, 294, 296, 297 |
| FP-3895477   | 81                         | FP-3905449   | 43                                    | FP-3911400WP | 13                          |
| FP-3895487   | 79, 87, 151                | FP-3905870   | 43                                    | FP-3911535   | 3, 7                        |
| FP-3895488   | 79, 87, 123                | FP-3905928   | 41                                    | FP-3911557   | 11                          |
| FP-3895860   | 79, 123                    | FP-3906080   | 3, 7                                  | FP-3911557   | 273                         |
| FP-3896894   | 83                         | FP-3906081   | 3, 7, 41, 45                          | FP-3911558   | 11, 49                      |
| FP-3899413   | 103                        | FP-3906206   | 5                                     | FP-3911558   | 273                         |
| FP-3900242   | 5, 9                       | FP-3906208   | 13                                    | FP-3911559   | 11                          |
| FP-3900245   | 5, 9                       | FP-3906208WP | 13                                    | FP-3911559   | 273                         |
| FP-3900250   | 5, 63, 107                 | FP-3906209   | 13                                    | FP-3911563   | 11                          |
| FP-3900267   | 3, 9                       | FP-3906209WP | 13                                    | FP-3911563   | 273                         |
| FP-3900276   | 5                          | FP-3906223   | 13, 289, 290, 291, 292, 293, 294, 296 | FP-3911564   | 273                         |
| FP-3900299   | 5                          | FP-3906223WP | 13                                    | FP-3911565   | 273                         |
| FP-3900687   | 3, 19                      | FP-3906412   | 43                                    | FP-3911566   | 273                         |
| FP-3900808   | 9                          | FP-3906659   | 9, 31, 47                             | FP-3911568   | 273                         |
| FP-3900919   | 7, 27                      | FP-3906694   | 9                                     | FP-3911568   | 11                          |
| FP-3901020   | 3                          | FP-3906695   | 9                                     | FP-3911572   | 11                          |
| FP-3901171   | 7, 27                      | FP-3906698   | 11, 33                                | FP-3911572   | 273                         |
| FP-3901172   | 7, 27                      | FP-3906783   | 43, 47                                | FP-3911575   | 11                          |
| FP-3901173   | 7, 27                      | FP-3906784   | 43, 47                                | FP-3911575   | 273                         |
| FP-3901174   | 7, 27                      | FP-3906785   | 43, 47                                | FP-3911582   | 11, 49                      |
| FP-3901177   | 43                         | FP-3906788   | 43, 47                                | FP-3911582   | 273                         |
| FP-3901306   | 3                          | FP-3906854   | 5                                     | FP-3911587   | 11                          |
| FP-3901356   | 11, 266                    | FP-3907117   | 55                                    | FP-3911587   | 273                         |
| FP-3901430   | 45                         | FP-3907156   | 13, 289, 290, 291, 292, 293           | FP-3911588   | 273                         |
| FP-3901431   | 45                         | FP-3907156WP | 13                                    | FP-3911588   | 11                          |
| FP-3901432   | 45                         | FP-3907157   | 13                                    | FP-3911941   | 47, 266                     |
| FP-3901433   | 45                         | FP-3907157WP | 13                                    | FP-3912049   | 13                          |
| FP-3901434   | 45                         | FP-3907158   | 13                                    | FP-3912049WP | 13                          |
| FP-3901693   | 43                         | FP-3907158WP | 13                                    | FP-3912050   | 13                          |
| FP-3901717   | 43, 47                     | FP-3907163   | 13, 290, 291, 292, 293, 296, 298, 300 | FP-3912050WP | 13                          |
| FP-3901764   | 43, 47                     | FP-3907163WP | 13                                    | FP-3912473   | 3, 7, 21, 41, 45, 59, 65    |
| FP-3901969   | 41, 59, 105                | FP-3907177   | 41, 55, 59, 105, 119                  | FP-3913032   | 69, 117                     |
| FP-3902089   | 49                         | FP-3907233   | 43                                    | FP-3913990   | 45, 65                      |
| FP-3902425   | 7, 19, 41, 43, 45, 59, 105 | FP-3907234   | 43                                    | FP-3913994   | 3, 7, 41, 45, 195, 201      |
| FP-3902466   | 43                         | FP-3907555   | 43, 47                                | FP-3914028   | 5                           |
| FP-3903242   | 19                         | FP-3907792   | 41, 55                                | FP-3914029   | 5                           |
| FP-3903380   | 5, 9, 43, 47               | FP-3908035   | 17                                    | FP-3914302   | 41, 45                      |
| FP-3903475   | 3, 11, 41                  | FP-3908036   | 17                                    | FP-3914308   | 49                          |
| FP-3903575   | 9                          | FP-3908096   | 41                                    | FP-3914310   | 49                          |
| FP-3903576   | 9                          | FP-3908815   | 13                                    | FP-3914385   | 3, 7                        |
| FP-3903579   | 15                         | FP-3908815WP | 13                                    | FP-3914388   | 47                          |
| FP-3903579WP | 15                         | FP-3908816   | 13                                    | FP-3915772   | 3, 7, 21, 41, 45            |
| FP-3903582   | 17                         | FP-3908816WP | 13                                    | FP-3916588   | 43                          |
| FP-3903655   | 15                         | FP-3909356   | 9                                     | FP-3917324   | 11                          |
| FP-3903655WP | 15                         | FP-3909397   | 11                                    | FP-3917619   | 15, 292, 293, 294, 295, 296 |
| FP-3903656   | 15                         | FP-3909410   | 3, 7, 41, 45                          | FP-3917619WP | 15                          |

# Numerical Index



| Part Number  | Page                                 | Part Number  | Page  | Part Number  | Page                 |
|--------------|--------------------------------------|--------------|---|--------------|----------------------|
| FP-3917707   | 55, 57, 293, 294, 296, 298, 299, 300 | FP-3922632WP | 15  | FP-3929161WP | 57                   |
| FP-3917707WP | 57                                   | FP-3922633WP | 15  | FP-3929457   | 33                   |
| FP-3917728   | 43                                   | FP-3922687   | 17, 296   | FP-3929734   | 9                    |
| FP-3917729   | 43                                   | FP-3922794   | 241   | FP-3929792   | 11                   |
| FP-3917780   | 41, 45                               | FP-3923163   | 55, 57, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301 | FP-3930187   | 15, 297, 298, 300    |
| FP-3918174   | 49, 69                               | FP-3923163WP | 57  | FP-3930187WP | 15                   |
| FP-3918188   | 5, 9, 47                             | FP-3923164   | 55, 57, 289, 290, 291, 292, 293, 294, 296, 297, 298                     | FP-3930188   | 15                   |
| FP-3918191   | 9, 47                                | FP-3923164WP | 57  | FP-3930188WP | 17                   |
| FP-3918192   | 47                                   | FP-3923165   | 55, 57  | FP-3930189   | 15                   |
| FP-3918332   | 49, 69                               | FP-3923165WP | 57  | FP-3930189WP | 17                   |
| FP-3918428   | 11, 33                               | FP-3923331   | 11  | FP-3930906   | 5                    |
| FP-3918532   | 49                                   | FP-3923478   | 47  | FP-3930911   | 69                   |
| FP-3918673   | 3                                    | FP-3923517   | 11  | FP-3931623   | 9, 47                |
| FP-3918986   | 45                                   | FP-3923564   | 43  | FP-3931824   | 11, 35               |
| FP-3919041   | 15, 293, 294, 295, 296, 297, 300     | FP-3924492   | 43  | FP-3932063   | 43, 263              |
| FP-3919041WP | 15                                   | FP-3924582   | 43  | FP-3932453   | 5, 23                |
| FP-3919044   | 15                                   | FP-3925343   | 41, 45, 65, 105, 109  | FP-3934046   | 55, 57, 75           |
| FP-3919044WP | 15                                   | FP-3925626   | 41  | FP-3934047   | 15, 17, 37, 39       |
| FP-3919045   | 15                                   | FP-3925878   | 55, 57, 295, 296, 297, 298, 299   | FP-3934048   | 13, 15, 17           |
| FP-3919045WP | 15                                   | FP-3925878WP | 57  | FP-3934580   | 55                   |
| FP-3919047   | 15                                   | FP-3925879   | 55, 57  | FP-3934864   | 65                   |
| FP-3919047WP | 15                                   | FP-3925879WP | 57  | FP-3935449   | 5                    |
| FP-3919048   | 15                                   | FP-3926047   | 19  | FP-3935585   | 43                   |
| FP-3919048WP | 15                                   | FP-3926048   | 59, 105   | FP-3935586   | 43                   |
| FP-3919247   | 57                                   | FP-3926103   | 5, 9  | FP-3935878   | 23                   |
| FP-3919247WP | 57                                   | FP-3926126   | 3, 7, 41, 45, 65, 109   | FP-3936321   | 9, 47                |
| FP-3919369   | 35                                   | FP-3926631   | 15, 295, 297, 298, 299  | FP-3936323   | 9                    |
| FP-3919435   | 43, 47                               | FP-3926632   | 15, 295   | FP-3936324   | 9, 47                |
| FP-3919566   | 57                                   | FP-3926633   | 15  | FP-3936876   | 105                  |
| FP-3919566WP | 57                                   | FP-3926634   | 15  | FP-3936993   | 43, 61               |
| FP-3919937   | 55                                   | FP-3926634WP | 15  | FP-3937111   | 3, 7, 21             |
| FP-3920691   | 13, 15, 17, 37, 39                   | FP-3926635   | 15  | FP-3937142   | 31, 115              |
| FP-3920692   | 55, 57, 75, 119                      | FP-3926635WP | 15  | FP-3937214   | 3, 21                |
| FP-3920773   | 7, 21, 41, 45, 59, 105, 109          | FP-3926760   | 11, 33  | FP-3937438   | 5                    |
| FP-3920779   | 5                                    | FP-3927063   | 23  | FP-3937479   | 23, 61, 107          |
| FP-3920780   | 5                                    | FP-3927642   | 43  | FP-3937706   | 11, 35               |
| FP-3920781   | 5                                    | FP-3927692   | 23  | FP-3938152   | 23                   |
| FP-3920867   | 5                                    | FP-3928031   | 41  | FP-3938156   | 3, 7, 21             |
| FP-3920868   | 5                                    | FP-3928143   | 9   | FP-3938157   | 7, 19                |
| FP-3921444   | 43                                   | FP-3928473   | 297   | FP-3938158   | 11                   |
| FP-3921640   | 5                                    | FP-3928493   | 3, 7  | FP-3938160   | 41, 45, 59, 105, 109 |
| FP-3921978   | 47                                   | FP-3928639   | 49  | FP-3939258   | 9, 47, 59, 67        |
| FP-3921980   | 47                                   | FP-3928673   | 292, 297, 299, 300, 301   | FP-3939264   | 61                   |
| FP-3922488   | 5, 9                                 | FP-3928759   | 29  | FP-3939353   | 41, 45, 59, 65, 105  |
| FP-3922571   | 15, 295, 296, 297, 298, 299, 300     | FP-3928870   | 65  | FP-3939859   | 7, 27                |
| FP-3922571WP | 15                                   | FP-3929005   | 43  | FP-3940059   | 19                   |
| FP-3922572   | 15, 296                              | FP-3929027   | 7, 27   | FP-3940123   | 25                   |
| FP-3922572WP | 15                                   | FP-3929036   | 7   | FP-3940245   | 71, 113              |
| FP-3922573   | 15                                   | FP-3929037   | 7   | FP-3940386   | 69, 117              |
| FP-3922573WP | 15                                   | FP-3929039   | 9   | FP-3940632   | 69                   |
| FP-3922574   | 15                                   | FP-3929041   | 9   | FP-3940734   | 25                   |
| FP-3922574WP | 15                                   | FP-3929042   | 9   | FP-3940735   | 23                   |
| FP-3922575   | 15                                   | FP-3929161   | 57, 297, 298, 299   | FP-3942106   | 75                   |
| FP-3922575WP | 15                                   |              |   | FP-3942565   | 29                   |
| FP-3922631WP | 15                                   |              |   | FP-3942588   | 63                   |



# Numerical Index

| Part Number | Page                     | Part Number   | Page               | Part Number   | Page  |
|-------------|--------------------------|---------------|--------------------|---------------|---|
| FP-3942589  | 63                       | FP-3968183    | 25                 | FP-4024919    | 249   |
| FP-3942915  | 33                       | FP-3969637    | 107                | FP-4024919 10 | 249   |
| FP-3943198  | 23                       | FP-3969988    | 33                 | FP-4024919-OS | 249   |
| FP-3943367  | 75                       | FP-3970126    | 37                 | FP-4024919S   | 249   |
| FP-3944293  | 59, 105                  | FP-3970127    | 37                 | FP-4024919S10 | 249   |
| FP-3944646  | 61                       | FP-3970192    | 37, 301, 302       | FP-4024920    | 249   |
| FP-3945329  | 41, 59, 105              | FP-3970727    | 63, 107            | FP-4024920 10 | 249   |
| FP-3945866  | 67                       | FP-3970880    | 9                  | FP-4024920-OS | 249   |
| FP-3945917  | 45, 65, 109              | FP-3972880    | 37                 | FP-4024920S   | 249   |
| FP-3945918  | 45, 65, 109              | FP-3972881    | 37                 | FP-4024920S10 | 249   |
| FP-3945919  | 45, 65, 109              | FP-3972882    | 37                 | FP-4024921    | 249   |
| FP-3945967  | 49, 69                   | FP-3972884    | 37                 | FP-4024921 10 | 249   |
| FP-3946050  | 37, 300                  | FP-3972885    | 37                 | FP-4024922    | 249   |
| FP-3946051  | 37                       | FP-3973114    | 69, 117            | FP-4024922 10 | 249   |
| FP-3946052  | 37                       | FP-3974815    | 49                 | FP-4024924    | 141, 145  |
| FP-3946053  | 37                       | FP-3977063    | 23                 | FP-402492410  | 141, 145  |
| FP-3946054  | 37                       | FP-3990105    | 29                 | FP-4024924S   | 141, 145  |
| FP-3946153  | 37, 298, 300, 301        | FP-3992090    | 63                 | FP-4024952    | 249   |
| FP-3946154  | 37                       | FP-3992092    | 69                 | FP-4024952 10 | 249   |
| FP-3946155  | 37                       | FP-3992117    | 57                 | FP-4024953    | 249   |
| FP-3946156  | 37                       | FP-4000504    | 191, 193           | FP-4024953S   | 249   |
| FP-3946157  | 37                       | FP-4003966    | 79, 123            | FP-4024956    | 249   |
| FP-3946275  | 23                       | FP-4009220    | 191, 227, 245      | FP-4024958    | 249   |
| FP-3947759  | 29                       | FP-4009221    | 191                | FP-4024993S   | 77, 79  |
| FP-3948071  | 49                       | FP-4009222    | 191                | FP-4025011    | 37  |
| FP-3948095  | 41, 55, 59, 75, 105, 119 | FP-4009227    | 191, 223           | FP-4025072    | 37  |
| FP-3948578  | 61                       | FP-4009228    | 191                | FP-4025120    | 83, 125   |
| FP-3949688  | 29                       | FP-4009230    | 191                | FP-4025121    | 83, 125   |
| FP-3949843  | 37                       | FP-4009231    | 191                | FP-4025122    | 83, 125   |
| FP-3949844  | 37                       | FP-4009232    | 191                | FP-4025123    | 83, 125   |
| FP-3950661  | 65, 109                  | FP-4009233    | 191                | FP-4025125    | 83, 125   |
| FP-3950662  | 65, 109                  | FP-4016886    | 55                 | FP-4025126    | 83, 125   |
| FP-3950663  | 65, 109                  | FP-4019886    | 55, 57             | FP-4025127    | 85, 127   |
| FP-3950664  | 65, 109                  | FP-4020059    | 57                 | FP-4025128    | 85, 127   |
| FP-3950665  | 65, 109                  | FP-4020060    | 55                 | FP-4025129    | 83  |
| FP-3955393  | 25                       | FP-4020061    | 55                 | FP-4025155    | 77, 79  |
| FP-3955394  | 25                       | FP-4020062    | 55                 | FP-4025155S   | 77, 79  |
| FP-3957440  | 21                       | FP-4022500    | 79, 123            | FP-4025161    | 139   |
| FP-3957543  | 11, 33                   | FP-4022907    | 79, 123            | FP-4025162    | 103, 139, 297, 298, 299, 300, 301               |
| FP-3957544  | 11, 33                   | FP-4024767    | 191, 223, 227, 245 | FP-4025164    | 103, 139  |
| FP-3957912  | 5                        | FP-4024768    | 191, 223, 245      | FP-4025168    | 139   |
| FP-3958165  | 21                       | FP-4024769    | 191, 223, 245      | FP-4025270    | 59  |
| FP-3958675  | 37, 301                  | FP-4024770    | 191, 223           | FP-4025271    | 41, 43  |
| FP-3959052  | 3, 7, 21                 | FP-4024771    | 191, 223, 245      | FP-4025271S   | 41  |
| FP-3963983  | 29                       | FP-4024772    | 191, 223, 245      | FP-4025290    | 55  |
| FP-3963988  | 67, 113                  | FP-4024773    | 191, 223, 245      | FP-4025293    | 55  |
| FP-3965497  | 37                       | FP-4024774    | 191, 223, 245      | FP-4025294    | 55  |
| FP-3966675  | 37                       | FP-4024775    | 191, 223, 245      | FP-4025297    | 77  |
| FP-3966676  | 37                       | FP-4024808    | 185                | FP-4025366    | 57  |
| FP-3966840  | 49                       | FP-4024817    | 95                 | FP-4026171    | 89, 151, 165, 167, 215, 219, 221, 243, 273, 280 |
| FP-3967060  | 7, 27                    | FP-4024918    | 249                | FP-4058790    | 145, 249  |
| FP-3967061  | 7, 27                    | FP-4024918 10 | 249                | FP-4058790S   | 249   |
| FP-3967062  | 7, 27                    | FP-4024918-OS | 249                | FP-4058941    | 143   |
| FP-3967063  | 7, 27                    | FP-4024918S   | 249                | FP-4058947    | 143   |
| FP-3967064  | 7, 27                    | FP-4024918S10 | 249                |               |   |



# Numerical Index



| Part Number | Page                              | Part Number  | Page                    | Part Number       | Page                       |
|-------------|-----------------------------------|--------------|-------------------------|-------------------|----------------------------|
| FP-4058967  | 171                               | FP-4089811   | 306, 307                | FP-4B3.9PREM-L    | 3                          |
| FP-4058968  | 171                               | FP-4089819   | 19, 23                  | FP-4B3.9PREM-OH   | 3                          |
| FP-4058969  | 171                               | FP-4089958   | 59, 61, 105, 107        | FP-4B3.9PREM-OH-L | 3                          |
| FP-4058981  | 145, 275                          | FP-4089995   | 77, 85, 125             | FP-551079         | 265                        |
| FP-4059898T | 103, 139                          | FP-4089998   | 77, 83, 121             | FP-556355         | 263                        |
| FP-4059901T | 103, 139, 297, 298, 299, 300, 301 | FP-4090035   | 19, 23                  | FP-556356         | 263                        |
| FP-4062902  | 283                               | FP-4095009   | 191, 193, 223, 225, 245 | FP-65259A         | 141, 149                   |
| FP-4070462  | 85                                | FP-4095010   | 245                     | FP-65259B         | 141, 149                   |
| FP-4070463  | 85                                | FP-4095097   | 209, 237                | FP-65259C         | 141, 149                   |
| FP-4070529  | 79, 87, 123                       | FP-43463A    | 161, 163                | FP-66292          | 141                        |
| FP-4070653  | 139                               | FP-43643A    | 261                     | FP-66890          | 283                        |
| FP-4070653T | 103                               | FP-43696A    | 280                     | FP-67622          | 197, 199                   |
| FP-4070653T | 139                               | FP-43828B    | 261                     | FP-67946          | 77, 83, 121, 141, 149, 197 |
| FP-4082772  | 121                               | FP-43969A    | 195                     | FP-68061A         | 221, 280                   |
| FP-4083006  | 135                               | FP-4890926   | 107, 115                | FP-68193          | 151, 207                   |
| FP-4083243  | 103                               | FP-4891178   | 7, 27                   | FP-68210          | 264                        |
| FP-4083244  | 103, 139                          | FP-4891796   | 61                      | FP-68365          | 163                        |
| FP-4089181  | 37, 39                            | FP-4892795   | 7, 27                   | FP-68445          | 145, 195, 199, 227, 229    |
| FP-4089182  | 37, 39                            | FP-4892796   | 7, 27                   | FP-68513          | 259                        |
| FP-4089183  | 37                                | FP-4892797   | 7, 27                   | FP-68908          | 197                        |
| FP-4089184  | 37                                | FP-4892798   | 7, 27                   | FP-68910          | 209                        |
| FP-4089185  | 37                                | FP-4893693   | 7, 27                   | FP-69521          | 163                        |
| FP-4089186  | 37                                | FP-4897568   | 23                      | FP-69550          | 255                        |
| FP-4089258  | 37, 39                            | FP-4898821   | 37                      | FP-69736          | 151                        |
| FP-4089259  | 37                                | FP-4899226   | 23                      | FP-69793          | 280                        |
| FP-4089260  | 37                                | FP-4920751   | 77, 85, 121, 125        | FP-69936          | 254                        |
| FP-4089342  | 21, 59                            | FP-4922219   | 199                     | FP-6B5.9PREM      | 3                          |
| FP-4089348  | 57                                | FP-4926017   | 83, 125                 | FP-6B5.9PREM-L    | 3                          |
| FP-4089371  | 141, 145                          | FP-4926019   | 85, 127                 | FP-6B5.9PREM-OH   | 3                          |
| FP-4089371S | 141, 145                          | FP-4926069   | 123                     | FP-6B5.9PREM-OH-L | 3                          |
| FP-4089388  | 103, 121, 139                     | FP-4930594   | 69, 117                 | FP-6C8.3PREM      | 41                         |
| FP-4089390  | 195, 227                          | FP-4933120   | 75, 301, 302            | FP-6C8.3PREM OH   | 41                         |
| FP-4089391  | 195                               | FP-4936076   | 61, 107                 | FP-70183          | 207, 235                   |
| FP-4089420  | 37                                | FP-4936079   | 61, 107                 | FP-7025290        | 55                         |
| FP-4089421  | 37                                | FP-4936080   | 5, 23                   | FP-70502          | 266                        |
| FP-4089422  | 37                                | FP-4939585   | 11, 33                  | FP-70550          | 77, 121, 151, 161, 273     |
| FP-4089423  | 37                                | FP-4939587   | 11, 33                  | FP-70624          | 209, 261                   |
| FP-4089478  | 77, 79, 121, 123                  | FP-4944710   | 47                      | FP-70690          | 165, 219, 280              |
| FP-4089489  | 171, 307, 308                     | FP-4944711   | 47                      | FP-70704          | 280                        |
| FP-4089500  | 191, 193, 223, 245                | FP-4944712   | 47                      | FP-70705          | 165, 219, 280              |
| FP-4089501  | 225                               | FP-4944713   | 47                      | FP-70723          | 280                        |
| FP-4089542  | 77, 121                           | FP-4944714   | 47                      | FP-70732          | 280                        |
| FP-4089602  | 29                                | FP-4946714   | 3, 21                   | FP-70772          | 145, 258                   |
| FP-4089642  | 65, 109                           | FP-4947710   | 9                       | FP-70809          | 280                        |
| FP-4089644  | 75                                | FP-4947711   | 9                       | FP-708124         | 256                        |
| FP-4089647  | 69, 117                           | FP-4947712   | 9                       | FP-70815          | 165, 219                   |
| FP-4089649  | 3                                 | FP-4947713   | 9                       | FP-80210020       | 283                        |
| FP-4089649S | 3                                 | FP-4947714   | 9                       | FP-90004          | 153, 250, 273              |
| FP-4089669  | 37                                | FP-4955190   | 75                      | FP-90012          | 250, 267                   |
| FP-4089670  | 37                                | FP-4955210   | 25                      | FP-90210001       | 283                        |
| FP-4089671  | 37                                | FP-4955239   | 123                     | FP-90210002       | 283                        |
| FP-4089672  | 25                                | FP-4955643   | 107                     | FP-90210009       | 283                        |
| FP-4089761  | 63, 107                           | FP-4957806   | 229, 283                | FP-90210011       | 283                        |
| FP-4089762  | 63, 107                           | FP-4981796   | 107                     | FP-90210014 20    | 283                        |
| FP-4089810  | 283, 306, 307                     | FP-4B3.9PREM | 3                       | FP-90210020       | 283                        |





# Numerical Index

| Part Number    | Page   | Part Number       | Page     | Part Number  | Page     |
|----------------|--|-------------------|----------|--------------|----------|
| FP-90210035    | 283  | FP-CK1557-5405    | 307      | FP-PK2092    | 17       |
| FP-9097        | 260  | FP-CK2320-5405    | 307      | FP-PK2094    | 17       |
| FP-9195-3      | 254  | FP-CK2794-5405    | 307      | FP-PK2571    | 15       |
| FP-9235-1      | 256  | FP-CK3102-5099    | 307      | FP-PK2572    | 15       |
| FP-9260-1      | 259  | FP-CK5516-5099    | 307      | FP-PK2573    | 17       |
| FP-9266        | 259  | FP-CK5516-5405    | 307      | FP-PK2574    | 17       |
| FP-9266-A      | 259  | FP-CK7348-5405    | 307      | FP-PK2575    | 17       |
| FP-940014      | 250  | FP-CK7349-5405    | 307      | FP-PK2630    | 17       |
| FP-940015      | 250  | FP-CK8650-5405    | 307      | FP-PK3102    | 304, 307 |
| FP-AR10172     | 265  | FP-CK9212-5405    | 307      | FP-PK3102-WP | 304      |
| FP-AR1176      | 248, 256                                     | FP-CWB008         | 258      | FP-PK3163    | 57       |
| FP-AR12098     | 283, 309                                     | FP-IFKISB624V     | 19       | FP-PK3164    | 57       |
| FP-AR12250     | 201  | FP-IFKISCQSC      | 59       | FP-PK3165    | 57       |
| FP-AR12251     | 201  | FP-IFKM11AR       | 77       | FP-PK3579    | 17       |
| FP-AR12252     | 201  | FP-IFKN14AR       | 141      | FP-PK3655    | 17       |
| FP-AR12270     | 201, 231                                     | FP-IFKQSK19RR     | 227      | FP-PK3656    | 17       |
| FP-AR12271     | 201, 231                                     | FP-L10PREM        | 77       | FP-PK5011    | 37       |
| FP-AR12272     | 201, 231                                     | FP-L10PREMDNA     | 77       | FP-PK5072    | 37       |
| FP-AR12273     | 201, 231                                     | FP-L10PREM-OH     | 77       | FP-PK5161    | 139      |
| FP-AR12313     | 225  | FPL-3801768       | 287      | FP-PK5164    | 139      |
| FP-AR12719     | 53, 99, 157, 159, 213, 271                   | FP-LK03208095     | 75       | FP-PK5516    | 304, 307 |
| FP-AR2883      | 283  | FP-LK166630       | 283      | FP-PK5516-WP | 304      |
| FP-AR3560      | 283  | FP-LK31648095     | 55       | FP-PK5878    | 57       |
| FP-AR3880664   | 191  | FP-LK92477792     | 55       | FP-PK5879    | 57       |
| FP-AR3880665   | 191  | FP-LK92479937     | 55       | FP-PK6208    | 13       |
| FP-AR3880666   | 193  | FP-LK98868095     | 55       | FP-PK6209    | 13       |
| FP-AR3880667   | 193  | FP-N14PREMDNAN-OH | 141      | FP-PK6223    | 13       |
| FP-AR40063     | 276  | FP-N14PREMPDN     | 141      | FP-PK6631    | 17       |
| FP-AR4284      | 260  | FP-N14PREMPDNAN   | 141      | FP-PK6632    | 17       |
| FP-AR51477     | 143, 251                                     | FP-N14PREMPDN-OH  | 141      | FP-PK6633    | 17       |
| FP-AR51478     | 252  | FP-OHISCQSC       | 59       | FP-PK6634    | 17       |
| FP-AR60801     | 265  | FP-OHM11AR        | 77       | FP-PK6635    | 17       |
| FP-AR62181     | 265  | FP-PG1330NG       | 283      | FP-PK6732    | 103      |
| FP-AR7051      | 267  | FP-PG1330SNG      | 283      | FP-PK7157    | 13       |
| FP-AR73308     | 53, 99, 157, 213, 271                        | FP-PG1331NGB      | 283      | FP-PK7158    | 13       |
| FP-AR73350     | 51, 71, 73, 97, 101, 155, 159, 211, 215, 269 | FP-PGC205         | 262      | FP-PK7619    | 17       |
| FP-AR73351     | 51, 97, 101, 155, 159, 211, 215, 269         | FP-PGC206         | 262      | FP-PK7707    | 57       |
| FP-AR73352     | 51, 97, 101, 155, 159, 211, 215, 269         | FP-PGC25          | 141, 145 | FP-PK8815    | 13       |
| FP-AR73665     | 276  | FP-PK0187         | 15, 17   | FP-PK8816    | 13       |
| FP-AR7375      | 309  | FP-PK0188         | 15, 17   | FP-PK9041    | 17       |
| FP-AR7383      | 309  | FP-PK0189         | 15, 17   | FP-PK9044    | 17       |
| FP-AR7399      | 309  | FP-PK0781         | 37       | FP-PK9045    | 17       |
| FP-AR7420      | 309  | FP-PK0782         | 37       | FP-PK9047    | 17       |
| FP-AR7440      | 309  | FP-PK0783         | 37       | FP-PK9048    | 17       |
| FP-AR7460      | 283  | FP-PK0784         | 37       | FP-PK9161    | 57       |
| FP-AR7510      | 309  | FP-PK0785         | 37       | FP-PK9183    | 37       |
| FP-BM27253     | 252, 283                                     | FP-PK0838         | 37       | FP-PK9184    | 37       |
| FP-BM68356     | 280  | FP-PK0839         | 37       | FP-PK9185    | 37       |
| FP-BM98224     | 283  | FP-PK0840         | 37       | FP-PK9186    | 37       |
| FP-BM98776     | 280  | FP-PK0841         | 37       | FP-PK9247    | 57       |
| FP-CK1553-5405 | 307  | FP-PK0842         | 37       | FP-PK9259    | 39       |
| FP-CK1554-5405 | 307  | FP-PK1400         | 13       | FP-PK9260    | 39       |
| FP-CK1555-5405 | 307  | FP-PK2049         | 13       | FP-PK9420    | 39       |
| FP-CK1556-5405 | 307  | FP-PK2050         | 13       | FP-PK9421    | 39       |
|                |  | FP-PK2090         | 17       | FP-PK9422    | 39       |

# Numerical Index



| Part Number | Page                              |
|-------------|-----------------------------------|
| FP-PK9423   | 39                                |
| FP-PK9566   | 57                                |
| FP-PK9669   | 39                                |
| FP-PK9670   | 39                                |
| FP-PK9671   | 39                                |
| FP-PKQSK19  | 245                               |
| FP-S16002   | 95, 135, 207, 235                 |
| FP-S16052   | 89, 165, 219, 280                 |
| FP-S16054   | 93, 207                           |
| FP-S16069   | 207, 235                          |
| FP-S16255   | 161, 260                          |
| FP-S201     | 161                               |
| FP-S2037    | 283                               |
| FP-S212     | 79, 199, 258                      |
| FP-S222A    | 266                               |
| FP-S2286    | 165, 219, 280                     |
| FP-S276     | 274                               |
| FPS631      | 227                               |
| FP-S631     | 167, 197, 203, 207, 221, 266      |
| FP-S911B    | 101, 145, 151, 161, 163, 211, 273 |
| FP-S915A    | 199                               |
| FP-S962E    | 207, 235                          |
| FP-S965E    | 195, 201, 207                     |
| NH743       | 260                               |
| PG1330NG    | 250                               |
| PGC100      | 250                               |
| PGC101      | 250                               |
| PGC1014     | 250                               |
| PGC110      | 250                               |
| PGC175      | 250                               |
| PGC176      | 250                               |
| PGC-20      | 250                               |
| PGC200      | 250, 264                          |
| PGC202      | 250, 264                          |
| PGC204      | 250, 264                          |
| PGC205      | 250                               |
| PGC206      | 250                               |
| PGC300      | 250                               |
| PGJ-10      | 250                               |
| PGJ-15      | 250                               |
| PGJ-20      | 250                               |
| PGJ-5       | 250                               |
| S 300       | 125                               |
| S 302       | 233                               |
| S 3193      | 131                               |
| S 923 E     | 59, 105                           |



## Cummins Vintage Section

*Global Technology Behind Every Part*

This new section in the Cummins CA0030 catalog contains all of the components currently offered under the FP Diesel brand for Cummins Vintage engines not listed in the front section of this catalog. Engines listed in this section are not considered as popular as the engines listed in the front section of the catalog and may be hard to find, but are still available in the FP Diesel product offering. Also listed in this section are engines branded as Cummins but may be manufactured by another engine manufacturer.

In addition to the new FP Diesel part numbers listed in this catalog, you'll also find coverage previously available under Sealed Power that are now part of the FP Diesel offering. In cases where both a Sealed Power part number and FP Diesel part number were available for the same application, both part numbers will be listed in the catalog. As this coverage transitions to the FP Diesel product line offering, Sealed Power part numbers will be superseded to FP Diesel and only the FP Diesel number will be available for purchase.

### How To Use This Catalog

This catalog is designed to allow expedient identification of correct parts using the following information.

**The catalog is sorted as follows:**

- 1st** by VEHICLE or ENGINE MANUFACTURER.
- 2nd** by ENGINE DISPLACEMENT.
- 3rd** by BORE DIAMETER. Engines with the same displacement are sorted by bore diameter.
- 4th** by USAGE. Engines used in Medium Duty Truck applications will be listed before engines used in Heavy Duty Truck applications.
- 5th** by VALVETRAIN CONFIGURATION. DOHC engines will be listed before SOHC engines.
- 6th** by INDUCTION SYSTEM. Naturally aspirated engines will be listed before Turbocharged engines.

Each engine header provides all the information necessary to select the desired engine. Many of the headers include serial number listings to provide absolute assurance that the correct listing is being used.

The pages within the applications are easy to read, and contain all the information required to select the correct part. Each listing will contain three distinct sections – Valvetrain, Block and Kits. The components in each section will always be listed in the following order:

| Valvetrain    | Block           | Kits          |
|---------------|-----------------|---------------|
| Timing        | Pistons         | Re-ring Kits  |
| Camshafts     | Rings           | In-Frame Kits |
| Lifters       | Liners          | Overhaul Kits |
| Cam Kits      | Engine Bearings |               |
| Push Rods     | Oil Pumps       |               |
| Rocker Parts  | Oil Coolers     |               |
| Valves        | After-Coolers   |               |
| Valve Guides  | Gaskets         |               |
| Valve Springs | Freeze Plugs    |               |
| Valve Seals   | Seals           |               |
| Valve Seats   | Redi-Sleeves    |               |
| Valve Misc.   |                 |               |

**Engine Finding Index**

| Engine   | Line No. | Engine  | Line No. |
|--|----------|---|----------|
| Diesel L1 3.625" Bore.....                         | 1        | 8.3L 504 OHV Diesel V8 4.625" Bore .....                | 24       |
| 2.9L 180 OHV Diesel L3 102mm Bore .....            | 2        | 8.3L 504 OHV Turbo-Diesel V8 4.625" Bore.....           | 25       |
| 2.9L 180 OHV Turbo-Diesel L3 102mm Bore.....       | 3        | 8.3L 505 OHV Diesel L6 114mm Bore .....                 | 26       |
| 3.9L 239 (3921cc) OHV Diesel L4 102mm Bore .....   | 4        | 9.1L 555 OHV Diesel V8 4.625" Bore .....                | 27       |
| 4.1L 251 OHV Diesel L4 4" Bore (Case engine) ..... | 5        | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore.....           | 28       |
| 4.4L 267 OHV Diesel L4 4.125" Bore.....            | 6        | 9.6L 588 OHV Diesel V6 5.5" Bore .....                  | 29       |
| 4.4L 267 OHV Turbo-Diesel L4 4.125" Bore .....     | 7        | 9.6L 588 OHV Turbo-Diesel V6 5.5" Bore.....             | 30       |
| 5.1L 309 OHV Diesel L4 4.4375" Bore.....           | 8        | 11.0L 672 OHV Diesel L6 4.875" Bore.....                | 31       |
| 5.1L 309 OHV Turbo-Diesel L4 4.4375" Bore .....    | 9        | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)..... | 32       |
| 5.4L 331 OHV Diesel L6 3.75" Bore.....             | 10       | 12.2L 743 OHV Diesel L6 5.125" Bore.....                | 33       |
| 5.8L 352 OHV Diesel V6 4.625" Bore .....           | 11       | 12.2L 743 OHV NG L6 5.125" Bore .....                   | 34       |
| 5.9L 359 (5882cc) OHV Diesel L6 102mm Bore .....   | 12       | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore .....         | 35       |
| 6.2L 377 OHV Diesel L6 4" Bore (Case engine) ..... | 13       | 12.9L 785 OHV Diesel V8 5.5" Bore .....                 | 36       |
| 6.2L 378 OHV Diesel V6 4.625" Bore .....           | 14       | 12.9L 785 OHV Turbo-Diesel V8 5.5" Bore.....            | 37       |
| 6.2L 378 OHV Turbo-Diesel V6 4.625" Bore.....      | 15       | 14.0L 855 OHV NG L6 5.5" Bore .....                     | 38       |
| 6.6L 401 OHV Diesel L6 4.125" Bore.....            | 16       | 14.8L 903 OHV Diesel V8 5.5" Bore .....                 | 39       |
| 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore .....     | 17       | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore.....            | 40       |
| 7.3L 448 OHV Diesel L4 4.875" Bore.....            | 18       | 15.2L 927 OHV Diesel L6 5.5" Bore.....                  | 41       |
| 7.6L 464 OHV Diesel L6 4.4375" Bore.....           | 19       | 24.4L 1486 OHV Diesel V12 5.125" Bore .....             | 42       |
| 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore .....    | 20       | 24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore.....        | 43       |
| 7.7L 470 OHV Diesel V8 4.625" Bore .....           | 21       | 28.0L 1710 OHV Diesel V12 5.5" Bore .....               | 44       |
| 8.1L 495 OHV Diesel L4 5.125" Bore.....            | 22       | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore.....          | 45       |
| 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore .....     | 23       |   |          |

**Engine Code Index**

| Engine Code   | Engine Description                                   | Line No. | Engine Code                                  | Engine Description                                | Line No. |
|---|--|----------|--|---|----------|
| "B" Series (3-290) ...<br>Multi-Purpose Engines.....        | 2.9L 180 OHV Diesel L3 102mm<br>Bore .....           | 2        | CF160 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Diesel L6 4.4375"<br>Bore .....      | 19       |
| "B" Series (4-390) ...<br>Multi-Purpose Engines.....        | 3.9L 239 (3921cc) OHV Diesel L4<br>102mm Bore .....  | 4        | CR160 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| "B" Series (6-590) ...<br>Multi-Purpose Engines.....        | 5.9L 359 (5882cc) OHV Diesel L6<br>102mm Bore .....  | 12       | CS195 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| "B" Series Turbo (3T-290) ...<br>Multi-Purpose Engines..... | 2.9L 180 OHV Turbo-Diesel L3<br>102mm Bore .....     | 3        | CS464 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| AA400 ... Multi-Purpose<br>Engines.....                     | 4.1L 251 OHV Diesel L4 4" Bore<br>(Case engine)..... | 5        | CS464-B180 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| AA6 ... Multi-Purpose<br>Engines.....                       | 5.4L 331 OHV Diesel L6 3.75"<br>Bore .....           | 10       | CS464-C180 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| AA600 ... Multi-Purpose<br>Engines.....                     | 6.2L 377 OHV Diesel L6 4" Bore<br>(Case engine)..... | 13       | CS464-C195 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| BT2.9 ... Multi-Purpose<br>Engines.....                     | 2.9L 180 OHV Turbo-Diesel L3<br>102mm Bore .....     | 3        | CS464-P180 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| B2.9 ... Multi-Purpose<br>Engines.....                      | 2.9L 180 OHV Diesel L3 102mm<br>Bore .....           | 2        | CT160 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| B3.9 ... Multi-Purpose<br>Engines.....                      | 3.9L 239 (3921cc) OHV Diesel L4<br>102mm Bore .....  | 4        | CT464 ... Multi-Purpose<br>Engines.....      | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| C-105 ... Multi-Purpose<br>Engines.....                     | 5.1L 309 OHV Diesel L4 4.4375"<br>Bore .....         | 8        | CT464-C175 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| C-140 ... Multi-Purpose<br>Engines.....                     | 5.1L 309 OHV Turbo-Diesel L4<br>4.4375" Bore.....    | 9        | CT464-P175 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| C-309 ... Multi-Purpose<br>Engines.....                     | 5.1L 309 OHV Diesel L4 4.4375"<br>Bore .....         | 8        | CT464-P180 ...<br>Multi-Purpose Engines..... | 7.6L 464 OHV Turbo-Diesel L6<br>4.4375" Bore..... | 20       |
| C-90 ... Multi-Purpose<br>Engines.....                      | 5.1L 309 OHV Diesel L4 4.4375"<br>Bore .....         | 8        | C160 ... Multi-Purpose<br>Engines.....       | 7.6L 464 OHV Diesel L6 4.4375"<br>Bore .....      | 19       |

(continued on next page)

**Engine Code Index**

| Engine Code                                 | Engine Description                        | Line No. | Engine Code                     | Engine Description                                 | Line No. |
|---|---|----------|---------------------------------|--|----------|
| C160M ... Multi-Purpose Engines             | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HA6 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       |
| C175 ... Multi-Purpose Engines              | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HB ... Multi-Purpose Engines    | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       |
| C175B ... Multi-Purpose Engines             | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HBS ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged) | 32       |
| C175C ... Multi-Purpose Engines             | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HBS6 ... Multi-Purpose Engines  | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged) | 32       |
| C180 ... Multi-Purpose Engines              | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HB4 ... Multi-Purpose Engines   | 7.3L 448 OHV Diesel L4 4.875" Bore                 | 18       |
| C180M ... Multi-Purpose Engines             | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HB4 ... Multi-Purpose Engines   | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       |
| C190 ... Multi-Purpose Engines              | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HB6 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       |
| C190B ... Multi-Purpose Engines             | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HMR ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       |
| C195 ... Multi-Purpose Engines              | 7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore | 20       | HMR4 ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       |
| C4 ... Multi-Purpose Engines                | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HMR6 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| C464 ... Multi-Purpose Engines              | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HR ... Multi-Purpose Engines    | 7.3L 448 OHV Diesel L4 4.875" Bore                 | 18       |
| C464-B160 ... Multi-Purpose Engines         | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HR ... Multi-Purpose Engines    | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       |
| C464-C160 ... Multi-Purpose Engines         | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HRB ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| C464-P160 ... Multi-Purpose Engines         | 7.6L 464 OHV Diesel L6 4.4375" Bore       | 19       | HRBB ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| GNHC250 ... Multi-Purpose Engines           | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | HRBB6 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| GNHC4 ... Multi-Purpose Engines             | 7.3L 448 OHV Diesel L4 4.875" Bore        | 18       | HRBS ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| GNH220 ... Multi-Purpose Engines            | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | HRB16 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| GNH220-GC ... Multi-Purpose Engines         | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | HRB6 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| GNH220P ... Multi-Purpose Engines           | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | HRC4 ... Multi-Purpose Engines  | 7.3L 448 OHV Diesel L4 4.875" Bore                 | 18       |
| GNH250 ... Multi-Purpose Engines            | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | HRC4 ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       |
| G855 "Rio Grande" ... Multi-Purpose Engines | 14.0L 855 OHV NG L6 5.5" Bore             | 38       | HRC6 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| HA ... Multi-Purpose Engines                | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       | HRF ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| HA4 ... Multi-Purpose Engines               | 7.3L 448 OHV Diesel L4 4.875" Bore        | 18       | HRF6 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |
| HA4 ... Multi-Purpose Engines               | 8.1L 495 OHV Diesel L4 5.125" Bore        | 22       | HRM6 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       |

(continued on next page)

**Engine Code Index**

| Engine Code                      | Engine Description                                 | Line No. | Engine Code                             | Engine Description                        | Line No. |
|----------------------------------|--|----------|---|---|----------|
| HRP6 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JBS ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HRS ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JBS6 ... Multi-Purpose Engines          | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HRS6 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JF ... Multi-Purpose Engines            | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR16 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JF6 ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR4 ... Multi-Purpose Engines    | 7.3L 448 OHV Diesel L4 4.875" Bore                 | 18       | JN ... Multi-Purpose Engines            | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR4 ... Multi-Purpose Engines    | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       | JNF ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR6 ... Multi-Purpose Engines    | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | JNF6 ... Multi-Purpose Engines          | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JNR ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR6-B ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JNS ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR6-B1 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JNS6 ... Multi-Purpose Engines          | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HR672 ... Multi-Purpose Engines  | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | JN6 ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HS ... Multi-Purpose Engines     | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged) | 32       | JS ... Multi-Purpose Engines            | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HS6 ... Multi-Purpose Engines    | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged) | 32       | JS6 ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| HS672 ... Multi-Purpose Engines  | 11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged) | 32       | JT ... Multi-Purpose Engines            | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| HS743 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | JT401 ... Multi-Purpose Engines         | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| HU170 ... Multi-Purpose Engines  | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | JT6 ... Multi-Purpose Engines           | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| H135 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | JT6-10 Degree ... Multi-Purpose Engines | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| H4 ... Multi-Purpose Engines     | 7.3L 448 OHV Diesel L4 4.875" Bore                 | 18       | JT6-15 Degree ... Multi-Purpose Engines | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| H4 ... Multi-Purpose Engines     | 8.1L 495 OHV Diesel L4 5.125" Bore                 | 22       | JT6-20 Degree ... Multi-Purpose Engines | 6.6L 401 OHV Turbo-Diesel L6 4.125" Bore  | 17       |
| H6 ... Multi-Purpose Engines     | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | J40 ... Multi-Purpose Engines           | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| H6-1F ... Multi-Purpose Engines  | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | J401 ... Multi-Purpose Engines          | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| H672 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore                | 31       | J6 ... Multi-Purpose Engines            | 6.6L 401 OHV Diesel L6 4.125" Bore        | 16       |
| H743 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | NFT6 ... Multi-Purpose Engines          | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| H743L ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore                | 33       | NHB ... Multi-Purpose Engines           | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
|                                  |  |          | NHBS ... Multi-Purpose Engines          | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |

(continued on next page)

**Engine Code Index**

| Engine Code                        | Engine Description                  | Line No. | Engine Code                        | Engine Description                        | Line No. |
|------------------------------------|-------------------------------------|----------|------------------------------------|---|----------|
| NHB6 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHHTO ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NHC4 ... Multi-Purpose Engines     | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHHT6 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NHC4-B1 ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHHT6-B1 ... Multi-Purpose Engines | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NHC4-C1 ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHH180 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       |
| NHC4-GC ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHH195 ... Multi-Purpose Engines   | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       |
| NHC4-GS ... Multi-Purpose Engines  | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHH220 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHC400 ... Multi-Purpose Engines   | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHH220-T ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHC5 ... Multi-Purpose Engines     | 8.1L 495 OHV Diesel L4 5.125" Bore  | 22       | NHH6 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHC6 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHK205 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHD ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHK220 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHD180 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRBS ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHE ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRS ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHE180 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRS-1F ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHE195 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRS6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHE195-B ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRS6-M ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHH ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRS6-1F ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHB ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHRT6 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NHHR ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHS ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHS-1F ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHS180 ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHS6 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NHS6-1F ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NH180 ... Multi-Purpose Engines    | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       | NH195 ... Multi-Purpose Engines    | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       |
| NHHR6 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore | 33       |                                    |   |          |

(continued on next page)

## Engine Code Index

| Engine Code                         | Engine Description                        | Line No. | Engine Code                          | Engine Description                        | Line No. |
|-------------------------------------|---|----------|--------------------------------------|---|----------|
| NH200 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NRTO6-C1 ... Multi-Purpose Engines   | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NH200-GC ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NRT6 ... Multi-Purpose Engines       | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NH200-GS ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743 ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220 ... Multi-Purpose Engines     | 11.0L 672 OHV Diesel L6 4.875" Bore       | 31       | NS743-B290 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-B320 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-B ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-C290 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-B1 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-C320 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-C1 ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-L ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-GC ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-P290 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-GS ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NS743-P320 ... Multi-Purpose Engines | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       |
| NH220-M ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NT ... Multi-Purpose Engines         | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NH220-T ... Multi-Purpose Engines   | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NTA495-GC ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH220-1F ... Multi-Purpose Engines  | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NTA495-GC1 ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH4 ... Multi-Purpose Engines       | 8.1L 495 OHV Diesel L4 5.125" Bore        | 22       | NTA495-GC2 ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH4-GC ... Multi-Purpose Engines    | 8.1L 495 OHV Diesel L4 5.125" Bore        | 22       | NTA495-GS ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH4-GS ... Multi-Purpose Engines    | 8.1L 495 OHV Diesel L4 5.125" Bore        | 22       | NTA495-GS1 ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH6 ... Multi-Purpose Engines       | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NTA495-GS2 ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NH743 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore       | 33       | NTA495-G1 ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NRT ... Multi-Purpose Engines       | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTA495-G2 ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       |
| NRTO ... Multi-Purpose Engines      | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTE235 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NRTO-6-P1 ... Multi-Purpose Engines | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTO ... Multi-Purpose Engines        | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NRTO6 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTO262 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NRTO6-B1 ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTO280 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |
| NRTO6-B1G ... Multi-Purpose Engines | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NTO362 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       |

(continued on next page)



**Engine Code Index**

| Engine Code                        | Engine Description                        | Line No. | Engine Code                             | Engine Description                          | Line No. |
|------------------------------------|---|----------|---|---|----------|
| NTO6 ... Multi-Purpose Engines     | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | NVT-600 ... Multi-Purpose Engines       | 24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore | 43       |
| NTO6-B1 ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N495 ... Multi-Purpose Engines          | 8.1L 495 OHV Diesel L4 5.125" Bore          | 22       |
| NTO6-C1 ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N495-C130 ... Multi-Purpose Engines     | 8.1L 495 OHV Diesel L4 5.125" Bore          | 22       |
| NTR230 ... Multi-Purpose Engines   | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N495-F ... Multi-Purpose Engines        | 8.1L 495 OHV Diesel L4 5.125" Bore          | 22       |
| NT165 ... Multi-Purpose Engines    | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N495-PG130 ... Multi-Purpose Engines    | 8.1L 495 OHV Diesel L4 5.125" Bore          | 22       |
| NT180 ... Multi-Purpose Engines    | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N495-P130 ... Multi-Purpose Engines     | 8.1L 495 OHV Diesel L4 5.125" Bore          | 22       |
| NT200 ... Multi-Purpose Engines    | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N672 ... Multi-Purpose Engines          | 11.0L 672 OHV Diesel L6 4.875" Bore         | 31       |
| NT230 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N743 ... Multi-Purpose Engines          | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT262 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N743-B320 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT265 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | N743-C ... Multi-Purpose Engines        | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT4 ... Multi-Purpose Engines      | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-C220 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-C ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-C320 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-F ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-F ... Multi-Purpose Engines        | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-G ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-PG220 ... Multi-Purpose Engines    | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-GC ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-P220 ... Multi-Purpose Engines     | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-GS ... Multi-Purpose Engines | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N743-220 ... Multi-Purpose Engines      | 12.2L 743 OHV Diesel L6 5.125" Bore         | 33       |
| NT495-P ... Multi-Purpose Engines  | 8.1L 495 OHV Turbo-Diesel L4 5.125" Bore  | 23       | N927 ... Multi-Purpose Engines          | 15.2L 927 OHV Diesel L6 5.5" Bore           | 41       |
| NT6 ... Multi-Purpose Engines      | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | Super 250 ... Multi-Purpose Engines     | 15.2L 927 OHV Diesel L6 5.5" Bore           | 41       |
| NT743 ... Multi-Purpose Engines    | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | Super 270 ... Multi-Purpose Engines     | 15.2L 927 OHV Diesel L6 5.5" Bore           | 41       |
| NT743-C ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | V-1710 ... Multi-Purpose Engines        | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       |
| NT743-F ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | V-1710-L ... Multi-Purpose Engines      | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       |
| NT743-G ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | V-1710-M ... Multi-Purpose Engines      | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       |
| NT743-P ... Multi-Purpose Engines  | 12.2L 743 OHV Turbo-Diesel L6 5.125" Bore | 35       | V-1710-P-500 ... Multi-Purpose Engines  | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       |
| NVH450 ... Multi-Purpose Engines   | 24.4L 1486 OHV Diesel V12 5.125" Bore     | 42       | V-1710-PG-500 ... Multi-Purpose Engines | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       |

(continued on next page)

## Engine Code Index

| Engine Code                                | Engine Description                          | Line No. | Engine Code                             | Engine Description                       | Line No. |
|--|---|----------|---|--|----------|
| V-1710-460 ... Multi-Purpose Engines       | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       | VT555-C ... Multi-Purpose Engines       | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| V-1710-500 ... Multi-Purpose Engines       | 28.0L 1710 OHV Diesel V12 5.5" Bore         | 44       | VT555-C230 ... Multi-Purpose Engines    | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| VC555 ... Multi-Purpose Engines            | 9.1L 555 OHV Diesel V8 4.625" Bore          | 27       | VT555-C240 ... Multi-Purpose Engines    | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| VF555-240 ... Multi-Purpose Engines        | 9.1L 555 OHV Diesel V8 4.625" Bore          | 27       | VT555-C250 ... Multi-Purpose Engines    | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| VT-1710 ... Multi-Purpose Engines          | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT555-M ... Multi-Purpose Engines       | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| VT-1710 (C-525) ... Multi-Purpose Engines  | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT555-225 ... Multi-Purpose Engines     | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore | 28       |
| VT-1710 (C-635) ... Multi-Purpose Engines  | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT785 ... Multi-Purpose Engines         | 12.9L 785 OHV Turbo-Diesel V8 5.5" Bore  | 37       |
| VT-600 ... Multi-Purpose Engines           | 24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore | 43       | VT8-400 ... Multi-Purpose Engines       | 12.9L 785 OHV Turbo-Diesel V8 5.5" Bore  | 37       |
| VT-700 ... Multi-Purpose Engines           | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT8-430 ... Multi-Purpose Engines       | 12.9L 785 OHV Turbo-Diesel V8 5.5" Bore  | 37       |
| VTA-1710 ... Multi-Purpose Engines         | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT903 ... Multi-Purpose Engines         | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA-1710 (C-800) ... Multi-Purpose Engines | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT903-A ... Multi-Purpose Engines       | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA-1710 (7800) ... Multi-Purpose Engines  | 28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore   | 45       | VT903-C265 ... Multi-Purpose Engines    | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA500 ... Multi-Purpose Engines           | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-C320 ... Multi-Purpose Engines    | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA903 ... Multi-Purpose Engines           | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-C350 ... Multi-Purpose Engines    | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA903-R ... Multi-Purpose Engines         | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-C375 ... Multi-Purpose Engines    | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTA903-TR ... Multi-Purpose Engines        | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-C430 ... Multi-Purpose Engines    | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTB903 ... Multi-Purpose Engines           | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-M1 ... Multi-Purpose Engines      | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTF350 ... Multi-Purpose Engines           | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | VT903-S ... Multi-Purpose Engines       | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VTF555 ... Multi-Purpose Engines           | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore    | 28       | VT903-350 ... Multi-Purpose Engines     | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore  | 40       |
| VT225 ... Multi-Purpose Engines            | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore    | 28       | V12-500-GS/GC ... Multi-Purpose Engines | 28.0L 1710 OHV Diesel V12 5.5" Bore      | 44       |
| VT300 ... Multi-Purpose Engines            | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | V12-500-M ... Multi-Purpose Engines     | 28.0L 1710 OHV Diesel V12 5.5" Bore      | 44       |
| VT350 ... Multi-Purpose Engines            | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | V12-525 ... Multi-Purpose Engines       | 28.0L 1710 OHV Diesel V12 5.5" Bore      | 44       |
| VT400 ... Multi-Purpose Engines            | 14.8L 903 OHV Turbo-Diesel V8 5.5" Bore     | 40       | V28 ... Multi-Purpose Engines           | 28.0L 1710 OHV Diesel V12 5.5" Bore      | 44       |
| VT555 ... Multi-Purpose Engines            | 9.1L 555 OHV Turbo-Diesel V8 4.625" Bore    | 28       | V352 ... Multi-Purpose Engines          | 5.8L 352 OHV Diesel V6 4.625" Bore       | 11       |

(continued on next page)

**Engine Code Index**

| Engine Code                           | Engine Description                 | Line No. | Engine Code                            | Engine Description                 | Line No. |
|---------------------------------------|------------------------------------|----------|--|------------------------------------|----------|
| V378 ... Multi-Purpose Engines        | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V555-210 ... Multi-Purpose Engines     | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       |
| V378-C ... Multi-Purpose Engines      | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V555-225 ... Multi-Purpose Engines     | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       |
| V378-C145 ... Multi-Purpose Engines   | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V555-230 ... Multi-Purpose Engines     | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       |
| V378-F2 ... Multi-Purpose Engines     | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V555-240 ... Multi-Purpose Engines     | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       |
| V378-P ... Multi-Purpose Engines      | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V6-140 ... Multi-Purpose Engines       | 5.8L 352 OHV Diesel V6 4.625" Bore | 11       |
| V378-P145 ... Multi-Purpose Engines   | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       | V6-140-E ... Multi-Purpose Engines     | 5.8L 352 OHV Diesel V6 4.625" Bore | 11       |
| V470 ... Multi-Purpose Engines        | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V6-140-352 ... Multi-Purpose Engines   | 5.8L 352 OHV Diesel V6 4.625" Bore | 11       |
| V470-D ... Multi-Purpose Engines      | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V6-140-352HT ... Multi-Purpose Engines | 5.8L 352 OHV Diesel V6 4.625" Bore | 11       |
| V470-F ... Multi-Purpose Engines      | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V6-155 ... Multi-Purpose Engines       | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       |
| V470-M ... Multi-Purpose Engines      | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V6-200 ... Multi-Purpose Engines       | 9.6L 588 OHV Diesel V6 5.5" Bore   | 29       |
| V504 ... Multi-Purpose Engines        | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V6-378-155 ... Multi-Purpose Engines   | 6.2L 378 OHV Diesel V6 4.625" Bore | 14       |
| V504-C ... Multi-Purpose Engines      | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V6N-140 ... Multi-Purpose Engines      | 5.8L 352 OHV Diesel V6 4.625" Bore | 11       |
| V504-C195 ... Multi-Purpose Engines   | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V785 ... Multi-Purpose Engines         | 12.9L 785 OHV Diesel V8 5.5" Bore  | 36       |
| V504-M ... Multi-Purpose Engines      | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V8-185 ... Multi-Purpose Engines       | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V504-M-L.H. ... Multi-Purpose Engines | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V8-185-C ... Multi-Purpose Engines     | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V504-P ... Multi-Purpose Engines      | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V8-185-E ... Multi-Purpose Engines     | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V504-P195 ... Multi-Purpose Engines   | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V8-185-HT ... Multi-Purpose Engines    | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V504-52 ... Multi-Purpose Engines     | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       | V8-185-470 ... Multi-Purpose Engines   | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V555 ... Multi-Purpose Engines        | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-185-470HT ... Multi-Purpose Engines | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       |
| V555-A ... Multi-Purpose Engines      | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-210 ... Multi-Purpose Engines       | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       |
| V555-C ... Multi-Purpose Engines      | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-265 ... Multi-Purpose Engines       | 12.9L 785 OHV Diesel V8 5.5" Bore  | 36       |
| V555-C215 ... Multi-Purpose Engines   | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-300 ... Multi-Purpose Engines       | 12.9L 785 OHV Diesel V8 5.5" Bore  | 36       |
| V555-M ... Multi-Purpose Engines      | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-350 ... Multi-Purpose Engines       | 12.9L 785 OHV Diesel V8 5.5" Bore  | 36       |
| V555-200 ... Multi-Purpose Engines    | 9.1L 555 OHV Diesel V8 4.625" Bore | 27       | V8-504-210 ... Multi-Purpose Engines   | 8.3L 504 OHV Diesel V8 4.625" Bore | 24       |

(continued on next page)

## Engine Code Index

| Engine Code                         | Engine Description                 | Line No. | Engine Code                             | Engine Description                         | Line No. |
|-------------------------------------|------------------------------------|----------|---|--|----------|
| V8N-185 ... Multi-Purpose Engines   | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V903-C320 ... Multi-Purpose Engines     | 14.8L 903 OHV Diesel V8 5.5" Bore          | 39       |
| V8N-185-B ... Multi-Purpose Engines | 7.7L 470 OHV Diesel V8 4.625" Bore | 21       | V903-M ... Multi-Purpose Engines        | 14.8L 903 OHV Diesel V8 5.5" Bore          | 39       |
| V903 ... Multi-Purpose Engines      | 14.8L 903 OHV Diesel V8 5.5" Bore  | 39       | V903-S ... Multi-Purpose Engines        | 14.8L 903 OHV Diesel V8 5.5" Bore          | 39       |
| V903-A ... Multi-Purpose Engines    | 14.8L 903 OHV Diesel V8 5.5" Bore  | 39       | V903-V265 ... Multi-Purpose Engines     | 14.8L 903 OHV Diesel V8 5.5" Bore          | 39       |
| V903-C265 ... Multi-Purpose Engines | 14.8L 903 OHV Diesel V8 5.5" Bore  | 39       | 6B5.9 (6-590) ... Multi-Purpose Engines | 5.9L 359 (5882cc) OHV Diesel L6 102mm Bore | 12       |
| V903-C295 ... Multi-Purpose Engines | 14.8L 903 OHV Diesel V8 5.5" Bore  | 39       |   |  |          |

### 1 Compressors Diesel L1, 3.625" Bore

#### CYLINDER COMPONENTS

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------------------|------------|------|-------------|
| 1   | Ring Set Single Cylinder | FP-AR73350 | STD  |             |
| 1   | Ring Set Single Cylinder | FP-AR73351 | 10   |             |
| 1   | Ring Set Single Cylinder | FP-AR73352 | 20   |             |
| 1   | Ring Set Single Cylinder | FP-AR73353 | 30   |             |

### 2 Multi-Purpose Engines "B" Series, 3B2.9 (3-290) (Naturally Aspirated) 2.9L 180 OHV Diesel L3, 102mm Bore

#### CYL. HEAD & PARTS

| QTY | VALVE             | PART NO.   | SIZE | DESCRIPTION         |
|-----|-------------------|------------|------|---------------------|
| 3   | Intake            | FP-3920867 |      | Bare Valve          |
| 3   | Exhaust           | FP-3920868 |      | Bare Valve          |
| 3   | Exhaust Valve Kit | FP-3802356 |      | Incl. valve & locks |
| 3   | Intake Valve Kit  | FP-3802355 |      | Incl. valve & locks |
| 12  | Keeper            | FP-3900250 |      |                     |

#### CAMSHAFT GROUP

| QTY | CAMSHAFT/LIFTER | PART NO.   | SIZE | DESCRIPTION |
|-----|-----------------|------------|------|-------------|
| 6   | Lifter          | FP-3931623 |      |             |

#### COOLING SYSTEM

| QTY | WATER PUMP              | PART NO.   | SIZE | DESCRIPTION |
|-----|-------------------------|------------|------|-------------|
| 1   | Water Pump - Heavy Duty | FP-3286277 |      |             |

#### ENGINE BLOCK & PARTS

| QTY | CAM BEARINGS | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------|------------|------|-------------|
| 1   | Cam Brg.     | FP-3901306 | STD  |             |

#### CYLINDER COMPONENTS

| QTY | LINERS                  | PART NO.   | SIZE | DESCRIPTION                 |
|-----|-------------------------|------------|------|-----------------------------|
| 3   | Liner w/o Sealing Rings | FP-3904166 |      | To return block to Standard |

| QTY | PISTONS                      | PART NO.     | SIZE   | DESCRIPTION |
|-----|------------------------------|--------------|--------|-------------|
| 3   | Piston Kit w/Pin & Retainers | FP-3906223WP | STD    |             |
| 3   | Piston Kit w/Pin & Retainers | FP-3906209WP | .50MM  |             |
| 3   | Piston Kit w/Pin & Retainers | FP-3906208WP | 1.00MM |             |
| 3   | Piston w/Retainer & Rings    | FP-3802060   | STD    |             |
| 3   | Piston w/Retainer & Rings    | FP-3802062   | .50MM  |             |
| 3   | Piston w/Retainer & Rings    | FP-3802064   | 1.00MM |             |
| 3   | Pin                          | FP-3934048   |        |             |
| 6   | Piston Pin Retainer          | FP-3920691   |        |             |
| 3   | Pin Bushing                  | FP-3901085   |        |             |

| QTY | CONNECTING RODS & BRGS.      | PART NO.   | SIZE  | DESCRIPTION |
|-----|------------------------------|------------|-------|-------------|
| 3   | Rod Bearing Half Upper/Lower | FP-3939859 | STD   |             |
| 3   | Rod Bearing Half Upper/Lower | FP-3901171 | .25MM |             |

(continued on next page)

**Multi-Purpose Engines "B" Series, 3B2.9 (3-290) (Naturally Aspirated) 2**  
2.9L 180 OHV Diesel L3, 102mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

| QTY | CONNECTING RODS & BRGS. (cont.) | PART NO.   | SIZE   | DESCRIPTION                               |
|-----|---------------------------------|------------|--------|---|
| 3   | Rod Bearing Half Upper/Lower    | FP-3901172 | .50MM  |   |
| 3   | Rod Bearing Half Upper/Lower    | FP-3901173 | .75MM  |   |
| QTY | PISTON RINGS                    | PART NO.   | SIZE   | DESCRIPTION                               |
| 3   | Ring Set Single Cylinder        | FP-3802040 | STD    | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 3   | Ring Set Single Cylinder        | FP-3802042 | .50MM  | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 3   | Ring Set Single Cylinder        | FP-3802044 | 1.00MM | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |

**Multi-Purpose Engines "B" Series, 3BT2.9 (3T-290)(Turbo) 3**  
2.9L 180 OHV Turbo-Diesel L3, 102mm Bore

**CYL. HEAD & PARTS**

| QTY | VALVE             | PART NO.   | SIZE | DESCRIPTION         |
|-----|-------------------|------------|------|---------------------|
| 3   | Intake            | FP-3920867 |      | Bare Valve          |
| 3   | Exhaust           | FP-3920868 |      | Bare Valve          |
| 3   | Exhaust Valve Kit | FP-3802356 |      | Incl. valve & locks |
| 3   | Intake Valve Kit  | FP-3802355 |      | Incl. valve & locks |
| 12  | Keeper            | FP-3900250 |      |                     |

**CAMSHAFT GROUP**

| QTY | CAMSHAFT/LIFTER | PART NO.   | SIZE | DESCRIPTION |
|-----|-----------------|------------|------|-------------|
| 6   | Lifter          | FP-3931623 |      |             |

**COOLING SYSTEM**

| QTY | WATER PUMP              | PART NO.   | SIZE | DESCRIPTION |
|-----|-------------------------|------------|------|-------------|
| 1   | Water Pump - Heavy Duty | FP-3286277 |      |             |

**ENGINE BLOCK & PARTS**

| QTY | CAM BEARINGS | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------|------------|------|-------------|
| 1   | Cam Brg.     | FP-3901306 | STD  |             |

**CYLINDER COMPONENTS**

| QTY | LINERS                       | PART NO.              | SIZE   | DESCRIPTION   |
|-----|------------------------------|-----------------------|--------|---|
| 3   | Liner w/o Sealing Rings      | FP-3904166            |        | To return block to Standard   |
| QTY | PISTONS                      | PART NO.              | SIZE   | DESCRIPTION   |
| 3   | Piston Kit w/Pin & Retainers | FP-3907163WP          | STD    |   |
| 3   | Piston Kit w/Pin & Retainers | FP-3908815WP          | .50MM  |   |
| 3   | Piston Kit w/Pin & Retainers | FP-3908816WP          | 1.00MM |   |
| 3   | Piston w/Retainer & Rings    | FP-3802160            | STD    |   |
| 3   | Piston w/Retainer & Rings    | FP-3802132            | .50MM  |   |
| 3   | Piston w/Retainer & Rings    | FP-3802134            | 1.00MM |   |
| 3   | Cast Piston                  | 2743PN Std-.50-1.00MM |        | Cast; 1-3.00mm, 1-2.36mm, 1-4.00mm Ring Groove, 2.815" CD, 1.5750" Pin Dia., Recessed Head .700" deep x 2.430" dia. - 17.5:1 C.R.; Repl. O.E. No. 3907163 |
| 3   | Pin                          | FP-3934048            |        |   |
| 6   | Piston Pin Retainer          | FP-3920691            |        |   |
| 3   | Pin Bushing                  | FP-3901085            |        |   |

| QTY | CONNECTING RODS & BRGS.      | PART NO.   | SIZE  | DESCRIPTION |
|-----|------------------------------|------------|-------|-------------|
| 3   | Rod Bearing Half Upper/Lower | FP-3939859 | STD   |             |
| 3   | Rod Bearing Half Upper/Lower | FP-3901171 | .25MM |             |
| 3   | Rod Bearing Half Upper/Lower | FP-3901172 | .50MM |             |
| 3   | Rod Bearing Half Upper/Lower | FP-3901173 | .75MM |             |

| QTY | PISTON RINGS             | PART NO.               | SIZE   | DESCRIPTION                               |
|-----|--------------------------|------------------------|--------|---|
| 3   | Ring Set Single Cylinder | FP-3802230             | STD    | 1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 3   | Ring Set Single Cylinder | FP-3802232             | .50MM  | 1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 3   | Ring Set Single Cylinder | FP-3802234             | 1.00MM | 1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 3   | Premium Set              | E-623KC Std-.50-1.00MM |        | 1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |

**Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated) 4**  
3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore

**CYL. HEAD & PARTS**

| QTY | VALVE   | PART NO.   | SIZE | DESCRIPTION |
|-----|---------|------------|------|-------------|
| 4   | Intake  | FP-3920867 |      | Bare Valve  |
| 4   | Exhaust | FP-3920868 |      | Bare Valve  |

(continued on next page)

| <b>4 Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated)</b> |                                    |                 |             |  |
|--|------------------------------------|-----------------|-------------|--|
| <b>(cont.) 3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore</b>                     |                                    |                 |             |  |
| <b>CYL. HEAD &amp; PARTS (cont.)</b>   |                                    |                 |             |  |
| <b>QTY</b>   | <b>VALVE (cont.)</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Exhaust Valve Kit                  | FP-3802356      |             | Incl. valve & locks                                  |
| 4  | Intake Valve Kit                   | FP-3802355      |             | Incl. valve & locks                                  |
| 8  | Keeper                             | FP-3900250      |             |  |
| <b>QTY</b>   | <b>VALVE SEAT</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Exh.                               | FP-3904105      |             |  |
| 4  | Int.                               | FP-3906854      |             |  |
| <b>QTY</b>   | <b>VALVE GUIDE</b>                 | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Guide                              | FP-3904409      |             | Exh.; Thick wall, 51.75MM                            |
| 4  | Guide                              | FP-3904408      |             | Int.; Thick wall, 60.50MM; .3160" ID, 2.3970" O.A.L. |
| 4  | Guide                              | FP-3906206      |             | Int. & Exh.; Thin wall                               |
| <b>QTY</b>   | <b>VALVE SPRING</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 8  | Spring                             | FP-3932453      |             |  |
| 8  | Spring                             | FP-4936080      |             |  |
| 8  | Spring                             | FP-3900276      |             | 30 PSI   |
| 8  | Spring                             | FP-3926700      |             | 36 PSI   |
| 8  | Retainer                           | FP-3900299      |             |  |
| <b>QTY</b>   | <b>VALVE MISC.</b>                 | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 1  | O-Ring                             | FP-3910824      |             | Valve Cover Screw                                    |
| <b>QTY</b>   | <b>VALVE SEAL</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 8  | Valve Stem Seal                    | FP-3901097      |             | Int. & Exh.  |
| <b>CAMSHAFT GROUP</b>  |                                    |                 |             |  |
| <b>QTY</b>   | <b>CAMSHAFT/LIFTER</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 8  | Lifter                             | FP-3931623      |             |  |
| <b>FUEL SYSTEM &amp; PARTS</b>   |                                    |                 |             |  |
| <b>QTY</b>   | <b>FUEL INJECTION</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Fuel Injector Seal Ring            | FP-3909356      |             |  |
| 4  | Fuel Injector Seal                 | FP-3930324      |             |  |
| 4  | Copper Washer                      | FP-3906659      |             | For 7mm head   |
| 4  | Fuel Line Connector                | FP-3903380      |             | Banjo connector; 6mm                                 |
| <b>COOLING SYSTEM</b>  |                                    |                 |             |  |
| <b>QTY</b>   | <b>WATER PUMP</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 1  | Water Pump - Heavy Duty            | FP-3286277      |             |  |
| <b>ENGINE BLOCK &amp; PARTS</b>  |                                    |                 |             |  |
| <b>QTY</b>   | <b>CAM BEARINGS</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 1  | Cam Brg.                           | FP-3940059      | STD         | From 1997 and up                                     |
| 1  | Cam Brg.                           | FP-3901306      | STD         | To 1996  |
| <b>CRANKSHAFT/OIL PUMP</b>   |                                    |                 |             |  |
| <b>QTY</b>   | <b>CRANKSHAFT</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 1  | Crankshaft                         | FP-3929036      |             | STD; With Gear                                       |
| <b>QTY</b>   | <b>MAIN BEARINGS</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 1  | Main Set                           | FP-3802010      | STD         |  |
| 1  | Main Set                           | FP-3802011      | .25MM       |  |
| 1  | Main Set                           | FP-3802012      | .50MM       |  |
| 1  | Main Set                           | FP-3802013      | .75MM       |  |
| 1  | Main Set                           | FP-3802014      | 1.00MM      |  |
| <b>CYLINDER COMPONENTS</b>   |                                    |                 |             |  |
| <b>QTY</b>   | <b>LINERS</b>                      | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Liner w/o Sealing Rings            | FP-3904166      |             | To return block to Standard                          |
| <b>QTY</b>   | <b>PISTONS</b>                     | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Piston Kit w/Pin & Retainers       | FP-3906223WP    | STD         |  |
| 4  | Piston Kit w/Pin & Retainers       | FP-3906209WP    | .50MM       |  |
| 4  | Piston Kit w/Pin & Retainers       | FP-3906208WP    | 1.00MM      |  |
| 4  | Piston w/Retainer & Rings          | FP-3802060      | STD         |  |
| 4  | Piston w/Retainer & Rings          | FP-3802062      | .50MM       |  |
| 4  | Piston w/Retainer & Rings          | FP-3802064      | 1.00MM      |  |
| 4  | Pin Bushing                        | FP-3901085      |             |  |
| <b>QTY</b>   | <b>CONNECTING RODS &amp; BRGS.</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>                                   |
| 4  | Rod Bearing Half Upper/Lower       | FP-3939859      | STD         |  |
| 4  | Rod Bearing Half Upper/Lower       | FP-3901171      | .25MM       |  |

(continued on next page)

*Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated) 4*  
3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

| QTY  | CONNECTING RODS & BRGS. (cont.) | PART NO.       | SIZE   | DESCRIPTION   |
|------|---------------------------------|----------------|--------|---|
| 4    | Rod Bearing Half Upper/Lower    | FP-3901172     | .50MM  |   |
| 4    | Rod Bearing Half Upper/Lower    | FP-3901173     | .75MM  |   |
| QTY  | PISTON RINGS                    | PART NO.       | SIZE   | DESCRIPTION   |
| 4    | Ring Set Single Cylinder        | FP-3802040     | STD    | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)                                   |
| 4    | Ring Set Single Cylinder        | FP-3802042     | .50MM  | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)                                   |
| 4    | Ring Set Single Cylinder        | FP-3802044     | 1.00MM | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)                                   |
| KITS |                                 |                |        |   |
| QTY  | OVERHAUL KIT                    | PART NO.       | SIZE   | DESCRIPTION   |
| 1    | Piston and Ring Kit             | PK1-2742       |        | When depleted use FP-PK12742  |
| 1    | Piston and Ring Kit w/Bearing   | PK2-2742A      |        | When depleted use FP-PK22742A   |
| 1    | Piston Kit w/Ring Set           | FP-PK12742     |        |   |
| 1    | Piston Kit w/Rings & Bearings   | FP-PK22742A    |        |   |
| 1    | In-Frame Overhaul Kit           | FP-4B39PREML   |        | 4B3.9; Late; Premium; With Upper Gasket Set & Pan Gasket                    |
| 1    | Complete Overhaul Kit           | FP-4B39PREMOHL |        | 4B3.9; Late; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1    | Complete Overhaul Kit           | FP-4B39PREMOH  |        | 4B3.9; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets       |

*Multi-Purpose Engines AA400 To Ser. No. 18354 Eng. 5*  
4.1L 251 OHV Diesel L4 (Case engine), 4" Bore

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 470334   |      |             |
| 1   | Redi-Sleeve     | 99172    |      |             |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO. | SIZE | DESCRIPTION |
|-----|---------------------|----------|------|-------------|
| 1   | Redi-Sleeve         | 99290    |      |             |
| 1   | Oil Seal            | 415012V  |      | Viton®      |

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS.      | PART NO.         | SIZE | DESCRIPTION   |
|-----|------------------------------|------------------|------|---------------|
| 4   | Rod Pair                     | FP-127730PR      | STD  |               |
| 4   | Rod Pair                     | FP-127731PR      | 10   |               |
| 4   | Rod Pair                     | FP-127732PR      | 20   |               |
| QTY | PISTON RINGS                 | PART NO.         | SIZE | DESCRIPTION   |
| 4   | Premium Single Cylinder Set  | W-920KX Std Only |      | 3-1/8, 1-3/16 |
| 4   | Standard Single Cylinder Set | W-920X Std Only  |      | 3-1/8, 1-3/16 |

*Multi-Purpose Engines J4, J70, J80 Eng. 6*  
4.4L 267 OHV Diesel L4, 4.125" Bore

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 470334   |      |             |
| 1   | Redi-Sleeve     | 99172    |      |             |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO. | SIZE | DESCRIPTION |
|-----|---------------------|----------|------|-------------|
| 1   | Redi-Sleeve         | 99290    |      |             |
| 1   | Oil Seal            | 415012V  |      | Viton®      |

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION |
|-----|-------------------------|-------------|------|-------------|
| 4   | Rod Pair                | FP-127730PR | STD  |             |
| 4   | Rod Pair                | FP-127731PR | 10   |             |
| 4   | Rod Pair                | FP-127732PR | 20   |             |

|  |                                    |                 |             |                     |
|--|------------------------------------|-----------------|-------------|---------------------|
| <b>7 Multi-Purpose Engines J120 Eng.</b><br>4.4L 267 OHV Turbo-Diesel L4, 4.125" Bore                            |                                    |                 |             |                     |
| <b>ACCESSORY DRIVE</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>ACCESSORY DRIVE</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Oil Seal                           | 470334          |             |                     |
| 1  | Redi-Sleeve                        | 99172           |             |                     |
| <b>CRANKSHAFT/OIL PUMP</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>SEALS - FRONT CRANK</b>         | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Redi-Sleeve                        | 99290           |             |                     |
| 1  | Oil Seal                           | 415012V         |             | Viton®              |
| <b>CYLINDER COMPONENTS</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>CONNECTING RODS &amp; BRGS.</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 4  | Rod Pair                           | FP-127730PR     | STD         |                     |
| 4  | Rod Pair                           | FP-127731PR     | 10          |                     |
| 4  | Rod Pair                           | FP-127732PR     | 20          |                     |
| <b>8 Multi-Purpose Engines C-90, C-105, C-309 Eng. (15.8:1 C.R.)</b><br>5.1L 309 OHV Diesel L4, 4.4375" Bore     |                                    |                 |             |                     |
| <b>ACCESSORY DRIVE</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>ACCESSORY DRIVE</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Oil Seal                           | 470334          |             |                     |
| 1  | Redi-Sleeve                        | 99172           |             |                     |
| <b>CRANKSHAFT/OIL PUMP</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>SEALS - FRONT CRANK</b>         | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Redi-Sleeve                        | 99290           |             |                     |
| 1  | Oil Seal                           | 415012V         |             | Viton®              |
| <b>CYLINDER COMPONENTS</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>CONNECTING RODS &amp; BRGS.</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 4  | Rod Pair                           | FP-127730PR     | STD         |                     |
| 4  | Rod Pair                           | FP-127731PR     | 10          |                     |
| 4  | Rod Pair                           | FP-127732PR     | 20          |                     |
| <b>QTY</b>   | <b>PISTON RINGS</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 4  | Ring Set Single Cylinder           | FP-AR4920       | STD         | 3 - 1/8", 1 - 3/16" |
| <b>9 Multi-Purpose Engines C-140 Automotive Eng. (14.5:1 C.R.)</b><br>5.1L 309 OHV Turbo-Diesel L4, 4.4375" Bore |                                    |                 |             |                     |
| <b>ACCESSORY DRIVE</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>ACCESSORY DRIVE</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Oil Seal                           | 470334          |             |                     |
| 1  | Redi-Sleeve                        | 99172           |             |                     |
| <b>CRANKSHAFT/OIL PUMP</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>SEALS - FRONT CRANK</b>         | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Redi-Sleeve                        | 99290           |             |                     |
| 1  | Oil Seal                           | 415012V         |             | Viton®              |
| <b>CYLINDER COMPONENTS</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>CONNECTING RODS &amp; BRGS.</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 4  | Rod Pair                           | FP-127730PR     | STD         |                     |
| 4  | Rod Pair                           | FP-127731PR     | 10          |                     |
| 4  | Rod Pair                           | FP-127732PR     | 20          |                     |
| <b>QTY</b>   | <b>PISTON RINGS</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 4  | Ring Set Single Cylinder           | FP-AR4920       | STD         | 3 - 1/8", 1 - 3/16" |
| <b>10 Multi-Purpose Engines AA6 Eng.</b><br>5.4L 331 OHV Diesel L6, 3.75" Bore                                   |                                    |                 |             |                     |
| <b>ACCESSORY DRIVE</b>   |                                    |                 |             |                     |
| <b>QTY</b>   | <b>ACCESSORY DRIVE</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1  | Oil Seal                           | 470334          |             |                     |
| 1  | Redi-Sleeve                        | 99172           |             |                     |

(continued on next page)



*Multi-Purpose Engines AA6 Eng. 10*  
5.4L 331 OHV Diesel L6, 3.75" Bore (cont.)

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO. | SIZE | DESCRIPTION |
|-----|---------------------|----------|------|-------------|
| 1   | Redi-Sleeve         | 99290    |      |             |
| 1   | Oil Seal            | 415012V  |      | Viton®      |

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION |
|-----|-------------------------|-------------|------|-------------|
| 6   | Rod Pair                | FP-127730PR | STD  |             |
| 6   | Rod Pair                | FP-127731PR | 10   |             |
| 6   | Rod Pair                | FP-127732PR | 20   |             |

| QTY | PISTON RINGS                | PART NO.         | SIZE | DESCRIPTION                               |
|-----|-----------------------------|------------------|------|---|
| 1   | Premium Set                 | 645KX + Std Only |      | 3-1/8, 1-3/16; When depleted use FP-645KX |
| 6   | Premium Single Cylinder Set | W-645KX Std Only |      | 3-1/8, 1-3/16                             |

*Multi-Purpose Engines V6-140, V6-140-E, V6-140-352, V6-140-352HT, V6N-140, V352 Eng. 11*  
5.8L 352 OHV Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE                       | PART NO.          | SIZE | DESCRIPTION  |
|-----|-----------------------------|-------------------|------|--|
| 24  | Intake                      | FP-V1957          |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 24  | Intake                      | V-1957 + Std Only |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 24  | Exhaust                     | FP-3275356        |      | Exh. & Int.; Use w/FP-3275354 late style keeper; O.E. No. 3275356; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                       |
| 24  | Valve Kit, Intake & Exhaust | FP-3275779        |      | Exh. & Int.; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.   |
| 48  | Keeper                      | VK-138            |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove   |
| 48  | Keeper                      | VK-138R           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened   |
| 48  | Keeper                      | FP-3275354        |      | Exh. & Int.; Use w/FP3275356 valve   |
| 48  | Keeper, Bulk                | VK-138B           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000   |

| QTY | VALVE GUIDE | PART NO.   | SIZE | DESCRIPTION                            |
|-----|-------------|------------|------|--|
| 24  | Guide       | FP-3278173 |      | Exh. & Int.; .3820" ID, 2.5000" O.A.L. |

| QTY | VALVE SPRING | PART NO.  | SIZE | DESCRIPTION |
|-----|--------------|-----------|------|-------------|
| 24  | Spring       | FP-163037 |      | Exh. & Int. |

| QTY | VALVE SEAL           | PART NO.  | SIZE | DESCRIPTION  |
|-----|----------------------|-----------|------|--|
| 24  | Valve Stem Seal      | ST-2002   |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate                               |
| 24  | Valve Stem Seal Bulk | ST-2002BC |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate |

**CRANKSHAFT/OIL PUMP**

| QTY | MAIN BEARINGS     | PART NO.   | SIZE | DESCRIPTION                                  |
|-----|-------------------|------------|------|--|
| 1   | Main Set          | FP-BM99830 | STD  | Phase 5F series Eng.                         |
| 1   | Main Set          | FP-BM99831 | 10   | Phase 5F series Eng.                         |
| 1   | Main Set          | FP-BM99832 | 20   | Phase 5F series Eng.                         |
| 1   | Main Set          | FP-BM99833 | 30   | Phase 5F series Eng.                         |
| 1   | Thrust Washer Set | FP-173640S |      | Position 4; Phase 3.5D, Phase 5F series Eng. |

**CYLINDER COMPONENTS**

| QTY | LINERS                | PART NO.   | SIZE | DESCRIPTION                      |
|-----|-----------------------|------------|------|----------------------------------|
| 6   | Liner w/Sealing Rings | FP-3277592 | STD  | Incl. (1) FP216283, (1) FP216284 |

| QTY | CONNECTING RODS & BRGS. | PART NO.     | SIZE | DESCRIPTION |
|-----|-------------------------|--------------|------|-------------|
| 6   | Rod Pair                | FP-3012360PR | STD  |             |
| 6   | Rod Pair                | FP-3012361PR | 10   |             |
| 6   | Rod Pair                | FP-3012362PR | 20   |             |

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                        |
|-----|--------------------------|------------|------|------------------------------------|
| 6   | Ring Set Single Cylinder | FP-3278723 | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set) |
| 6   | Ring Set Single Cylinder | FP-AR62258 | STD  | 2-3/32, 1-3/16 (1 cyl. set)        |

## 12 Multi-Purpose Engines "B" Series, 6B5.9 (6-590) (Naturally Aspirated) 5.9L 359 (5882cc) OHV Diesel L6, 102mm Bore

| CYL. HEAD & PARTS    |                         |                      |               |   |
|----------------------|-------------------------|----------------------|---------------|---|
| QTY                  | GASKETS                 | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Head Set                | FP-3802363           |               | From 1984-1990; .25 MM  |
| 1                    | Head Set                | FP-3804897           |               | From 1991-4/2003  |
| 1                    | Head Set                | FP-4089649           |               | From 4/2003   |
| QTY                  | VALVE                   | PART NO.             | SIZE          | DESCRIPTION   |
| 6                    | Intake                  | FP-3920867           |               | Bare Valve  |
| 6                    | Intake                  | V-4385 Std Only      |               | Chrome plated stem; 1.7720" Head Dia., .3138" Stem Dia., 5.0840" O.A.L.   |
| 6                    | Exhaust                 | FP-3920868           |               | Bare Valve  |
| 6                    | Exhaust                 | V-4384 Std Only      |               | Chrome plated stem; 1.6540" Head Dia., .3138" Stem Dia., 5.0810" O.A.L.   |
| 6                    | Exhaust Valve Kit       | FP-3802356           |               | Incl. valve & locks   |
| 6                    | Intake Valve Kit        | FP-3802355           |               | Incl. valve & locks   |
| 24                   | Keeper                  | VK-286               |               |   |
| 12                   | Keeper                  | FP-3900250           | 6B5.9         |   |
| QTY                  | VALVE SEAT              | PART NO.             | SIZE          | DESCRIPTION   |
| 6                    | Exh.                    | FP-3904105           |               |   |
| 6                    | Exh.                    | 245-1722-E1 Std Only |               | 1.7220" OD, 1.3570" ID, .2650" Depth  |
| 6                    | Int.                    | FP-3906854           |               |   |
| QTY                  | VALVE GUIDE             | PART NO.             | SIZE          | DESCRIPTION   |
| 6                    | Guide                   | VG-1331              |               | Exh.; .3160" ID, 2.0520" O.A.L.   |
| 6                    | Guide                   | FP-3904409           |               | Exh.; 6B5.9; Thick wall, 51.75MM  |
| 12                   | Guide                   | VG-1325              |               | Exh. & Int.; 7/16" OD; .3162" ID, 2.5000" O.A.L.  |
| 6                    | Guide                   | VG-1330              |               | Int.; .3160" ID, 2.3970" O.A.L.   |
| 6                    | Guide                   | FP-3904408           |               | Int.; 6B5.9; Thick wall, 60.50MM; .3160" ID, 2.3970" O.A.L.   |
| 6                    | Guide                   | FP-3906206           |               | Int. & Exh.; 6B5.9; Thin wall   |
| QTY                  | VALVE SPRING            | PART NO.             | SIZE          | DESCRIPTION   |
| 12                   | Spring                  | FP-3932453           | 6B5.9         |   |
| 12                   | Spring                  | FP-4936080           | 6B5.9         |   |
| 12                   | Spring                  | FP-3900276           | 6B5.9; 30 PSI |   |
| 12                   | Spring                  | FP-3926700           | 6B5.9; 36 PSI |   |
| 12                   | Retainer                | FP-3900299           | 6B5.9         |   |
| QTY                  | PUSH RODS               | PART NO.             | SIZE          | DESCRIPTION   |
| 12                   | Push Rod                | FP-3284377           |               | 10.9100" O.A.L.   |
| QTY                  | VALVE MISC.             | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | O-Ring                  | FP-3910824           |               | 6B5.9; Valve Cover Screw  |
| QTY                  | VALVE SEAL              | PART NO.             | SIZE          | DESCRIPTION   |
| 12                   | Valve Stem Seal         | FP-3901097           |               | Int. & Exh.; 6BT5.9   |
| FUEL SYSTEM & PARTS  |                         |                      |               |   |
| QTY                  | FUEL INJECTION          | PART NO.             | SIZE          | DESCRIPTION   |
| 6                    | Fuel Injector Seal Ring | FP-3909356           |               |   |
| 6                    | Fuel Injector Seal      | FP-3930324           |               |   |
| 6                    | Copper Washer           | FP-3906659           |               | For 7mm head  |
| 6                    | Fuel Line Connector     | FP-3903380           |               | Banjo connector; 6mm  |
| COOLING SYSTEM       |                         |                      |               |   |
| QTY                  | WATER PUMP              | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Water Pump - Heavy Duty | FP-3286277           |               |   |
| ENGINE BLOCK & PARTS |                         |                      |               |   |
| QTY                  | GASKETS                 | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Oil Pan Gasket          | FP-3959052           |               |   |
| QTY                  | GASKET SETS             | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Gasket Conversion Set   | FP-3802376           |               | Incl. seals   |
| 1                    | Kit Gasket Set          | 260-1527             |               | Incl. std. .061" thickness head gskt.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. |
| QTY                  | CAM BEARINGS            | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Cam Brg.                | FP-3940059           | STD           | From 1997 and up  |
| 1                    | Cam Brg.                | FP-3901306           | STD           | To 1996   |
| QTY                  | OIL COOLERS & FILTERS   | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Oil Cooler              | FP-3957544           |               |   |
| CRANKSHAFT/OIL PUMP  |                         |                      |               |   |
| QTY                  | CRANKSHAFT              | PART NO.             | SIZE          | DESCRIPTION   |
| 1                    | Crankshaft              | FP-3929037           |               | With Gear   |

(continued on next page)

**Multi-Purpose Engines "B" Series, 6B5.9 (6-590) (Naturally Aspirated) 12**  
5.9L 359 (5882cc) OHV Diesel L6, 102mm Bore (cont.)

**CRANKSHAFT/OIL PUMP (cont.)**

| QTY | SEALS - FRONT CRANK | PART NO.   | SIZE   | DESCRIPTION |
|-----|---------------------|------------|--------|-------------|
| 1   | Oil Seal Kit        | FP-3802820 |        |             |
| 1   | Redi-Sleeve         | 99248      |        |             |
| 1   | Oil Seal            | 39803      |        |             |
| QTY | SEALS - REAR CRANK  | PART NO.   | SIZE   | DESCRIPTION |
| 1   | Oil Seal            | FP-3909410 |        | Dry         |
| QTY | MAIN BEARINGS       | PART NO.   | SIZE   | DESCRIPTION |
| 1   | Main Set            | FP-3802070 | STD    |             |
| 1   | Main Set            | FP-3802071 | .25MM  |             |
| 1   | Main Set            | FP-3802072 | .50MM  |             |
| 1   | Main Set            | FP-3802073 | .75MM  |             |
| 1   | Main Set            | FP-3802074 | 1.00MM |             |
| QTY | OIL PUMP            | PART NO.   | SIZE   | DESCRIPTION |
| 1   | Oil Pump            | FP-4939587 |        |             |

**CYLINDER COMPONENTS**

| QTY | LINERS                        | PART NO.     | SIZE   | DESCRIPTION                               |
|-----|-------------------------------|--------------|--------|---|
| 6   | Liner w/o Sealing Rings       | FP-3904166   |        | To return block to Standard               |
| QTY | PISTONS                       | PART NO.     | SIZE   | DESCRIPTION                               |
| 6   | Piston Body w/o Pin           | FP-3906223   | STD    | 17.3:1 C.R.                               |
| 6   | Piston Body w/o Pin           | FP-3906209   | .50MM  | 17.3:1 C.R.                               |
| 6   | Piston Body w/o Pin           | FP-3906208   | 1.00MM | 17.3:1 C.R.                               |
| 6   | Piston Kit w/Pin & Retainers  | FP-3906223WP | STD    | 17.3:1 C.R.                               |
| 6   | Piston Kit w/Pin & Retainers  | FP-3906209WP | .50MM  | 17.3:1 C.R.                               |
| 6   | Piston Kit w/Pin & Retainers  | FP-3906208WP | 1.00MM | 17.3:1 C.R.                               |
| 6   | Piston w/Retainer & Rings     | FP-3802060   | STD    | 17.3:1 C.R.                               |
| 6   | Piston w/Retainer & Rings     | FP-3802062   | .50MM  | 17.3:1 C.R.                               |
| 6   | Piston w/Retainer & Rings     | FP-3802064   | 1.00MM | 17.3:1 C.R.                               |
| 6   | Piston w/Pin, Retainer, Rings | FP-PK6223    | STD    | 17.3:1 C.R.                               |
| 6   | Piston w/Pin, Retainer, Rings | FP-PK6209    | .50MM  | 17.3:1 C.R.                               |
| 6   | Piston w/Pin, Retainer, Rings | FP-PK6208    | 1.00MM | 17.3:1 C.R.                               |
| 6   | Pin                           | FP-3934048   |        |   |
| 6   | Pin Bushing                   | FP-3901085   |        |   |
| QTY | CONNECTING RODS & BRGS.       | PART NO.     | SIZE   | DESCRIPTION                               |
| 12  | Rod Bearing Half Upper/Lower  | FP-3939859   | STD    |   |
| 12  | Rod Bearing Half Upper/Lower  | FP-3901171   | .25MM  |   |
| 12  | Rod Bearing Half Upper/Lower  | FP-3901172   | .50MM  |   |
| 12  | Rod Bearing Half Upper/Lower  | FP-3901173   | .75MM  |   |
| 12  | Rod Bearing Half Upper/Lower  | FP-3901174   | 1.00MM |   |
| QTY | PISTON RINGS                  | PART NO.     | SIZE   | DESCRIPTION                               |
| 1   | Ring Set Single Cylinder      | FP-3802040   | STD    | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 1   | Ring Set Single Cylinder      | FP-3802042   | .50MM  | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |
| 1   | Ring Set Single Cylinder      | FP-3802044   | 1.00MM | 1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set) |

**KITS**

| QTY | OVERHAUL KIT                  | PART NO.        | SIZE | DESCRIPTION  |
|-----|-------------------------------|-----------------|------|--|
| 1   | Piston Kit w/Ring Set         | FP-PK12742B     |      |  |
| 1   | Piston Kit w/Rings & Bearings | FP-PK22742B     |      |  |
| 1   | In-Frame Overhaul Kit         | FP-6B59PREML    |      | 6B5.9; Late; Premium; With Upper Gasket Set & Pan Gasket                                     |
| 1   | In-Frame Overhaul Kit         | FP-6B59PREM     |      | 6B5.9; Premium; With Upper Gasket Set & Pan Gasket   |
| 1   | Complete Overhaul Kit         | FP6B5.9PREM-OHL |      | 6B5.9; Late; 1991 to Present; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1   | Complete Overhaul Kit         | FP-6B59PREMOH   |      | 6B5.9; Pre 1991; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets              |

**Multi-Purpose Engines AA600 To Ser. No. 18354 Eng. 13**  
6.2L 377 OHV Diesel L6 (Case engine), 4" Bore

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION |
|-----|-------------------------|-------------|------|-------------|
| 6   | Rod Pair                | FP-127730PR | STD  |             |
| 6   | Rod Pair                | FP-127731PR | 10   |             |
| 6   | Rod Pair                | FP-127732PR | 20   |             |

**14 Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, V378-P145 Engs.**  
6.2L 378 OHV Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY                 | GASKETS                      | PART NO.   | SIZE     | DESCRIPTION  |
|---------------------|------------------------------|------------|----------|--|
| 1                   | Valve Cover Gasket           | FP-154019  |          | V-378; Early   |
| 1                   | Valve Cover Gasket           | FP-3277100 |          | V-378; Late  |
| 2                   | Head Gasket                  | FP-3017063 |          | V-378  |
| 1                   | Head Set                     | FP-3277752 |          | V-378  |
| QTY                 | VALVE                        | PART NO.   | SIZE     | DESCRIPTION  |
| 24                  | Intake                       | FP-V1957   |          | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 24                  | Intake                       | V-1957 +   | Std Only | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 1                   | Exhaust                      | FP-3275356 |          | Int. & Exh.; V-378; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.  |
| 12                  | Valve Kit, Intake & Exhaust  | FP-3275779 |          | V-378; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.   |
| 48                  | Keeper                       | FP-3275354 |          | V-378  |
| 48                  | Keeper                       | FP-166772  |          | V-378; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.  |
| 48                  | Keeper                       | VK-138     |          | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove   |
| 48                  | Keeper                       | VK-138R    |          | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened   |
| 48                  | Keeper, Bulk                 | VK-138B    |          | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000   |
| QTY                 | VALVE SEAT                   | PART NO.   | SIZE     | DESCRIPTION  |
| 1                   | Exh.                         | FP-154390  | STD      | V-378  |
| 1                   | Int.                         | FP-195000  | STD      | V-378  |
| QTY                 | VALVE GUIDE                  | PART NO.   | SIZE     | DESCRIPTION  |
| 24                  | Guide                        | FP-3278173 |          | V-378; .3820" ID, 2.5000" O.A.L.   |
| QTY                 | VALVE SPRING                 | PART NO.   | SIZE     | DESCRIPTION  |
| 24                  | Spring                       | FP-163037  |          | V-378  |
| QTY                 | VALVE SEAL                   | PART NO.   | SIZE     | DESCRIPTION  |
| 24                  | Valve Stem Seal              | ST-2002    |          | Exh. & Int.; Installation requires valve guide machining; Polyacrylate   |
| 1                   | Valve Stem Seal              | FP-156541  |          | V-378; Installation requires valve guide machining; Polyacrylate   |
| 24                  | Valve Stem Seal Bulk         | ST-2002BC  |          | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate   |
| QTY                 | ROCKER PARTS                 | PART NO.   | SIZE     | DESCRIPTION  |
| 12                  | Cam Follower Roller          | FP-153679  |          | V-378; Valve   |
| 6                   | Injector Cam Roller          | FP-154571  |          | V-378  |
| 18                  | Adjusting Screw Nut          | FP-S212    |          | V-378; 1/2" - 20 UNF; Use w/FP-168306  |
| 12                  | Valve Roller Pin             | FP-169154  |          | V-378; Cam Follower  |
| 18                  | Rocker Lever Adjusting Screw | FP-168306  |          | V-378; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212  |
| 1                   | Rocker Arm Socket            | FP-194037  |          | V-378  |
| 12                  | Bushing                      | FP-152936  |          | Injector Lever bushing   |
| 12                  | Bushing                      | FP-152937  |          | Rocker Lever bushing   |
| 12                  | Fuel Injector Roller Pin     | FP-114223  |          | V-378; Cam Follower  |
| 6                   | Valve Lifter Socket          | FP-218853  |          | V-378; Injector; Cam Follower  |
| 12                  | Valve Lifter Socket          | FP-218853  |          | Int. & Exh.; V-378; Valve; Cam Follower  |
| 12                  | Valve Lock Pin               | FP-108186  |          | V-378; Cam Follower  |
| 6                   | Valve Lock Pin               | FP-111272  |          | V-378; Injector; Cam Follower  |
| INT & EXH MANIFOLDS |                              |            |          |  |
| QTY                 | INT. & EXH. MANIFOLDS        | PART NO.   | SIZE     | DESCRIPTION  |
| 2                   | Exhaust Manifold Gasket      | FP-556356  |          | V-378  |
| CAMSHAFT GROUP      |                              |            |          |  |
| QTY                 | TIMING COVER                 | PART NO.   | SIZE     | DESCRIPTION  |
| 1                   | Oil Filler Cap               | FP-101322  |          | V-378; 2"  |
| QTY                 | CAMSHAFT/LIFTER              | PART NO.   | SIZE     | DESCRIPTION  |
| 1                   | Camshaft                     | FP-3277463 |          | V-378; Small Cam; CPL's 5004, 5010, 5015, 5024, 5036, 5058.  |
| ACCESSORY DRIVE     |                              |            |          |  |
| QTY                 | ACCESSORY DRIVE              | PART NO.   | SIZE     | DESCRIPTION  |
| 1                   | Power Steering Pump Gasket   | FP-154916  |          | V-378  |

(continued on next page)

*Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, 14 V378-P145 Engs. (cont.)*  
6.2L 378 OHV Diesel V6, 4.625" Bore

**FUEL SYSTEM & PARTS**

| QTY | FUEL INJECTION             | PART NO.   | SIZE | DESCRIPTION                   |
|-----|----------------------------|------------|------|-------------------------------|
| 6   | Fuel Injector Sleeve       | FP-169630  |      | V-378                         |
| 18  | O-Ring                     | FP-193736  |      | V-378; Fuel Injector Mounting |
| 6   | O-Ring                     | FP-3007759 |      | V-378; Injector Tube Seal     |
| 6   | Fuel Injector              | FP-3275538 |      | V-378; PTD Standard           |
| 6   | Fuel Injector Valve Spring | FP-166009  |      | V-378                         |
| 6   | Fuel Inj. Plunger & Barrel | FP-AR40063 |      | V-378; PTD                    |
| 6   | Fuel Injector Screen       | FP-3008706 |      | V-378                         |
| QTY | FUEL FILTERS & PUMP        | PART NO.   | SIZE | DESCRIPTION                   |
| 2   | Fuel Pump Gear             | FP-167166  |      | V-378; 7/16"                  |
| 1   | Fuel Pump Drive Shaft      | FP-167169  |      | V-378; 7/16"; Drive           |
| 1   | Fuel Pump Drive Shaft      | FP-175866  |      | V-378; 7/16"; Driven          |
| 1   | Fuel Pump Gasket           | FP-110855  |      | V-378; Fuel Pump Body         |

**COOLING SYSTEM**

| QTY | WATER PUMP                    | PART NO.   | SIZE | DESCRIPTION                   |
|-----|-------------------------------|------------|------|-------------------------------|
| 1   | Water Pump - Heavy Duty       | FP-AR61788 |      | V-378; Front Mount            |
| 1   | Water Pump Impeller           | FP-554438  |      | V-378                         |
| 1   | Water Pump Repair/Rebuild Kit | FP-AR61392 |      | V-378                         |
| 1   | Water Pump Mech. Shaft Seal   | FP-3029099 |      | V-378                         |
| 1   | Ball Brg.                     | FP-177596  |      | Inner; V-378                  |
| 1   | Ball Brg.                     | FP-552335  |      | Outer; V-378                  |
| 1   | Water Pump Gasket             | FP-169042  |      | V-378                         |
| 1   | Water Pump Lock Ring          | FP-160586  |      | V-378; Mounting               |
| QTY | SEALS - FAN HUB               | PART NO.   | SIZE | DESCRIPTION                   |
| 1   | Oil Seal                      | 39835      |      |                               |
| 1   | Redi-Sleeve                   | 99181      |      |                               |
| QTY | THERMOSTAT                    | PART NO.   | SIZE | DESCRIPTION                   |
| 1   | Thermostat                    | FP-3076489 |      | V-378; 180 Deg. F, Non-Vented |
| 1   | Rect. or Square Seal          | FP-186780  |      | V-378                         |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION   |
|-----|-----------------------|------------|------|---|
| 1   | Oil Pan Gasket        | FP-175726  |      | V-378   |
| QTY | GASKET SETS           | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Gasket Conversion Set | FP-3801657 |      | V-378   |
| QTY | CAM BEARINGS          | PART NO.   | SIZE | DESCRIPTION   |
| 2   | Cam Brg.              | FP-3278345 | STD  | Position 1-4; V-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060. |
| 2   | Cam Brg.              | FP-3031037 | STD  | Position 2-3; V-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060. |
| QTY | OIL COOLERS & FILTERS | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Oil Cooler            | FP-110848  |      | V-378; 6.500" X 4.000" tube bundle  |
| 1   | Snap Ring             | FP-110827  |      | V-378; Oil Cooler   |
| 1   | Oil Cooler Gasket     | FP-165153  |      | V-378   |
| 1   | Oil Cooler Gasket     | FP-166407  |      | V-378   |
| 2   | O-Ring                | FP-3019116 |      | V-378; Oil Cooler   |
| QTY | DIPSTICK              | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Dipstick              | FP-216484  |      | V-378; 90" Long; Blank Universal  |

**CRANKSHAFT/OIL PUMP**

| QTY | CRANKSHAFT                    | PART NO.   | SIZE | DESCRIPTION  |
|-----|-------------------------------|------------|------|--------------|
| 1   | Crankshaft                    | FP-195240  |      | V-378        |
| 1   | Oil Pressure Regulator Spring | FP-551079  |      | V-378        |
| QTY | SEALS - FRONT CRANK           | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Oil Seal                      | FP-3010457 |      | Front; V-378 |
| 1   | Redi-Sleeve                   | FP-3010464 |      | Front; V-378 |
| QTY | SEALS - REAR CRANK            | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Oil Seal                      | FP-3010459 |      | Rear; V-378  |
| 1   | Redi-Sleeve                   | FP-3010465 |      | Rear; V-378  |
| 1   | Redi-Sleeve                   | 99372      |      |              |
| QTY | MAIN BEARINGS                 | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Main Set                      | FP-BM99830 | STD  |              |
| 1   | Main Set                      | FP-BM99831 | 10   |              |
| 1   | Main Set                      | FP-BM99832 | 20   |              |

(continued on next page)

**14 Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, (cont.) V378-P145 Engs.**  
6.2L 378 OHV Diesel V6, 4.625" Bore

**CRANKSHAFT/OIL PUMP (cont.)**

| QTY | MAIN BEARINGS (cont.)        | PART NO.   | SIZE | DESCRIPTION         |
|-----|------------------------------|------------|------|---------------------|
| 1   | Main Set                     | FP-BM99833 | 30   |                     |
| 1   | Main Set                     | FP-BM99834 | 40   |                     |
| QTY | OIL PUMP                     | PART NO.   | SIZE | DESCRIPTION         |
| 1   | Oil Pump                     | FP-AR60801 |      | V-378; New          |
| 1   | Gasket                       | FP-3201388 |      | V-378; Tube to Pump |
| 1   | Oil Pressure Regulator Valve | FP-183014  |      | V-378               |

**CYLINDER COMPONENTS**

| QTY | LINERS                  | PART NO.   | SIZE | DESCRIPTION                             |
|-----|-------------------------|------------|------|---|
| 6   | Liner w/o Sealing Rings | FP-3022530 | STD  | V-378                                   |
| 6   | Liner w/Sealing Rings   | FP-3277592 | STD  | V-378; Incl. (1) FP216283, (1) FP216284 |
| 6   | Cylinder Kit Complete   | FP-3277991 | STD  | V-378; 16.0:1 C.R.                      |
| 6   | Cylinder Kit Complete   | FP-AR61504 | STD  | V-378; 17.0:1 C.R.                      |
| 1   | Sealing Ring, Liner     | FP-216283  |      | V-378                                   |
| 2   | Sealing Ring, Liner     | FP-216284  |      | V-378                                   |

| QTY | PISTONS                      | PART NO.   | SIZE | DESCRIPTION              |
|-----|------------------------------|------------|------|--------------------------|
| 6   | Piston Body w/o Pin          | FP-3277336 | STD  | V-378; 16.0:1 C.R.       |
| 6   | Piston Body w/o Pin          | FP-200800  | STD  | V-378; 17.0:1 C.R.       |
| 6   | Piston Kit w/Pin & Retainers | FP-3020737 | STD  | V-378; 16.0:1 C.R.       |
| 6   | Piston Kit w/Pin & Retainers | FP-AR60740 | STD  | V-378; 17.0:1 C.R.; Cast |
| 6   | Pin                          | FP-151770  |      | V-378                    |
| 6   | Piston Pin Retainer          | FP-157978  |      | V-378                    |
| 6   | Pin Bushing                  | FP-3277332 |      | V-378                    |

| QTY | CONNECTING RODS & BRGS.      | PART NO.     | SIZE | DESCRIPTION |
|-----|------------------------------|--------------|------|-------------|
| 12  | Con. Rod Bolt                | FP-551143    |      | V-378       |
| 12  | Con. Rod Nut                 | FP-152838    |      | V-378       |
| 6   | Rod Pair                     | FP-3012360PR | STD  |             |
| 6   | Rod Pair                     | FP-3012361PR | 10   |             |
| 6   | Rod Pair                     | FP-3012362PR | 20   |             |
| 12  | Rod Bearing Half Upper/Lower | FP-157620    | STD  | V-378       |
| 12  | Rod Bearing Half Upper/Lower | FP-157621    | 10   | V-378       |
| 12  | Rod Bearing Half Upper/Lower | FP-157622    | 20   | V-378       |
| 12  | Rod Bearing Half Upper/Lower | FP-157623    | 30   | V-378       |
| 12  | Rod Bearing Half Upper/Lower | FP-157624    | 40   | V-378       |

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                               |
|-----|--------------------------|------------|------|---|
| 6   | Ring Set Single Cylinder | FP-3278723 | STD  | V-378; 1-1/8, 1-3/32, 1-7/64 (1 cyl. set) |
| 6   | Ring Set Single Cylinder | FP-3278723 | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)        |

**KITS**

| QTY | OVERHAUL KIT          | PART NO.   | SIZE | DESCRIPTION   |
|-----|-----------------------|------------|------|---|
| 1   | Complete Overhaul Kit | FP-378PREM |      | V-378; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |

**15 Multi-Purpose Engines VT378 Eng.**  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS            | PART NO.   | SIZE | DESCRIPTION   |
|-----|--------------------|------------|------|---------------|
| 1   | Valve Cover Gasket | FP-154019  |      | VT-378; Early |
| 1   | Valve Cover Gasket | FP-3277100 |      | VT-378; Late  |
| 2   | Head Gasket        | FP-3017063 |      | VT-378        |
| 1   | Head Set           | FP-3277752 |      | VT-378        |

| QTY | VALVE                       | PART NO.          | SIZE | DESCRIPTION  |
|-----|-----------------------------|-------------------|------|--|
| 24  | Intake                      | FP-V1957          |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 24  | Intake                      | V-1957 + Std Only |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 1   | Exhaust                     | FP-3275356        |      | Int. & Exh.; VT-378; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.   |
| 12  | Valve Kit, Intake & Exhaust | FP-3275779        |      | VT-378; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.  |
| 48  | Keeper                      | FP-3275354        |      | VT-378   |
| 48  | Keeper                      | FP-166772         |      | VT-378; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.   |

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*Multi-Purpose Engines VT378 Eng. 15*  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore (cont.)

| <b>CYL. HEAD &amp; PARTS (cont.)</b> |                              |            |      |  |
|--------------------------------------|------------------------------|------------|------|--|
| QTY                                  | VALVE (cont.)                | PART NO.   | SIZE | DESCRIPTION  |
| 48                                   | Keeper                       | VK-138     |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove                                   |
| 48                                   | Keeper                       | VK-138R    |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened                         |
| 48                                   | Keeper, Bulk                 | VK-138B    |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000                   |
| QTY                                  | VALVE SEAT                   | PART NO.   | SIZE | DESCRIPTION  |
| 1                                    | Exh.                         | FP-154390  | STD  | VT-378   |
| 1                                    | Int.                         | FP-195000  | STD  | VT-378   |
| QTY                                  | VALVE GUIDE                  | PART NO.   | SIZE | DESCRIPTION  |
| 24                                   | Guide                        | FP-3278173 |      | VT-378; .3820" ID, 2.5000" O.A.L.  |
| QTY                                  | VALVE SPRING                 | PART NO.   | SIZE | DESCRIPTION  |
| 24                                   | Spring                       | FP-163037  |      | VT-378   |
| QTY                                  | VALVE SEAL                   | PART NO.   | SIZE | DESCRIPTION  |
| 24                                   | Valve Stem Seal              | ST-2002    |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate                               |
| 1                                    | Valve Stem Seal              | FP-156541  |      | VT-378; Installation requires valve guide machining; Polyacrylate                                    |
| 24                                   | Valve Stem Seal Bulk         | ST-2002BC  |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate |
| QTY                                  | ROCKER PARTS                 | PART NO.   | SIZE | DESCRIPTION  |
| 12                                   | Cam Follower Roller          | FP-153679  |      | VT-378; Valve  |
| 6                                    | Injector Cam Roller          | FP-154571  |      | VT-378   |
| 18                                   | Adjusting Screw Nut          | FP-S212    |      | VT-378; 1/2" - 20 UNF; Use w/FP-168306   |
| 12                                   | Valve Roller Pin             | FP-169154  |      | VT-378; Cam Follower   |
| 18                                   | Rocker Lever Adjusting Screw | FP-168306  |      | VT-378; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212   |
| 1                                    | Rocker Arm Socket            | FP-194037  |      | VT-378   |
| 12                                   | Bushing                      | FP-152936  |      | Injector Lever bushing   |
| 12                                   | Bushing                      | FP-152937  |      | Rocker Lever bushing   |
| 12                                   | Fuel Injector Roller Pin     | FP-114223  |      | VT-378; Cam Follower   |
| 6                                    | Valve Lifter Socket          | FP-218853  |      | VT-378; Injector; Cam Follower   |
| 12                                   | Valve Lifter Socket          | FP-218853  |      | Int. & Exh.; VT-378; Valve; Cam Follower   |
| 12                                   | Valve Lock Pin               | FP-108186  |      | VT-378; Cam Follower   |
| 6                                    | Valve Lock Pin               | FP-111272  |      | VT-378; Injector; Cam Follower   |
| <b>INT &amp; EXH MANIFOLDS</b>       |                              |            |      |  |
| QTY                                  | INT. & EXH. MANIFOLDS        | PART NO.   | SIZE | DESCRIPTION  |
| 2                                    | Exhaust Manifold Gasket      | FP-556356  |      | VT-378   |
| <b>CAMSHAFT GROUP</b>                |                              |            |      |  |
| QTY                                  | TIMING COVER                 | PART NO.   | SIZE | DESCRIPTION  |
| 1                                    | Oil Filler Cap               | FP-101322  |      | VT-378; 2"   |
| QTY                                  | CAMSHAFT/LIFTER              | PART NO.   | SIZE | DESCRIPTION  |
| 1                                    | Camshaft                     | FP-3277463 |      | VT-378; Small Cam; CPL's 5004, 5010, 5015, 5024, 5036, 5058.   |
| <b>ACCESSORY DRIVE</b>               |                              |            |      |  |
| QTY                                  | ACCESSORY DRIVE              | PART NO.   | SIZE | DESCRIPTION  |
| 1                                    | Power Steering Pump Gasket   | FP-154916  |      | VT-378   |
| <b>FUEL SYSTEM &amp; PARTS</b>       |                              |            |      |  |
| QTY                                  | FUEL INJECTION               | PART NO.   | SIZE | DESCRIPTION  |
| 6                                    | Fuel Injector Sleeve         | FP-169630  |      | VT-378   |
| 18                                   | O-Ring                       | FP-193736  |      | VT-378; Fuel Injector Mounting   |
| 6                                    | O-Ring                       | FP-3007759 |      | VT-378; Injector Tube Seal   |
| 6                                    | Fuel Injector                | FP-3275538 |      | VT-378; PTD Standard   |
| 6                                    | Fuel Injector Valve Spring   | FP-166009  |      | VT-378   |
| 6                                    | Fuel Inj. Plunger & Barrel   | FP-AR40063 |      | VT-378; PTD  |
| 6                                    | Fuel Injector Screen         | FP-3008706 |      | VT-378   |
| QTY                                  | FUEL FILTERS & PUMP          | PART NO.   | SIZE | DESCRIPTION  |
| 2                                    | Fuel Pump Gear               | FP-167166  |      | VT-378; 7/16"  |
| 1                                    | Fuel Pump Drive Shaft        | FP-167169  |      | VT-378; 7/16"; Drive   |
| 1                                    | Fuel Pump Drive Shaft        | FP-175866  |      | VT-378; 7/16"; Driven  |
| 1                                    | Fuel Pump Gasket             | FP-110855  |      | VT-378; Fuel Pump Body   |
| <b>COOLING SYSTEM</b>                |                              |            |      |  |
| QTY                                  | WATER PUMP                   | PART NO.   | SIZE | DESCRIPTION  |
| 1                                    | Water Pump - Heavy Duty      | FP-AR61788 |      | VT-378; Front Mount  |
| 1                                    | Water Pump Impeller          | FP-554438  |      | VT-378   |

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| <b>15 Multi-Purpose Engines VT378 Eng.</b>               |                                  |                 |             |  |
|--|----------------------------------|-----------------|-------------|--|
| <b>(cont.) 6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore</b> |                                  |                 |             |  |
| <b>COOLING SYSTEM (cont.)</b>                            |                                  |                 |             |  |
| <b>QTY</b>   | <b>WATER PUMP (cont.)</b>        | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Water Pump Repair/Rebuild Kit    | FP-AR61392      |             | VT-378   |
| 1  | Water Pump Mech. Shaft Seal      | FP-3029099      |             | VT-378   |
| 1  | Ball Brg.                        | FP-177596       |             | Inner; VT-378  |
| 1  | Ball Brg.                        | FP-552335       |             | Outer; VT-378  |
| 1  | Water Pump Gasket                | FP-169042       |             | VT-378   |
| 1  | Water Pump Lock Ring             | FP-160586       |             | VT-378; Mounting   |
| <b>QTY</b>   | <b>SEALS - FAN HUB</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Seal                         | 39835           |             |  |
| 1  | Redi-Sleeve                      | 99181           |             |  |
| <b>QTY</b>   | <b>THERMOSTAT</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Thermostat                       | FP-3076489      |             | VT-378; 180 Deg. F, Non-Vented   |
| 1  | Rect. or Square Seal             | FP-186780       |             | VT-378   |
| <b>ENGINE BLOCK &amp; PARTS</b>                          |                                  |                 |             |  |
| <b>QTY</b>   | <b>GASKETS</b>                   | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Pan Gasket                   | FP-175726       |             | VT-378   |
| <b>QTY</b>   | <b>GASKET SETS</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Gasket Conversion Set            | FP-3801657      |             | VT-378   |
| <b>QTY</b>   | <b>CAM BEARINGS</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 2  | Cam Brg.                         | FP-3278345      | STD         | Position 1-4; VT-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060. |
| 2  | Cam Brg.                         | FP-3031037      | STD         | Position 2-3; VT-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060. |
| <b>QTY</b>   | <b>OIL COOLERS &amp; FILTERS</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Cooler                       | FP-110848       |             | VT-378; 6.500" X 4.000" tube bundle  |
| 1  | Snap Ring                        | FP-110827       |             | VT-378; Oil Cooler   |
| 1  | Oil Cooler Gasket                | FP-165153       |             | VT-378   |
| 1  | Oil Cooler Gasket                | FP-166407       |             | VT-378   |
| 2  | O-Ring                           | FP-3019116      |             | VT-378; Oil Cooler   |
| <b>QTY</b>   | <b>DIPSTICK</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Dipstick                         | FP-216484       |             | VT-378; 90" Long; Blank Universal  |
| <b>CRANKSHAFT/OIL PUMP</b>                               |                                  |                 |             |  |
| <b>QTY</b>   | <b>CRANKSHAFT</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Crankshaft                       | FP-195240       |             | VT-378   |
| 1  | Oil Pressure Regulator Spring    | FP-551079       |             | VT-378   |
| <b>QTY</b>   | <b>SEALS - FRONT CRANK</b>       | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Seal                         | FP-3010457      |             | Front; VT-378  |
| 1  | Redi-Sleeve                      | FP-3010464      |             | Front; VT-378  |
| <b>QTY</b>   | <b>SEALS - REAR CRANK</b>        | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Seal                         | FP-3010459      |             | Rear; VT-378   |
| 1  | Redi-Sleeve                      | FP-3010465      |             | Rear; VT-378   |
| 1  | Redi-Sleeve                      | 99372           |             |  |
| <b>QTY</b>   | <b>MAIN BEARINGS</b>             | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Main Set                         | FP-BM99830      | STD         |  |
| 1  | Main Set                         | FP-BM99831      | 10          |  |
| 1  | Main Set                         | FP-BM99832      | 20          |  |
| 1  | Main Set                         | FP-BM99833      | 30          |  |
| 1  | Main Set                         | FP-BM99834      | 40          |  |
| <b>QTY</b>   | <b>OIL PUMP</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1  | Oil Pump                         | FP-AR60801      |             | VT-378; New  |
| 1  | Gasket                           | FP-3201388      |             | VT-378; Tube to Pump   |
| 1  | Oil Pressure Regulator Valve     | FP-183014       |             | VT-378   |
| <b>CYLINDER COMPONENTS</b>                               |                                  |                 |             |  |
| <b>QTY</b>   | <b>LINERS</b>                    | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 6  | Liner w/o Sealing Rings          | FP-3022530      | STD         | VT-378   |
| 6  | Liner w/Sealing Rings            | FP-3277592      | STD         | VT-378; Incl. (1) FP216283, (1) FP216284   |
| 6  | Cylinder Kit Complete            | FP-3277991      | STD         | VT-378; 16.0:1 C.R.  |
| 6  | Cylinder Kit Complete            | FP-AR61504      | STD         | VT-378; 17.0:1 C.R.  |
| 1  | Sealing Ring, Liner              | FP-216283       |             | VT-378   |
| 2  | Sealing Ring, Liner              | FP-216284       |             | VT-378   |
| <b>QTY</b>   | <b>PISTONS</b>                   | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 6  | Piston Body w/o Pin              | FP-3277336      | STD         | VT-378; 16.0:1 C.R.  |
| 6  | Piston Body w/o Pin              | FP-200800       | STD         | VT-378; 17.0:1 C.R.  |

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*Multi-Purpose Engines VT378 Eng. 15*  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

| QTY | PISTONS (cont.)              | PART NO.   | SIZE | DESCRIPTION               |
|-----|------------------------------|------------|------|---------------------------|
| 6   | Piston Kit w/Pin & Retainers | FP-3020737 | STD  | VT-378; 16.0:1 C.R.       |
| 6   | Piston Kit w/Pin & Retainers | FP-AR60740 | STD  | VT-378; 17.0:1 C.R.; Cast |
| 6   | Pin                          | FP-151770  |      | VT-378                    |
| 6   | Piston Pin Retainer          | FP-157978  |      | VT-378                    |
| 6   | Pin Bushing                  | FP-3277332 |      | VT-378                    |

| QTY | CONNECTING RODS & BRGS.      | PART NO.     | SIZE | DESCRIPTION |
|-----|------------------------------|--------------|------|-------------|
| 6   | Rod Pair                     | FP-3012360PR | STD  |             |
| 6   | Rod Pair                     | FP-3012361PR | 10   |             |
| 6   | Rod Pair                     | FP-3012362PR | 20   |             |
| 12  | Rod Bearing Half Upper/Lower | FP-157620    | STD  | VT-378      |
| 12  | Rod Bearing Half Upper/Lower | FP-157621    | 10   | VT-378      |
| 12  | Rod Bearing Half Upper/Lower | FP-157622    | 20   | VT-378      |
| 12  | Rod Bearing Half Upper/Lower | FP-157623    | 30   | VT-378      |
| 12  | Rod Bearing Half Upper/Lower | FP-157624    | 40   | VT-378      |

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                                |
|-----|--------------------------|------------|------|--|
| 6   | Ring Set Single Cylinder | FP-3278723 | STD  | VT-378; 1-1/8, 1-3/32, 1-7/64 (1 cyl. set) |

**KITS**

| QTY | OVERHAUL KIT          | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------------|------------|------|--|
| 1   | Complete Overhaul Kit | FP-378PREM |      | VT-378; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |

*Multi-Purpose Engines J6, J40, J401, JBS, JBS6, JF, JF6, JN, JN6, JNF, JNF6, JNR, JNS, 16*  
**JNS6, JS, JS6 Engs.**  
6.6L 401 OHV Diesel L6, 4.125" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE  | PART NO. | SIZE | DESCRIPTION                                |
|-----|--------|----------|------|--|
| 48  | Keeper | FP-VK123 |      | Exc. JS6 Engs.                             |
| 48  | Keeper | VK-123 + |      | Exc. JS6 Engs.; When depleted use FP-VK123 |
| 48  | Keeper | VK-66    |      | JS6 Engs.; 2 groove                        |
| 48  | Keeper | VK-66R   |      | JS6 Engs.; 2 groove; Hardened              |

| QTY | VALVE GUIDE | PART NO. | SIZE | DESCRIPTION  |
|-----|-------------|----------|------|--|
| 24  | Guide       | FP-VG529 |      | Exc. JS6 Engs.; Not flanged; .4385" ID, 3.2500" O.A.L.                             |
| 24  | Guide       | VG-529 + |      | Exc. JS6 Engs.; Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529 |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 451147H  |      |             |
| 1   | Redi-Sleeve     | 99174    |      |             |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO. | SIZE | DESCRIPTION |
|-----|---------------------|----------|------|-------------|
| 1   | Redi-Sleeve         | 99311    |      |             |
| 1   | Oil Seal            | 39809    |      |             |

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION |
|-----|-------------------------|-------------|------|-------------|
| 6   | Rod Pair                | FP-127730PR | STD  |             |
| 6   | Rod Pair                | FP-127731PR | 10   |             |
| 6   | Rod Pair                | FP-127732PR | 20   |             |

*Multi-Purpose Engines JT, JT6, JT6-10 Degree, JT6-15 Degree, JT6-20 Degree, JT401 17*  
**Engs.**  
6.6L 401 OHV Turbo-Diesel L6, 4.125" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE  | PART NO. | SIZE | DESCRIPTION                |
|-----|--------|----------|------|----------------------------|
| 48  | Keeper | FP-VK123 |      |                            |
| 48  | Keeper | VK-123 + |      | When depleted use FP-VK123 |

| QTY | VALVE GUIDE | PART NO. | SIZE | DESCRIPTION                            |
|-----|-------------|----------|------|--|
| 24  | Guide       | FP-VG529 |      | Not flanged; .4385" ID, 3.2500" O.A.L. |

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|  |  |   |                                      |  |
|--|--|---|--------------------------------------|--|
| <b>17 Multi-Purpose Engines JT, JT6, JT6-10 Degree, JT6-15 Degree, JT6-20 Degree, JT401 (cont.) Engs.</b><br>6.6L 401 OHV Turbo-Diesel L6, 4.125" Bore |  |   |                                      |  |
| <b>CYL. HEAD &amp; PARTS (cont.)</b>   |  |   |                                      |  |
| <b>QTY</b><br>24   | <b>VALVE GUIDE (cont.)</b><br>Guide  | <b>PART NO.</b><br>VG-529 +   | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529   |
| <b>ACCESSORY DRIVE</b>   |  |   |                                      |  |
| <b>QTY</b><br>1<br>1   | <b>ACCESSORY DRIVE</b><br>Oil Seal<br>Redi-Sleeve                                  | <b>PART NO.</b><br>451147H<br>99174   | <b>SIZE</b>                          | <b>DESCRIPTION</b>   |
| <b>CRANKSHAFT/OIL PUMP</b>   |  |   |                                      |  |
| <b>QTY</b><br>1<br>1   | <b>SEALS - FRONT CRANK</b><br>Redi-Sleeve<br>Oil Seal                              | <b>PART NO.</b><br>99311<br>39809   | <b>SIZE</b>                          | <b>DESCRIPTION</b>   |
| <b>CYLINDER COMPONENTS</b>   |  |   |                                      |  |
| <b>QTY</b><br>6<br>6<br>6  | <b>CONNECTING RODS &amp; BRGS.</b><br>Rod Pair<br>Rod Pair<br>Rod Pair             | <b>PART NO.</b><br>FP-127730PR<br>FP-127731PR<br>FP-127732PR                | <b>SIZE</b><br>STD<br>10<br>20       | <b>DESCRIPTION</b>   |
| <b>18 Multi-Purpose Engines GNHC4, H4, HA4, HB4, HR, HR4, HRC4 Engs.</b><br>7.3L 448 OHV Diesel L4, 4.875" Bore  |  |   |                                      |  |
| <b>CYLINDER COMPONENTS</b>   |  |   |                                      |  |
| <b>QTY</b><br>8  | <b>PISTONS</b><br>Pin Bushing  | <b>PART NO.</b><br>FP-43067   | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>Straight rod bushing; 1.03" Width; 2 req'd. per rod  |
| <b>QTY</b><br>4<br>4<br>4<br>4   | <b>CONNECTING RODS &amp; BRGS.</b><br>Rod Pair<br>Rod Pair<br>Rod Pair<br>Rod Pair | <b>PART NO.</b><br>FP-203670PR<br>FP-203671PR<br>FP-203672PR<br>FP-203673PR | <b>SIZE</b><br>STD<br>10<br>20<br>30 | <b>DESCRIPTION</b>   |
| <b>19 Multi-Purpose Engines C4, C160, C160M, C464, C464-B160, C464-C160, C464-P160, CF160 Engs.</b><br>7.6L 464 OHV Diesel L6, 4.4375" Bore            |  |   |                                      |  |
| <b>CYL. HEAD &amp; PARTS</b>   |  |   |                                      |  |
| <b>QTY</b><br>1<br>1   | <b>GASKETS</b><br>Head Gasket<br>Head Set  | <b>PART NO.</b><br>FP-143693<br>FP-3012590                                  | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>C-464<br>C-464   |
| <b>QTY</b><br>48<br>48   | <b>VALVE</b><br>Keeper<br>Keeper   | <b>PART NO.</b><br>FP-VK123<br>VK-123 +                                     | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>When depleted use FP-VK123   |
| <b>QTY</b><br>24<br>24   | <b>VALVE GUIDE</b><br>Guide<br>Guide   | <b>PART NO.</b><br>FP-VG529<br>VG-529 +                                     | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>Not flanged; .4385" ID, 3.2500" O.A.L.<br>Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529 |
| <b>ACCESSORY DRIVE</b>   |  |   |                                      |  |
| <b>QTY</b><br>1<br>1   | <b>ACCESSORY DRIVE</b><br>Oil Seal<br>Redi-Sleeve                                  | <b>PART NO.</b><br>451147H<br>99174   | <b>SIZE</b>                          | <b>DESCRIPTION</b>   |
| <b>ENGINE BLOCK &amp; PARTS</b>  |  |   |                                      |  |
| <b>QTY</b><br>1  | <b>GASKETS</b><br>Oil Pan Gasket   | <b>PART NO.</b><br>FP-175726  | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>C-464  |
| <b>QTY</b><br>1  | <b>GASKET SETS</b><br>Gasket Conversion Set  | <b>PART NO.</b><br>FP-3012595   | <b>SIZE</b>                          | <b>DESCRIPTION</b><br>C-464; Without Crankshaft Seals  |
| <b>CRANKSHAFT/OIL PUMP</b>   |  |   |                                      |  |
| <b>QTY</b><br>1<br>1   | <b>SEALS - FRONT CRANK</b><br>Redi-Sleeve<br>Oil Seal                              | <b>PART NO.</b><br>99311<br>39809   | <b>SIZE</b>                          | <b>DESCRIPTION</b>   |

(continued on next page)

*Multi-Purpose Engines C4, C160, C160M, C464, C464-B160, C464-C160, C464-P160, 19 CF160 Eng. (cont.)*  
7.6L 464 OHV Diesel L6, 4.4375" Bore

**CYLINDER COMPONENTS**

| QTY | LINERS                       | PART NO.    | SIZE | DESCRIPTION         |
|-----|------------------------------|-------------|------|---------------------|
| 6   | Liner w/o Sealing Rings      | FP-112851   |      | C-464               |
| 6   | Cylinder Kit Complete        | FP-BM76928  | STD  | C-464; 14.5:1 C.R.  |
| 6   | Cylinder Kit Complete        | FP-BM79352  |      | C-464; 15.8:1 C.R.  |
| 2   | Sealing Ring, Liner          | FP-112847   |      | C-464               |
| 1   | Sealing Ring, Liner          | FP-174316   |      | C-464               |
| QTY | PISTONS                      | PART NO.    | SIZE | DESCRIPTION         |
| 6   | Piston Body w/o Pin          | FP-130500   |      | C-464; 14.5:1 C.R.  |
| 6   | Piston Body w/o Pin          | FP-130360   |      | C-464; 15.8:1 C.R.  |
| 6   | Piston Kit w/Pin & Retainers | FP-BM62730  |      | C-464; 14.5:1 C.R.  |
| 6   | Piston Kit w/Pin & Retainers | FP-BM60610  | STD  | C-464; 15.8:1 C.R.  |
| 6   | Pin                          | FP-112904   |      | C-464               |
| 6   | Piston Pin Retainer          | FP-S16256   |      | C-464               |
| QTY | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION         |
| 6   | Rod Pair                     | FP-127730PR | STD  |                     |
| 6   | Rod Pair                     | FP-127731PR | 10   |                     |
| 6   | Rod Pair                     | FP-127732PR | 20   |                     |
| 12  | Rod Bearing Half Upper/Lower | FP-127730   | STD  | C-464               |
| 12  | Rod Bearing Half Upper/Lower | FP-127731   | 10   | C-464               |
| 12  | Rod Bearing Half Upper/Lower | FP-127732   | 20   | C-464               |
| 12  | Rod Bearing Half Upper/Lower | FP-127733   | 30   | C-464               |
| QTY | PISTON RINGS                 | PART NO.    | SIZE | DESCRIPTION         |
| 6   | Ring Set Single Cylinder     | FP-AR4920   | STD  | 3 - 1/8", 1 - 3/16" |

*Multi-Purpose Engines C175, C175B, C175C, C180, C180M, C190, C190B, C195, CR160, 20 CS195, CS464, CS464-B180, CS464-C180, CS464-C195, CS464-P180, CT160, CT464, CT464-C175, CT464-P175, CT464-P180 Eng. (cont.)*  
7.6L 464 OHV Turbo-Diesel L6, 4.4375" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS     | PART NO.   | SIZE | DESCRIPTION  |
|-----|-------------|------------|------|--|
| 1   | Head Gasket | FP-143693  |      |  |
| 1   | Head Set    | FP-3012590 |      |  |
| QTY | VALVE       | PART NO.   | SIZE | DESCRIPTION  |
| 48  | Keeper      | FP-VK123   |      |  |
| 48  | Keeper      | VK-123 +   |      | When depleted use FP-VK123   |
| QTY | VALVE GUIDE | PART NO.   | SIZE | DESCRIPTION  |
| 24  | Guide       | FP-VG529   |      | Not flanged; .4385" ID, 3.2500" O.A.L.                             |
| 24  | Guide       | VG-529 +   |      | Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529 |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 451147H  |      |             |
| 1   | Redi-Sleeve     | 99174    |      |             |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION              |
|-----|-----------------------|------------|------|--------------------------|
| 1   | Oil Pan Gasket        | FP-175726  |      |                          |
| QTY | GASKET SETS           | PART NO.   | SIZE | DESCRIPTION              |
| 1   | Gasket Conversion Set | FP-3012595 |      | Without Crankshaft Seals |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO. | SIZE | DESCRIPTION |
|-----|---------------------|----------|------|-------------|
| 1   | Redi-Sleeve         | 99311    |      |             |
| 1   | Oil Seal            | 39809    |      |             |

**CYLINDER COMPONENTS**

| QTY | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION |
|-----|------------------------------|-------------|------|-------------|
| 6   | Rod Pair                     | FP-127730PR | STD  |             |
| 6   | Rod Pair                     | FP-127731PR | 10   |             |
| 6   | Rod Pair                     | FP-127732PR | 20   |             |
| 12  | Rod Bearing Half Upper/Lower | FP-127730   | STD  |             |
| 12  | Rod Bearing Half Upper/Lower | FP-127731   | 10   |             |

(continued on next page)

+ Superseded Part Number

**20 Multi-Purpose Engines C175, C175B, C175C, C180, C180M, C190, C190B, C195, CR160, (cont.) CS195, CS464, CS464-B180, CS464-C180, CS464-C195, CS464-P180, CT160, CT464, CT464-C175, CT464-P175, CT464-P180 Eng.**  
7.6L 464 OHV Turbo-Diesel L6, 4.4375" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY | CONNECTING RODS & BRGS. (cont.) | PART NO.  | SIZE | DESCRIPTION         |
|-----|---------------------------------|-----------|------|---------------------|
| 12  | Rod Bearing Half Upper/Lower    | FP-127732 | 20   |                     |
| 12  | Rod Bearing Half Upper/Lower    | FP-127733 | 30   |                     |
| QTY | PISTON RINGS                    | PART NO.  | SIZE | DESCRIPTION         |
| 6   | Ring Set Single Cylinder        | FP-AR4920 | STD  | 3 - 1/8", 1 - 3/16" |

**21 Multi-Purpose Engines V8-185, V8-185-C, V8-185-E, V8-185-HT, V8-185-470, V8-185-470HT, V8N-185, V8N-185-B, V470, V470-D, V470-F, V470-M Eng.**  
7.7L 470 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE                       | PART NO.          | SIZE | DESCRIPTION  |
|-----|-----------------------------|-------------------|------|--|
| 32  | Intake                      | FP-V1957          |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 32  | Intake                      | V-1957 + Std Only |      | Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 32  | Exhaust                     | FP-3275356        |      | Exh. & Int.; Use w/FP-3275354 late style keeper; O.E. No. 3275356; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                       |
| 32  | Valve Kit, Intake & Exhaust | FP-3275779        |      | Exh. & Int.; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.   |
| 64  | Keeper                      | VK-138            |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove   |
| 64  | Keeper                      | VK-138R           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened   |
| 64  | Keeper                      | FP-3275354        |      | Exh. & Int.; Use w/FP3275356 valve   |
| 64  | Keeper, Bulk                | VK-138B           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000   |
| QTY | VALVE GUIDE                 | PART NO.          | SIZE | DESCRIPTION  |
| 32  | Guide                       | FP-3278173        |      | Exh. & Int.; .3820" ID, 2.5000" O.A.L.   |
| QTY | VALVE SPRING                | PART NO.          | SIZE | DESCRIPTION  |
| 32  | Spring                      | FP-163037         |      | Exh. & Int.  |
| QTY | VALVE SEAL                  | PART NO.          | SIZE | DESCRIPTION  |
| 32  | Valve Stem Seal             | ST-2002           |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate   |
| 32  | Valve Stem Seal Bulk        | ST-2002BC         |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate   |

**CAMSHAFT GROUP**

| QTY | CAMSHAFT/LIFTER | PART NO. | SIZE | DESCRIPTION   |
|-----|-----------------|----------|------|---|
| 1   | Prelube         | 55-400   |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail. |

**ENGINE BLOCK & PARTS**

| QTY | GASKET SETS         | PART NO.    | SIZE | DESCRIPTION   |
|-----|---------------------|-------------|------|---|
| 1   | In-Frame Gasket Set | FP-4025271S |      | Incl. valve stem seals  |
| 1   | Kit Gasket Set      | 260-1544 +  |      | In Frm.; Incl. valve stem seals.; When depleted use FP-4025271S |

**CRANKSHAFT/OIL PUMP**

| QTY | MAIN BEARINGS     | PART NO.   | SIZE | DESCRIPTION                                     |
|-----|-------------------|------------|------|---|
| 1   | Main Set          | FP-BM99820 | STD  | Phase 5F series Eng.                            |
| 1   | Main Set          | FP-BM99821 | 10   | Phase 5F series Eng.                            |
| 1   | Main Set          | FP-BM99822 | 20   | Phase 5F series Eng.                            |
| 1   | Main Set          | FP-BM99823 | 30   | Phase 5F series Eng.                            |
| 1   | Thrust Washer Set | FP-173640S |      | Position Rear; Phase 3.5D, Phase 5F series Eng. |

**CYLINDER COMPONENTS**

| QTY | LINERS                  | PART NO.     | SIZE | DESCRIPTION                      |
|-----|-------------------------|--------------|------|----------------------------------|
| 8   | Liner w/Sealing Rings   | FP-3277592   | STD  | Incl. (1) FP216283, (1) FP216284 |
| QTY | CONNECTING RODS & BRGS. | PART NO.     | SIZE | DESCRIPTION                      |
| 8   | Rod Pair                | FP-3012360PR | STD  |                                  |
| 8   | Rod Pair                | FP-3012361PR | 10   |                                  |
| 8   | Rod Pair                | FP-3012362PR | 20   |                                  |

(continued on next page)

**Multi-Purpose Engines V8-185, V8-185-C, V8-185-E, V8-185-HT, V8-185-470, 21  
V8-185-470HT, V8N-185, V8N-185-B, V470, V470-D, V470-F, V470-M Engs. (cont.)  
7.7L 470 OHV Diesel V8, 4.625" Bore**

**CYLINDER COMPONENTS (cont.)**

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                        |
|-----|--------------------------|------------|------|------------------------------------|
| 8   | Ring Set Single Cylinder | FP-3278723 | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set) |
| 8   | Ring Set Single Cylinder | FP-AR62258 | STD  | 2-3/32, 1-3/16 (1 cyl. set)        |

**Multi-Purpose Engines H4, HA4, HB4, HMR4, HR, HR4, HRC4, N495, N495-C130, N495-F, 22  
N495-P130, N495-PG130, NH4, NH4-GC, NH4-GS, NHC4, NHC4-B1, NHC4-C1, NHC4-GC,  
NHC4-GS, NHC5, NHC400 Engs.  
8.1L 495 OHV Diesel L4, 5.125" Bore**

**CYL. HEAD & PARTS**

| QTY | VALVE       | PART NO.  | SIZE | DESCRIPTION  |
|-----|-------------|-----------|------|--|
| 8   | Exhaust     | FP-144911 |      | W/4 valve cyl. head; 1.7400" Head Dia., 7.0600" O.A.L.   |
| 32  | Keeper      | VK-66     |      | Use w/4-valve cyl. head; 2 groove  |
| 32  | Keeper      | VK-66R    |      | Use w/4-valve cyl. head; 2 groove; Hardened  |
| QTY | VALVE GUIDE | PART NO.  | SIZE | DESCRIPTION  |
| 16  | Guide       | FP-66890  |      | Exh. & Int.; w/4 valve cyl. head; Threaded I.D.; Ream .405";<br>Threaded ID; .405" ID, 3.44" OAL |

**ENGINE BLOCK & PARTS**

| QTY | OIL COOLERS & FILTERS | PART NO.  | SIZE | DESCRIPTION                 |
|-----|-----------------------|-----------|------|-----------------------------|
| 1   | Oil Cooler            | FP-110848 |      | 6.500" X 4.000" tube bundle |

**CYLINDER COMPONENTS**

| QTY | LINERS                   | PART NO.          | SIZE | DESCRIPTION   |
|-----|--------------------------|-------------------|------|---|
| 4   | Liner w/Sealing Rings    | FP-BM98224        | STD  | Exc. HR, HR4, HRC4 Engs.  |
| QTY | PISTONS                  | PART NO.          | SIZE | DESCRIPTION   |
| 8   | Pin Bushing              | FP-43067          |      | Straight rod bushing; 1.03" Width; 2 req'd. per rod   |
| QTY | CONNECTING RODS & BRGS.  | PART NO.          | SIZE | DESCRIPTION   |
| 4   | Rod Pair                 | FP-203670PR       | STD  |   |
| 4   | Rod Pair                 | FP-203671PR       | 10   |   |
| 4   | Rod Pair                 | FP-203672PR       | 20   |   |
| 4   | Rod Pair                 | FP-203673PR       | 30   |   |
| QTY | PISTON RINGS             | PART NO.          | SIZE | DESCRIPTION   |
| 4   | Ring Set Single Cylinder | FP-AR12098        | STD  | Check piston grooving before supplying ring set; 3-5/32, 1-1/4  |
| 4   | Premium Set              | FP-9822KX         |      | Check piston grooving before supplying ring set; 1-5/32, 1-1/8,<br>1-3/16 (1 cyl. set)                              |
| 4   | Premium Set              | 9822KX + Std Only |      | Check piston grooving before supplying ring set; 1-5/32, 1-1/8,<br>1-3/16 (1 cyl. set); When depleted use FP-9822KX |

**Multi-Purpose Engines NT4, NT165, NT180, NT200, NT495-C, NT495-F, NT495-G, 23  
NT-495GC, NT495-GS, NT495-P, NTA495-G1, NTA495-G2, NTA495-GC, NTA495-GC1,  
NTA495-GC2, NTA495-GS, NTA495-GS1, NTA495-GS2 Engs.  
8.1L 495 OHV Turbo-Diesel L4, 5.125" Bore**

**CYL. HEAD & PARTS**

| QTY | VALVE        | PART NO.  | SIZE | DESCRIPTION  |
|-----|--------------|-----------|------|--|
| 8   | Exhaust      | FP-144911 |      | W/4 valve cyl. head; 1.7400" Head Dia., 7.0600" O.A.L.   |
| 32  | Keeper       | VK-66     |      | Use w/4-valve cyl. head; 2 groove  |
| 32  | Keeper       | VK-66R    |      | Use w/4-valve cyl. head; 2 groove; Hardened  |
| QTY | VALVE GUIDE  | PART NO.  | SIZE | DESCRIPTION  |
| 16  | Guide        | FP-66890  |      | Exh. & Int.; w/4 valve cyl. head; Threaded I.D.; Ream .405";<br>Threaded ID; .405" ID, 3.44" OAL |
| QTY | VALVE SPRING | PART NO.  | SIZE | DESCRIPTION  |
| 16  | Spring       | FP-111446 |      | NT-180, NT-200 Engs. w/4 valve cyl. head   |

**ENGINE BLOCK & PARTS**

| QTY | OIL COOLERS & FILTERS | PART NO.  | SIZE | DESCRIPTION                 |
|-----|-----------------------|-----------|------|-----------------------------|
| 1   | Oil Cooler            | FP-110848 |      | 6.500" X 4.000" tube bundle |

**CYLINDER COMPONENTS**

| QTY | LINERS                | PART NO.   | SIZE | DESCRIPTION               |
|-----|-----------------------|------------|------|---------------------------|
| 4   | Liner w/Sealing Rings | FP-BM98224 | STD  | Exc. NT-180, NT-200 Engs. |

(continued on next page)

**23 Multi-Purpose Engines NT4, NT165, NT180, NT200, NT495-C, NT495-F, NT495-G, (cont.) NT-495GC, NT495-GS, NT495-P, NTA495-G1, NTA495-G2, NTA495-GC, NTA495-GC1, NTA495-GC2, NTA495-GS, NTA495-GS1, NTA495-GS2 Engs.**  
8.1L 495 OHV Turbo-Diesel L4, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY                                | PARTS                    | PART NO.          | SIZE | DESCRIPTION  |
|------------------------------------|--------------------------|-------------------|------|--|
| 8                                  | Pin Bushing              | FP-43067          |      | Straight rod bushing; 1.03" Width; 2 req'd. per rod  |
| <b>CONNECTING RODS &amp; BRGS.</b> |                          |                   |      |  |
| 4                                  | Rod Pair                 | FP-203670PR       | STD  |  |
| 4                                  | Rod Pair                 | FP-203671PR       | 10   |  |
| 4                                  | Rod Pair                 | FP-203672PR       | 20   |  |
| 4                                  | Rod Pair                 | FP-203673PR       | 30   |  |
| <b>PISTON RINGS</b>                |                          |                   |      |  |
| 4                                  | Ring Set Single Cylinder | FP-AR12098        | STD  | Check piston grooving before supplying ring set; 3-5/32, 1-1/4   |
| 4                                  | Premium Set              | FP-9822KX         |      | Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set)                              |
| 4                                  | Premium Set              | 9822KX + Std Only |      | Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX |

**24 Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, V504-M-L.H., V504-P, V504-P195, V504-52 Engs.**  
8.3L 504 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY                 | PARTS                        | PART NO.          | SIZE | DESCRIPTION   |
|---------------------|------------------------------|-------------------|------|---|
| <b>GASKETS</b>      |                              |                   |      |   |
| 1                   | Valve Cover Gasket           | FP-157018         |      | V-504; Early  |
| 1                   | Valve Cover Gasket           | FP-3277099        |      | V-504; Late   |
| 2                   | Head Gasket                  | FP-3017062        |      | V-504   |
| 1                   | Head Set                     | FP-3277753        |      | V-504   |
| <b>VALVE</b>        |                              |                   |      |   |
| 16                  | Intake                       | FP-V1957          |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 16                  | Intake                       | V-1957 + Std Only |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 32                  | Exhaust                      | FP-3275356        |      | Int. & Exh.; V-504; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.   |
| 32                  | Valve Kit, Intake & Exhaust  | FP-3275779        |      | V-504; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.                                  |
| 64                  | Keeper                       | FP-3275354        |      | V-504   |
| 64                  | Keeper                       | FP-166772         |      | V-504; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.   |
| 64                  | Keeper                       | VK-138            |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove  |
| 64                  | Keeper                       | VK-138R           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened  |
| 64                  | Keeper, Bulk                 | VK-138B           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000  |
| <b>VALVE SEAT</b>   |                              |                   |      |   |
| 16                  | Exh.                         | FP-154390         | STD  | V-504   |
| 16                  | Int.                         | FP-195000         | STD  | V-504   |
| <b>VALVE GUIDE</b>  |                              |                   |      |   |
| 32                  | Guide                        | FP-3278173        |      | V-504; .3820" ID, 2.5000" O.A.L.  |
| <b>VALVE SPRING</b> |                              |                   |      |   |
| 32                  | Spring                       | FP-163037         |      | V-504   |
| <b>VALVE SEAL</b>   |                              |                   |      |   |
| 32                  | Valve Stem Seal              | ST-2002           |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate  |
| 1                   | Valve Stem Seal              | FP-156541         |      | V-504; Installation requires valve guide machining; Polyacrylate  |
| 32                  | Valve Stem Seal Bulk         | ST-2002BC         |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate                            |
| <b>ROCKER PARTS</b> |                              |                   |      |   |
| 12                  | Cam Follower Roller          | FP-153679         |      | V-504; Valve  |
| 6                   | Injector Cam Roller          | FP-154571         |      | V-504   |
| 18                  | Adjusting Screw Nut          | FP-S212           |      | V-504; 1/2" - 20 UNF; Use w/FP-168306   |
| 12                  | Valve Roller Pin             | FP-169154         |      | V-504; Cam Follower   |
| 12                  | Rocker Lever Adjusting Screw | FP-168306         |      | V-504; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212   |
| 12                  | Rocker Arm Socket            | FP-194037         |      | V-504   |
| 12                  | Bushing                      | FP-152936         |      | Injector Lever bushing  |

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**Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, 24 V504-M-L.H., V504-P, V504-P195, V504-52 Eng. (cont.)**  
8.3L 504 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS (cont.)**

| QTY | ROCKER PARTS (cont.)     | PART NO.  | SIZE | DESCRIPTION                   |
|-----|--------------------------|-----------|------|-------------------------------|
| 12  | Bushing                  | FP-152937 |      | Rocker Lever bushing          |
| 12  | Fuel Injector Roller Pin | FP-114223 |      | V-504; Cam Follower           |
| 6   | Cam Follower Socket      | FP-107738 |      | V-504; Injector; Cam Follower |
| 12  | Valve Lock Pin           | FP-108186 |      | V-504; Cam Follower           |
| 6   | Valve Lock Pin           | FP-111272 |      | V-504; Injector; Cam Follower |

**INT & EXH MANIFOLDS**

| QTY | INT. & EXH. MANIFOLDS   | PART NO.  | SIZE | DESCRIPTION |
|-----|-------------------------|-----------|------|-------------|
| 2   | Exhaust Manifold Gasket | FP-556355 |      | V-504       |

**CAMSHAFT GROUP**

| QTY | TIMING COVER   | PART NO.  | SIZE | DESCRIPTION |
|-----|----------------|-----------|------|-------------|
| 1   | Oil Filler Cap | FP-101322 |      | V-504; 2"   |

| QTY | CAMSHAFT/LIFTER | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------|------------|------|--|
| 1   | Camshaft        | FP-3277462 |      | V-504; Small Cam; CPL's 5003, 5009, 5013, 5014, 5023, 5028, 5029, 5037.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462. |
| 1   | Prelube         | 55-400     |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.  |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE            | PART NO.  | SIZE | DESCRIPTION |
|-----|----------------------------|-----------|------|-------------|
| 1   | Power Steering Pump Gasket | FP-154916 |      | V-504       |

**FUEL SYSTEM & PARTS**

| QTY | FUEL INJECTION             | PART NO.   | SIZE | DESCRIPTION   |
|-----|----------------------------|------------|------|---|
| 8   | Fuel Injector Sleeve       | FP-169630  |      | V-504   |
| 24  | O-Ring                     | FP-193736  |      | Fuel Injector Mounting  |
| 8   | O-Ring                     | FP-3007759 |      | Injector Tube Seal  |
| 8   | Fuel Injector Valve Spring | FP-166009  |      | V-504   |
| 8   | Fuel Inj. Plunger & Barrel | FP-AR40063 |      | V-504; PTD  |
| 1   | Fuel Injector Cup          | FP-3275266 |      | V-504; orifice number 7; orifice size 0.006; 4 Deg. spray angle |
| 8   | Fuel Injector Screen       | FP-3008706 |      | V-504   |

| QTY | FUEL FILTERS & PUMP   | PART NO.   | SIZE | DESCRIPTION                   |
|-----|-----------------------|------------|------|-------------------------------|
| 2   | Fuel Pump Gear        | FP-167166  |      | V-504; 7/16"                  |
| 1   | Fuel Pump Drive Shaft | FP-167169  |      | V-504; 7/16"; Drive           |
| 1   | Fuel Pump Drive Shaft | FP-175866  |      | V-504; 7/16"; Driven          |
| 24  | O-Ring                | FP-193736  |      | V-504; Fuel Injector Mounting |
| 8   | O-Ring                | FP-3007759 |      | V-504; Injector Tube Seal     |
| 1   | Fuel Pump Gasket      | FP-110855  |      | V-504; Fuel Pump Body         |

**COOLING SYSTEM**

| QTY | WATER PUMP                    | PART NO.   | SIZE | DESCRIPTION        |
|-----|-------------------------------|------------|------|--------------------|
| 1   | Water Pump - Heavy Duty       | FP-AR61788 |      | V-504; Front Mount |
| 1   | Water Pump - Heavy Duty       | FP-AR61789 |      | V-504; Rear Mount  |
| 1   | Water Pump Impeller           | FP-554438  |      | V-504              |
| 1   | Water Pump Repair/Rebuild Kit | FP-AR61392 |      | V-504              |
| 1   | Water Pump Mech. Shaft Seal   | FP-3029099 |      | V-504              |
| 1   | Ball Brg.                     | FP-177596  |      | Inner; V-504       |
| 1   | Ball Brg.                     | FP-552335  |      | Outer; V-504       |
| 1   | Water Pump Gasket             | FP-169042  |      | V-504              |
| 1   | Water Pump Lock Ring          | FP-160586  |      | V-504              |

| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39835    |      |             |
| 1   | Redi-Sleeve     | 99181    |      |             |

| QTY | THERMOSTAT           | PART NO.   | SIZE | DESCRIPTION                   |
|-----|----------------------|------------|------|-------------------------------|
| 1   | Thermostat           | FP-3076489 |      | V-504; 180 Deg. F, Non-Vented |
| 1   | Rect. or Square Seal | FP-186780  |      | V-504                         |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS        | PART NO.  | SIZE | DESCRIPTION |
|-----|----------------|-----------|------|-------------|
| 1   | Oil Pan Gasket | FP-175727 |      | V-504       |

| QTY | GASKET SETS           | PART NO.    | SIZE | DESCRIPTION   |
|-----|-----------------------|-------------|------|---|
| 1   | Gasket Conversion Set | FP-3801658  |      | V-504   |
| 1   | In-Frame Gasket Set   | FP-4025271S |      | Incl. valve stem seals  |
| 1   | Kit Gasket Set        | 260-1544 +  |      | In Frm.; Incl. valve stem seals.; When depleted use FP-4025271S |

(continued on next page)

+ Superseded Part Number

**24 Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M,**  
 (cont.) **V504-M-L.H., V504-P, V504-P195, V504-52 Engs.**  
 8.3L 504 OHV Diesel V8, 4.625" Bore

| <b>ENGINE BLOCK &amp; PARTS (cont.)</b> |                                    |                 |             |   |
|---|------------------------------------|-----------------|-------------|---|
| <b>QTY</b>                              | <b>CAM BEARINGS</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 2                                       | Cam Brg.                           | FP-3013522      |             | Position 1,5; V-504; Big Cam  |
| 2                                       | Cam Brg.                           | FP-3278345      | STD         | Position 1,5; V-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.   |
| 3                                       | Cam Brg.                           | FP-3030891      |             | Position 2-3-4; V-504; Big Cam  |
| 3                                       | Cam Brg.                           | FP-3031037      | STD         | Position 2-3-4; V-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050. |
| <b>QTY</b>                              | <b>OIL COOLERS &amp; FILTERS</b>   | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Oil Cooler                         | FP-110848       |             | V-504; 6.500" X 4.000" tube bundle  |
| 1                                       | Snap Ring                          | FP-110827       |             | V-504; Oil Cooler   |
| 1                                       | Oil Cooler Gasket                  | FP-165153       |             | V-504   |
| 1                                       | Oil Cooler Gasket                  | FP-166407       |             | V-504   |
| 2                                       | O-Ring                             | FP-3019116      |             | V-504; Oil Cooler   |
| <b>QTY</b>                              | <b>DIPSTICK</b>                    | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Dipstick                           | FP-216484       |             | V-504; 90" Long; Blank Universal  |
| <b>CRANKSHAFT/OIL PUMP</b>              |                                    |                 |             |   |
| <b>QTY</b>                              | <b>CRANKSHAFT</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Crankshaft                         | FP-194840       |             | V-504   |
| <b>QTY</b>                              | <b>SEALS - FRONT CRANK</b>         | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Oil Seal                           | FP-3010457      |             | Front; V-504  |
| 1                                       | Redi-Sleeve                        | FP-3010464      |             | Front; V-504  |
| <b>QTY</b>                              | <b>SEALS - REAR CRANK</b>          | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Oil Seal                           | FP-3010459      |             | Rear; V-504   |
| 1                                       | Redi-Sleeve                        | FP-3010465      |             | Rear; V-504   |
| 1                                       | Redi-Sleeve                        | 99372           |             |   |
| <b>QTY</b>                              | <b>MAIN BEARINGS</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Main Set                           | FP-BM99820      | STD         | Phase 5F series Engs.   |
| 1                                       | Main Set                           | FP-BM99821      | 10          | Phase 5F series Engs.   |
| 1                                       | Main Set                           | FP-BM99822      | 20          | Phase 5F series Engs.   |
| 1                                       | Main Set                           | FP-BM99823      | 30          | Phase 5F series Engs.   |
| 1                                       | Main Set                           | FP-BM99820      | STD         | V-504   |
| 1                                       | Main Set                           | FP-BM99821      | 10          | V-504   |
| 1                                       | Main Set                           | FP-BM99822      | 20          | V-504   |
| 1                                       | Main Set                           | FP-BM99823      | 30          | V-504   |
| 1                                       | Main Set                           | FP-BM99824      | 40          | V-504   |
| 1                                       | Thrust Washer Set                  | FP-173640S      |             | Position 5  |
| <b>QTY</b>                              | <b>OIL PUMP</b>                    | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                       | Gasket                             | FP-3201388      |             | V-504; Tube to Pump   |
| 1                                       | Oil Pressure Regulator Valve       | FP-183014       |             | V-504   |
| <b>CYLINDER COMPONENTS</b>              |                                    |                 |             |   |
| <b>QTY</b>                              | <b>LINERS</b>                      | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 8                                       | Liner w/o Sealing Rings            | FP-3022530      | STD         | V-504   |
| 8                                       | Liner w/Sealing Rings              | FP-3277592      | STD         | V-504; Incl. (1) FP216283, (1) FP216284   |
| 8                                       | Cylinder Kit Complete              | FP-3277991      | STD         | V-504; 16.0:1 C.R.  |
| 8                                       | Cylinder Kit Complete              | FP-AR61504      | STD         | V-504; 17.0:1 C.R.  |
| 8                                       | Sealing Ring, Liner                | FP-216283       |             | V-504   |
| 16                                      | Sealing Ring, Liner                | FP-216284       |             | V-504   |
| <b>QTY</b>                              | <b>PISTONS</b>                     | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 8                                       | Piston Body w/o Pin                | FP-3277336      | STD         | V-504; 16.0:1 C.R.  |
| 8                                       | Piston Body w/o Pin                | FP-200800       | STD         | V-504; 17.0:1 C.R.  |
| 8                                       | Piston Kit w/Pin & Retainers       | FP-3020737      | STD         | V-504; 16.0:1 C.R.  |
| 8                                       | Piston Kit w/Pin & Retainers       | FP-AR60740      | STD         | V-504; 17.0:1 C.R.; Cast  |
| 8                                       | Pin                                | FP-151770       |             | V-504   |
| 8                                       | Piston Pin Retainer                | FP-157978       |             | V-504   |
| 8                                       | Pin Bushing                        | FP-3277332      |             | V-504   |
| <b>QTY</b>                              | <b>CONNECTING RODS &amp; BRGS.</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 16                                      | Con. Rod Bolt                      | FP-551143       |             | V-504   |
| 16                                      | Con. Rod Nut                       | FP-152838       |             | V-504   |
| 8                                       | Rod Pair                           | FP-3012360PR    | STD         |   |
| 8                                       | Rod Pair                           | FP-3012361PR    | 10          |   |
| 8                                       | Rod Pair                           | FP-3012362PR    | 20          |   |
| 16                                      | Rod Bearing Half Upper/Lower       | FP-157620       | STD         |   |
| 16                                      | Rod Bearing Half Upper/Lower       | FP-157621       | 10          |   |

(continued on next page)



*Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, 24 V504-M-L.H., V504-P, V504-P195, V504-52 Eng. (cont.)*  
8.3L 504 OHV Diesel V8, 4.625" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY  | CONNECTING RODS & BRGS. (cont.) | PART NO.   | SIZE | DESCRIPTION   |
|------|---------------------------------|------------|------|---|
| 16   | Rod Bearing Half Upper/Lower    | FP-157622  | 20   |   |
| 16   | Rod Bearing Half Upper/Lower    | FP-157623  | 30   |   |
| 16   | Rod Bearing Half Upper/Lower    | FP-157624  | 40   |   |
| QTY  | PISTON RINGS                    | PART NO.   | SIZE | DESCRIPTION   |
| 8    | Ring Set Single Cylinder        | FP-3278723 | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)                                    |
| KITS |                                 |            |      |   |
| QTY  | OVERHAUL KIT                    | PART NO.   | SIZE | DESCRIPTION   |
| 1    | Complete Overhaul Kit           | FP-504PREM |      | V-504; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1    | Complete Overhaul Kit           | KS2-2423A  |      | When depleted use FP-504PREM  |

*Multi-Purpose Engines VT504 Eng. 25*  
8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS                      | PART NO.          | SIZE | DESCRIPTION   |
|-----|------------------------------|-------------------|------|---|
| 1   | Valve Cover Gasket           | FP-157018         |      | VT-504; Early   |
| 1   | Valve Cover Gasket           | FP-3277099        |      | VT-504; Late  |
| 2   | Head Gasket                  | FP-3017062        |      | VT-504  |
| 1   | Head Set                     | FP-3277753        |      | VT-504  |
| QTY | VALVE                        | PART NO.          | SIZE | DESCRIPTION   |
| 16  | Intake                       | FP-V1957          |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 16  | Intake                       | V-1957 + Std Only |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 16  | Exhaust                      | FP-3275356        |      | Int. & Exh.; VT-504; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.  |
| 16  | Valve Kit, Intake & Exhaust  | FP-3275779        |      | VT-504; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.                                 |
| 64  | Keeper                       | FP-3275354        |      | VT-504  |
| 64  | Keeper                       | FP-166772         |      | VT-504; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.  |
| 64  | Keeper                       | VK-138            |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove  |
| 64  | Keeper                       | VK-138R           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened  |
| 64  | Keeper, Bulk                 | VK-138B           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000  |
| QTY | VALVE SEAT                   | PART NO.          | SIZE | DESCRIPTION   |
| 16  | Exh.                         | FP-154390         | STD  | VT-504  |
| 16  | Int.                         | FP-195000         | STD  | VT-504  |
| QTY | VALVE GUIDE                  | PART NO.          | SIZE | DESCRIPTION   |
| 32  | Guide                        | FP-3278173        |      | VT-504; .3820" ID, 2.5000" O.A.L.   |
| QTY | VALVE SPRING                 | PART NO.          | SIZE | DESCRIPTION   |
| 32  | Spring                       | FP-163037         |      | VT-504  |
| QTY | VALVE SEAL                   | PART NO.          | SIZE | DESCRIPTION   |
| 32  | Valve Stem Seal              | ST-2002           |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate  |
| 32  | Valve Stem Seal              | FP-156541         |      | VT-504; Installation requires valve guide machining; Polyacrylate   |
| 32  | Valve Stem Seal Bulk         | ST-2002BC         |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate                            |
| QTY | ROCKER PARTS                 | PART NO.          | SIZE | DESCRIPTION   |
| 12  | Cam Follower Roller          | FP-153679         |      | VT-504; Valve   |
| 6   | Injector Cam Roller          | FP-154571         |      | VT-504  |
| 18  | Adjusting Screw Nut          | FP-S212           |      | VT-504; 1/2" - 20 UNF; Use w/FP-168306  |
| 12  | Valve Roller Pin             | FP-169154         |      | VT-504; Cam Follower  |
| 12  | Rocker Lever Adjusting Screw | FP-168306         |      | VT-504; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212  |
| 12  | Rocker Arm Socket            | FP-194037         |      | VT-504  |
| 12  | Bushing                      | FP-152936         |      | Injector Lever bushing  |
| 12  | Bushing                      | FP-152937         |      | Rocker Lever bushing  |
| 12  | Fuel Injector Roller Pin     | FP-114223         |      | VT-504; Cam Follower  |
| 6   | Cam Follower Socket          | FP-107738         |      | VT-504; Injector; Cam Follower  |
| 12  | Valve Lock Pin               | FP-108186         |      | VT-504; Cam Follower  |

(continued on next page)

+ Superseded Part Number

## 25 Multi-Purpose Engines VT504 Eng. (cont.) 8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore

| CYL. HEAD & PARTS (cont.) |                               |             |      |   |
|---------------------------|-------------------------------|-------------|------|---|
| QTY                       | ROCKER PARTS (cont.)          | PART NO.    | SIZE | DESCRIPTION   |
| 6                         | Valve Lock Pin                | FP-111272   |      | VT-504; Injector; Cam Follower  |
| INT & EXH MANIFOLDS       |                               |             |      |   |
| QTY                       | INT. & EXH. MANIFOLDS         | PART NO.    | SIZE | DESCRIPTION   |
| 2                         | Exhaust Manifold Gasket       | FP-556355   |      | VT-504  |
| CAMSHAFT GROUP            |                               |             |      |   |
| QTY                       | TIMING COVER                  | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Oil Filler Cap                | FP-101322   |      | VT-504; 2"  |
| QTY                       | CAMSHAFT/LIFTER               | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Camshaft                      | FP-3277462  |      | VT-504; Small Cam; CPL's 5003, 5009, 5013, 5014, 5023, 5028, 5029, 5037.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462. |
| 1                         | Prelube                       | 55-400      |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |
| ACCESSORY DRIVE           |                               |             |      |   |
| QTY                       | ACCESSORY DRIVE               | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Power Steering Pump Gasket    | FP-154916   |      | VT-504  |
| FUEL SYSTEM & PARTS       |                               |             |      |   |
| QTY                       | FUEL INJECTION                | PART NO.    | SIZE | DESCRIPTION   |
| 8                         | Fuel Injector Sleeve          | FP-169630   |      | VT-504  |
| 24                        | O-Ring                        | FP-193736   |      | Fuel Injector Mounting  |
| 8                         | O-Ring                        | FP-3007759  |      | Injector Tube Seal  |
| 8                         | Fuel Injector Valve Spring    | FP-166009   |      | VT-504  |
| 8                         | Fuel Inj. Plunger & Barrel    | FP-AR40063  |      | VT-504; PTD   |
| 1                         | Fuel Injector Cup             | FP-3275266  |      | VT-504; orifice number 7; orifice size 0.006; 4 Deg. spray angle  |
| 8                         | Fuel Injector Screen          | FP-3008706  |      | VT-504  |
| QTY                       | FUEL FILTERS & PUMP           | PART NO.    | SIZE | DESCRIPTION   |
| 2                         | Fuel Pump Gear                | FP-167166   |      | VT-504; 7/16"   |
| 1                         | Fuel Pump Drive Shaft         | FP-167169   |      | VT-504; 7/16"; Drive  |
| 1                         | Fuel Pump Drive Shaft         | FP-175866   |      | VT-504; 7/16"; Driven   |
| 24                        | O-Ring                        | FP-193736   |      | VT-504; Fuel Injector Mounting  |
| 8                         | O-Ring                        | FP-3007759  |      | VT-504; Injector Tube Seal  |
| 1                         | Fuel Pump Gasket              | FP-110855   |      | VT-504; Fuel Pump Body  |
| COOLING SYSTEM            |                               |             |      |   |
| QTY                       | WATER PUMP                    | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Water Pump - Heavy Duty       | FP-AR61788  |      | VT-504; Front Mount   |
| 1                         | Water Pump - Heavy Duty       | FP-AR61789  |      | VT-504; Rear Mount  |
| 1                         | Water Pump Impeller           | FP-554438   |      | VT-504  |
| 1                         | Water Pump Repair/Rebuild Kit | FP-AR61392  |      | VT-504  |
| 1                         | Water Pump Mech. Shaft Seal   | FP-3029099  |      | VT-504  |
| 1                         | Ball Brg.                     | FP-177596   |      | Inner; VT-504   |
| 1                         | Ball Brg.                     | FP-552335   |      | Outer; VT-504   |
| 1                         | Water Pump Gasket             | FP-169042   |      | VT-504  |
| 1                         | Water Pump Lock Ring          | FP-160586   |      | VT-504  |
| QTY                       | SEALS - FAN HUB               | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Oil Seal                      | 39835       |      |   |
| 1                         | Redi-Sleeve                   | 99181       |      |   |
| QTY                       | THERMOSTAT                    | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Thermostat                    | FP-3076489  |      | VT-504; 180 Deg. F, Non-Vented  |
| 1                         | Rect. or Square Seal          | FP-186780   |      | VT-504  |
| ENGINE BLOCK & PARTS      |                               |             |      |   |
| QTY                       | GASKETS                       | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Oil Pan Gasket                | FP-175727   |      | VT-504  |
| QTY                       | GASKET SETS                   | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Gasket Conversion Set         | FP-3801658  |      | VT-504  |
| 1                         | In-Frame Gasket Set           | FP-4025271S |      | Incl. valve stem seals  |
| QTY                       | CAM BEARINGS                  | PART NO.    | SIZE | DESCRIPTION   |
| 2                         | Cam Brg.                      | FP-3013522  |      | Position 1,5; VT-504; Big Cam   |
| 2                         | Cam Brg.                      | FP-3278345  | STD  | Position 1,5; VT-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.  |
| 3                         | Cam Brg.                      | FP-3030891  |      | Position 2-3-4; VT-504; Big Cam   |

(continued on next page)

*Multi-Purpose Engines VT504 Eng. 25*  
8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore (cont.)

| <b>ENGINE BLOCK &amp; PARTS (cont.)</b> |   |              |      |  |
|---|---|--------------|------|--|
| QTY                                     |   | PART NO.     | SIZE | DESCRIPTION  |
| 3                                       | <b>CAM BEARINGS (cont.)</b><br>Cam Brg.         | FP-3031037   | STD  | Position 2-3-4; VT-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050. |
| 1                                       | <b>OIL COOLERS &amp; FILTERS</b><br>Oil Cooler  | FP-110848    |      | VT-504; 6.500" X 4.000" tube bundle  |
| 1                                       | Snap Ring                                       | FP-110827    |      | VT-504; Oil Cooler   |
| 1                                       | Oil Cooler Gasket                               | FP-165153    |      | VT-504   |
| 1                                       | Oil Cooler Gasket                               | FP-166407    |      | VT-504   |
| 2                                       | O-Ring  | FP-3019116   |      | VT-504; Oil Cooler   |
| 1                                       | <b>DIPSTICK</b><br>Dipstick                     | FP-216484    |      | V-504; 90" Long; Blank Universal   |
| <b>CRANKSHAFT/OIL PUMP</b>              |   |              |      |  |
| 1                                       | <b>CRANKSHAFT</b><br>Crankshaft                 | FP-194840    |      | VT-504   |
| 1                                       | <b>SEALS - FRONT CRANK</b><br>Oil Seal          | FP-3010457   |      | Front; VT-504  |
| 1                                       | Redi-Sleeve                                     | FP-3010464   |      | Front; VT-504  |
| 1                                       | <b>SEALS - REAR CRANK</b><br>Oil Seal           | FP-3010459   |      | Rear; VT-504   |
| 1                                       | Redi-Sleeve                                     | FP-3010465   |      | Rear; VT-504   |
| 1                                       | Redi-Sleeve                                     | 99372        |      |  |
| 1                                       | <b>MAIN BEARINGS</b><br>Main Set                | FP-BM99820   | STD  | Phase 5F series Eng.   |
| 1                                       | Main Set  | FP-BM99821   | 10   | Phase 5F series Eng.   |
| 1                                       | Main Set  | FP-BM99822   | 20   | Phase 5F series Eng.   |
| 1                                       | Main Set  | FP-BM99823   | 30   | Phase 5F series Eng.   |
| 1                                       | Main Set  | FP-BM99820   | STD  | VT-504   |
| 1                                       | Main Set  | FP-BM99821   | 10   | VT-504   |
| 1                                       | Main Set  | FP-BM99822   | 20   | VT-504   |
| 1                                       | Main Set  | FP-BM99823   | 30   | VT-504   |
| 1                                       | Main Set  | FP-BM99824   | 40   | VT-504   |
| 1                                       | Thrust Washer Set                               | FP-173640S   |      | Position 5   |
| 1                                       | <b>OIL PUMP</b><br>Gasket                       | FP-3201388   |      | VT-504; Tube to Pump   |
| 1                                       | Oil Pressure Regulator Valve                    | FP-183014    |      | VT-504   |
| <b>CYLINDER COMPONENTS</b>              |   |              |      |  |
| 8                                       | <b>LINERS</b><br>Liner w/o Sealing Rings        | FP-3022530   | STD  | VT-504   |
| 8                                       | Liner w/Sealing Rings                           | FP-3277592   | STD  | VT-504; Incl. (1) FP216283, (1) FP216284   |
| 8                                       | Cylinder Kit Complete                           | FP-3277991   | STD  | VT-504; 16.0:1 C.R.  |
| 8                                       | Cylinder Kit Complete                           | FP-AR61504   | STD  | VT-504; 17.0:1 C.R.  |
| 8                                       | Sealing Ring, Liner                             | FP-216283    |      | VT-504   |
| 16                                      | Sealing Ring, Liner                             | FP-216284    |      | VT-504   |
| 8                                       | <b>PISTONS</b><br>Piston Body w/o Pin           | FP-3277336   | STD  | VT-504; 16.0:1 C.R.  |
| 8                                       | Piston Body w/o Pin                             | FP-200800    | STD  | VT-504; 17.0:1 C.R.  |
| 8                                       | Piston Kit w/Pin & Retainers                    | FP-3020737   | STD  | VT-504; 16.0:1 C.R.  |
| 8                                       | Piston Kit w/Pin & Retainers                    | FP-AR60740   | STD  | VT-504; 17.0:1 C.R.; Cast  |
| 8                                       | Pin   | FP-151770    |      | VT-504   |
| 8                                       | Piston Pin Retainer                             | FP-157978    |      | VT-504   |
| 8                                       | Pin Bushing                                     | FP-3277332   |      | VT-504   |
| 8                                       | <b>CONNECTING RODS &amp; BRGS.</b><br>Rod Pair  | FP-3012360PR | STD  |  |
| 8                                       | Rod Pair  | FP-3012361PR | 10   |  |
| 8                                       | Rod Pair  | FP-3012362PR | 20   |  |
| 16                                      | Rod Bearing Half Upper/Lower                    | FP-157620    | STD  |  |
| 16                                      | Rod Bearing Half Upper/Lower                    | FP-157621    | 10   |  |
| 16                                      | Rod Bearing Half Upper/Lower                    | FP-157622    | 20   |  |
| 16                                      | Rod Bearing Half Upper/Lower                    | FP-157623    | 30   |  |
| 16                                      | Rod Bearing Half Upper/Lower                    | FP-157624    | 40   |  |
| 8                                       | <b>PISTON RINGS</b><br>Ring Set Single Cylinder | FP-3278723   | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)   |

(continued on next page)

## 25 Multi-Purpose Engines VT504 Eng. (cont.) 8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore

### KITS

| QTY | OVERHAUL KIT          | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------------|------------|------|--|
| 1   | Complete Overhaul Kit | FP-504PREM |      | VT-504; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1   | Complete Overhaul Kit | KS2-2423A  |      | When depleted use FP-504PREM   |

## 26 Multi-Purpose Engines 6C8.3 Eng. 8.3L 505 OHV Diesel L6, 114mm Bore

### CYL. HEAD & PARTS

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION                   |
|-----|-----------------------|------------|------|-------------------------------|
| 1   | Valve Cover Gasket    | FP-3905449 |      |                               |
| 1   | Head Set              | FP-4025271 |      | Incl. valve stem seals        |
| QTY | HEAD BOLTS            | PART NO.   | SIZE | DESCRIPTION                   |
| 14  | Head Bolt             | FP-3917728 |      | M14 X 2.00 X 160              |
| 12  | Head Bolt             | FP-3917729 |      | M14 X 2.00 X 80               |
| QTY | VALVE                 | PART NO.   | SIZE | DESCRIPTION                   |
| 6   | Intake                | FP-3924492 |      |                               |
| 6   | Exhaust               | FP-3921444 |      |                               |
| 6   | Exhaust Valve Kit     | FP-3802085 |      | Exh.; Incl. valve and keepers |
| 6   | Intake Valve Kit      | FP-3802463 |      | Int.; Incl. valve and keepers |
| 24  | Keeper                | FP-3901177 |      | Exh. & Int.                   |
| QTY | VALVE SEAT            | PART NO.   | SIZE | DESCRIPTION                   |
| 6   | Exh.                  | FP-3929005 |      |                               |
| 6   | Int.                  | FP-3924582 |      |                               |
| QTY | VALVE GUIDE           | PART NO.   | SIZE | DESCRIPTION                   |
| 12  | Guide                 | FP-3923564 |      |                               |
| QTY | VALVE SPRING          | PART NO.   | SIZE | DESCRIPTION                   |
| 6   | Spring                | FP-3916588 |      | Exh.; 3.0500" Free Height     |
| 6   | Spring                | FP-3906412 |      | Int.; 2.6000" Free Height     |
| QTY | VALVE MISC.           | PART NO.   | SIZE | DESCRIPTION                   |
| 1   | Oil Filler Cap Gasket | FP-3902466 |      |                               |
| QTY | VALVE SEAL            | PART NO.   | SIZE | DESCRIPTION                   |
| 12  | Valve Stem Seal       | FP-3927642 |      | Exh. & Int.                   |
| QTY | ROCKER PARTS          | PART NO.   | SIZE | DESCRIPTION                   |
| 6   | Rocker Shaft          | FP-3919435 |      |                               |
| 2   | Expansion Plug        | FP-3907555 |      | Rocker Lever                  |
| 6   | O-Ring                | FP-3910824 |      | Rocker Lever Cover Screw      |
| 12  | Adjusting Screw Nut   | FP-203131  |      | 3/8" - 24 UNF                 |
| 12  | Support, Rocker Lever | FP-3905870 |      |                               |
| 12  | Rocker Lever Exhaust  | FP-3901717 |      |                               |
| 6   | Clamp                 | FP-3901693 |      | Rocker Lever                  |
| 12  | Snap Ring             | FP-3901764 |      | Rocker Lever                  |

### INT & EXH MANIFOLDS

| QTY | INT. & EXH. MANIFOLDS   | PART NO.   | SIZE | DESCRIPTION |
|-----|-------------------------|------------|------|-------------|
| 6   | Exhaust Manifold Gasket | FP-3932063 |      |             |
| 1   | Intake Manifold Gasket  | FP-3936993 |      |             |

### CAMSHAFT GROUP

| QTY | TIMING COVER    | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------|------------|------|--|
| 1   | Oil Filler Cap  | FP-101322  |      | 2"   |
| QTY | CAMSHAFT/LIFTER | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Camshaft        | FP-3923478 |      | CPL's 601, 602, 603, 604, 605, 752, 753, 754, 755, 805, 818, 819, 828, 829, 830, 831, 848, 890, 892, 893, 942, 954, 959, 982, 984, 985, 1196, 1212, 1217, 1221, 1222, 1248, 1269, 1273, 1274, 1275, 1321, 1356, 1366, 1377, 1435, 1464, 1539, 1547, 1603, 1612, 1616, 1633, 1639, 1826 |
| 12  | Lifter          | FP-3931623 |      |  |

### FUEL SYSTEM & PARTS

| QTY | FUEL INJECTION | PART NO.   | SIZE | DESCRIPTION    |
|-----|----------------|------------|------|----------------|
| 1   | Injector Tube  | FP-3906783 |      | No. 1 Cylinder |
| 1   | Injector Tube  | FP-3906784 |      | No. 2 Cylinder |
| 1   | Injector Tube  | FP-3906785 |      | No. 3 Cylinder |
| 1   | Injector Tube  | FP-3910521 |      | No. 4 Cylinder |
| 1   | Injector Tube  | FP-3906788 |      | No. 5 Cylinder |
| 6   | Copper Washer  | FP-3906659 |      |                |

(continued on next page)

*Multi-Purpose Engines 6C8.3 Eng. 26*  
8.3L 505 OHV Diesel L6, 114mm Bore (cont.)

| <b>FUEL SYSTEM &amp; PARTS (cont.)</b> |                              |              |       |   |
|--|------------------------------|--------------|-------|---|
| QTY                                    | FUEL INJECTION (cont.)       | PART NO.     | SIZE  | DESCRIPTION                                 |
| 6                                      | Fuel Line Connector          | FP-3903380   |       | Fuel Manifold                               |
| <b>FUEL FILTERS &amp; PUMP</b>         |                              |              |       |   |
| 1                                      | Fuel Transfer Pump           | FP-4944714   |       | 108.1 - 230.9 LPH; 1/4 x 18 NPTF Fuel Inlet |
| 1                                      | Fuel Transfer Pump           | FP-4944712   |       | 117 - 229.9 LPH; 1/4 x 18 NPTF Fuel Inlet   |
| 1                                      | Fuel Transfer Pump           | FP-4944713   |       | 144.7 - 201.2 LPH; 1/4 x 18 NPTF Fuel Inlet |
| 1                                      | Fuel Transfer Pump           | FP-4944710   |       | 183 - 229 LPH; 1/2 x 14 NPTF Fuel Inlet     |
| 1                                      | Fuel Transfer Pump           | FP-4944711   |       | 187.4 - 304.2 LPH; 1/4 x 18 NPTF Fuel Inlet |
| 1                                      | Cover Plate Gasket           | FP-3931348   |       | Fuel Transfer Pump Mounting                 |
| 1                                      | Cover Plate Gasket           | FP-3939258   |       | Fuel Transfer Pump Mounting                 |
| 2                                      | Washer                       | FP-3918191   |       | Sealing; Fuel Filter                        |
| 2                                      | Washer                       | FP-3918192   |       | Sealing; Fuel Inlet Tube                    |
| 1                                      | Fuel Shutdown Solenoid       | FP-3921978   |       | 12V   |
| <b>COOLING SYSTEM</b>                  |                              |              |       |   |
| QTY                                    | WATER PUMP                   | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Water Pump - Heavy Duty      | FP-3806180   |       |   |
| 1                                      | Ball Brg.                    | FP-3910739   |       | Fan Drive                                   |
| 1                                      | O-Ring                       | FP-3902089   |       | Water Pump Mounting                         |
| 1                                      | Shaft & Bearing Assembly     | FP-3903787   |       |   |
| 1                                      | V Belt                       | FP-3911558   |       | 59 X 1.125"; Ribbed 8                       |
| 1                                      | V Belt                       | FP-3911582   |       | 70 X 1.125"; Ribbed 8                       |
| QTY                                    | THERMOSTAT                   | PART NO.     | SIZE  | DESCRIPTION                                 |
| 2                                      | Thermostat                   | FP-3928639   |       | 180 Deg. F                                  |
| 1                                      | Thermostat Gasket            | FP-3914310   |       | Thermostat Housing                          |
| <b>ENGINE BLOCK &amp; PARTS</b>        |                              |              |       |   |
| QTY                                    | GASKETS                      | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Oil Pan Gasket               | FP-3914017 + |       | When depleted use FP-3938160                |
| 1                                      | Washer                       | FP-3902425   |       | Sealing; Oil Pan Plug                       |
| 1                                      | Washer                       | FP-3920773   |       | Sealing; Oil Pan Plug                       |
| 1                                      | Cover Plate Gasket           | FP-3908096   |       | Bell Housing                                |
| 1                                      | Gear Cover Gasket            | FP-3917780   |       |   |
| 1                                      | Gear Housing Gasket          | FP-3281721   |       |   |
| QTY                                    | GASKET SETS                  | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Gasket Conversion Set        | FP-3802389   |       |   |
| QTY                                    | CAM BEARINGS                 | PART NO.     | SIZE  | DESCRIPTION                                 |
| 7                                      | Cam Brg.                     | FP-3945329   | STD   |   |
| QTY                                    | OIL COOLERS & FILTERS        | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Oil Cooler                   | FP-3974815   |       |   |
| 1                                      | Oil Cooler                   | FP-3974815   |       |   |
| 1                                      | Oil Press. Reg. Low Pressure | FP-3945967   |       |   |
| 1                                      | Oil Cooler Gasket            | FP-3914308   |       | Core Mounting                               |
| 1                                      | Oil Cooler Core Inner Gasket | FP-3918174   |       | Core  |
| 1                                      | Oil Cooler Core Outer Gasket | FP-3918332   |       | Core Cover                                  |
| QTY                                    | FREEZE PLUGS                 | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Expansion Plug               | FP-3901969   |       |   |
| <b>CRANKSHAFT/OIL PUMP</b>             |                              |              |       |   |
| QTY                                    | CRANKSHAFT                   | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Crankshaft                   | FP-3918986   |       |   |
| QTY                                    | SEALS - FRONT CRANK          | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Oil Seal                     | FP-3353977   |       | Front                                       |
| 1                                      | Oil Seal Kit                 | FP-3925343   |       | Front                                       |
| QTY                                    | SEALS - REAR CRANK           | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Oil Seal                     | FP-3909410   |       | Rear; Dry                                   |
| 1                                      | Oil Seal Kit                 | FP-3926126   |       |   |
| 1                                      | Redi-Sleeve                  | FP-3906081   |       | Rear  |
| 1                                      | Rear Cover Gasket            | FP-3914301   |       | Rear  |
| 1                                      | Rear Cover Gasket            | FP-3939353   |       | Rear  |
| 1                                      | Rect. or Square Seal         | FP-3912473   |       | Rear  |
| QTY                                    | MAIN BEARINGS                | PART NO.     | SIZE  | DESCRIPTION                                 |
| 1                                      | Main Set                     | FP-3802210   | STD   | Wide style, 33.85 - 34.10MM                 |
| 1                                      | Main Set                     | FP-3802211   | .25MM | Wide style, 33.85 - 34.10MM                 |
| 1                                      | Main Set                     | FP-3802212   | .50MM | Wide style, 33.85 - 34.10MM                 |

(continued on next page)

## 26 Multi-Purpose Engines 6C8.3 Eng. (cont.) 8.3L 505 OHV Diesel L6, 114mm Bore

| CRANKSHAFT/OIL PUMP (cont.) |                               |               |      |  |
|-----------------------------|-------------------------------|---------------|------|--|
| QTY                         | OIL PUMP                      | PART NO.      | SIZE | DESCRIPTION  |
| 1                           | Oil Pump                      | FP-3948071    |      |  |
| 1                           | Oil Pump                      | FP-3800828    |      | Includes Pressure Regulator  |
| 1                           | Oil Suction Tube Gasket       | FP-3914302    |      |  |
| CYLINDER COMPONENTS         |                               |               |      |  |
| QTY                         | LINERS                        | PART NO.      | SIZE | DESCRIPTION  |
| 6                           | Liner w/o Sealing Rings       | FP-3907792    |      | To be used with early standard cylinder block # FP-3802265 prior to 1991.  |
| 6                           | Liner w/o Sealing Rings       | FP-3948095    |      | To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3. |
| 6                           | Liner w/o Sealing Rings       | FP-3919937    |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.   |
| 6                           | Liner w/Sealing Rings         | FP-3802370    |      | Early; Prior to 1991   |
| 6                           | Liner w/Sealing Rings         | FP-3802407    |      | 1991 thru 1/04/98; Thick-Walled Block  |
| 6                           | Cylinder Kit Complete         | FP-LK92477792 |      | To be used with early standard cylinder block # FP-3802265 prior to 1991.  |
| 6                           | Cylinder Kit Complete         | FP-3802388    |      | To be used with early standard cylinder block # FP-3802265 prior to 1991.  |
| 6                           | Cylinder Kit Complete         | FP-3802401    |      | To be used with early standard cylinder block # FP-3802265 prior to 1991.  |
| 6                           | Cylinder Kit Complete         | FP-3934586    |      | To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3. |
| 6                           | Cylinder Kit Complete         | FP-3934588    |      | To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3. |
| 6                           | Cylinder Kit Complete         | FP-LK92479937 |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.   |
| 6                           | Cylinder Kit Complete         | FP-3802406    |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.   |
| 6                           | Cylinder Kit Complete         | FP-3802609    |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.   |
| 6                           | Cylinder Kit Complete         | FP-3802811    |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.   |
| 6                           | Cylinder Kit Complete         | FP-3802610    |      | To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.; B Grade piston; Anodized crown & combustion bowl                                       |
| 6                           | Sealing Ring, Liner           | FP-3907177    |      |  |
| QTY                         | PISTONS                       | PART NO.      | SIZE | DESCRIPTION  |
| 6                           | Piston Body w/o Pin           | FP-3929161    |      |  |
| 6                           | Piston Body w/o Pin           | FP-3925878    |      | A Grade; Anodized crown & combustion bowl  |
| 6                           | Piston Body w/o Pin           | FP-3925879    |      | B Grade; Anodized crown & combustion bowl  |
| 6                           | Piston Body w/o Pin           | FP-3919247    |      | Charge-Air-Cooled; Europe Appl.  |
| 6                           | Piston Body w/o Pin           | FP-3917707    |      | Charge-Air-Cooled; U.S.A. Appl.  |
| 6                           | Piston Body w/o Pin           | FP-3923164    |      | Engine Coolant Aftercooled; U.S.A. Appl.   |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3917707WP  |      |  |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3919247WP  |      |  |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3923164WP  |      |  |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3925878WP  |      |  |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3925879WP  |      |  |
| 6                           | Piston Kit w/Pin & Retainers  | FP-3929161WP  |      |  |
| 6                           | Piston w/Retainer & Rings     | FP-3802263    |      |  |
| 6                           | Piston w/Retainer & Rings     | FP-3802344    |      |  |
| 6                           | Piston w/Retainer & Rings     | FP-3802398    |      |  |
| 6                           | Piston w/Retainer & Rings     | FP-3802657    |      |  |
| 6                           | Piston w/Retainer & Rings     | FP-3802601    |      | A Grade; Anodized crown & combustion bowl  |
| 6                           | Piston w/Retainer & Rings     | FP-3802602    |      | B Grade; Anodized crown & combustion bowl  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK3164     |      |  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK7707     |      |  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK9161     |      |  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK9247     |      |  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK5878     |      | A Grade; Anodized crown & combustion bowl  |
| 6                           | Piston w/Pin, Retainer, Rings | FP-PK5879     |      | B Grade; Anodized crown & combustion bowl  |
| 6                           | Pin                           | FP-3934046    |      |  |
| 6                           | Piston Cooling Nozzle         | FP-3905928    |      | Early; < 91C   |
| 12                          | Piston Cooling Nozzle         | FP-3928031    |      | Thick-Walled Block; Late; 91C>   |
| 6                           | Pin Bushing                   | FP-3913990    |      |  |

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*Multi-Purpose Engines 6C8.3 Eng. 26*  
8.3L 505 OHV Diesel L6, 114mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

| <b>CONNECTING RODS &amp; BRGS.</b> |                              |               |        |   |
|------------------------------------|------------------------------|---------------|--------|---|
| QTY                                |                              | PART NO.      | SIZE   | DESCRIPTION   |
| 6                                  | Rod Bearing Half Upper/Lower | FP-3901430    | STD    |   |
| 6                                  | Rod Bearing Half Upper/Lower | FP-3901431    | .25MM  |   |
| 6                                  | Rod Bearing Half Upper/Lower | FP-3901432    | .50MM  |   |
| 6                                  | Rod Bearing Half Upper/Lower | FP-3901433    | .75MM  |   |
| 6                                  | Rod Bearing Half Upper/Lower | FP-3901434    | 1.00MM |   |
| <b>PISTON RINGS</b>                |                              |               |        |   |
| QTY                                |                              | PART NO.      | SIZE   | DESCRIPTION   |
| 6                                  | Ring Set Single Cylinder     | FP-3802429    |        |   |
| <b>KITS</b>                        |                              |               |        |   |
| QTY                                | OVERHAUL KIT                 | PART NO.      | SIZE   | DESCRIPTION   |
| 1                                  | In-Frame Overhaul Kit        | FP-6C83PREM   |        | 6C8.3; Premium; With Upper Gasket Set & Pan Gasket                    |
| 1                                  | Complete Overhaul Kit        | FP-6C83PREMOH |        | 6C8.3; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |

*Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, 27*  
V555-225, V555-230, V555-240, VC555, VF555-240 Engs.  
9.1L 555 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

| <b>GASKETS</b>      |                              |                   |      |   |
|---------------------|------------------------------|-------------------|------|---|
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 1                   | Valve Cover Gasket           | FP-157018         |      | V-555; Early  |
| 1                   | Valve Cover Gasket           | FP-3277099        |      | V-555; Late   |
| 2                   | Head Gasket                  | FP-3017062        |      | V-555   |
| 1                   | Head Set                     | FP-AR63520        |      | V-555; Incl. Big Cam & Small Cam Engs.  |
| <b>VALVE</b>        |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 16                  | Intake                       | FP-V1957          |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 16                  | Intake                       | V-1957 + Std Only |      | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 32                  | Exhaust                      | FP-3275356        |      | Int. & Exh.; V-555; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.   |
| 32                  | Valve Kit, Intake & Exhaust  | FP-3275779        |      | V-555; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.                                  |
| 64                  | Keeper                       | FP-3275354        |      | V-555   |
| 64                  | Keeper                       | FP-166772         |      | V-555; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.   |
| 64                  | Keeper                       | VK-138            |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove  |
| 64                  | Keeper                       | VK-138R           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened  |
| 64                  | Keeper, Bulk                 | VK-138B           |      | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000  |
| <b>VALVE SEAT</b>   |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 16                  | Exh.                         | FP-154390         | STD  | V-555   |
| 16                  | Int.                         | FP-195000         | STD  | V-555   |
| <b>VALVE GUIDE</b>  |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 32                  | Guide                        | FP-3278173        |      | V-555; .3820" ID, 2.5000" O.A.L.  |
| <b>VALVE SPRING</b> |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 32                  | Spring                       | FP-163037         |      | V-555   |
| <b>VALVE SEAL</b>   |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 32                  | Valve Stem Seal              | ST-2002           |      | Exh. & Int.; Installation requires valve guide machining; Polyacrylate  |
| 32                  | Valve Stem Seal              | FP-156541         |      | V-555; Installation requires valve guide machining; Polyacrylate  |
| 32                  | Valve Stem Seal Bulk         | ST-2002BC         |      | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate                            |
| <b>ROCKER PARTS</b> |                              |                   |      |   |
| QTY                 |                              | PART NO.          | SIZE | DESCRIPTION   |
| 8                   | Cam Follower Roller          | FP-153679         |      | V-555; Small Cam; Valve   |
| 8                   | Injector Cam Roller          | FP-154571         |      | V-555; Small Cam  |
| 16                  | Adjusting Screw Nut          | FP-S212           |      | V-555; 1/2" - 20 UNF; Use w/FP-168306   |
| 8                   | Valve Roller Pin             | FP-169154         |      | V-555; Small Cam; Cam Follower  |
| 16                  | Rocker Lever Adjusting Screw | FP-168306         |      | V-555; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212   |
| 8                   | Rocker Arm Socket            | FP-194037         |      | V-555   |
| 8                   | Bushing                      | FP-152936         |      | V-555; Injector Lever bushing   |
| 16                  | Bushing                      | FP-152937         |      | V-555; Rocker Lever bushing   |
| 8                   | Fuel Injector Roller Pin     | FP-114223         |      | V-555; Small Cam; Cam Follower  |

(continued on next page)

+ Superseded Part Number

**27 Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, (cont.) V555-225, V555-230, V555-240, VC555, VF555-240 Engs.**  
9.1L 555 OHV Diesel V8, 4.625" Bore

| <b>CYL. HEAD &amp; PARTS (cont.)</b> |                                  |                 |             |  |
|--------------------------------------|----------------------------------|-----------------|-------------|--|
| <b>QTY</b>                           | <b>ROCKER PARTS (cont.)</b>      | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 8                                    | Cam Follower Socket              | FP-107738       |             | V-555; Small Cam; Injector, Cam Follower   |
| 8                                    | Valve Lock Pin                   | FP-108186       |             | V-555; Small Cam; Cam Follower   |
| 8                                    | Valve Lock Pin                   | FP-111272       |             | V-555; Small Cam; Injector, Cam Follower   |
| <b>INT &amp; EXH MANIFOLDS</b>       |                                  |                 |             |  |
| <b>QTY</b>                           | <b>INT. &amp; EXH. MANIFOLDS</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 2                                    | Exhaust Manifold Gasket          | FP-556355       |             | V-555  |
| <b>CAMSHAFT GROUP</b>                |                                  |                 |             |  |
| <b>QTY</b>                           | <b>TIMING COVER</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Oil Filler Cap                   | FP-101322       |             | V-555; 2"  |
| <b>QTY</b>                           | <b>CAMSHAFT/LIFTER</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Camshaft                         | FP-3277462      |             | V-555; Small Cam; CPL's 5005, 5011, 5025, 5027.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462. |
| 1                                    | Prelube                          | 55-400          |             | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.  |
| <b>ACCESSORY DRIVE</b>               |                                  |                 |             |  |
| <b>QTY</b>                           | <b>ACCESSORY DRIVE</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Power Steering Pump Gasket       | FP-154916       |             | V-555  |
| <b>FUEL SYSTEM &amp; PARTS</b>       |                                  |                 |             |  |
| <b>QTY</b>                           | <b>FUEL INJECTION</b>            | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 8                                    | Fuel Injector Sleeve             | FP-169630       |             | V-555  |
| 24                                   | O-Ring                           | FP-193736       |             | V-555; Fuel Injector Mounting  |
| 8                                    | O-Ring                           | FP-3007759      |             | VT-555; Injector Tube Seal   |
| 8                                    | Fuel Injector                    | FP-3275989      |             | V-555; PTD Standard  |
| 8                                    | Fuel Injector Valve Spring       | FP-166009       |             | V-555  |
| 1                                    | Fuel Injector Cup                | FP-3275266      |             | V-555; orifice number 7; orifice size 0.006; 4 Deg. spray angle  |
| 8                                    | Fuel Injector Screen             | FP-3008706      |             | V-555  |
| <b>QTY</b>                           | <b>FUEL FILTERS &amp; PUMP</b>   | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 2                                    | Fuel Pump Gear                   | FP-119363       |             | V-555; 3/4"  |
| 1                                    | Fuel Pump Drive Shaft            | FP-100215       |             | V-555; 3/4"; Drive, Splined  |
| 1                                    | Fuel Pump Gasket                 | FP-110855       |             | V-555; Fuel Pump Body  |
| <b>COOLING SYSTEM</b>                |                                  |                 |             |  |
| <b>QTY</b>                           | <b>SEALS - FAN HUB</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Oil Seal                         | 39835           |             |  |
| 1                                    | Redi-Sleeve                      | 99181           |             |  |
| <b>QTY</b>                           | <b>THERMOSTAT</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Oil Seal                         | 39821           |             |  |
| <b>ENGINE BLOCK &amp; PARTS</b>      |                                  |                 |             |  |
| <b>QTY</b>                           | <b>GASKETS</b>                   | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Oil Pan Gasket                   | FP-175727       |             | V-555  |
| <b>QTY</b>                           | <b>GASKET SETS</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Gasket Conversion Set            | FP-3801659      |             | V-555; Incl. Big Cam & Small Cam Engs.   |
| 1                                    | Kit Gasket Set                   | FP-2601625      |             | Compl., Incl. Big Cam & Small Cam Engs.  |
| <b>QTY</b>                           | <b>CAM BEARINGS</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 2                                    | Cam Brg.                         | FP-3013522      |             | Position 1-5; V-555; Big Cam   |
| 2                                    | Cam Brg.                         | FP-3278345      | STD         | Position 1-5; V-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.  |
| 3                                    | Cam Brg.                         | FP-3030891      |             | Position 2-3-4; V-555; Big Cam   |
| 3                                    | Cam Brg.                         | FP-3031037      | STD         | Position 2-3-4; V-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.  |
| <b>QTY</b>                           | <b>OIL COOLERS &amp; FILTERS</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Oil Cooler                       | FP-173287       |             | V-555; 8.000" X 5.000" tube bundle   |
| 2                                    | Snap Ring                        | FP-3006745      |             | V-555; Oil Cooler  |
| 1                                    | Oil Cooler Gasket                | FP-554320       |             | V-555  |
| 1                                    | Oil Cooler Gasket                | FP-554321       |             | V-555  |
| <b>QTY</b>                           | <b>DIPSTICK</b>                  | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                                    | Dipstick                         | FP-216484       |             | V-555; 90" Long; Blank Universal   |

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*Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, 27  
V555-225, V555-230, V555-240, VC555, VF555-240 Engs. (cont.)  
9.1L 555 OHV Diesel V8, 4.625" Bore*

**CRANKSHAFT/OIL PUMP**

| QTY | CRANKSHAFT                   | PART NO.   | SIZE | DESCRIPTION         |
|-----|------------------------------|------------|------|---------------------|
| 1   | Crankshaft                   | FP-201950  |      | V-555               |
| QTY | SEALS - FRONT CRANK          | PART NO.   | SIZE | DESCRIPTION         |
| 1   | Oil Seal                     | FP-3010461 |      | Front; V-555        |
| 1   | Redi-Sleeve                  | FP-3010465 |      | Front; V-555        |
| QTY | SEALS - REAR CRANK           | PART NO.   | SIZE | DESCRIPTION         |
| 1   | Oil Seal                     | FP-3010459 |      | Rear; V-555         |
| 1   | Redi-Sleeve                  | FP-3010465 |      | Rear; V-555         |
| QTY | MAIN BEARINGS                | PART NO.   | SIZE | DESCRIPTION         |
| 1   | Main Set                     | FP-BM99820 | STD  |                     |
| 1   | Main Set                     | FP-BM99821 | 10   |                     |
| 1   | Main Set                     | FP-BM99822 | 20   |                     |
| 1   | Main Set                     | FP-BM99823 | 30   |                     |
| 1   | Main Set                     | FP-BM99824 | 40   |                     |
| 1   | Thrust Washer Set            | FP-173640S |      | Position 5          |
| QTY | OIL PUMP                     | PART NO.   | SIZE | DESCRIPTION         |
| 1   | Gasket                       | FP-3201388 |      | V-555; Tube to Pump |
| 1   | Oil Pressure Regulator Valve | FP-183014  |      | V-555               |

**CYLINDER COMPONENTS**

| QTY | LINERS                       | PART NO.    | SIZE | DESCRIPTION   |
|-----|------------------------------|-------------|------|---|
| 8   | Liner w/o Sealing Rings      | FP-3022529  | STD  |   |
| 8   | Liner w/Sealing Rings        | FP-3277608  | STD  | Incl. (1) FP-216283 Crevice seal, (1) FP-216284 Lower seal; Replaces O.E. No. 3277608 |
| 8   | Cylinder Kit Complete        | FP-3277634  | STD  | 16.2:1 C.R.   |
| 8   | Cylinder Kit Complete        | FP-3277626  | STD  | 17.0:1 C.R.   |
| 8   | Sealing Ring, Liner          | FP-216283   |      | Crevice Seal  |
| 8   | Sealing Ring, Liner          | FP-216284   |      | Lower Seal  |
| QTY | PISTONS                      | PART NO.    | SIZE | DESCRIPTION   |
| 8   | Piston Body w/o Pin          | FP-3019369  | STD  | 16.2:1 C.R.   |
| 8   | Piston Body w/o Pin          | FP-3275431  | STD  | 17.0:1 C.R.   |
| 8   | Piston Kit w/Pin & Retainers | FP-3019634  | STD  | 16.2:1 C.R.   |
| 8   | Piston Kit w/Pin & Retainers | FP-3275949  | STD  | 17.0:1 C.R.; Cast   |
| 8   | Pin                          | FP-554785   |      |   |
| 8   | Piston Pin Retainer          | FP-S16256   |      |   |
| 8   | Pin Bushing                  | FP-555421   |      |   |
| QTY | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION   |
| 8   | Rod Pair                     | FP-556350PR | STD  |   |
| 8   | Rod Pair                     | FP-556351PR | 10   |   |
| 8   | Rod Pair                     | FP-556352PR | 20   |   |
| 16  | Rod Bearing Half Upper/Lower | FP-556350   | STD  |   |
| 16  | Rod Bearing Half Upper/Lower | FP-556351   | 10   |   |
| 16  | Rod Bearing Half Upper/Lower | FP-556352   | 20   |   |
| 16  | Rod Bearing Half Upper/Lower | FP-556353   | 30   |   |
| QTY | PISTON RINGS                 | PART NO.    | SIZE | DESCRIPTION   |
| 8   | Ring Set Single Cylinder     | FP-3278723  | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)  |

**KITS**

| QTY | OVERHAUL KIT          | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------------|------------|------|--|
| 1   | Complete Overhaul Kit | FP-555PREM |      | Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1   | Complete Overhaul Kit | KS2-2506A  |      | When depleted use FP-555PREM                                   |

*Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, 28  
VT555-M, VT555-225, VTF555 Engs.  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore*

**CYL. HEAD & PARTS**

| QTY | GASKETS            | PART NO.   | SIZE | DESCRIPTION                             |
|-----|--------------------|------------|------|---|
| 1   | Valve Cover Gasket | FP-157018  |      | VT-555; Early                           |
| 1   | Valve Cover Gasket | FP-3277099 |      | VT-555; Late                            |
| 2   | Head Gasket        | FP-3017062 |      | VT-555                                  |
| 1   | Head Set           | FP-AR63520 |      | VT-555; Incl. Big Cam & Small Cam Engs. |

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**28 Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250,**  
 (cont.) **VT555-M, VT555-225, VTF555 Engs.**  
 9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore

| <b>CYL. HEAD &amp; PARTS (cont.)</b> |                                |                          |             |   |
|--------------------------------------|--------------------------------|--------------------------|-------------|---|
| <b>QTY</b>                           | <b>VALVE</b>                   | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 16                                   | Intake                         | <b>FP-V1957</b>          |             | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.                             |
| 16                                   | Intake                         | <b>V-1957 +</b> Std Only |             | Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957 |
| 16                                   | Exhaust                        | <b>FP-3275356</b>        |             | Int. & Exh.; VT-555; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.  |
| 16                                   | Valve Kit, Intake & Exhaust    | <b>FP-3275779</b>        |             | VT-555; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.                                 |
| 64                                   | Keeper                         | <b>FP-3275354</b>        |             | VT-555  |
| 64                                   | Keeper                         | <b>FP-166772</b>         |             | VT-555; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.  |
| 64                                   | Keeper                         | <b>VK-138</b>            |             | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove  |
| 64                                   | Keeper                         | <b>VK-138R</b>           |             | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened  |
| 64                                   | Keeper, Bulk                   | <b>VK-138B</b>           |             | Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000  |
| <b>QTY</b>                           | <b>VALVE SEAT</b>              | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 16                                   | Exh.                           | <b>FP-154390</b>         | STD         | VT-555  |
| 16                                   | Int.                           | <b>FP-195000</b>         | STD         | VT-555  |
| <b>QTY</b>                           | <b>VALVE GUIDE</b>             | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 32                                   | Guide                          | <b>FP-3278173</b>        |             | VT-555; .3820" ID, 2.5000" O.A.L.   |
| <b>QTY</b>                           | <b>VALVE SPRING</b>            | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 32                                   | Spring                         | <b>FP-163037</b>         |             | VT-555  |
| <b>QTY</b>                           | <b>VALVE SEAL</b>              | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 32                                   | Valve Stem Seal                | <b>ST-2002</b>           |             | Exh. & Int.; Installation requires valve guide machining; Polyacrylate  |
| 32                                   | Valve Stem Seal                | <b>FP-156541</b>         |             | VT-555; Installation requires valve guide machining; Polyacrylate   |
| 32                                   | Valve Stem Seal Bulk           | <b>ST-2002BC</b>         |             | Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate                            |
| <b>QTY</b>                           | <b>ROCKER PARTS</b>            | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 8                                    | Cam Follower Roller            | <b>FP-153679</b>         |             | Small Cam; Valve  |
| 8                                    | Injector Cam Roller            | <b>FP-154571</b>         |             | Small Cam   |
| 16                                   | Adjusting Screw Nut            | <b>FP-S212</b>           |             | 1/2" - 20 UNF; Use w/FP-168306  |
| 8                                    | Valve Roller Pin               | <b>FP-169154</b>         |             | Small Cam; Cam Follower   |
| 16                                   | Rocker Lever Adjusting Screw   | <b>FP-168306</b>         |             | 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212  |
| 8                                    | Rocker Arm Socket              | <b>FP-194037</b>         |             |   |
| 8                                    | Bushing                        | <b>FP-152936</b>         |             | Injector Lever bushing  |
| 16                                   | Bushing                        | <b>FP-152937</b>         |             | Rocker Lever bushing  |
| 8                                    | Fuel Injector Roller Pin       | <b>FP-114223</b>         |             | Small Cam; Cam Follower   |
| 8                                    | Cam Follower Socket            | <b>FP-107738</b>         |             | Small Cam; Injector, Cam Follower   |
| 8                                    | Valve Lock Pin                 | <b>FP-108186</b>         |             | Small Cam; Cam Follower   |
| 8                                    | Valve Lock Pin                 | <b>FP-111272</b>         |             | Small Cam; Injector, Cam Follower   |
| <b>CAMSHAFT GROUP</b>                |                                |                          |             |   |
| <b>QTY</b>                           | <b>TIMING COVER</b>            | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                    | Oil Filler Cap                 | <b>FP-101322</b>         |             | VT-555; 2"  |
| <b>QTY</b>                           | <b>CAMSHAFT/LIFTER</b>         | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                    | Camshaft                       | <b>FP-3278031</b>        |             | VT-555; Big Cam; CPL's 5038, 5039, 5044, 5047, 5048, 5050, 5051, 5053, 5065.  |
| <b>ACCESSORY DRIVE</b>               |                                |                          |             |   |
| <b>QTY</b>                           | <b>ACCESSORY DRIVE</b>         | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                                    | Power Steering Pump Gasket     | <b>FP-154916</b>         |             | VT-555  |
| <b>FUEL SYSTEM &amp; PARTS</b>       |                                |                          |             |   |
| <b>QTY</b>                           | <b>FUEL INJECTION</b>          | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 8                                    | Fuel Injector Sleeve           | <b>FP-169630</b>         |             | VT-555  |
| 8                                    | O-Ring                         | <b>FP-3007759</b>        |             | VT-555; Injector Tube Seal  |
| <b>QTY</b>                           | <b>FUEL FILTERS &amp; PUMP</b> | <b>PART NO.</b>          | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 2                                    | Fuel Pump Gear                 | <b>FP-119363</b>         |             | VT-555; 3/4"  |
| 1                                    | Fuel Pump Drive Shaft          | <b>FP-100215</b>         |             | VT-555; 3/4"; Drive, Splined  |
| 1                                    | Fuel Pump Gasket               | <b>FP-110855</b>         |             | VT-555; Fuel Pump Body  |

(continued on next page)

*Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, 28 VT555-M, VT555-225, VTF555 Eng. (cont.)*  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore

**COOLING SYSTEM**

| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39835    |      |             |
| 1   | Redi-Sleeve     | 99181    |      |             |
| QTY | THERMOSTAT      | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39821    |      |             |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION   |
|-----|-----------------------|------------|------|---|
| 1   | Oil Pan Gasket        | FP-175727  |      | VT-555  |
| QTY | GASKET SETS           | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Gasket Conversion Set | FP-3801659 |      | VT-555; Incl. Big Cam & Small Cam Eng.  |
| 1   | Kit Gasket Set        | FP-2601625 |      | Compl., Incl. Big Cam & Small Cam Eng.  |
| 1   | Kit Gasket Set        | 260-1625   |      | Compl., Incl. Big Cam & Small Cam Eng.  |
| QTY | CAM BEARINGS          | PART NO.   | SIZE | DESCRIPTION   |
| 2   | Cam Brg.              | FP-3013522 |      | Position 1-5; VT-555; Big Cam   |
| 2   | Cam Brg.              | FP-3278345 | STD  | Position 1-5; VT-555; Small Cam; Turbo Cam # FP-3278031<br>Only. Do Not Use For N/A Cam 201050.   |
| 3   | Cam Brg.              | FP-3030891 |      | Position 2-3-4; VT-555; Big Cam   |
| 3   | Cam Brg.              | FP-3031037 | STD  | Position 2-3-4; VT-555; Small Cam; Turbo Cam # FP-3278031<br>Only. Do Not Use For N/A Cam 201050. |
| QTY | OIL COOLERS & FILTERS | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Oil Cooler            | FP-173287  |      | VT-555; 8.000" X 5.000" tube bundle   |
| 2   | Snap Ring             | FP-3006745 |      | VT-555; Oil Cooler  |
| 1   | Oil Cooler Gasket     | FP-554320  |      | VT-555  |
| 1   | Oil Cooler Gasket     | FP-554321  |      | VT-555  |
| QTY | DIPSTICK              | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Dipstick              | FP-216484  |      | VT-555; 90" Long; Blank Universal   |

**CRANKSHAFT/OIL PUMP**

| QTY | CRANKSHAFT                   | PART NO.   | SIZE | DESCRIPTION               |
|-----|------------------------------|------------|------|---------------------------|
| 1   | Crankshaft                   | FP-201950  |      | VT-555                    |
| QTY | SEALS - FRONT CRANK          | PART NO.   | SIZE | DESCRIPTION               |
| 1   | Oil Seal                     | FP-3010461 |      | Front; VT-555             |
| 1   | Redi-Sleeve                  | FP-3010465 |      | Front; VT-555             |
| QTY | SEALS - REAR CRANK           | PART NO.   | SIZE | DESCRIPTION               |
| 1   | Oil Seal                     | FP-3010459 |      | Rear; VT-555              |
| 1   | Redi-Sleeve                  | FP-3010465 |      | Rear; VT-555              |
| QTY | MAIN BEARINGS                | PART NO.   | SIZE | DESCRIPTION               |
| 1   | Main Set                     | FP-BM99820 | STD  |                           |
| 1   | Main Set                     | FP-BM99821 | 10   |                           |
| 1   | Main Set                     | FP-BM99822 | 20   |                           |
| 1   | Main Set                     | FP-BM99823 | 30   |                           |
| 1   | Main Set                     | FP-BM99824 | 40   |                           |
| 1   | Thrust Washer Set            | FP-173640S |      | Position 5                |
| QTY | OIL PUMP                     | PART NO.   | SIZE | DESCRIPTION               |
| 1   | Oil Pump                     | FP-3275912 |      | VT-555; Turbocharged; New |
| 1   | Gasket                       | FP-3201388 |      | VT-555; Tube to Pump      |
| 1   | Oil Pressure Regulator Valve | FP-183014  |      | VT-555                    |

**CYLINDER COMPONENTS**

| QTY | LINERS                       | PART NO.   | SIZE | DESCRIPTION   |
|-----|------------------------------|------------|------|---|
| 8   | Liner w/o Sealing Rings      | FP-3022529 | STD  | VT-555  |
| 8   | Liner w/Sealing Rings        | FP-3277608 | STD  | VT-555; Incl. (1) FP-216283 Crevice seal, (1) FP-216284 Lower seal; Replaces O.E. No. 3277608 |
| 8   | Cylinder Kit Complete        | FP-3277634 | STD  | VT-555; 16.2:1 C.R.   |
| 8   | Cylinder Kit Complete        | FP-3277626 | STD  | VT-555; 17.0:1 C.R.   |
| 8   | Sealing Ring, Liner          | FP-216283  |      | VT-555  |
| 16  | Sealing Ring, Liner          | FP-216284  |      | VT-555  |
| QTY | PISTONS                      | PART NO.   | SIZE | DESCRIPTION   |
| 8   | Piston Body w/o Pin          | FP-3019369 | STD  | VT-555; 16.2:1 C.R.   |
| 8   | Piston Body w/o Pin          | FP-3275431 | STD  | VT-555; 17.0:1 C.R.   |
| 8   | Piston Kit w/Pin & Retainers | FP-3019634 | STD  | VT-555; 16.2:1 C.R.   |
| 8   | Piston Kit w/Pin & Retainers | FP-3275949 | STD  | VT-555; 17.0:1 C.R.; Cast   |
| 8   | Pin                          | FP-554785  |      | VT-555  |
| 8   | Piston Pin Retainer          | FP-S16256  |      | VT-555  |

(continued on next page)

**28 Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, (cont.) VT555-M, VT555-225, VTF555 Engs.**  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY                                | PISTONS (cont.)              | PART NO.    | SIZE | DESCRIPTION  |
|------------------------------------|------------------------------|-------------|------|--|
| 8                                  | Pin Bushing                  | FP-555420   |      | VT-555   |
| <b>CONNECTING RODS &amp; BRGS.</b> |                              |             |      |  |
| QTY                                |                              | PART NO.    | SIZE | DESCRIPTION  |
| 8                                  | Rod Pair                     | FP-556350PR | STD  |  |
| 8                                  | Rod Pair                     | FP-556351PR | 10   |  |
| 8                                  | Rod Pair                     | FP-556352PR | 20   |  |
| 16                                 | Rod Bearing Half Upper/Lower | FP-556350   | STD  |  |
| 16                                 | Rod Bearing Half Upper/Lower | FP-556351   | 10   |  |
| 16                                 | Rod Bearing Half Upper/Lower | FP-556352   | 20   |  |
| 16                                 | Rod Bearing Half Upper/Lower | FP-556353   | 30   |  |
| QTY                                | PISTON RINGS                 | PART NO.    | SIZE | DESCRIPTION  |
| 8                                  | Ring Set Single Cylinder     | FP-3278723  | STD  | 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)                             |
| <b>KITS</b>                        |                              |             |      |  |
| QTY                                | OVERHAUL KIT                 | PART NO.    | SIZE | DESCRIPTION  |
| 1                                  | Complete Overhaul Kit        | FP-555PREM  |      | Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |
| 1                                  | Complete Overhaul Kit        | KS2-2506A   |      | When depleted use FP-555PREM                                   |

**29 Multi-Purpose Engines V6-200, V6-200-B, V6-215, V6-215-M, V6E-195, V6E-215, V6N-215, V6R-180, V6R-280, V588 Engs.**  
9.6L 588 OHV Diesel V6, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE       | PART NO.             | SIZE | DESCRIPTION                          |
|-----|-------------|----------------------|------|--------------------------------------|
| 12  | Intake      | FP-216707            |      |                                      |
| 12  | Exhaust     | FP-138887            |      |                                      |
| 48  | Keeper      | FP-127554            |      |                                      |
| QTY | VALVE SEAT  | PART NO.             | SIZE | DESCRIPTION                          |
| 24  | Exh. & Int. | 245-1073-10 Std Only |      | 2.0160" OD, 1.6900" ID, .2795" Depth |
| 24  | Exh. & Int. | FP-245107310         | 10   | 2.0160" OD, 1.6900" ID, .2795" Depth |
| QTY | VALVE GUIDE | PART NO.             | SIZE | DESCRIPTION                          |
| 12  | Guide       | FP-138937            |      | Exh. & Int.                          |

**CYLINDER COMPONENTS**

| QTY | PISTONS                  | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------------------|------------|------|-------------|
| 6   | Pin Bushing              | FP-189763  |      |             |
| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION |
| 6   | Ring Set Single Cylinder | FP-AR11930 | STD  |             |

**30 Multi-Purpose Engines VT6-200, VT6-280, VT6N-280, VT588 Engs.**  
9.6L 588 OHV Turbo-Diesel V6, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE       | PART NO.             | SIZE | DESCRIPTION                          |
|-----|-------------|----------------------|------|--------------------------------------|
| 12  | Intake      | FP-216707            |      |                                      |
| 12  | Exhaust     | FP-138887            |      |                                      |
| 48  | Keeper      | FP-127554            |      |                                      |
| QTY | VALVE SEAT  | PART NO.             | SIZE | DESCRIPTION                          |
| 24  | Exh. & Int. | 245-1073-10 Std Only |      | 2.0160" OD, 1.6900" ID, .2795" Depth |
| 24  | Exh. & Int. | FP-245107310         | 10   | 2.0160" OD, 1.6900" ID, .2795" Depth |
| QTY | VALVE GUIDE | PART NO.             | SIZE | DESCRIPTION                          |
| 12  | Guide       | FP-138937            |      | Exh. & Int.                          |

**CYLINDER COMPONENTS**

| QTY | PISTONS                  | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------------------|------------|------|-------------|
| 6   | Pin Bushing              | FP-189763  |      |             |
| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION |
| 6   | Ring Set Single Cylinder | FP-AR11930 | STD  |             |

**Multi-Purpose Engines H6, H6-1F, H135, H672, HA, HA6, HB, HB6, HMR, HR6, HR672, 31 HU170, N672, NH180, NH195, NHH180, NHH195 Engs. 11.0L 672 OHV Diesel L6, 4.875" Bore**

**CYL. HEAD & PARTS**

| QTY | VALVE             | PART NO.   | SIZE | DESCRIPTION   |
|-----|-------------------|------------|------|---|
| 12  | Exhaust           | FP-3417713 |      | w/Letter 'S' stamped in head; Chrome plated stem; 1.6730" Head Dia., .3789" Stem Dia., 6.9400" O.A.L.                             |
| 12  | Exhaust           | FP-144911  |      | Exc. H-6 & HB-6 Engs.; 1.7400" Head Dia., 7.0600" O.A.L.  |
| 12  | Exhaust Valve Kit | FP-3803996 |      | w/Letter 'S' stamped in head; Incl. FP-3417713 valve & (2) FP-3275354 keepers; 1.6730" Head Dia., .3789" Stem Dia., 6.940" O.A.L. |
| 48  | Keeper            | VK-66      |      | Exc. H-6 & HB-6 Engs.; 2 groove   |
| 48  | Keeper            | VK-66R     |      | Exc. H-6 & HB-6 Engs.; 2 groove; Hardened   |
| QTY | VALVE GUIDE       | PART NO.   | SIZE | DESCRIPTION   |
| 24  | Guide             | FP-66890   |      | Exc. H-6 & HB-6 Engs.; Threaded I.D.; Ream .405"; Threaded ID; .405" ID, 3.44" OAL  |
| QTY | VALVE SPRING      | PART NO.   | SIZE | DESCRIPTION   |
| 48  | Spring            | FP-111446  |      | Exc. H-6 & HB-6 Engs.   |

**CAMSHAFT GROUP**

| QTY | CAMSHAFT/LIFTER | PART NO.   | SIZE | DESCRIPTION   |
|-----|-----------------|------------|------|---|
| 1   | Camshaft        | FP-3801030 |      | H-6, HB-6, NH180, & NH195 Engs.; Replaces O.E. Nos. 129860 & 3801030; Late style w/ 3/4" keyway; If camshaft being replaced has 1" keyway, contact Cummins dealer for 3/4" replacement key.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |
| 1   | Prelube         | 55-400     |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39302    |      |             |
| 1   | Wear Sleeve     | J1396    |      | Wear Sleeve |

**COOLING SYSTEM**

| QTY | WATER PUMP      | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 473010N  |      |             |
| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39835    |      | Inner       |
| 1   | Oil Seal        | 39877    |      | Outer       |
| 1   | Redi-Sleeve     | 99181    |      | Inner       |
| QTY | THERMOSTAT      | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39821    |      |             |

**ENGINE BLOCK & PARTS**

| QTY | CAM BEARINGS | PART NO.   | SIZE | DESCRIPTION                   |
|-----|--------------|------------|------|-------------------------------|
| 1   | Cam Set      | FP-BM27253 | STD  | Late Engs.; w/5/32" oil holes |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO.   | SIZE | DESCRIPTION   |
|-----|---------------------|------------|------|---|
| 1   | Redi-Sleeve         | 99363      |      |   |
| 1   | Oil Seal            | 39813      |      |   |
| QTY | SEALS - REAR CRANK  | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Oil Seal            | 39703      |      |   |
| 1   | Oil Seal            | 39823      |      | (Wet Clutch)  |
| 1   | Oil Seal            | 39807      |      | 6.000" Shaft  |
| 1   | Redi-Sleeve         | 99363      |      |   |
| 1   | Redi-Sleeve         | 99599      |      | (Wet Clutch)  |
| 1   | Redi-Sleeve         | 99599      |      | 6.000" Shaft  |
| QTY | MAIN BEARINGS       | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Main Set            | FP-3801260 | STD  | Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801261 | 10   | Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801262 | 20   | Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801263 | 30   | Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |

(continued on next page)

**31 Multi-Purpose Engines H6, H6-1F, H135, H672, HA, HA6, HB, HB6, HMR, HR6, HR672, (cont.) HU170, N672, NH180, NH195, NHH180, NHH195 Eng's.**  
11.0L 672 OHV Diesel L6, 4.875" Bore

**CYLINDER COMPONENTS**

| QTY | PISTONS                 | PART NO.    | SIZE | DESCRIPTION  |
|-----|-------------------------|-------------|------|--|
| 12  | Pin Bushing             | FP-43067    |      | Use w/straight pin boss con. rods; Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION  |
| 6   | Rod Pair                | FP-203670PR | STD  | Late Eng's.; w/insert type brgs.   |
| 6   | Rod Pair                | FP-203671PR | 10   | Late Eng's.; w/insert type brgs.   |
| 6   | Rod Pair                | FP-203672PR | 20   | Late Eng's.; w/insert type brgs.   |
| 6   | Rod Pair                | FP-203673PR | 30   | Late Eng's.; w/insert type brgs.   |

**32 Multi-Purpose Engines HBS, HBS6, HS, HS6, HS672 Eng's.**  
11.0L 672 OHV Diesel L6 (Supercharged), 4.875" Bore

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39302    |      |             |
| 1   | Wear Sleeve     | J1396    |      | Wear Sleeve |

**COOLING SYSTEM**

| QTY | WATER PUMP      | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 473010N  |      |             |
| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39835    |      | Inner       |
| 1   | Oil Seal        | 39877    |      | Outer       |
| 1   | Redi-Sleeve     | 99181    |      | Inner       |
| QTY | THERMOSTAT      | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39821    |      |             |

**ENGINE BLOCK & PARTS**

| QTY | CAM BEARINGS | PART NO.   | SIZE | DESCRIPTION                    |
|-----|--------------|------------|------|--------------------------------|
| 1   | Cam Set      | FP-BM27253 | STD  | Late Eng's.; w/5/32" oil holes |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO.   | SIZE | DESCRIPTION  |
|-----|---------------------|------------|------|--|
| 1   | Redi-Sleeve         | 99363      |      |  |
| 1   | Oil Seal            | 39813      |      |  |
| QTY | SEALS - REAR CRANK  | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Oil Seal            | 39703      |      |  |
| 1   | Oil Seal            | 39823      |      | (Wet Clutch)   |
| 1   | Oil Seal            | 39807      |      | 6.000" Shaft   |
| 1   | Redi-Sleeve         | 99363      |      |  |
| 1   | Redi-Sleeve         | 99599      |      | (Wet Clutch)   |
| 1   | Redi-Sleeve         | 99599      |      | 6.000" Shaft   |
| QTY | MAIN BEARINGS       | PART NO.   | SIZE | DESCRIPTION  |
| 1   | Main Set            | FP-3801260 | STD  | Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801261 | 10   | Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801262 | 20   | Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |
| 1   | Main Set            | FP-3801263 | 30   | Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers |

**CYLINDER COMPONENTS**

| QTY | PISTONS                 | PART NO.    | SIZE | DESCRIPTION   |
|-----|-------------------------|-------------|------|---|
| 12  | Pin Bushing             | FP-43067    |      | Use w/straight pin con. rods; Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| QTY | CONNECTING RODS & BRGS. | PART NO.    | SIZE | DESCRIPTION   |
| 6   | Rod Pair                | FP-203670PR | STD  | Late Eng's.; w/insert type brgs.  |
| 6   | Rod Pair                | FP-203671PR | 10   | Late Eng's.; w/insert type brgs.  |
| 6   | Rod Pair                | FP-203672PR | 20   | Late Eng's.; w/insert type brgs.  |
| 6   | Rod Pair                | FP-203673PR | 30   | Late Eng's.; w/insert type brgs.  |

**33**

*Multi-Purpose Engines* GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHRS, NHRS-1F, NHRS6, NHRS6-M, NHRS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.  
12.2L 743 OHV Diesel L6, 5.125" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS                      | PART NO.    | SIZE | DESCRIPTION   |
|-----|------------------------------|-------------|------|---|
| 1   | Valve Cover Gasket           | FP-108692   |      | N-743   |
| 1   | Valve Cover Gasket           | FP-108692   |      | N-743; 4 Valve Head   |
| 1   | Valve Cover Gasket           | FP-108692   |      | NH-220  |
| 1   | Rocker Housing Gasket        | FP-194106   |      | N-743; N743 4 Valve Head  |
| 1   | Head Gasket                  | FP-107371   |      | N-743; Bare without grommets                                      |
| 3   | Head Gasket                  | FP-AR2883   |      | N-743; With grommets  |
| 1   | Head Gasket                  | FP-107371   |      | NH-220; Bare without grommets                                     |
| 3   | Head Gasket                  | FP-AR2883   |      | NH-220; With grommets   |
| 1   | Head Set                     | FP-PGE743HS |      | N-743   |
| 1   | Head Set                     | FP-3802076  |      | N-743   |
| 1   | Head Set                     | PGE743HS +  |      | N-743; When depleted use FP-PGE743HS                              |
| 1   | Head Set                     | FP-PGC220K  |      | NH-220  |
| 1   | Head Set                     | FP-PGE743HS |      | NH-220  |
| 1   | Head Set                     | FP-3802077  |      | NH-220; .50 MM  |
| 1   | Head Set                     | PGE743HS +  |      | NH-220; When depleted use FP-PGE743HS                             |
| QTY | HEAD BOLTS                   | PART NO.    | SIZE | DESCRIPTION   |
| 18  | Head Bolt                    | FP-188329   |      | N-743   |
| QTY | VALVE                        | PART NO.    | SIZE | DESCRIPTION   |
| 12  | Intake                       | FP-150288   |      | N-743; N743 4 Valve Head  |
| 12  | Exhaust                      | FP-144911   |      | N-743; 4 Valve Head; 1.7400" Head Dia., 7.0600" O.A.L.            |
| 48  | Keeper                       | VK-66       |      | Exc. HRB, HRBB & HRF Engs.; 2 groove                              |
| 48  | Keeper                       | VK-66R      |      | Exc. HRB, HRBB & HRF Engs.; 2 groove; Hardened                    |
| 48  | Keeper                       | FP-S2037    |      | N-743; 4 Valve Head; 2 groove                                     |
| QTY | VALVE SEAT                   | PART NO.    | SIZE | DESCRIPTION   |
| 12  | Int.                         | FP-69965    | STD  | N-743; 4 Valve Head   |
| 12  | Int.                         | FP-699655   | 5    | N-743; 4 Valve Head   |
| 12  | Int.                         | FP-6996520  | 20   | N-743; 4 Valve Head   |
| QTY | VALVE GUIDE                  | PART NO.    | SIZE | DESCRIPTION   |
| 24  | Guide                        | FP-66890    |      | N-743; N743 4 Valve Head; Threaded ID; .405" ID, 3.44" OAL        |
| QTY | VALVE SPRING                 | PART NO.    | SIZE | DESCRIPTION   |
| 24  | Spring                       | FP-111446   |      | N-743; N743 4 Valve Head  |
| QTY | PUSH RODS                    | PART NO.    | SIZE | DESCRIPTION   |
| 6   | Push Rod                     | FP-3046431  |      | N-743; Injector; N743 4 Valve Head                                |
| 12  | Push Rod                     | FP-3046418  |      | Exh.; N-743; N743 4 Valve Head                                    |
| 6   | Push Rod                     | FP-3053377  |      | Int.; N-743; N743 4 Valve Head                                    |
| QTY | VALVE SEAL                   | PART NO.    | SIZE | DESCRIPTION   |
| 24  | Valve Stem Seal              | FP-202013   |      | Exh. & Int.; N-743; N743 4 Valve Head                             |
| QTY | ROCKER PARTS                 | PART NO.    | SIZE | DESCRIPTION   |
| 1   | Rocker Shaft                 | FP-3038904  |      | N-743; N743 4 Valve Head  |
| 24  | Cam Follower Roller          | FP-92601    |      | N-743; Valve  |
| 6   | Injector Cam Roller          | FP-3062096  |      | N-743; Injector   |
| 24  | Adjusting Screw Nut          | FP-S212     |      | N-743; 4 Valve Head; 1/2" - 20 UNF; Use w/FP-168306               |
| FG  | Valve Bridge Guide           | FP-123558   |      | N-743; 4 Valve Head   |
| 24  | Valve Roller Pin             | FP-68513    |      | N-743; Cam Follower; .500" OD x 1.280" Length                     |
| 1   | Rocker Lever Adjusting Screw | FP-168306   |      | N-743; 4 Valve Head; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212 |
| 4   | Rocker Shaft Plug            | FP-3038903  |      | N-743; N743 4 Valve Head  |
| 6   | Bushing                      | FP-118377   |      | N-743; Injector; Cam Follower                                     |
| 6   | Bushing                      | FP-218153   |      | N-743; Injector; Rocker Lever; N743 4 Valve Head                  |
| 24  | Bushing                      | FP-140330   |      | N-743; Valve; Rocker Lever, N743 4 Valve Head                     |
| 12  | Bushing                      | FP-118378   |      | Int. & Exh.; N-743; Valve; Cam Follower                           |
| 12  | Fuel Injector Roller Pin     | FP-3017544  |      | N-743; Cam Follower   |
| 36  | Valve Lock Pin               | FP-118939   |      | N-743; Injector and Valve; Cam Follower                           |

(continued on next page)

**33** *Multi-Purpose Engines* **GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHRS6, NHK205, NHK220, NHRBS, NHRBS, NHRBS, NHRBS-1F, NHRBS6, NHRBS6-M, NHRBS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.**  
 12.2L 743 OHV Diesel L6, 5.125" Bore

**INT & EXH MANIFOLDS**

| QTY | INT. & EXH. MANIFOLDS   | PART NO.   | SIZE | DESCRIPTION         |
|-----|-------------------------|------------|------|---------------------|
| 3   | Exhaust Manifold Gasket | FP-147263  |      | N-743; 2 Valve Head |
| 6   | Exhaust Manifold Gasket | FP-3020943 |      | N-743; 4 Valve Head |

**CAMSHAFT GROUP**

| QTY | CAMSHAFT/LIFTER        | PART NO.   | SIZE | DESCRIPTION   |
|-----|------------------------|------------|------|---|
| 1   | Camshaft               | FP-3801030 |      | N-743, NH-220; 5 1/8" Bore; CPL's 28, 34, 36, 58, 80, 90, 91, 92, 114, 125.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |
| 1   | Camshaft               | FP-3023177 |      | N-743, NH-220; 5 1/8" Bore; CPL's 452, 453, 466, 467, 468, 489, 490.  |
| 1   | Camshaft Thrust Washer | FP-92351   |      | N-743   |
| 1   | Prelube                | 55-400     |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |
| 1   | Cam Follower Shaft     | FP-3065125 |      | N-743   |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39302    |      |             |
| 1   | Wear Sleeve     | J1396    |      | Wear Sleeve |

**FUEL SYSTEM & PARTS**

| QTY | FUEL INJECTION        | PART NO.  | SIZE | DESCRIPTION                          |
|-----|-----------------------|-----------|------|--------------------------------------|
| 6   | Fuel Injector Sleeve  | FP-202605 |      | N-743                                |
| QTY | FUEL FILTERS & PUMP   | PART NO.  | SIZE | DESCRIPTION                          |
| 2   | Fuel Pump Gear        | FP-119363 |      | NH-220, NH-743; 3/4"                 |
| 1   | Fuel Pump Drive Shaft | FP-100215 |      | NH-220, NH-743; 3/4"; Drive, Splined |
| 1   | Fuel Pump Gasket      | FP-110855 |      | NH-220, NH-743; Fuel Pump Body       |

**COOLING SYSTEM**

| QTY | WATER PUMP                  | PART NO.   | SIZE | DESCRIPTION                               |
|-----|-----------------------------|------------|------|---|
| 1   | Water Pump - Heavy Duty     | FP-BM76506 |      | NH-220, NH-743; 5-1/8 S/S                 |
| 1   | Water Pump - Heavy Duty     | FP-4919811 |      | NH-220, NH-743; 5-1/8 S/S                 |
| 1   | Water Pump Impeller         | FP-201766  |      | NH-220, NH-743; 5-1/8 S/S; 4.75" Diameter |
| 1   | Water Pump Mech. Shaft Seal | FP-3029099 |      | NH-220, NH-743                            |
| 1   | Ball Brg.                   | FP-177596  |      | Inner; NH-220, NH-743                     |
| 1   | Water Pump Gasket           | FP-9097    |      | NH-220, NH-743; 5-1/8 S/S                 |
| 1   | Oil Seal                    | 473010N    |      |   |

| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39835    |      | Inner       |
| 1   | Oil Seal        | 39877    |      | Outer       |
| 1   | Redi-Sleeve     | 99181    |      | Inner       |

| QTY | THERMOSTAT           | PART NO.  | SIZE | DESCRIPTION                          |
|-----|----------------------|-----------|------|--------------------------------------|
| 1   | Thermostat           | FP-135675 |      | NH-220, NH-743; 180 degree F, Vented |
| 1   | Rect. or Square Seal | FP-186780 |      | N-743, NH-220                        |
| 1   | Oil Seal             | 39821     |      |                                      |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS           | PART NO.    | SIZE | DESCRIPTION   |
|-----|-------------------|-------------|------|---|
| 1   | Oil Pan Gasket    | FP-3349820  |      | N-743, NH-220; 0.79mm / 0.031" Thick; One piece gskt. |
| 1   | Gear Cover Gasket | FP-214633R1 |      | NH-220  |

| QTY | GASKET SETS           | PART NO.     | SIZE | DESCRIPTION                                   |
|-----|-----------------------|--------------|------|---|
| 1   | Gasket Conversion Set | FP-3802075A  |      | N-743; With Front & Rear Crankshaft Seals     |
| 1   | Gasket Conversion Set | FP-3802075   |      | N-743; Without Crankshaft Seals               |
| 1   | Gasket Conversion Set | FP-3801466   |      | NH-220; Without Crankshaft Seals              |
| 1   | In-Frame Gasket Set   | FP-PGNH220IF |      | N-743, NH-220                                 |
| 1   | In-Frame Gasket Set   | PGNH220-IF + |      | N-743, NH-220; When depleted use FP-PGNH220IF |

(continued on next page)



*Multi-Purpose Engines* **GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHRS, NHRS-1F, NHRS6, NHRS6-M, NHRS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.** **33 (cont.)**  
 12.2L 743 OHV Diesel L6, 5.125" Bore

**ENGINE BLOCK & PARTS (cont.)**

| QTY                 | GASKET SETS (cont.)          | PART NO.     | SIZE     | DESCRIPTION   |
|---------------------|------------------------------|--------------|----------|---|
| 1                   | Complete Overhaul Gasket Set | FP-3011463   |          | NH-220; Crankshaft seals not incl.  |
| QTY                 | CAM BEARINGS                 | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Cam Set                      | FP-BM27253   | STD      | N-743, NH-220   |
| QTY                 | OIL COOLERS & FILTERS        | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Oil Cooler                   | FP-110848    |          | N-743, NH-220; 6.500" X 4.000" tube bundle  |
| 1                   | Snap Ring                    | FP-110827    |          | N-743, NH-220; Oil Cooler   |
| 1                   | Oil Cooler Gasket            | FP-3008017   |          | N-743, NH-220   |
| 1                   | Oil Cooler Gasket            | FP-68210     |          | N-743, NH-220   |
| 2                   | O-Ring                       | FP-3019116   |          | N-743, NH-220; Oil Cooler   |
| CRANKSHAFT/OIL PUMP |                              |              |          |   |
| QTY                 | CRANKSHAFT                   | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Crankshaft                   | FP-3029341   |          | NH-220  |
| QTY                 | SEALS - FRONT CRANK          | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Oil Seal                     | FP-3020183   |          | Front; NH-220   |
| 1                   | Redi-Sleeve                  | 99363        |          |   |
| 1                   | Oil Seal                     | 39813        |          |   |
| QTY                 | SEALS - REAR CRANK           | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Oil Seal                     | FP-3006737   |          | Rear; NH-220; 6.00" Shaft   |
| 1                   | Oil Seal                     | 39703        |          |   |
| 1                   | Oil Seal                     | 39807        |          | (w/6.000" Shaft)  |
| 1                   | Oil Seal                     | 39823        |          | (Wet Clutch)  |
| 1                   | Redi-Sleeve                  | FP-3006743   |          | Rear; NH-220; Wet Clutch; 6.00" Shaft   |
| 1                   | Redi-Sleeve                  | 99363        |          |   |
| 1                   | Redi-Sleeve                  | 99599        |          | (w/ 6.000" Shaft)   |
| 1                   | Redi-Sleeve                  | 99599        |          | (Wet Clutch)  |
| QTY                 | MAIN BEARINGS                | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Main Set                     | FP-3801260   | STD      | N-743, NH-220; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801261   | 10       | N-743, NH-220; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801262   | 20       | N-743, NH-220; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801263   | 30       | N-743, NH-220; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801264   | 40       | N-743, NH-220; Incl. thrust washers   |
| 2                   | Thrust Washer                | FP-3067568   | STD      | N-743, NH-220   |
| CYLINDER COMPONENTS |                              |              |          |   |
| QTY                 | LINERS                       | PART NO.     | SIZE     | DESCRIPTION   |
| 6                   | Liner w/o Sealing Rings      | FP-184400    | STD      | HR-6  |
| 6                   | Liner w/o Sealing Rings      | FP-184420    |          | HR-6; 2 Valve Head  |
| 6                   | Liner w/o Sealing Rings      | FP-184400    | STD      | NH-220; 4 Valve Head  |
| 6                   | Liner w/o Sealing Rings      | FP-184400    | STD      | NS-743  |
| 6                   | Liner w/Sealing Rings        | FP-BM98226   |          | HR-6; 2 Valve Head  |
| 6                   | Liner w/Sealing Rings        | FP-BM98224   | STD      | NH-220; 4 Valve Head  |
| 6                   | Cylinder Kit Complete        | FP-AR7383    | STD      | For N-743 Series, NH-220, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; 14.5:1 C.R.                      |
| 6                   | Cylinder Kit Complete        | FP-AR7375    | STD      | HR-6; 15.5:1 C.R.; 15.5:1 C.R.  |
| 6                   | Cylinder Kit Complete        | FP-AR7399    | STD      | NS-743; 14.0:1 C.R.   |
| 6                   | Sleeve Assy.                 | SL-2271G +   | Std Only | For N-743 Series, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; When depleted use FP-SL2271G             |
| 6                   | Sleeve Assy.                 | FP-SL2271G + |          | For N-743 Series, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; 15.0:1 C.R.; When depleted use FP-AR7383 |
| 6                   | Sealing Ring, Liner          | FP-181449    |          | HR-6, NH-220, NS-743; 2 & 4 Valve Head  |
| 6                   | Sealing Ring, Liner          | FP-216879    |          | HR-6, NH-220, NS-743; 2 & 4 Valve Head  |
| 6                   | Sealing Ring, Liner          | FP-215983    |          | HR-6, NH-220, NS-743; 2 & 4 Valve Head; Crevice Seal  |

(continued on next page)

**33** *Multi-Purpose Engines* GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHR6, NHR6-1F, NHR6-M, NHR6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.  
12.2L 743 OHV Diesel L6, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY  | PISTONS                      | PART NO.    | SIZE     | DESCRIPTION  |
|------|------------------------------|-------------|----------|--|
| 6    | Piston Body w/o Pin          | FP-200680   |          | HR-6; 15.5:1 C.R.  |
| 6    | Piston Body w/o Pin          | FP-199821   | STD      | NH-220; 15.0:1 C.R.  |
| 6    | Piston Body w/o Pin          | FP-200710   | STD      | NS-743; 14.0:1 C.R.  |
| 6    | Piston Kit w/Pin & Retainers | FP-AR7420   |          | HR-6; 15.5:1 C.R.  |
| 6    | Piston Kit w/Pin & Retainers | FP-AR7510   | STD      | NH-220; 15.0:1 C.R.; Dish Head .240" deep x 3.880" dia., straight pin boss piston.                               |
| 6    | Piston Kit w/Pin & Retainers | FP-AR7440   |          | NS-743; 14.0:1 C.R.  |
| 6    | Pin                          | FP-203070   | STD      | HR-6, NH-220, NS-743; 1.9989" Dia.   |
| 6    | Piston Pin Retainer          | FP-175755   |          | HR-6, NH-220, NS-743   |
| 12   | Pin Bushing                  | FP-43067    |          | N-743; Straight rod bushing; 1.03" Width; 2 req'd. per rod   |
| 6    | Pin Bushing                  | FP-187420   |          | 1 piece bushing; 2.20" Width   |
| QTY  | CONNECTING RODS & BRGS.      | PART NO.    | SIZE     | DESCRIPTION  |
| 12   | Con. Rod Nut                 | FP-69936    |          | N-743  |
| 6    | Rod Pair                     | FP-203670PR | STD      |  |
| 6    | Rod Pair                     | FP-203671PR | 10       |  |
| 6    | Rod Pair                     | FP-203672PR | 20       |  |
| 6    | Rod Pair                     | FP-203673PR | 30       |  |
| 12   | Rod Bearing Half Upper/Lower | FP-203670   | STD      | N-743  |
| 12   | Rod Bearing Half Upper/Lower | FP-203671   | 10       | N-743  |
| 12   | Rod Bearing Half Upper/Lower | FP-203672   | 20       | N-743  |
| 12   | Rod Bearing Half Upper/Lower | FP-203673   | 30       | N-743  |
| 12   | Rod Bearing Half Upper/Lower | FP-203674   | 40       | N-743  |
| QTY  | PISTON RINGS                 | PART NO.    | SIZE     | DESCRIPTION  |
| 6    | Ring Set Single Cylinder     | FP-AR12098  | STD      | 3-5/32, 1-1/4  |
| 6    | Premium Set                  | 9822KX +    | Std Only | Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX |
| KITS |                              |             |          |  |
| QTY  | OVERHAUL KIT                 | PART NO.    | SIZE     | DESCRIPTION  |
| 1    | In-Frame Overhaul Kit        | FP-NH220    |          | N-743; With Upper Gasket Set & Pan Gasket  |
| 1    | Complete Overhaul Kit        | FP-NH220OH  |          | N-743; With Front & Rear Seals and Upper & Lower Gasket Sets   |

**34** *Multi-Purpose Engines*  
12.2L 743 OHV NG L6, 5.125" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS            | PART NO.    | SIZE | DESCRIPTION                                   |
|-----|--------------------|-------------|------|---|
| 1   | Valve Cover Gasket | FP-108692   |      |   |
| 3   | Head Gasket        | FP-AR2883   |      | With grommets                                 |
| 1   | Head Set           | FP-3802077  |      | .50 MM  |
| QTY | HEAD BOLTS         | PART NO.    | SIZE | DESCRIPTION                                   |
| 18  | Head Bolt          | FP-188329   |      |   |
| QTY | VALVE              | PART NO.    | SIZE | DESCRIPTION                                   |
| 12  | Exhaust            | FP-3226064  |      | Int. & Exh.                                   |
| 48  | Keeper             | FP-S2037    |      | Int. & Exh.; 2 groove                         |
| QTY | VALVE SEAT         | PART NO.    | SIZE | DESCRIPTION                                   |
| 24  | Int. & Exh.        | FP-90210020 | STD  |   |
| QTY | VALVE GUIDE        | PART NO.    | SIZE | DESCRIPTION                                   |
| 24  | Guide              | FP-66890    |      | Int. & Exh.; Threaded ID; .405" ID, 3.44" OAL |
| QTY | VALVE SPRING       | PART NO.    | SIZE | DESCRIPTION                                   |
| 24  | Spring             | FP-4062902  |      | Int. & Exh.; 2.4100" Free Height              |

(continued on next page)

| <b>IGNITION</b>                 |                              |             |      |  |              |
|---------------------------------|------------------------------|-------------|------|--|--------------|
| QTY                             | IGNITION                     | PART NO.    | SIZE | DESCRIPTION  |              |
| 6                               | Glow Plug Adapter            | FP-90210035 |      | Spark Plug   |              |
| <b>CAMSHAFT GROUP</b>           |                              |             |      |  |              |
| QTY                             | CAMSHAFT/LIFTER              | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Camshaft                     | FP-3801030  |      | Prior To S/N 2511994; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |              |
| <b>ACCESSORY DRIVE</b>          |                              |             |      |  |              |
| QTY                             | ACCESSORY DRIVE              | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Oil Seal                     | FP-3004316  |      | Front Cover  |              |
| <b>COOLING SYSTEM</b>           |                              |             |      |  |              |
| QTY                             | WATER PUMP                   | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Rect. or Square Seal         | FP-186780   |      | Thermostat Seal  |              |
| QTY                             | THERMOSTAT                   | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Thermostat                   | FP-135675   |      | 180 degree F, Vented   |              |
| <b>ENGINE BLOCK &amp; PARTS</b> |                              |             |      |  |              |
| QTY                             | GASKETS                      | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Oil Pan Gasket               | FP-3349820  |      | 0.79mm / 0.031" Thick; One piece gskt.   |              |
| 1                               | Gear Cover Gasket            | FP-214633R1 |      |  |              |
| QTY                             | GASKET SETS                  | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Gasket Conversion Set        | FP-3802075  |      | Without Crankshaft Seals   |              |
| QTY                             | CAM BEARINGS                 | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Cam Set                      | FP-BM27253  | STD  |  |              |
| <b>CRANKSHAFT/OIL PUMP</b>      |                              |             |      |  |              |
| QTY                             | CRANKSHAFT                   | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Crankshaft                   | FP-3029341  |      |  |              |
| QTY                             | SEALS - FRONT CRANK          | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Oil Seal                     | FP-3010457  |      |  |              |
| QTY                             | SEALS - REAR CRANK           | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Oil Seal                     | FP-3006737  |      | 6.00" Shaft  |              |
| QTY                             | MAIN BEARINGS                | PART NO.    | SIZE | DESCRIPTION  |              |
| 1                               | Main Set                     | FP-3801260  | STD  | Incl. thrust washers   |              |
| 1                               | Main Set                     | FP-3801261  | 10   | Incl. thrust washers   |              |
| 1                               | Main Set                     | FP-3801262  | 20   | Incl. thrust washers   |              |
| 1                               | Main Set                     | FP-3801263  | 30   | Incl. thrust washers   |              |
| 1                               | Main Set                     | FP-3801264  | 40   | Incl. thrust washers   |              |
| <b>CYLINDER COMPONENTS</b>      |                              |             |      |  |              |
| QTY                             | LINERS                       | PART NO.    | SIZE | DESCRIPTION  |              |
| 6                               | Liner w/o Sealing Rings      | FP-184400   | STD  | 4 Valve Head   |              |
| 6                               | Liner w/Sealing Rings        | FP-BM98224  | STD  |  |              |
| 6                               | Sealing Ring, Liner          | FP-181449   |      |  |              |
| 6                               | Sealing Ring, Liner          | FP-216879   |      |  |              |
| 6                               | Sealing Ring, Liner          | FP-215983   |      |  | Crevise Seal |
| 6                               | Sealing Ring, Liner          | FP-215983   |      |  |              |
| QTY                             | PISTONS                      | PART NO.    | SIZE | DESCRIPTION  |              |
| 6                               | Piston Body w/o Pin          | FP-200730   |      | 12.0:1 C.R.  |              |
| 6                               | Piston Kit w/Pin & Retainers | FP-AR7460   |      | 12.0:1 C.R.  |              |
| 6                               | Pin                          | FP-203070   | STD  | 1.9989" Dia.   |              |
| 12                              | Piston Pin Retainer          | FP-175755   |      |  |              |
| QTY                             | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION  |              |
| 12                              | Rod Bearing Half Upper/Lower | FP-203670   | STD  |  |              |
| 12                              | Rod Bearing Half Upper/Lower | FP-203671   | 10   |  |              |
| 12                              | Rod Bearing Half Upper/Lower | FP-203672   | 20   |  |              |
| 12                              | Rod Bearing Half Upper/Lower | FP-203673   | 30   |  |              |
| 12                              | Rod Bearing Half Upper/Lower | FP-203674   | 40   |  |              |
| QTY                             | PISTON RINGS                 | PART NO.    | SIZE | DESCRIPTION  |              |
| 6                               | Ring Set Single Cylinder     | FP-AR12098  | STD  | 3-5/32, 1-1/4  |              |

**35 Multi-Purpose Engines** NFT6, NHHRT, NHHRT6, NHHRTO, NHHT, NHHT6, NHHT6-B1, NHHTO, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G, NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230 Engs.  
12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore

| CYL. HEAD & PARTS    |                         |             |      |   |
|----------------------|-------------------------|-------------|------|---|
| QTY                  | GASKETS                 | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Valve Cover Gasket      | FP-108692   |      | NT-743; 4 Valve Head  |
| 1                    | Rocker Housing Gasket   | FP-194106   |      | NT-743; 4 Valve Head  |
| 1                    | Head Gasket             | FP-107371   |      | NT-743; Bare without grommets   |
| 3                    | Head Gasket             | FP-AR2883   |      | NT-743; With grommets   |
| 1                    | Head Set                | FP-PGE743HS |      | NT-743  |
| 1                    | Head Set                | FP-3802076  |      | NT-743  |
| 1                    | Head Set                | PGE743HS +  |      | NT-743; When depleted use FP-PGE743HS   |
| QTY                  | HEAD BOLTS              | PART NO.    | SIZE | DESCRIPTION   |
| 18                   | Head Bolt               | FP-188329   |      | NT-743  |
| QTY                  | VALVE                   | PART NO.    | SIZE | DESCRIPTION   |
| 12                   | Exhaust                 | FP-144911   |      | 1.7400" Head Dia., 7.0600" O.A.L.   |
| 48                   | Keeper                  | VK-66       |      | 2 groove  |
| 48                   | Keeper                  | VK-66R      |      | 2 groove; Hardened  |
| QTY                  | VALVE GUIDE             | PART NO.    | SIZE | DESCRIPTION   |
| 24                   | Guide                   | FP-66890    |      | Threaded ID; .405" ID, 3.44" OAL  |
| QTY                  | VALVE SPRING            | PART NO.    | SIZE | DESCRIPTION   |
| 24                   | Spring                  | FP-111446   |      | Exc. NHHTO-6-B-1, NT & NTO-6-C-1 Engs.; O.E. No. 262208   |
| INT & EXH MANIFOLDS  |                         |             |      |   |
| QTY                  | INT. & EXH. MANIFOLDS   | PART NO.    | SIZE | DESCRIPTION   |
| 3                    | Exhaust Manifold Gasket | FP-147263   |      | NT-743; 2 Valve Head  |
| 6                    | Exhaust Manifold Gasket | FP-3020943  |      | NT-743; 4 Valve Head  |
| CAMSHAFT GROUP       |                         |             |      |   |
| QTY                  | CAMSHAFT/LIFTER         | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Camshaft                | FP-3023177  |      | NRT, & NRTO Engs. Right hand w/outboard bearing, Late style w/3/4" keyway to replace O.E. Nos. 143450, 3023177, & 3023229. If camshaft being replaced has 1" keyway contact Cummins dealer for 3/4" replacement key.  |
| 1                    | Camshaft                | FP-3801030  |      | NT, NTE-235, NTO-262, & NTO-280 Engs.; Late style w/3/4" keyway, To replace O.E. Nos. 129860, & 3801030; If camshaft being replaced has 1" keyway contact Cummins dealer for replacement key.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |
| 1                    | Prelube                 | 55-400      |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |
| ACCESSORY DRIVE      |                         |             |      |   |
| QTY                  | ACCESSORY DRIVE         | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Oil Seal                | 39302       |      |   |
| 1                    | Wear Sleeve             | J1396       |      | Wear Sleeve   |
| FUEL SYSTEM & PARTS  |                         |             |      |   |
| QTY                  | FUEL FILTERS & PUMP     | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Fuel Pump Gasket        | FP-110855   |      | NHT-743; Fuel Pump Body   |
| COOLING SYSTEM       |                         |             |      |   |
| QTY                  | WATER PUMP              | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Water Pump Gasket       | FP-9097     |      | NT-743; 5-1/8 S/S   |
| 1                    | Oil Seal                | 473010N     |      |   |
| QTY                  | SEALS - FAN HUB         | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Oil Seal                | 39835       |      | Inner   |
| 1                    | Oil Seal                | 39877       |      | Outer   |
| 1                    | Redi-Sleeve             | 99181       |      | Inner   |
| QTY                  | THERMOSTAT              | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Rect. or Square Seal    | FP-186780   |      | NT-743  |
| ENGINE BLOCK & PARTS |                         |             |      |   |
| QTY                  | GASKETS                 | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Oil Pan Gasket          | FP-3349820  |      | NT-743; 0.79mm / 0.031" Thick; One piece gskt.  |
| QTY                  | GASKET SETS             | PART NO.    | SIZE | DESCRIPTION   |
| 1                    | Gasket Conversion Set   | FP-3802075A |      | NT-743; With Front & Rear Crankshaft Seals  |

(continued on next page)

+ Superseded Part Number

*Multi-Purpose Engines* **NFT6, NHHRT, NHHRT6, NHHRT0, NHHT, NHHT6, NHHT6-B1, 35  
NHHT0, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, (cont.)  
NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G,  
NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230  
Engs.  
12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore**

**ENGINE BLOCK & PARTS (cont.)**

| QTY                 | GASKET SETS (cont.)          | PART NO.     | SIZE     | DESCRIPTION   |
|---------------------|------------------------------|--------------|----------|---|
| 1                   | Gasket Conversion Set        | FP-3802075   |          | NT-743; Without Crankshaft Seals  |
| 1                   | In-Frame Gasket Set          | FP-PGNH220IF |          | NT-743  |
| 1                   | In-Frame Gasket Set          | PGNH220-IF + |          | NT-743; When depleted use FP-PGNH220IF  |
| QTY                 | CAM BEARINGS                 | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Cam Set                      | FP-BM27253   | STD      |   |
| QTY                 | OIL COOLERS & FILTERS        | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Oil Cooler                   | FP-110848    |          | 6.500" X 4.000" tube bundle   |
| 1                   | Oil Cooler Gasket            | FP-3008017   |          | NT-743  |
| 1                   | Oil Cooler Gasket            | FP-68210     |          | NT-743  |
| 2                   | O-Ring                       | FP-3019116   |          | NT-743; Oil Cooler  |
| CRANKSHAFT/OIL PUMP |                              |              |          |   |
| QTY                 | SEALS - FRONT CRANK          | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Redi-Sleeve                  | 99363        |          |   |
| 1                   | Oil Seal                     | 39813        |          |   |
| QTY                 | SEALS - REAR CRANK           | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Oil Seal                     | 39703        |          |   |
| 1                   | Oil Seal                     | 39823        |          | (Wet Clutch)  |
| 1                   | Oil Seal                     | 39807        |          | 6.000" Shaft  |
| 1                   | Redi-Sleeve                  | 99363        |          |   |
| 1                   | Redi-Sleeve                  | 99599        |          | (Wet Clutch)  |
| 1                   | Redi-Sleeve                  | 99599        |          | 6.000" Shaft  |
| QTY                 | MAIN BEARINGS                | PART NO.     | SIZE     | DESCRIPTION   |
| 1                   | Main Set                     | FP-3801260   | STD      | w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801261   | 10       | w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801262   | 20       | w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers   |
| 1                   | Main Set                     | FP-3801263   | 30       | w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers   |
| CYLINDER COMPONENTS |                              |              |          |   |
| QTY                 | LINERS                       | PART NO.     | SIZE     | DESCRIPTION   |
| 6                   | Liner w/o Sealing Rings      | FP-184400    | STD      | NT-743  |
| 6                   | Liner w/Sealing Rings        | FP-BM98224   | STD      |   |
| 6                   | Cylinder Kit Complete        | FP-AR7383    | STD      | For NHHT, NHHT0, NHHT0-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; 15.0:1 C.R.; 14.5:1 C.R.                             |
| 6                   | Sleeve Assy.                 | SL-2271G +   | Std Only | For NHHT, NHHT0, NHHT0-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; When depleted use FP-SL2271G                         |
| 6                   | Sleeve Assy.                 | FP-SL2271G + |          | For NHHT, NHHT0, NHHT0-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; 15.0:1 C.R.; When depleted use FP-AR7383             |
| 6                   | Sealing Ring, Liner          | FP-181449    |          |   |
| 6                   | Sealing Ring, Liner          | FP-216879    |          |   |
| 6                   | Sealing Ring, Liner          | FP-215983    |          | NT-743; Crevice Seal  |
| QTY                 | PISTONS                      | PART NO.     | SIZE     | DESCRIPTION   |
| 6                   | Piston Body w/o Pin          | FP-199821    | STD      | NT-743; 15.0:1 C.R.   |
| 6                   | Piston Kit w/Pin & Retainers | FP-AR7510    | STD      | NT-743; 15.0:1 C.R.; Dish Head .240" deep x 3.880" dia., straight pin boss piston.  |
| 6                   | Pin                          | FP-203070    | STD      | NT-743; 1.9989" Dia.  |
| 6                   | Piston Pin Retainer          | FP-175755    |          | NT-743  |
| 12                  | Pin Bushing                  | FP-43067     |          | Straight rod bushing; 1.03" Width; 2 req'd. per rod   |
| QTY                 | CONNECTING RODS & BRGS.      | PART NO.     | SIZE     | DESCRIPTION   |
| 6                   | Rod Pair                     | FP-203670PR  | STD      |   |
| 6                   | Rod Pair                     | FP-203671PR  | 10       |   |
| 6                   | Rod Pair                     | FP-203672PR  | 20       |   |
| 6                   | Rod Pair                     | FP-203673PR  | 30       |   |
| QTY                 | PISTON RINGS                 | PART NO.     | SIZE     | DESCRIPTION   |
| 6                   | Ring Set Single Cylinder     | FP-AR12098   | STD      | For four-ring piston; FP-199821; 3-5/32, 1-1/4  |
| 6                   | Premium Set                  | 9822KX +     | Std Only | Check piston grooving before supplying ring set; For three-ring pistons only; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX |

(continued on next page)

**35** *Multi-Purpose Engines* NFT6, NHHRT, NHHRT6, NHHRTO, NHHT, NHHT6, NHHT6-B1, (cont.) NHHTO, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G, NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230 Engs.  
12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY | PISTON RINGS (cont.) | PART NO.  | SIZE | DESCRIPTION  |
|-----|----------------------|-----------|------|--|
| 6   | Premium Set          | FP-9822KX |      | Check piston grooving before supplying ring set; For three-ring pistons only; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set) |

**36** *Multi-Purpose Engines* V8-265, V8-300, V8-300-M, V8-350, V8E-235, V8N-300-M, V8R-240, V785 Engs.  
12.9L 785 OHV Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS     | PART NO.     | SIZE     | DESCRIPTION  |
|-----|-------------|--------------|----------|--|
| 2   | Head Gasket | FP-212224    |          | V-785  |
| 1   | Head Set    | FP-3013498   |          | V-785; Single Head Set   |
| 1   | Head Set    | FP-3013508   |          | V-785; Upper Set   |
| QTY | VALVE       | PART NO.     | SIZE     | DESCRIPTION  |
| 16  | Intake      | FP-216707    |          | V8-265 Engs. only  |
| 16  | Exhaust     | FP-138887    |          | V8-265 Engs. only  |
| 64  | Keeper      | FP-127554    |          |  |
| QTY | VALVE SEAT  | PART NO.     | SIZE     | DESCRIPTION  |
| 32  | Exh. & Int. | 245-1073-10  | Std Only | O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth |
| 32  | Exh. & Int. | FP-245107310 | 10       | O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth |
| QTY | VALVE GUIDE | PART NO.     | SIZE     | DESCRIPTION  |
| 32  | Guide       | FP-138937    |          | V8-265 Engs. only  |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION |
|-----|-----------------------|------------|------|-------------|
| 1   | Oil Pan Gasket        | FP-151101  |      |             |
| QTY | GASKET SETS           | PART NO.   | SIZE | DESCRIPTION |
| 1   | Gasket Conversion Set | FP-3801541 |      |             |

**CYLINDER COMPONENTS**

| QTY | PISTONS                  | PART NO.   | SIZE | DESCRIPTION  |
|-----|--------------------------|------------|------|--|
| 8   | Pin Bushing              | FP-187420  |      | 1 piece bushing; 2.20" Width                             |
| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION  |
| 8   | Ring Set Single Cylinder | FP-AR11930 | STD  | V8-265 Engs. only  |
| 8   | Ring Set Single Cylinder | FP-4089810 | STD  | V8-300, V8-350 Engs.; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set) |

**37** *Multi-Purpose Engines* VT8-370-M, VT8-400, VT8-430, VT8N-370-M, VT785 Engs.  
12.9L 785 OHV Turbo-Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS     | PART NO.     | SIZE     | DESCRIPTION  |
|-----|-------------|--------------|----------|--|
| 2   | Head Gasket | FP-212224    |          | VT-785   |
| 1   | Head Set    | FP-3013508   |          | VT-785; Single Head Set  |
| 1   | Head Set    | FP-3013498   |          | VT-785; Upper Set  |
| QTY | VALVE       | PART NO.     | SIZE     | DESCRIPTION  |
| 64  | Keeper      | FP-127554    |          |  |
| QTY | VALVE SEAT  | PART NO.     | SIZE     | DESCRIPTION  |
| 32  | Exh. & Int. | 245-1073-10  | Std Only | O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth |
| 32  | Exh. & Int. | FP-245107310 | 10       | O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION |
|-----|-----------------------|------------|------|-------------|
| 1   | Oil Pan Gasket        | FP-151101  |      |             |
| QTY | GASKET SETS           | PART NO.   | SIZE | DESCRIPTION |
| 1   | Gasket Conversion Set | FP-3801541 |      |             |

(continued on next page)

*Multi-Purpose Engines VT8-370-M, VT8-400, VT8-430, VT8N-370-M, VT785 Engs. 37*  
12.9L 785 OHV Turbo-Diesel V8, 5.5" Bore (cont.)

**CYLINDER COMPONENTS**

| QTY | PISTONS                  | PART NO.   | SIZE | DESCRIPTION                        |
|-----|--------------------------|------------|------|------------------------------------|
| 8   | Pin Bushing              | FP-187420  |      | 1 piece bushing; 2.20" Width       |
| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                        |
| 8   | Ring Set Single Cylinder | FP-4089810 | STD  | 1-5/32, 2-1/8, 1-3/16 (1 cyl. set) |

*Multi-Purpose Engines G855 "Rio Grande" (Natural Gas) 38*  
14.0L 855 OHV NG L6, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY                 | GASKETS                | PART NO.     | SIZE | DESCRIPTION  |
|---------------------|------------------------|--------------|------|--|
| 3                   | Valve Cover Gasket     | FP-3054841   |      | Single valve cover gskt., 5-bolt Engs.; 3 req'd.   |
| 3                   | Rocker Housing Gasket  | FP-3017750   |      | Single rocker box gskt., 5-bolt Engs.; 3 req'd.  |
| 3                   | Valve Cover Gasket     | 260-1679V +  |      | Single rocker box gskt., 5-bolt Engs.; 3 req'd.; When depleted use FP-3017750                                |
| 3                   | Head Gasket            | FP-4058790   |      | Single head gskt., Incl. .010 thick water grommets. 3 req'd.   |
| 3                   | Head Gasket            | 260-7000 +   |      | Single head gskt., Incl. .010 thick water grommets. 3 req'd.; When depleted use FP-4058790                   |
| 1                   | Head Set               | FP-PG1330NG  |      | NG-855; .010 O/S Grommets; Accommodates Three Cylinder Heads   |
| 1                   | Head Set               | FP-PG1330SNG |      | NG-855; Standard   |
| 1                   | Valve Timing Gasket    | FP-PGC100    |      | Cam timing gskt. set, BC Engs., Incl. 3 each .007", .021", & .030" thick gskts. & 3 beaded seal cover gskts. |
| 1                   | Valve Timing Gasket    | FP-PGC101    |      | Cam timing gskt. set, SC Engs., incl. 3 each .007", .015", & .030" thick gskts.                              |
| 1                   | Valve Timing Gasket    | 260-2088 +   |      | Cam timing gskt. set, SC Engs., incl. 3 each .007", .015", & .030" thick gskts.; When depleted use FP-PGC101 |
| 1                   | Cam Follower Gasket    | FP-3029416   |      | MVT; Mounting  |
| QTY                 | HEAD BOLTS             | PART NO.     | SIZE | DESCRIPTION  |
| 36                  | Head Bolt              | FP-209700    |      | NG-855; 6 1/4"   |
| 36                  | Head Bolt              | FP-3013623   |      | NG-855; 7 1/4"   |
| QTY                 | MISCELLANEOUS          | PART NO.     | SIZE | DESCRIPTION  |
| 2                   | Bolt                   | FP-70772     |      | Qty 2 Per Head; 1/4" - 20 X 1/2" Fillister machine screw   |
| 1                   | Brass Water Tube       | FP-CWB008    |      | Brass  |
| 1                   | Fitting                | FP-181213    |      | 90 Deg.  |
| 1                   | Insert, Water          | FP-3823681   |      | Threaded   |
| QTY                 | FREEZE PLUGS           | PART NO.     | SIZE | DESCRIPTION  |
| 6                   | Expansion Plug         | FP-216524    |      | 1 1/4" Dia. Cup  |
| 18                  | Expansion Plug         | FP-213395    |      | 1" Dia. Cup  |
| 3                   | Expansion Plug         | FP-213394    |      | 3/4" Dia. Cup  |
| QTY                 | VALVE                  | PART NO.     | SIZE | DESCRIPTION  |
| 24                  | Exhaust                | FP-3406659   | STD  | Exh. & Int.; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.   |
| 48                  | Keeper                 | FP-127554    |      | NG-855   |
| QTY                 | VALVE SEAT             | PART NO.     | SIZE | DESCRIPTION  |
| 24                  |                        | FP-80210020  |      | NG-855   |
| QTY                 | VALVE GUIDE            | PART NO.     | SIZE | DESCRIPTION  |
| 24                  | Guide                  | FP-3006456   |      | Exh. & Int.; Plain w/threaded I.D.; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.           |
| QTY                 | VALVE SPRING           | PART NO.     | SIZE | DESCRIPTION  |
| 24                  | Spring                 | FP-4957806   |      | Exh. & Int.; 2.3350" Free Height   |
| QTY                 | VALVE MISC.            | PART NO.     | SIZE | DESCRIPTION  |
| 24                  | Rotocap                | FP-90210011  |      | NG-855   |
| ENGINE BRAKE        |                        |              |      |  |
| QTY                 | ENGINE BRAKE           | PART NO.     | SIZE | DESCRIPTION  |
| 1                   | C-Brake Gasket Set     | PGC20 +      |      | Jake Brake gskt. set, 7-bolt Engs. 1 req'd.; When depleted use FP-PGC20                                      |
| 1                   | Jake Brake Gasket Set  | PGJ-10       |      | Jake Brake gskt. set, 5-bolt Engs. 1 req'd.  |
| IGNITION            |                        |              |      |  |
| QTY                 | IGNITION               | PART NO.     | SIZE | DESCRIPTION  |
| 6                   | Glow Plug Adapter      | FP-90210035  |      | NG-855; Spark Plug   |
| INT & EXH MANIFOLDS |                        |              |      |  |
| QTY                 | INT. & EXH. MANIFOLDS  | PART NO.     | SIZE | DESCRIPTION  |
| 3                   | Intake Manifold Gasket | FP-3008591   |      | Aftercooler  |

(continued on next page)

| <b>38 Multi-Purpose Engines G855 "Rio Grande" (Natural Gas)</b><br>(cont.) 14.0L 855 OHV NG L6, 5.5" Bore |                            |              |      |   |
|---|----------------------------|--------------|------|---|
| <b>CAMSHAFT GROUP</b>   |                            |              |      |   |
| QTY   | CAMSHAFT/LIFTER            | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Prelube                    | 55-400       |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |
| <b>ACCESSORY DRIVE</b>  |                            |              |      |   |
| QTY   | ACCESSORY DRIVE            | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Accessory Drive Repair Kit | FP-90004     |      |   |
| 1   | Oil Seal                   | 39302        |      |   |
| 1   | Wear Sleeve                | J1396        |      | Wear Sleeve   |
| <b>FUEL SYSTEM &amp; PARTS</b>  |                            |              |      |   |
| QTY   | FUEL INJECTION             | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Fuel Injection Driver Tang | FP-70690     |      | Typical AFC Pump  |
| 1   | Fuel Injection Driver Tang | FP-70690     |      | Typical PTG Pump  |
| 6   | Fuel Injector Screen       | FP-137808    |      | Typical AFC Pump  |
| 6   | Fuel Injector Screen       | FP-149767    |      | Typical AFC Pump  |
| 6   | Fuel Injector Screen       | FP-200743    |      | Typical AFC Pump  |
| 2   | Fuel Crossover Connection  | FP-147100    |      | Qty 2 Per Head  |
| <b>COOLING SYSTEM</b>   |                            |              |      |   |
| QTY   | WATER PUMP                 | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Water Pump Impeller        | FP-208134    |      | Komatsu; 5.25" Diameter   |
| 1   | Water Pump Impeller        | FP-3602788   |      | 4.60" Diameter; Cast Iron   |
| 1   | Oil Seal                   | 473010N      |      |   |
| 6   | O-Ring                     | FP-70624     |      |   |
| 2   | O-Ring                     | FP-212161    |      | Water Transfer Tube   |
| QTY   | SEALS - FAN HUB            | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Oil Seal                   | 39835        |      | Inner   |
| 1   | Oil Seal                   | 39877        |      | Outer   |
| 1   | Redi-Sleeve                | 99181        |      | Inner   |
| QTY   | THERMOSTAT                 | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Thermostat                 | FP-135675    |      | NG-855; 180 degree F, Vented  |
| 1   | Rect. or Square Seal       | FP-186780    |      | NG-855  |
| QTY   | MISCELLANEOUS              | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Water Filter Valve         | FP-179901    |      | 3/8 Pipe-3/8 Heater Hose  |
| 1   | Water Heater Valve         | FP-157098    |      | 3/8 Pipe-5/8 Heater Hose  |
| 1   | Water Bypass Connection    | FP-130394    |      |   |
| 1   | Hose                       | FP-102522    |      |   |
| 2   | Hose Clamp                 | FP-43828B    |      |   |
| 1   | Transfer Tube              | FP-215041    |      |   |
| 1   | Ring - Seal                | FP-3024709   |      |   |
| 1   | Bypass Tube                | FP-213485    |      |   |
| <b>ENGINE BLOCK &amp; PARTS</b>   |                            |              |      |   |
| QTY   | GASKETS                    | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Oil Pan Gasket             | 260-6004 +   |      | One piece gskt.; When depleted use FP-3349820   |
| 1   | Oil Pan Gasket             | FP-3349820   |      | 0.79mm / 0.031" Thick; One piece gskt.  |
| 1   | Oil Pan Gasket Set         | FP-PGC300    |      | All 855 Engs.; Incl. 1 pc. oil pan gskt.; Includes Seals For Suction Tube & Drain Plug                              |
| 1   | Oil Pan Gasket Set         | PGC300 +     |      | All 855 Engs.; Incl. 1 pc. oil pan gskt.; Includes Seals For Suction Tube & Drain Plug; When depleted use FP-PGC300 |
| QTY   | GASKET SETS                | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Gasket Conversion Set      | FP-3801464   |      | Non-FFC, w/piston cooling   |
| 1   | Gasket Conversion Set      | FP-3801463   |      | Non-FFC, Non-piston cooling   |
| 1   | Custom Gasket Set          | FP-PG1331NGB |      | NG-855  |
| 1   | Custom Gasket Set          | PG1331NGB +  |      | NG-855; When depleted use FP-PG1331NGB  |
| QTY   | CAM BEARINGS               | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Cam Set                    | FP-3801106   | STD  | NG-855 Big Cam  |
| 1   | Cam Set                    | FP-BM27253   | STD  | NG-855 Small Cam  |
| QTY   | OIL COOLERS & FILTERS      | PART NO.     | SIZE | DESCRIPTION   |
| 1   | Aftercooler Gasket Set     | FP-PGC205    |      | For 214836 Aftercooler  |
| 1   | Aftercooler Gasket Set     | PGC205 +     |      | For 214836 Aftercooler; When depleted use FP-PGC205   |
| 2   | Aftercooler Housing Gasket | FP-216486    |      |   |
| 1   | Aftercooler Gasket         | FP-195950    |      |   |
| 1   | Aftercooler Gasket         | FP-215044    |      |   |
| 3   | Aftercooler Gasket         | FP-215045    |      |   |
| 1   | Aftercooler Gasket         | FP-3032348   |      |   |
| 1   | Aftercooler Gasket         | FP-3069098   |      |   |

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*Multi-Purpose Engines G855 "Rio Grande" (Natural Gas) 38*  
14.0L 855 OHV NG L6, 5.5" Bore (cont.)

**ENGINE BLOCK & PARTS (cont.)**

| <b>OIL COOLERS &amp; FILTERS</b> |                       |             |      |  |
|----------------------------------|-----------------------|-------------|------|--|
| QTY                              |                       | PART NO.    | SIZE | DESCRIPTION  |
| 1                                | Oil Cooler            | FP-142608   |      | 15.312" x 5.000" tube bundle. Industrial w/FFC, Non-FFC NT Eng.  |
| 1                                | Oil Cooler Element    | FP-3021581  |      | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC   |
| 1                                | Oil Cooler Element    | 213-3021581 |      | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC   |
| 1                                | Oil Cooler Element    | FP-3052514  |      | 13.125" x 3.125" tube bundle w/1.250" nipple. For Eng. w/single oil filter, Big Cam III & Big Cam IV (from 10/15/86) |
| 1                                | Oil Cooler Gasket Kit | FP-PGC204   |      | Low Mount Oil Cooler   |
| 1                                | Oil Cooler Gasket Kit | PGC204 +    |      | Low Mount Oil Cooler; When depleted use FP-PGC204  |
| 1                                | Oil Cooler Gasket Kit | FP-PGC200   |      | Non-Piston Cooled; Oil Cooler FP-142608; 16"   |
| 1                                | Oil Cooler Gasket Kit | PGC200 +    |      | Non-Piston Cooled; Oil Cooler FP-142608; 16"; When depleted use FP-PGC200  |
| 1                                | After Cooler Gasket   | 213-201 +   |      | Cummins 5 1/2" bore Eng. w/Flange mount.; When depleted use FP-213201  |
| 1                                | O-Ring                | FP-109080   |      | Aftercooler  |
| 4                                | O-Ring                | FP-195952   |      | Aftercooler Core Seal  |
| 1                                | Air Crossover Gasket  | FP-216487   |      | Aftercooler  |
| 1                                | Air Crossover Gasket  | FP-3012972  |      | Aftercooler  |

**CRANKSHAFT/OIL PUMP**

| <b>CRANKSHAFT</b>          |              |            |      |                                       |
|----------------------------|--------------|------------|------|---------------------------------------|
| QTY                        |              | PART NO.   | SIZE | DESCRIPTION                           |
| 1                          | Crankshaft   | FP-3608833 |      | NG-855; Snub Nose                     |
| 1                          | Crankshaft   | FP-3029340 |      | NG-855; Tapered Nose                  |
| <b>SEALS - FRONT CRANK</b> |              |            |      |                                       |
| QTY                        |              | PART NO.   | SIZE | DESCRIPTION                           |
| 1                          | Oil Seal     | FP-3006736 |      | Front; NG-855; Snub Nose              |
| 1                          | Oil Seal     | FP-3010457 |      | Front; NG-855; Tapered Nose           |
| 1                          | Redi-Sleeve  | FP-3006742 |      | Front; NG-855; Snub Nose              |
| <b>SEALS - REAR CRANK</b>  |              |            |      |                                       |
| QTY                        |              | PART NO.   | SIZE | DESCRIPTION                           |
| 1                          | Oil Seal     | FP-3006737 |      | Rear; NG-855; 6.00" Shaft             |
| 1                          | Oil Seal Kit | FP-PGC1014 |      | Rear                                  |
| 1                          | Oil Seal Kit | PGC1014 +  |      | Rear; When depleted use FP-PGC1014    |
| 1                          | Redi-Sleeve  | FP-3006743 |      | Rear; NG-855; Wet Clutch; 6.00" Shaft |
| <b>MAIN BEARINGS</b>       |              |            |      |                                       |
| QTY                        |              | PART NO.   | SIZE | DESCRIPTION                           |
| 1                          | Main Set     | FP-3801260 | STD  | NG-855; Incl. thrust washers          |
| 1                          | Main Set     | FP-3801261 | 10   | NG-855; Incl. thrust washers          |
| 1                          | Main Set     | FP-3801262 | 20   | NG-855; Incl. thrust washers          |
| 1                          | Main Set     | FP-3801263 | 30   | NG-855; Incl. thrust washers          |
| 1                          | Main Set     | FP-3801264 | 40   | NG-855; Incl. thrust washers          |

**CYLINDER COMPONENTS**

| <b>LINERS</b> |                          |               |      |  |
|---------------|--------------------------|---------------|------|--|
| QTY           |                          | PART NO.      | SIZE | DESCRIPTION  |
| 6             | Liner w/o Sealing Rings  | FP-3065405    | 20   | .020/.040 LPF; 20/40 Oversize lower press-fit liner; Flange Dia. is .020" Larger than Std.; Flange thickness is .020" greater than Std.; Pilot Dia. is .040" larger than Std.  |
| 6             | Liner w/o Sealing Rings  | FP-3055099    | STD  | NG-855; Standard LPF; Std. Liners  |
| 6             | Liner w/Sealing Rings    | FP-3801387    | 20   | Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size'). |
| 6             | Liner w/Sealing Rings    | FP-3803219    | 20   | Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size'). |
| 6             | Liner w/Sealing Rings    | FP-3801826    | STD  | NG-855; Standard LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals.  |
| 6             | Cylinder Kit Complete    | FP-CK66305405 | 20   |  |
| 6             | Cylinder Kit Complete    | FP-3801920    | 20   | .020 UPF; 16.0:1 C.R.; Barrel Profile Skirt; Premium Plus; 4 Rings   |
| 6             | Cylinder Kit Complete    | FP-LK166630   | STD  | NG-855; 12.0:1 C.R.  |
| 6             | Sealing Ring, Liner      | FP-215090     |      | NG-855   |
| 2             | Sealing Ring, Liner      | FP-3032874    |      | NG-855   |
| 6             | Cylinder Sleeve Shim Kit | FP-AR51478    |      |  |
| 6             | Flange Shim              | FP-3019955    | 7    | .007 Thick Standard Liner  |
| 6             | Flange Shim              | FP-3019956    | 8    | .008" Thick, fits Std. & 10/20 sleeves   |
| 6             | Flange Shim              | FP-3019957    | 9    | .009 Thick Standard Liner  |

(continued on next page)

+ Superseded Part Number

**38 Multi-Purpose Engines G855 "Rio Grande" (Natural Gas)**  
(cont.) 14.0L 855 OHV NG L6, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY | LINERS (cont.)    | PART NO.    | SIZE | DESCRIPTION  |
|-----|-------------------|-------------|------|--|
| 6   | Flange Shim       | FP-3054948  | 20   | .020" Thick, fits Std. & 10/20 sleeves               |
| 6   | Flange Shim       | FP-3054948B | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 50 |
| 6   | Flange Shim       | FP-30549486 | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 6  |
| 6   | Flange Shim       | FP-3019959  | 31   | .031" thick  |
| 6   | Flange Shim       | FP-3019960  | 62   | .062" thick  |
| 6   | Sealing Ring      | FP-3066843  |      | 20/40 Liner; .018 Thick                              |
| 6   | Sealing Ring      | FP-3065406  |      | 20/40 Liner; .0205 Thick                             |
| 6   | Sealing Ring      | FP-3066844  |      | 20/40 Liner; .0220 Thick                             |
| 6   | Cntr. Bore Insert | FP-3822959  |      | LPF; O.D. 6.750                                      |
| 6   | Cntr. Bore Insert | FP-3822960  |      | LPF; O.D. 6.760                                      |
| 6   | Cntr. Bore Insert | FP-3822961  |      | LPF; O.D. 6.770                                      |
| 6   | Cntr. Bore Insert | FP-3822963  |      | LPF; O.D. 6.780                                      |
| 6   | Cntr. Bore Insert | FP-202227   |      | Semi-Finished  |
| 6   | Cntr. Bore Insert | FP-202226   |      | Should Be .006 Depth                                 |
| 6   | Cntr. Bore Insert | FP-2022265  |      | Should Be .006 Depth                                 |
| 6   | Cntr. Bore Insert | FP-20222610 |      | Should Be .006 Depth                                 |
| 6   | Cntr. Bore Insert | FP-20222620 |      | Should Be .006 Depth                                 |
| 6   | Cntr. Bore Insert | FP-20222630 |      | Should Be .006 Depth                                 |
| 6   | Cntr. Bore Insert | FP-3376382  |      | UPF  |

| QTY | PISTONS                      | PART NO.  | SIZE | DESCRIPTION   |
|-----|------------------------------|-----------|------|---|
| 6   | Piston Body w/o Pin          | FP-166630 |      | NG-855  |
| 6   | Piston Kit w/Pin & Retainers | FP-AR3560 |      | NG-855  |
| 6   | Pin                          | FP-191970 |      | NG-855  |
| 12  | Piston Pin Retainer          | FP-175755 |      | NG-855  |
| 12  | Pin Bushing                  | FP-43067  |      | Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| 6   | Pin Bushing                  | FP-187420 |      | 1 piece bushing; 2.20" Width                        |

| QTY | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION  |
|-----|------------------------------|-------------|------|--|
| 6   | Rod Pair                     | FP-214950PR | STD  | Big Cam 2.500" dia.; Eng. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size |
| 6   | Rod Pair                     | FP-214951PR | 10   | Big Cam 2.500" dia.; Eng. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size |
| 6   | Rod Pair                     | FP-214952PR | 20   | Big Cam 2.500" dia.; Eng. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size |
| 6   | Rod Pair                     | FP-203660PR | STD  | Small Cam 2.000" dia.; Eng. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size                           |
| 6   | Rod Pair                     | FP-203661PR | 10   | Small Cam 2.000" dia.; Eng. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size                           |
| 6   | Rod Pair                     | FP-203662PR | 20   | Small Cam 2.000" dia.; Eng. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size                           |
| 12  | Rod Bearing Half Upper/Lower | FP-214950   | STD  | NG-855 Big Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-214951   | 10   | NG-855 Big Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-214952   | 20   | NG-855 Big Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-214953   | 30   | NG-855 Big Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-214954   | 40   | NG-855 Big Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-203660   | STD  | NG-855 Small Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-203661   | 10   | NG-855 Small Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-203662   | 20   | NG-855 Small Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-203663   | 30   | NG-855 Small Cam   |
| 12  | Rod Bearing Half Upper/Lower | FP-203664   | 40   | NG-855 Small Cam   |

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION                        |
|-----|--------------------------|------------|------|------------------------------------|
| 6   | Ring Set Single Cylinder | FP-4089810 | STD  | 1-5/32, 2-1/8, 1-3/16 (1 cyl. set) |

**KITS**

| QTY | OVERHAUL KIT          | PART NO.       | SIZE | DESCRIPTION  |
|-----|-----------------------|----------------|------|--|
| 1   | In-Frame Overhaul Kit | FP-NG855PREM   |      | NG-855; 12.0:1 C.R.; Premium; With Upper Gasket Set & Pan Gasket |
| 1   | Complete Overhaul Kit | FP-NG855PREMOH |      | NG-855; 12.0:1 C.R.; Premium; With Upper & Lower Gasket Sets     |

**39 Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, V903-V265 Eng.**  
14.8L 903 OHV Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS            | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------------|------------|------|-------------|
| 1   | Valve Cover Gasket | FP-3026315 |      | V-903       |
| 1   | Valve Cover Gasket | FP-3028673 |      | V-903       |
| 2   | Head Gasket        | FP-212224  |      | V-903       |

(continued on next page)

*Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, 39  
V903-V265 Engs. (cont.)*  
14.8L 903 OHV Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS (cont.)**

| QTY                 | GASKETS (cont.)               | PART NO.    | SIZE | DESCRIPTION  |
|---------------------|-------------------------------|-------------|------|--|
| 1                   | Head Set                      | FP-3013498  |      | V-903; Single Head Set   |
| 1                   | Head Set                      | FP-3013497  |      | V-903; Upper Set   |
| QTY                 | HEAD BOLTS                    | PART NO.    | SIZE | DESCRIPTION  |
| 10                  | Head Bolt                     | FP-214751   |      | V-903  |
| 26                  | Head Bolt                     | FP-209700   |      | V-903; 6 1/4"  |
| QTY                 | VALVE                         | PART NO.    | SIZE | DESCRIPTION  |
| 8                   | Intake                        | FP-216707   |      | V-903  |
| 8                   | Exhaust                       | FP-138887   |      | V-903  |
| 8                   | Intake Valve Kit              | FP-3803513  |      | V-903  |
| 32                  | Keeper                        | FP-127554   |      | V-903  |
| QTY                 | VALVE SEAT                    | PART NO.    | SIZE | DESCRIPTION  |
| 8                   | Exh.                          | FP-3071466  |      | V-903  |
| 8                   | Exh.                          | FP-212940 + |      | V-903; When depleted use FP-3071466                              |
| 8                   | Int.                          | FP-3071467  |      | V-903  |
| 8                   | Int.                          | FP-212217 + |      | V-903; When depleted use FP-3071467                              |
| QTY                 | VALVE GUIDE                   | PART NO.    | SIZE | DESCRIPTION  |
| 16                  | Guide                         | FP-138937   |      | V-903  |
| QTY                 | VALVE SPRING                  | PART NO.    | SIZE | DESCRIPTION  |
| 16                  | Spring                        | FP-146732   |      | Inner; V-903   |
| 16                  | Spring                        | FP-146731   |      | Outer; V-903   |
| 16                  | Retainer                      | FP-146733   |      | V-903  |
| QTY                 | PUSH RODS                     | PART NO.    | SIZE | DESCRIPTION  |
| 8                   | Push Rod                      | FP-3003602  |      | V-903; Injector  |
| 16                  | Push Rod                      | FP-169351   |      | Int. & Exh.; V-903   |
| QTY                 | VALVE SEAL                    | PART NO.    | SIZE | DESCRIPTION  |
| 16                  | Valve Stem Seal               | FP-156541   |      | V-903; Installation requires valve guide machining; Polyacrylate |
| QTY                 | ROCKER PARTS                  | PART NO.    | SIZE | DESCRIPTION  |
| 16                  | Cam Follower Roller           | FP-152082   |      | V-903; Valve   |
| 8                   | Injector Cam Roller           | FP-213061   |      | V-903  |
| 18                  | Adjusting Screw Nut           | FP-S212     |      | V-903; 1/2" - 20 UNF; Use w/FP-168306                            |
| 16                  | Valve Roller Pin              | FP-169327   |      | V-903; Cam Follower  |
| 16                  | Rocker Lever Adjusting Screw  | FP-168306   |      | V-903; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212              |
| 16                  | Rocker Arm Socket             | FP-194037   |      | V-903  |
| 16                  | Fuel Injector Roller Pin      | FP-213058   |      | V-903; Cam Follower  |
| 8                   | Cam Follower Socket           | FP-213559   |      | V-903; Injector; Cam Follower                                    |
| 16                  | Valve Lifter Socket           | FP-218853   |      | Int. & Exh.; V-903; Valve; Cam Follower                          |
| 16                  | Valve Lock Pin                | FP-108186   |      | V-903; Cam Follower  |
| INT & EXH MANIFOLDS |                               |             |      |  |
| QTY                 | INT. & EXH. MANIFOLDS         | PART NO.    | SIZE | DESCRIPTION  |
| 6                   | Exhaust Manifold Gasket       | FP-3028665  |      | V-903  |
| ACCESSORY DRIVE     |                               |             |      |  |
| QTY                 | ACCESSORY DRIVE               | PART NO.    | SIZE | DESCRIPTION  |
| 1                   | Oil Seal                      | 39719       |      |  |
| 1                   | Redi-Sleeve                   | 99147       |      |  |
| FUEL SYSTEM & PARTS |                               |             |      |  |
| QTY                 | FUEL INJECTION                | PART NO.    | SIZE | DESCRIPTION  |
| 8                   | Fuel Injector Sleeve          | FP-3070486  |      | Thin   |
| 24                  | O-Ring                        | FP-193736   |      | V-903; Fuel Injector Mounting                                    |
| 8                   | O-Ring                        | FP-3007759  |      | V-903; Injector Tube Seal  |
| QTY                 | FUEL FILTERS & PUMP           | PART NO.    | SIZE | DESCRIPTION  |
| 2                   | Fuel Pump Gear                | FP-170942   |      | V-903; 1"  |
| 2                   | Fuel Pump Gear                | FP-119363   |      | V-903; 3/4"  |
| 1                   | Fuel Pump Drive Shaft         | FP-100215   |      | V-903; 3/4"; Drive, Splined                                      |
| 1                   | Fuel Pump Gasket              | FP-110855   |      | V-903; Fuel Pump Body  |
| COOLING SYSTEM      |                               |             |      |  |
| QTY                 | WATER PUMP                    | PART NO.    | SIZE | DESCRIPTION  |
| 1                   | Water Pump Shaft              | FP-3054160  |      | V-903  |
| 1                   | Water Pump Impeller           | FP-3002483  |      | V-903  |
| 1                   | Water Pump Repair/Rebuild Kit | FP-3390118  |      | V-903  |
| 1                   | Water Pump Retainer Ring      | FP-70183    |      | V-903  |

(continued on next page)

**39** Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S,  
(cont.) **V903-V265 Engs.**  
14.8L 903 OHV Diesel V8, 5.5" Bore

| COOLING SYSTEM (cont.) |                              |                  |      |  |
|------------------------|------------------------------|------------------|------|--|
| QTY                    | WATER PUMP (cont.)           | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Water Pump Mech. Shaft Seal  | FP-3029099       |      | V-903  |
| 1                      | Ball Brg.                    | FP-3077646       |      | Inner; V-903   |
| 1                      | Ball Brg.                    | FP-3017035       |      | Outer; V-903   |
| 1                      | Redi-Sleeve                  | 99225            |      |  |
| QTY                    | SEALS - FAN HUB              | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Oil Seal                     | 39835            |      | Inner  |
| 1                      | Oil Seal                     | 39877            |      | Outer  |
| 1                      | Redi-Sleeve                  | 99181            |      | Inner  |
| QTY                    | THERMOSTAT                   | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Thermostat                   | FP-135675        |      | V-903; 180 degree F, Vented  |
| 1                      | Rect. or Square Seal         | FP-186780        |      | V-903  |
| ENGINE BLOCK & PARTS   |                              |                  |      |  |
| QTY                    | GASKETS                      | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Oil Pan Gasket               | FP-196949        |      | V-903  |
| QTY                    | GASKET SETS                  | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Gasket Conversion Set        | FP-3014458       |      | V-903; Incl. crank seals   |
| 1                      | In-Frame Gasket Set          | FP-3013497S      |      | V-903  |
| 1                      | Kit Gasket Set               | 260-1667         |      | Compl., Incl. valve stem seals   |
| QTY                    | CAM BEARINGS                 | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Cam Set                      | FP-1449M         |      | Late Engs.; w/2.6875" housing bore   |
| 1                      | Cam Set                      | 1449M + Std Only |      | Late Engs.; w/2.6875" housing bore; When depleted use FP-1449M             |
| 2                      | Cam Brg.                     | FP-200780        | STD  | Position 1-5; V-903  |
| 3                      | Cam Brg.                     | FP-200790        | STD  | Position 2-3-4; V-903  |
| QTY                    | OIL COOLERS & FILTERS        | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Oil Cooler Element           | FP-186348        |      | V-903  |
| 1                      | Oil Cooler Element           | FP-3021581       |      | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC |
| 1                      | Oil Cooler Element           | 213-3021581      |      | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC |
| 2                      | Snap Ring                    | FP-3006745       |      | V-903; Oil Cooler  |
| 1                      | Oil Cooler Gasket            | FP-187608        |      | V-903  |
| 1                      | Oil Cooler Gasket            | FP-209865        |      | V-903  |
| 2                      | O-Ring                       | FP-3007713       |      | V-903; Oil Cooler  |
| CRANKSHAFT/OIL PUMP    |                              |                  |      |  |
| QTY                    | SEALS - FRONT CRANK          | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Oil Seal                     | FP-3020184       |      | Front; V-903   |
| 1                      | Redi-Sleeve                  | FP-3006740       |      | Front; V-903   |
| QTY                    | SEALS - REAR CRANK           | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Oil Seal                     | FP-3023867       |      | Rear; Dry or Wet   |
| 1                      | Redi-Sleeve                  | FP-3006741       |      | Rear; For Wet or Dry Clutch  |
| QTY                    | MAIN BEARINGS                | PART NO.         | SIZE | DESCRIPTION  |
| 1                      | Main Set                     | FP-AR3640        | STD  | V-903; Incl. Thrust Washers  |
| 1                      | Main Set                     | FP-AR3641        | 10   | V-903; Incl. Thrust Washers  |
| 1                      | Main Set                     | FP-AR3642        | 20   | V-903; Incl. Thrust Washers  |
| 1                      | Main Set                     | FP-AR3643        | 30   | V-903; Incl. Thrust Washers  |
| CYLINDER COMPONENTS    |                              |                  |      |  |
| QTY                    | LINERS                       | PART NO.         | SIZE | DESCRIPTION  |
| 8                      | Liner w/o Sealing Rings      | FP-203170        | STD  | V-903  |
| 8                      | Liner w/Sealing Rings        | FP-AR8069        | STD  | V-903  |
| 8                      | Cylinder Kit Complete        | FP-AR11909       | STD  | V-903; 15.5:1 C.R.   |
| 8                      | Cylinder Kit Complete        | FP-AR11928       | STD  | V-903; 15.5:1 C.R.   |
| 16                     | Sealing Ring, Liner          | FP-3032874       |      | V-903  |
| 8                      | Sealing Ring, Liner          | FP-3044795       |      | V-903; Crevice Seal  |
| QTY                    | PISTONS                      | PART NO.         | SIZE | DESCRIPTION  |
| 8                      | Piston Body w/o Pin          | FP-3037413       | STD  | V-903; 15.5:1 C.R.   |
| 8                      | Piston Kit w/Pin & Retainers | FP-3019287       |      | V-903; Heavy Pin; 15.5:1 C.R.  |
| 8                      | Piston Kit w/Pin & Retainers | FP-AR11929       |      | V-903; Light Pin   |
| 8                      | Pin                          | FP-215390        | STD  | V-903; Heavy Pin   |
| 8                      | Pin                          | FP-140120        |      | V-903; Light Pin   |
| 8                      | Piston Pin Retainer          | FP-155267        |      | V-903  |
| 8                      | Pin Bushing                  | FP-189763        |      |  |

(continued on next page)

*Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, 39*  
**V903-V265 Engs. (cont.)**  
 14.8L 903 OHV Diesel V8, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY | CONNECTING RODS & BRGS.      | PART NO.    | SIZE | DESCRIPTION |
|-----|------------------------------|-------------|------|-------------|
| 8   | Rod Pair                     | FP-189770PR | STD  |             |
| 8   | Rod Pair                     | FP-189771PR | 10   |             |
| 8   | Rod Pair                     | FP-189772PR | 20   |             |
| 16  | Rod Bearing Half Upper/Lower | FP-189770   | STD  | V-903       |
| 16  | Rod Bearing Half Upper/Lower | FP-189771   | 10   | V-903       |
| 16  | Rod Bearing Half Upper/Lower | FP-189772   | 20   | V-903       |
| 16  | Rod Bearing Half Upper/Lower | FP-189773   | 30   | V-903       |

| QTY | PISTON RINGS             | PART NO.   | SIZE | DESCRIPTION |
|-----|--------------------------|------------|------|-------------|
| 8   | Ring Set Single Cylinder | FP-AR11930 | STD  |             |

**KITS**

| QTY | OVERHAUL KIT          | PART NO.        | SIZE | DESCRIPTION   |
|-----|-----------------------|-----------------|------|---|
| 1   | In-Frame Overhaul Kit | FP-VTB903PREM   |      | V-903; Premium; With Upper Gasket Set & Pan Gasket                    |
| 1   | Complete Overhaul Kit | FP-VTB903PREMOH |      | V-903; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |

*Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40*  
**VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.**  
 14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY | GASKETS            | PART NO.   | SIZE | DESCRIPTION             |
|-----|--------------------|------------|------|-------------------------|
| 1   | Valve Cover Gasket | FP-3026315 |      | VT-903                  |
| 1   | Valve Cover Gasket | FP-3028673 |      | VT-903                  |
| 2   | Head Gasket        | FP-212224  |      | VT-903                  |
| 1   | Head Set           | FP-3013498 |      | VT-903; Single Head Set |
| 1   | Head Set           | FP-3013497 |      | VT-903; Upper Set       |

| QTY | HEAD BOLTS | PART NO.  | SIZE | DESCRIPTION    |
|-----|------------|-----------|------|----------------|
| 10  | Head Bolt  | FP-214751 |      | VT-903         |
| 26  | Head Bolt  | FP-209700 |      | VT-903; 6 1/4" |

| QTY | VALVE            | PART NO.   | SIZE | DESCRIPTION |
|-----|------------------|------------|------|-------------|
| 8   | Intake           | FP-216707  |      | VT-903      |
| 8   | Exhaust          | FP-138887  |      | VT-903      |
| 8   | Intake Valve Kit | FP-3803513 |      | VT-903      |
| 32  | Keeper           | FP-127554  |      | VT-903      |

| QTY | VALVE SEAT | PART NO.    | SIZE | DESCRIPTION                          |
|-----|------------|-------------|------|--------------------------------------|
| 8   | Exh.       | FP-3071466  |      | VT-903                               |
| 8   | Exh.       | FP-212940 + |      | VT-903; When depleted use FP-3071466 |
| 8   | Int.       | FP-3071467  |      | VT-903                               |
| 8   | Int.       | FP-212217 + |      | VT-903; When depleted use FP-3071467 |

| QTY | VALVE GUIDE | PART NO.  | SIZE | DESCRIPTION         |
|-----|-------------|-----------|------|---------------------|
| 16  | Guide       | FP-138937 |      | Exh. & Int.; VT-903 |

| QTY | VALVE SPRING | PART NO.  | SIZE | DESCRIPTION   |
|-----|--------------|-----------|------|---------------|
| 16  | Spring       | FP-146732 |      | Inner; VT-903 |
| 16  | Spring       | FP-146731 |      | Outer; VT-903 |
| 16  | Retainer     | FP-146733 |      | VT-903        |

| QTY | PUSH RODS | PART NO.   | SIZE | DESCRIPTION         |
|-----|-----------|------------|------|---------------------|
| 8   | Push Rod  | FP-3003602 |      | VT-903; Injector    |
| 16  | Push Rod  | FP-169351  |      | Int. & Exh.; VT-903 |

| QTY | VALVE SEAL      | PART NO.  | SIZE | DESCRIPTION   |
|-----|-----------------|-----------|------|---|
| 16  | Valve Stem Seal | FP-156541 |      | VT-903; Installation requires valve guide machining; Polyacrylate |

| QTY | ROCKER PARTS                 | PART NO.  | SIZE | DESCRIPTION  |
|-----|------------------------------|-----------|------|--|
| 16  | Cam Follower Roller          | FP-152082 |      | VT-903; Valve  |
| 8   | Injector Cam Roller          | FP-213061 |      | VT-903   |
| 18  | Adjusting Screw Nut          | FP-S212   |      | VT-903; 1/2" - 20 UNF; Use w/FP-168306               |
| 16  | Valve Roller Pin             | FP-169327 |      | VT-903; Cam Follower                                 |
| 16  | Rocker Lever Adjusting Screw | FP-168306 |      | VT-903; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212 |
| 16  | Rocker Arm Socket            | FP-194037 |      | VT-903   |
| 16  | Fuel Injector Roller Pin     | FP-213058 |      | VT-903; Cam Follower                                 |
| 8   | Cam Follower Socket          | FP-213559 |      | VT-903; Injector; Cam Follower                       |
| 16  | Valve Lifter Socket          | FP-218853 |      | Int. & Exh.; VT-903; Valve; Cam Follower             |

(continued on next page)

**40** Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, (cont.) VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

### CYL. HEAD & PARTS (cont.)

| QTY | ROCKER PARTS (cont.) | PART NO.  | SIZE | DESCRIPTION          |
|-----|----------------------|-----------|------|----------------------|
| 16  | Valve Lock Pin       | FP-108186 |      | VT-903; Cam Follower |

### INT & EXH MANIFOLDS

| QTY | INT. & EXH. MANIFOLDS   | PART NO.   | SIZE | DESCRIPTION |
|-----|-------------------------|------------|------|-------------|
| 6   | Exhaust Manifold Gasket | FP-3028665 |      | VT-903      |

### CAMSHAFT GROUP

| QTY | CAMSHAFT/LIFTER | PART NO.  | SIZE | DESCRIPTION  |
|-----|-----------------|-----------|------|--|
| 1   | Camshaft        | FP-199180 |      | VT-903; 1.2:1 Rocker Ratio; CPL's 112, 130, 136, 148, 151, 169, 192, 262, 301. |

### ACCESSORY DRIVE

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39719    |      |             |
| 1   | Redi-Sleeve     | 99147    |      |             |

### FUEL SYSTEM & PARTS

| QTY | FUEL INJECTION             | PART NO.   | SIZE | DESCRIPTION                |
|-----|----------------------------|------------|------|----------------------------|
| 8   | Fuel Injector Sleeve       | FP-3070486 |      | Thin                       |
| 8   | Fuel Injector Sleeve       | FP-3070486 |      | VT-903; Thin               |
| 8   | O-Ring                     | FP-3007759 |      | VT-903; Injector Tube Seal |
| 1   | Fuel Injection Driver Tang | FP-70690   |      | VT-903; Typical AFC Pump   |
| 1   | Fuel Injection Driver Tang | FP-70690   |      | VT-903; Typical PTG Pump   |
| 8   | Fuel Injector Screen       | FP-137808  |      | VT-903; Typical AFC Pump   |
| 8   | Fuel Injector Screen       | FP-149767  |      | VT-903; Typical AFC Pump   |
| 8   | Fuel Injector Screen       | FP-200743  |      | VT-903; Typical AFC Pump   |

| QTY | FUEL FILTERS & PUMP      | PART NO.    | SIZE | DESCRIPTION   |
|-----|--------------------------|-------------|------|---|
| 2   | Fuel Pump Gear           | FP-170942   |      | VT-903; 1"  |
| 2   | Fuel Pump Gear           | FP-119363   |      | VT-903; 3/4"  |
| 1   | Fuel Pump Drive Shaft    | FP-3000266  |      | VT-903; Typical PTG Pump                                |
| 1   | Fuel Pump Drive Shaft    | FP-100192   |      | VT-903; Typical PTG Pump; Main Shaft                    |
| 1   | Fuel Pump Drive Shaft    | FP-100215   |      | VT-903; 3/4"; Drive, Splined                            |
| 1   | Fuel Pump Spacer         | FP-144302   |      | VT-903; Typical AFC Pump                                |
| 1   | Fuel Pump Spacer         | FP-144302   |      | VT-903; Typical PTG Pump                                |
| 1   | Bolt                     | FP-S2286    |      | VT-903; Typical PTG Pump; Name Plate; Fuel Pump Housing |
| 1   | O-Ring                   | FP-100478   |      | VT-903; Typical AFC Pump                                |
| 1   | O-Ring                   | FP-129888   |      | VT-903; Typical AFC Pump                                |
| 1   | O-Ring                   | FP-145504   |      | VT-903; Typical AFC Pump                                |
| 1   | O-Ring                   | FP-190876   |      | VT-903; Typical AFC Pump                                |
| 1   | O-Ring                   | FP-68061A   |      | VT-903; Typical AFC Pump                                |
| 1   | O-Ring                   | FP-193734   |      | VT-903; Typical AFC Pump; Fuel Pump Housing             |
| 1   | O-Ring                   | FP-151900   |      | VT-903; Typical AFC Pump; 0.621" OD, 0.494" ID          |
| 1   | O-Ring                   | FP-213079   |      | VT-903; Typical AFC Pump; 0.941" OD, 0.810" ID          |
| 1   | O-Ring                   | FP-100099   |      | VT-903; Typical AFC Pump; 1.627" OD, 1.364" ID          |
| 1   | O-Ring                   | FP-139988   |      | VT-903; Typical AFC Pump; 1.752" OD, 1.489" ID          |
| 1   | O-Ring                   | FP-100478   |      | VT-903; Typical PTG Pump                                |
| 1   | O-Ring                   | FP-43696A   |      | VT-903; Typical PTG Pump; Fuel Pump Housing             |
| 1   | O-Ring                   | FP-151900   |      | VT-903; Typical PTG Pump; 0.621" OD, 0.494" ID          |
| 1   | O-Ring                   | FP-100099   |      | VT-903; Typical PTG Pump; 1.627" OD, 1.364" ID          |
| 1   | O-Ring                   | FP-139988   |      | VT-903; Typical PTG Pump; 1.752" OD, 1.489" ID          |
| 1   | Fuel Pump Gasket         | FP-110855   |      | VT-903; Fuel Pump Body                                  |
| 1   | Gasket                   | FP-70705    |      | VT-903; Typical AFC Pump; Spring Pack Flange            |
| 1   | Gasket                   | FP-70732    |      | VT-903; Typical PTG Pump                                |
| 1   | Gasket                   | FP-70705    |      | VT-903; Typical PTG Pump; Spring Pack Flange            |
| 2   | Oil Seal                 | FP-70809    |      | VT-903; Typical PTG Pump; Front Cover                   |
| 1   | Bushing                  | FP-163944   |      | VT-903; Typical AFC Pump                                |
| 1   | Fuel Pump Check Valve    | FP-175836   |      | VT-903; Typical AFC Pump                                |
| 1   | AFC Plunger              | FP-144178   |      | VT-903; Fuel Pump Housing                               |
| 1   | AFC Plunger              | FP-30207391 |      | VT-903; Typical AFC Pump                                |
| 1   | AFC Plunger              | FP-30207392 |      | VT-903; Typical AFC Pump                                |
| 1   | AFC Plunger              | FP-3021676  |      | VT-903; Typical AFC Pump                                |
| 1   | Fuel Pump Thrust Bearing | FP-3027633  |      | VT-903; Typical AFC Pump                                |
| 1   | Fuel Pump Thrust Bearing | FP-3027633  |      | VT-903; Typical PTG Pump                                |
| 1   | Needle Valve             | FP-214144   |      | VT-903; Typical AFC Pump; No. 162                       |
| 1   | Rect. or Square Seal     | FP-154087   |      | VT-903; Typical AFC Pump                                |
| 1   | Rect. or Square Seal     | FP-154087   |      | VT-903; Typical PTG Pump                                |

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*Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40  
VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, (cont.)  
VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore*

**FUEL SYSTEM & PARTS (cont.)**

| QTY | FUEL FILTERS & PUMP (cont.) | PART NO.  | SIZE | DESCRIPTION                               |
|-----|-----------------------------|-----------|------|---|
| 2   | Rect. or Square Seal        | FP-154088 |      | VT-903; Typical PTG Pump                  |
| 1   | Fuel Shutdown Solenoid      | FP-134075 |      | VT-903; Typical AFC Pump; 12V; 2 Terminal |
| 1   | Fuel Shutdown Solenoid      | FP-134076 |      | VT-903; Typical AFC Pump; 24V; 2 Terminal |

| QTY | TURBOCHARGER            | PART NO.  | SIZE | DESCRIPTION                     |
|-----|-------------------------|-----------|------|---------------------------------|
| 1   | Turbine Wheel and Shaft | FP-213806 |      | VT-903; Turbocharger Model VT50 |

**GOVERNOR**

| QTY | GOVERNOR                   | PART NO.     | SIZE | DESCRIPTION                                    |
|-----|----------------------------|--------------|------|--|
| 1   | Throttle/Governor Shaft    | FP-3006355   |      | VT-903; AFC; Black; Standard Capacity, 0.5018  |
| 1   | Throttle/Governor Shaft    | FP-300635015 |      | VT-903; AFC; Black/Gray; Standard Capacity     |
| 1   | Throttle/Governor Shaft    | FP-304668015 |      | VT-903; AFC; Black/Gray; 0.5038                |
| 1   | Throttle/Governor Shaft    | FP-300635011 |      | VT-903; AFC; Blue/Gray; Standard Capacity      |
| 1   | Throttle/Governor Shaft    | FP-304668011 |      | VT-903; AFC; Blue/Gray; 0.503                  |
| 1   | Throttle/Governor Shaft    | FP-30063508  |      | VT-903; AFC; Brown; Standard Capacity          |
| 1   | Throttle/Governor Shaft    | FP-3006360   |      | VT-903; AFC; Cream; Standard Capacity; 0.5028  |
| 1   | Throttle/Governor Shaft    | FP-3046686   |      | VT-903; AFC; Gray; 0.502                       |
| 1   | Throttle/Governor Shaft    | FP-3006352   |      | VT-903; AFC; Green; Standard Capacity; 0.5012  |
| 1   | Throttle/Governor Shaft    | FP-3046682   |      | VT-903; AFC; Green; 0.5012                     |
| 1   | Throttle/Governor Shaft    | FP-300635012 |      | VT-903; AFC; Green/Gray; Standard Capacity     |
| 1   | Throttle/Governor Shaft    | FP-304668012 |      | VT-903; AFC; Green/Gray; 0.5032                |
| 1   | Throttle/Governor Shaft    | FP-3006354   |      | VT-903; AFC; Orange; Standard Capacity, 0.5016 |
| 1   | Throttle/Governor Shaft    | FP-3046684   |      | VT-903; AFC; Orange; 0.5016                    |
| 1   | Throttle/Governor Shaft    | FP-30466809  |      | VT-903; AFC; Pink                              |
| 1   | Throttle/Governor Shaft    | FP-3046687   |      | VT-903; AFC; Purple; 0.5022                    |
| 1   | Throttle/Governor Shaft    | FP-300635020 |      | VT-903; AFC; Purple/Red; Standard Capacity     |
| 1   | Throttle/Governor Shaft    | FP-3006353   |      | VT-903; AFC; Yellow; Standard Capacity; 0.5014 |
| 1   | Throttle/Governor Shaft    | FP-3046683   |      | VT-903; AFC; Yellow; 0.5014                    |
| 1   | Throttle/Governor Shaft    | FP-300635013 |      | VT-903; AFC; Yellow/Gray; Standard Capacity    |
| 1   | Fuel Governor Plunger      | FP-203355    |      | VT-903; AFC & PTG; Black; 0.37514              |
| 1   | Fuel Governor Plunger      | FP-203352    |      | VT-903; AFC & PTG; Green; 0.37484              |
| 1   | Fuel Governor Plunger      | FP-300938010 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938011 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938012 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938013 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938014 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938015 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-300938016 |      | VT-903; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger      | FP-3009381   |      | VT-903; AFC With Tapered Seat; Blue; 0.37474   |
| 1   | Fuel Governor Plunger      | FP-3009382   |      | VT-903; AFC With Tapered Seat; Green; 0.37484  |
| 1   | Fuel Governor Plunger      | FP-3009384   |      | VT-903; AFC With Tapered Seat; Orange; 0.37504 |
| 1   | Fuel Governor Plunger      | FP-3009380   |      | VT-903; AFC With Tapered Seat; Red             |
| 1   | Fuel Governor Plunger      | FP-3009383   |      | VT-903; AFC With Tapered Seat; Yellow; 0.37494 |
| 1   | Fuel Governor Plunger      | FP-3040755   |      | VT-903; AFC; Black; 0.37514                    |
| 1   | Fuel Governor Plunger      | FP-3040751   |      | VT-903; AFC; Blue; 0.37474                     |
| 1   | Fuel Governor Plunger      | FP-30407508  |      | VT-903; AFC; Brown                             |
| 1   | Fuel Governor Plunger      | FP-3040756   |      | VT-903; AFC; Gray; 0.37524                     |
| 1   | Fuel Governor Plunger      | FP-3040752   |      | VT-903; AFC; Green; 0.37484                    |
| 1   | Fuel Governor Plunger      | FP-3040754   |      | VT-903; AFC; Orange; 0.37504                   |
| 1   | Fuel Governor Plunger      | FP-30407509  |      | VT-903; AFC; Pink                              |
| 1   | Fuel Governor Plunger      | FP-3040750   |      | VT-903; AFC; Red                               |
| 1   | Fuel Governor Plunger      | FP-3040757   |      | VT-903; AFC; Violet                            |
| 1   | Fuel Governor Plunger      | FP-3040753   |      | VT-903; AFC; Yellow; 0.37494                   |
| 1   | Fuel Governor Plunger      | FP-169662    |      | VT-903; PTG; Green; 0.3751                     |
| 1   | Idle Spring Plunger Button | FP-141624    |      | VT-903; .2135/.2165; Button Number 7           |
| 1   | Idle Spring Plunger Button | FP-141625    |      | VT-903; .2185/.2215; Button Number 10          |
| 1   | Idle Spring Plunger Button | FP-141626    |      | VT-903; .2235/.2265; Button Number 12          |
| 1   | Idle Spring Plunger Button | FP-139894    |      | VT-903; .2285/.2315; Button Number 15          |
| 1   | Idle Spring Plunger Button | FP-140417    |      | VT-903; .2335/.2365; Button Number 17          |
| 1   | Idle Spring Plunger Button | FP-141629    |      | VT-903; .2385/.2415; Button Number 20          |
| 1   | Idle Spring Plunger Button | FP-141630    |      | VT-903; .2435/.2465; Button Number 22          |
| 1   | Idle Spring Plunger Button | FP-141631    |      | VT-903; .2485/.2515; Button Number 25          |
| 1   | Idle Spring Plunger Button | FP-141632    |      | VT-903; .2535/.2565; Button Number 27          |
| 1   | Idle Spring Plunger Button | FP-141633    |      | VT-903; .2585/.2615; Button Number 30          |
| 1   | Idle Spring Plunger Button | FP-141634    |      | VT-903; .2635/.2665; Button Number 32          |
| 1   | Idle Spring Plunger Button | FP-140922    |      | VT-903; .2685/.2715; Button Number 35          |
| 1   | Idle Spring Plunger Button | FP-140418    |      | VT-903; .2735/.2765; Button Number 37          |

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**40 Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, (cont.) VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.**  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

| <b>GOVERNOR (cont.)</b>         |                                  |                  |             |  |
|---------------------------------|----------------------------------|------------------|-------------|--|
| <b>QTY</b>                      | <b>GOVERNOR (cont.)</b>          | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Idler Spring Plunger Button      | FP-137370        |             | VT-903; .2785/.2815; Button Number 40                                      |
| 1                               | Idler Spring Plunger Button      | FP-140923        |             | VT-903; .2835/.2865; Button Number 42                                      |
| 1                               | Idler Spring Plunger Button      | FP-138862        |             | VT-903; .2885/.2915; Button Number 45                                      |
| 1                               | Idler Spring Plunger Button      | FP-140925        |             | VT-903; .2985/.3015; Button Number 50                                      |
| 1                               | Idler Spring Plunger Button      | FP-145951        |             | VT-903; .3585/.3615; Button Number 180                                     |
| 1                               | Carrier, Governor Weight         | FP-3024991       |             | VT-903; Typical AFC Pump   |
| <b>COOLING SYSTEM</b>           |                                  |                  |             |  |
| <b>QTY</b>                      | <b>WATER PUMP</b>                | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Water Pump Shaft                 | FP-3054160       |             | VT-903   |
| 1                               | Water Pump Impeller              | FP-3002483       |             | VT-903   |
| 1                               | Water Pump Repair/Rebuild Kit    | FP-3390118       |             | VT-903   |
| 1                               | Water Pump Retainer Ring         | FP-70183         |             | VT-903   |
| 1                               | Water Pump Mech. Shaft Seal      | FP-3029099       |             | VT-903   |
| 1                               | Ball Brg.                        | FP-3077646       |             | Inner; VT-903  |
| 1                               | Ball Brg.                        | FP-3017035       |             | Outer; VT-903  |
| <b>QTY</b>                      | <b>SEALS - FAN HUB</b>           | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Oil Seal                         | 39835            |             | Inner  |
| 1                               | Oil Seal                         | 39877            |             | Outer  |
| 1                               | Redi-Sleeve                      | 99181            |             | Inner  |
| <b>QTY</b>                      | <b>THERMOSTAT</b>                | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Thermostat                       | FP-135675        |             | VT-903; 180 degree F, Vented   |
| 1                               | Rect. or Square Seal             | FP-186780        |             | VT-903   |
| <b>ENGINE BLOCK &amp; PARTS</b> |                                  |                  |             |  |
| <b>QTY</b>                      | <b>GASKETS</b>                   | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Oil Pan Gasket                   | FP-196949        |             | VT-903   |
| <b>QTY</b>                      | <b>GASKET SETS</b>               | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Gasket Conversion Set            | FP-3014458       |             | VT-903; Incl. crank seals  |
| 1                               | In-Frame Gasket Set              | FP-3013497S      |             | VT-903   |
| 1                               | Kit Gasket Set                   | 260-1667         |             | Compl., Incl. valve stem seals   |
| <b>QTY</b>                      | <b>CAM BEARINGS</b>              | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Cam Set                          | FP-1449M         |             | Late Engs.; w/2.6875" housing bore   |
| 1                               | Cam Set                          | 1449M + Std Only |             | Late Engs.; w/2.6875" housing bore; When depleted use FP-1449M             |
| 2                               | Cam Brg.                         | FP-200780        | STD         | Position 1-5; VT-903   |
| 3                               | Cam Brg.                         | FP-200790        | STD         | Position 2-3-4; VT-903   |
| <b>QTY</b>                      | <b>OIL COOLERS &amp; FILTERS</b> | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Oil Cooler Element               | FP-186348        |             | VT-903   |
| 1                               | Oil Cooler Element               | FP-3021581       |             | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC |
| 1                               | Oil Cooler Element               | 213-3021581      |             | 12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC |
| 2                               | Snap Ring                        | FP-3006745       |             | VT-903; Oil Cooler   |
| 1                               | Oil Cooler Gasket                | FP-187608        |             | VT-903   |
| 1                               | Oil Cooler Gasket                | FP-209865        |             | VT-903   |
| 2                               | O-Ring                           | FP-3007713       |             | VT-903; Oil Cooler   |
| <b>CRANKSHAFT/OIL PUMP</b>      |                                  |                  |             |  |
| <b>QTY</b>                      | <b>SEALS - FRONT CRANK</b>       | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Oil Seal                         | FP-3020184       |             | Front; VT-903  |
| 1                               | Oil Seal                         | FP-3021094       |             | Front; VTB-903   |
| 1                               | Oil Seal Kit                     | FP-SK3021094     |             | Front & Rear; VTB-903  |
| 1                               | Redi-Sleeve                      | FP-3006740       |             | Front; VT-903, VTB-903   |
| 1                               | Redi-Sleeve                      | 99395            |             |  |
| <b>QTY</b>                      | <b>SEALS - REAR CRANK</b>        | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Oil Seal                         | FP-3023867       |             | Rear; VT-903   |
| 1                               | Oil Seal                         | FP-3016660       |             | Rear; VTB-903  |
| 1                               | Redi-Sleeve                      | FP-3006741       |             | Rear; Wet or Dry Clutch  |
| <b>QTY</b>                      | <b>MAIN BEARINGS</b>             | <b>PART NO.</b>  | <b>SIZE</b> | <b>DESCRIPTION</b>   |
| 1                               | Main Set                         | FP-AR3640        | STD         | VT-903; Incl. Thrust Washers   |
| 1                               | Main Set                         | FP-AR3641        | 10          | VT-903; Incl. Thrust Washers   |
| 1                               | Main Set                         | FP-AR3642        | 20          | VT-903; Incl. Thrust Washers   |
| 1                               | Main Set                         | FP-AR3643        | 30          | VT-903; Incl. Thrust Washers   |

(continued on next page)



**Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40  
VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, (cont.)  
VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore**

**CYLINDER COMPONENTS**

| QTY         | LINERS                       | PART NO.        | SIZE | DESCRIPTION  |
|-------------|------------------------------|-----------------|------|--|
| 8           | Liner w/o Sealing Rings      | FP-203170       | STD  | VT-903, VTB-903  |
| 8           | Liner w/Sealing Rings        | FP-AR8069       | STD  | VT-903   |
| 8           | Cylinder Kit Complete        | FP-AR11909      | STD  | VT-903; 15.5:1 C.R.  |
| 8           | Cylinder Kit Complete        | FP-AR11928      | STD  | VT-903; 15.5:1 C.R.  |
| 8           | Cylinder Kit Complete        | FP-3023475      | STD  | VTB-903; 16.5:1 C.R.   |
| 16          | Sealing Ring, Liner          | FP-3032874      |      | VT-903, VTB-903  |
| 8           | Sealing Ring, Liner          | FP-3044795      |      | VT-903, VTB-903; Crevice Seal  |
| QTY         | PISTONS                      | PART NO.        | SIZE | DESCRIPTION  |
| 8           | Piston Body w/o Pin          | FP-3037413      | STD  | VT-903; 15.5:1 C.R.; 15.5:1 C.R.                                       |
| 8           | Piston Body w/o Pin          | FP-3037414      |      | VTB-903; 16.5:1 C.R.   |
| 8           | Piston Kit w/Pin & Retainers | FP-3019287      |      | VT-903; Heavy Pin; 15.5:1 C.R.; 15.5:1 C.R.                            |
| 8           | Piston Kit w/Pin & Retainers | FP-AR11929      |      | VT-903; Light Pin; 15.5:1 C.R.   |
| 8           | Piston Kit w/Pin & Retainers | FP-3020083      | STD  | VTB-903; Heavy Pin; 16.5:1 C.R.  |
| 8           | Pin                          | FP-140120       |      | VT-903; Light Pin  |
| 8           | Pin                          | FP-215390       | STD  | VT-903, VTB-903; Heavy Pin   |
| 8           | Piston Pin Retainer          | FP-155267       |      | VT-903, VTB-903  |
| 8           | Pin Bushing                  | FP-189763       |      |  |
| QTY         | CONNECTING RODS & BRGS.      | PART NO.        | SIZE | DESCRIPTION  |
| 8           | Rod Pair                     | FP-189770PR     | STD  |  |
| 8           | Rod Pair                     | FP-189771PR     | 10   |  |
| 8           | Rod Pair                     | FP-189772PR     | 20   |  |
| 16          | Rod Bearing Half Upper/Lower | FP-189770       | STD  | VT-903   |
| 16          | Rod Bearing Half Upper/Lower | FP-189771       | 10   | VT-903   |
| 16          | Rod Bearing Half Upper/Lower | FP-189772       | 20   | VT-903   |
| 16          | Rod Bearing Half Upper/Lower | FP-189773       | 30   | VT-903   |
| QTY         | PISTON RINGS                 | PART NO.        | SIZE | DESCRIPTION  |
| 8           | Ring Set Single Cylinder     | FP-AR11930      | STD  | VT-903, VTB-903  |
| <b>KITS</b> |                              |                 |      |  |
| QTY         | OVERHAUL KIT                 | PART NO.        | SIZE | DESCRIPTION  |
| 1           | In-Frame Overhaul Kit        | FP-VTB903PREM   |      | VT-903; Premium; With Upper Gasket Set & Pan Gasket                    |
| 1           | Complete Overhaul Kit        | FP-VTB903PREMOH |      | VT-903; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets |

**Multi-Purpose Engines N-927, Super 250, Super 270 Engs. 41  
15.2L 927 OHV Diesel L6, 5.5" Bore**

**CYL. HEAD & PARTS**

| QTY | GASKETS               | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------------|------------|------|--|
| 3   | Valve Cover Gasket    | FP-3054841 |      | N-927, Super 250; Single valve cover gskt., 5-bolt Engs.; 3 req'd.                                       |
| 3   | Rocker Housing Gasket | FP-3017750 |      | Super 250; Single rocker box gskt., 5-bolt Engs.; 3 req'd.   |
| 1   | Head Gasket           | FP-4058790 |      | N-927; Single head gskt., Incl. .010 thick water grommets. 3 req'd.                                      |
| 1   | Head Set              | FP-3801324 |      | N-927  |
| 1   | Head Set              | FP-3801348 |      | Super 250, Super 270; .010 O/S Water Grommets; Upper set, SC & BC I, II, III, 5 bolt Engs.; w/ & w/o FFC |
| 1   | Head Set              | FP-3804276 |      | Super 250, Super 270; Contains standard size water grommets  |
| 1   | Cam Follower Gasket   | FP-9266A   |      | N-927; .006-.008   |
| 1   | Cam Follower Gasket   | FP-9266    |      | N-927; .014-.020   |
| 1   | Cam Follower Gasket   | FP-3011272 |      | N-927; .020-.024   |
| 1   | Cam Follower Gasket   | FP-120819  |      | N-927; .027-.033   |
| 1   | Cam Follower Gasket   | FP-3011273 |      | N-927; .037-.041   |
| QTY | HEAD BOLTS            | PART NO.   | SIZE | DESCRIPTION  |
| 36  | Head Bolt             | FP-209700  |      | N-927, Super 250, Super 270; 6 1/4"  |
| QTY | VALVE                 | PART NO.   | SIZE | DESCRIPTION  |
| 12  | Intake                | FP-135957  |      | N-927; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.   |
| 12  | Exhaust               | FP-145701  |      | N-927; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.                                     |
| 24  | Exhaust               | FP-3040830 |      | Exh. & Int.; Super 250, Super 270  |
| 12  | Exhaust Valve Kit     | FP-3803524 |      | N-927  |
| 12  | Intake Valve Kit      | FP-3803512 |      | N-927  |
| 48  | Keeper                | FP-127554  |      | N-927  |

(continued on next page)

## 41 Multi-Purpose Engines N-927, Super 250, Super 270 Engs.

(cont.) 15.2L 927 OHV Diesel L6, 5.5" Bore

| CYL. HEAD & PARTS (cont.) |                              |             |      |   |
|---------------------------|------------------------------|-------------|------|---|
| QTY                       | VALVE SEAT                   | PART NO.    | SIZE | DESCRIPTION   |
| 12                        | Exh.                         | FP-3017759  | STD  | N-927; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth  |
| 12                        | Exh.                         | FP-30177593 | 3    | N-927; Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth  |
| QTY                       | VALVE GUIDE                  | PART NO.    | SIZE | DESCRIPTION   |
| 24                        | Guide                        | FP-3006456  |      | STD; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.  |
| 24                        | Guide                        | FP-3006457  |      | 10; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2  |
| 24                        | Guide                        | FP-3006458  |      | 15; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2  |
| QTY                       | VALVE SPRING                 | PART NO.    | SIZE | DESCRIPTION   |
| 24                        | Spring                       | FP-211999   |      | N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2; 2.6850" Free Height   |
| QTY                       | VALVE SEAL                   | PART NO.    | SIZE | DESCRIPTION   |
| 24                        | Valve Stem Seal              | FP-156641   |      | N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2  |
| QTY                       | ROCKER PARTS                 | PART NO.    | SIZE | DESCRIPTION   |
| 2                         | Rocker Shaft                 | FP-3038904  |      | Super 250   |
| 1                         | Cam Follower Roller          | FP-92601    |      | N-927; Valve  |
| 6                         | Injector Cam Roller          | FP-3062096  |      | N-927; Injector   |
| 18                        | Adjusting Screw Nut          | FP-S212     |      | Super 250; 1/2" - 20 UNF; Use w/FP-168306   |
| 12                        | Valve Roller Pin             | FP-68513    |      | N-927; Cam Follower; .500" OD x 1.280" Length   |
| 12                        | Rocker Lever Adjusting Screw | FP-168306   |      | Super 250; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212   |
| 4                         | Rocker Shaft Plug            | FP-3038903  |      | Super 250   |
| 6                         | Rocker Arm Socket            | FP-194037   |      | Super 250   |
| 6                         | Bushing                      | FP-118377   |      | N-927; Injector; Cam Follower   |
| 1                         | Bushing                      | FP-118377   |      | Super 250; Injector; Rocker Lever   |
| 12                        | Bushing                      | FP-118378   |      | Super 250; Valve; Rocker Lever  |
| 12                        | Bushing                      | FP-118378   |      | Int. & Exh.; N-927; Valve; Cam Follower   |
| 12                        | Fuel Injector Roller Pin     | FP-3017544  |      | N-927; Cam Follower   |
| 36                        | Valve Lock Pin               | FP-118939   |      | N-927; Injector and Valve; Cam Follower   |
| INT & EXH MANIFOLDS       |                              |             |      |   |
| QTY                       | INT. & EXH. MANIFOLDS        | PART NO.    | SIZE | DESCRIPTION   |
| 6                         | Exhaust Manifold Gasket      | FP-3020943  |      | N-927   |
| CAMSHAFT GROUP            |                              |             |      |   |
| QTY                       | CAMSHAFT/LIFTER              | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Camshaft                     | FP-3801030  |      | N-927, Super 250; IL6; CPL's 087, 124, 131.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |
| 1                         | Camshaft                     | FP-3023177  |      | N-927, Super 250; IL6; CPL's 115, 133.  |
| 1                         | Camshaft                     | FP-3801030  |      | N-927, Super 270; IL6; CPL's 087, 124, 131.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key |
| 1                         | Camshaft                     | FP-3023177  |      | N-927, Super 270; IL6; CPL's 115, 133.  |
| 1                         | Prelube                      | 55-400      |      | 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.   |
| 1                         | Cam Follower Shaft           | FP-3065125  |      | N-927   |
| FUEL SYSTEM & PARTS       |                              |             |      |   |
| QTY                       | FUEL INJECTION               | PART NO.    | SIZE | DESCRIPTION   |
| 6                         | Fuel Injector Sleeve         | FP-3071147  |      | N-927, Super 250; Heavy Nose; Optional To FP-3070486 For Thin Cylinder Heads.   |
| 6                         | Fuel Injector Sleeve         | FP-3070486  |      | N-927, Super 250; Thin  |
| 6                         | Fuel Injector Sleeve         | FP-3071147  |      | N-927, Super 270; Heavy Nose; Optional To FP-3070486 For Thin Cylinder Heads.   |
| 6                         | Fuel Injector Sleeve         | FP-3070486  |      | N-927, Super 270; Thin  |
| QTY                       | FUEL FILTERS & PUMP          | PART NO.    | SIZE | DESCRIPTION   |
| 18                        | O-Ring                       | FP-193736   |      | N-927; Fuel Injector Mounting   |
| 6                         | O-Ring                       | FP-3007759  |      | Super 250, Super 270; Injector Tube Seal  |
| ENGINE BLOCK & PARTS      |                              |             |      |   |
| QTY                       | GASKETS                      | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Oil Pan Gasket               | FP-3349820  |      | 0.79mm / 0.031" Thick; One piece gskt.  |
| QTY                       | GASKET SETS                  | PART NO.    | SIZE | DESCRIPTION   |
| 1                         | Gasket Conversion Set        | FP-3014459  |      | Super 250, Super 270; Lower set   |

(continued on next page)

*Multi-Purpose Engines N-927, Super 250, Super 270 Eng.* **41**  
15.2L 927 OHV Diesel L6, 5.5" Bore (cont.)

**ENGINE BLOCK & PARTS (cont.)**

| QTY                        | CAM BEARINGS             | PART NO.    | SIZE | DESCRIPTION  |
|----------------------------|--------------------------|-------------|------|--|
| 1                          | Cam Set                  | FP-BM27253  | STD  |  |
| <b>CRANKSHAFT/OIL PUMP</b> |                          |             |      |  |
| QTY                        | SEALS - FRONT CRANK      | PART NO.    | SIZE | DESCRIPTION  |
| 1                          | Oil Seal                 | FP-3020182  |      | Front; N-927   |
| QTY                        | SEALS - REAR CRANK       | PART NO.    | SIZE | DESCRIPTION  |
| 1                          | Oil Seal                 | FP-3006737  |      | Rear; N-927; 6.00" Shaft                             |
| QTY                        | MAIN BEARINGS            | PART NO.    | SIZE | DESCRIPTION  |
| 1                          | Main Set                 | FP-3801260  | STD  | N-927, Super 250; Incl. thrust washers               |
| 1                          | Main Set                 | FP-3801261  | 10   | N-927, Super 250; Incl. thrust washers               |
| 1                          | Main Set                 | FP-3801262  | 20   | N-927, Super 250; Incl. thrust washers               |
| 1                          | Main Set                 | FP-3801263  | 30   | N-927, Super 250; Incl. thrust washers               |
| 1                          | Main Set                 | FP-3801264  | 40   | N-927, Super 250; Incl. thrust washers               |
| 4                          | Thrust Washer            | FP-3067568  | STD  | N-927, Super 250                                     |
| <b>CYLINDER COMPONENTS</b> |                          |             |      |  |
| QTY                        | LINERS                   | PART NO.    | SIZE | DESCRIPTION  |
| 6                          | Flange Shim              | FP-3019956  | 8    | .008" Thick, fits Std. & 10/20 sleeves               |
| 6                          | Flange Shim              | FP-3054948  | 20   | .020" Thick, fits Std. & 10/20 sleeves               |
| 6                          | Flange Shim              | FP-3054948B | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 50 |
| 6                          | Flange Shim              | FP-30549486 | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 6  |
| QTY                        | PISTONS                  | PART NO.    | SIZE | DESCRIPTION  |
| 6                          | Pin Bushing              | FP-187420   |      | 1 piece bushing; 2.20" Width                         |
| QTY                        | PISTON RINGS             | PART NO.    | SIZE | DESCRIPTION  |
| 6                          | Ring Set Single Cylinder | FP-4089810  | STD  | 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)                   |

*Multi-Purpose Engines GNVH, GNVH450, GV1486, NVH, NVH12, NVH450, NVHS, V600, V1486 Eng.* **42**  
24.4L 1486 OHV Diesel V12, 5.125" Bore

**CYL. HEAD & PARTS**

| QTY | VALVE        | PART NO.  | SIZE | DESCRIPTION  |
|-----|--------------|-----------|------|--|
| 48  | Exhaust      | FP-144911 |      | 1.7400" Head Dia., 7.0600" O.A.L.  |
| 96  | Keeper       | FP-S2037  |      | 2 groove   |
| QTY | VALVE GUIDE  | PART NO.  | SIZE | DESCRIPTION  |
| 48  | Guide        | FP-66890  |      | Exh. & Int.; Threaded I.D., ream .405"; Threaded ID; .405" ID, 3.44" OAL |
| QTY | VALVE SPRING | PART NO.  | SIZE | DESCRIPTION  |
| 48  | Spring       | FP-111446 |      | Exh. & Int.  |

**ENGINE BLOCK & PARTS**

| QTY                        | CAM BEARINGS            | PART NO.   | SIZE | DESCRIPTION                 |
|----------------------------|-------------------------|------------|------|-----------------------------|
| 28                         | Cam Brg.                | FP-70437   | STD  | Position All                |
| QTY                        | OIL COOLERS & FILTERS   | PART NO.   | SIZE | DESCRIPTION                 |
| 1                          | Oil Cooler              | FP-110848  |      | 6.500" X 4.000" tube bundle |
| <b>CRANKSHAFT/OIL PUMP</b> |                         |            |      |                             |
| QTY                        | SEALS - FRONT CRANK     | PART NO.   | SIZE | DESCRIPTION                 |
| 1                          | Redi-Sleeve             | 99376      |      |                             |
| 1                          | Oil Seal                | 39705      |      |                             |
| QTY                        | SEALS - REAR CRANK      | PART NO.   | SIZE | DESCRIPTION                 |
| 1                          | Oil Seal                | 39701      |      |                             |
| 1                          | Redi-Sleeve             | 99725      |      |                             |
| <b>CYLINDER COMPONENTS</b> |                         |            |      |                             |
| QTY                        | LINERS                  | PART NO.   | SIZE | DESCRIPTION                 |
| 12                         | Liner w/o Sealing Rings | FP-184400  | STD  |                             |
| 12                         | Liner w/Sealing Rings   | FP-BM98224 | STD  |                             |
| 12                         | Cylinder Kit Complete   | FP-AR7383  | STD  | 14.5:1 C.R.                 |
| 12                         | Sealing Ring, Liner     | FP-181449  |      |                             |
| 12                         | Sealing Ring, Liner     | FP-216879  |      |                             |
| 12                         | Sealing Ring, Liner     | FP-215983  |      | Crevice Seal                |
| QTY                        | PISTONS                 | PART NO.   | SIZE | DESCRIPTION                 |
| 12                         | Piston Body w/o Pin     | FP-199821  | STD  |                             |
| 12                         | Pin                     | FP-203070  | STD  | 1.9989" Dia.                |

(continued on next page)

**42 Multi-Purpose Engines GNVH, GNVH450, GV1486, NVH, NVH12, NVH450, NVHS, V600, (cont.) V1486 Engs.**  
24.4L 1486 OHV Diesel V12, 5.125" Bore

| CYLINDER COMPONENTS (cont.) |                          |             |      |   |
|-----------------------------|--------------------------|-------------|------|---|
| QTY                         | PISTONS (cont.)          | PART NO.    | SIZE | DESCRIPTION   |
| 24                          | Piston Pin Retainer      | FP-175755   |      |   |
| 12                          | Pin Bushing              | FP-43067    |      | Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| 12                          | Pin Bushing              | FP-187420   |      | 1 piece bushing; 2.20" Width                        |
| CONNECTING RODS & BRGS.     |                          |             |      |   |
| QTY                         |                          | PART NO.    | SIZE | DESCRIPTION   |
| 12                          | Rod Pair                 | FP-200600PR | STD  | V & VT Series Engs.                                 |
| PISTON RINGS                |                          |             |      |   |
| QTY                         |                          | PART NO.    | SIZE | DESCRIPTION   |
| 1                           | Ring Set Single Cylinder | FP-AR12098  | STD  | 3-5/32, 1-1/4                                       |

**43 Multi-Purpose Engines VT600, VT1486 Engs.**  
24.4L 1486 OHV Turbo-Diesel V12, 5.125" Bore

| CYL. HEAD & PARTS |             |            |      |  |
|-------------------|-------------|------------|------|--|
| QTY               | VALVE       | PART NO.   | SIZE | DESCRIPTION  |
| 48                | Exhaust     | FP-144911  |      | 1.7400" Head Dia., 7.0600" O.A.L.  |
| 96                | Keeper      | FP-S2037   |      | 2 groove   |
| VALVE SEAT        |             |            |      |  |
| QTY               |             | PART NO.   | SIZE | DESCRIPTION  |
| 48                | Exh. & Int. | FP-69965   | STD  |  |
| 48                | Exh. & Int. | FP-699655  | 5    |  |
| 48                | Exh. & Int. | FP-6996520 | 20   |  |
| VALVE GUIDE       |             |            |      |  |
| QTY               |             | PART NO.   | SIZE | DESCRIPTION  |
| 48                | Guide       | FP-66890   |      | Exh. & Int.; Threaded I.D., ream .405"; Threaded ID; .405" ID, 3.44" OAL |
| VALVE SPRING      |             |            |      |  |
| QTY               |             | PART NO.   | SIZE | DESCRIPTION  |
| 48                | Spring      | FP-111446  |      | Exh. & Int.  |

| ENGINE BLOCK & PARTS  |              |           |      |                             |
|-----------------------|--------------|-----------|------|-----------------------------|
| QTY                   | CAM BEARINGS | PART NO.  | SIZE | DESCRIPTION                 |
| 28                    | Cam Brg.     | FP-70437  | STD  | Position All                |
| OIL COOLERS & FILTERS |              |           |      |                             |
| QTY                   |              | PART NO.  | SIZE | DESCRIPTION                 |
| 1                     | Oil Cooler   | FP-110848 |      | 6.500" X 4.000" tube bundle |

| CYLINDER COMPONENTS |                          |            |      |   |
|---------------------|--------------------------|------------|------|---|
| QTY                 | LINERS                   | PART NO.   | SIZE | DESCRIPTION   |
| 12                  | Liner w/o Sealing Rings  | FP-184400  | STD  |   |
| 12                  | Liner w/Sealing Rings    | FP-BM98224 | STD  |   |
| 12                  | Sealing Ring, Liner      | FP-181449  |      |   |
| 12                  | Sealing Ring, Liner      | FP-216879  |      |   |
| 12                  | Sealing Ring, Liner      | FP-215983  |      | Crevice Seal  |
| PISTONS             |                          |            |      |   |
| QTY                 |                          | PART NO.   | SIZE | DESCRIPTION   |
| 12                  | Piston Body w/o Pin      | FP-200710  | STD  | 14.0:1 C.R.   |
| 12                  | Pin                      | FP-203070  | STD  | 1.9989" Dia.  |
| 24                  | Piston Pin Retainer      | FP-175755  |      |   |
| 12                  | Pin Bushing              | FP-43067   |      | Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| PISTON RINGS        |                          |            |      |   |
| QTY                 |                          | PART NO.   | SIZE | DESCRIPTION   |
| 1                   | Ring Set Single Cylinder | FP-AR12098 | STD  | 3-5/32, 1-1/4                                       |

**44 Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, V1710-PG500, V1710-460, V1710-500 Engs.**  
28.0L 1710 OHV Diesel V12, 5.5" Bore

| CYL. HEAD & PARTS |                       |             |      |  |
|-------------------|-----------------------|-------------|------|--|
| QTY               | GASKETS               | PART NO.    | SIZE | DESCRIPTION  |
| 1                 | Valve Cover Gasket    | FP-3077198  |      | V-1710   |
| 1                 | Rocker Housing Gasket | FP-3036100  |      | V-1710   |
| 2                 | Head Gasket           | FP-BM98021  |      | V-1710   |
| 1                 | Head Set              | FP-PG1710SH |      | V-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds                                |
| 1                 | Head Set              | PG1710SH +  |      | V-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds; When depleted use FP-PG1710SH |
| 1                 | Head Set              | FP-PG1710HP |      | V-1710; For High Profile Aftercooler; Phase II & III Engines                                 |
| 1                 | Head Set              | PG1710HP +  |      | V-1710; For High Profile Aftercooler; Phase II & III Engines; When depleted use FP-PG1710HP  |
| 1                 | Head Set              | FP-3801403  |      | V-1710; Single Head Set  |

(continued on next page)

**Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, 44 V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, (cont.) V1710-PG500, V1710-460, V1710-500 Engs. 28.0L 1710 OHV Diesel V12, 5.5" Bore**

**CYL. HEAD & PARTS (cont.)**

| QTY                            | GASKETS (cont.)                  | PART NO.        | SIZE        | DESCRIPTION   |
|--------------------------------|----------------------------------|-----------------|-------------|---|
| 1                              | Head Set                         | FP-3803697      |             | V-1710; Upper Set   |
| QTY                            | <b>VALVE</b>                     | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 12                             | Intake                           | FP-135957       |             | V-1710; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.                       |
| 12                             | Exhaust                          | FP-145701       |             | V-1710; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.             |
| 12                             | Exhaust Valve Kit                | FP-3803524      |             | V-1710  |
| 12                             | Intake Valve Kit                 | FP-3803512      |             | V-1710  |
| 48                             | Keeper                           | FP-127554       |             | V-1710  |
| QTY                            | <b>VALVE SEAT</b>                | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 24                             | Exh.                             | FP-30177593     | 3           | Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth         |
| 24                             | Exh.                             | FP-3017759      | STD         | V-1710; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth |
| QTY                            | <b>VALVE GUIDE</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 24                             | Guide                            | FP-3006456      |             | STD; V-1710; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.       |
| 24                             | Guide                            | FP-3006457      |             | 10; V-1710; Check Cummins Service Topics 93T2-2                                   |
| 24                             | Guide                            | FP-3006458      |             | 15; V-1710; Check Cummins Service Topics 93T2-2                                   |
| QTY                            | <b>VALVE SPRING</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 24                             | Spring                           | FP-211999       |             | V-1710; Check Cummins Service Topics 93T2-2; 2.6850" Free Height                  |
| 24                             | Retainer                         | FP-170296       |             | V-1710  |
| 24                             | Valve Spring Seat                | FP-3042745      |             | V-1710  |
| QTY                            | <b>PUSH RODS</b>                 | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 12                             | Push Rod                         | FP-3046432      |             | V-1710; Injector  |
| 48                             | Push Rod                         | FP-3046419      |             | Int. & Exh.; V-1710   |
| QTY                            | <b>VALVE MISC.</b>               | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 48                             | Crosshead Valve Assembly         | FP-3030038      |             | Exh. & Int.   |
| QTY                            | <b>ROCKER PARTS</b>              | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 48                             | Cam Follower Roller              | FP-3006699      |             | V-1710; Valve   |
| 12                             | Injector Cam Roller              | FP-3017511      |             | V-1710  |
| 48                             | Adjusting Screw Nut              | FP-S212         |             | V-1710; 1/2" - 20 UNF; Use w/FP-168306  |
| 1                              | Valve Bridge Guide               | FP-123558       |             | V-1710  |
| 48                             | Valve Roller Pin                 | FP-113749       |             | V-1710; Cam Follower  |
| 48                             | Valve Roller Pin                 | FP-163815       |             | V-1710; Cam Follower  |
| 48                             | Rocker Lever Adjusting Screw     | FP-168306       |             | V-1710; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212                              |
| 48                             | Rocker Arm Socket                | FP-194037       |             | V-1710  |
| 12                             | Bushing                          | FP-218153       |             | V-1710; Injector; Rocker Lever  |
| 24                             | Bushing                          | FP-140330       |             | V-1710; Valve; Rocker Lever   |
| 12                             | Cam Follower Socket              | FP-213559       |             | V-1710; Injector; Cam Follower  |
| 48                             | Cam Follower Socket              | FP-213559       |             | Int. & Exh.; V-1710; Valve; Cam Follower  |
| <b>INT &amp; EXH MANIFOLDS</b> |                                  |                 |             |   |
| QTY                            | <b>INT. &amp; EXH. MANIFOLDS</b> | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 12                             | Exhaust Manifold Gasket          | FP-3045941      |             | V-1710  |
| <b>CAMSHAFT GROUP</b>          |                                  |                 |             |   |
| QTY                            | <b>CAMSHAFT/LIFTER</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                              | Camshaft Thrust Washer           | FP-92351        |             | V-1710; Small Cam   |
| <b>ACCESSORY DRIVE</b>         |                                  |                 |             |   |
| QTY                            | <b>ACCESSORY DRIVE</b>           | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 1                              | Bushing                          | FP-116391       |             | V-1710; Front Cover   |
| 1                              | Oil Seal                         | 50569           |             | 1.625" Shaft  |
| 1                              | Oil Seal                         | 39719           |             | Left Hand   |
| 1                              | Redi-Sleeve                      | 99162           |             | 1.625" Shaft  |
| 1                              | Redi-Sleeve                      | 99162           |             | Left Hand   |
| 1                              | Redi-Sleeve                      | 99162           |             | Right Hand  |
| 1                              | Oil Seal                         | FP-3020187      |             | V-1710; Front Cover   |
| <b>FUEL SYSTEM &amp; PARTS</b> |                                  |                 |             |   |
| QTY                            | <b>FUEL INJECTION</b>            | <b>PART NO.</b> | <b>SIZE</b> | <b>DESCRIPTION</b>  |
| 12                             | Fuel Injector Sleeve             | FP-3070486      |             | V-1710; Thin  |
| 12                             | O-Ring                           | FP-3007759      |             | V-1710; Injector Tube Seal  |

(continued on next page)

**44 Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, (cont.) V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, V1710-PG500, V1710-460, V1710-500 Eng's.**  
28.0L 1710 OHV Diesel V12, 5.5" Bore

| FUEL SYSTEM & PARTS (cont.) |                         |            |      |  |
|-----------------------------|-------------------------|------------|------|--|
| QTY                         | FUEL FILTERS & PUMP     | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Mechanical Fuel Pump    | FP-3034222 |      | V-1710; 1 1/4" L.H. Heavy Duty   |
| 2                           | Fuel Pump Gear          | FP-119364  |      | V-1710; 1 1/4"   |
| 2                           | Fuel Pump Gear          | FP-170942  |      | V-1710; 1"   |
| 1                           | Fuel Pump Drive Shaft   | FP-100217  |      | V-1710; 1 1/4"; Drive  |
| 1                           | Fuel Pump Gasket        | FP-110855  |      | V-1710; Fuel Pump Body   |
| COOLING SYSTEM              |                         |            |      |  |
| QTY                         | WATER PUMP              | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Seal                | 39713      |      |  |
| 1                           | Redi-Sleeve             | 99125      |      |  |
| QTY                         | SEALS - FAN HUB         | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Seal                | 39835      |      |  |
| 1                           | Redi-Sleeve             | 99181      |      |  |
| QTY                         | THERMOSTAT              | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Seal                | 39821      |      |  |
| ENGINE BLOCK & PARTS        |                         |            |      |  |
| QTY                         | GASKETS                 | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Pan Gasket          | FP-181256  |      | V-1710   |
| 1                           | O-Ring                  | FP-215705  |      | V-1710; Front Cover  |
| 1                           | Gear Cover Gasket       | FP-181187  |      | V-1710   |
| 1                           | Gear Housing Gasket     | FP-181085  |      | V-1710   |
| QTY                         | GASKET SETS             | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Gasket Conversion Set   | FP-3017564 |      | V-1710   |
| QTY                         | CAM BEARINGS            | PART NO.   | SIZE | DESCRIPTION  |
| 28                          | Cam Brg.                | FP-70437   | STD  | Position All; V-1710   |
| QTY                         | ENGINE BEARING MISC.    | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Shim                    | FP-AR1176  |      | V-1710; Cam Thrust   |
| QTY                         | MISCELLANEOUS           | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Bushing                 | FP-132770  |      | V-1710; Gear Cover; w/1.567" ID, 1.697" OD, 1.500" O.A.L.  |
| 48                          | Washer                  | FP-200861  |      | Phase III Eng's. only  |
| CRANKSHAFT/OIL PUMP         |                         |            |      |  |
| QTY                         | SEALS - FRONT CRANK     | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Seal                | FP-3020182 |      | Front; V-1710  |
| 1                           | Redi-Sleeve             | FP-3006744 |      | Front; V-1710  |
| 1                           | Redi-Sleeve             | 99376      |      |  |
| QTY                         | SEALS - REAR CRANK      | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Oil Seal                | FP-3630681 |      | Rear; V-1710; Dry  |
| 1                           | Oil Seal                | FP-3005887 |      | Rear; V-1710; Wet  |
| 1                           | Oil Seal                | FP-3070080 |      | Rear; V-28   |
| 1                           | Oil Seal                | 39701      |      |  |
| 1                           | Redi-Sleeve             | FP-3006237 |      | Rear; V-1710   |
| 1                           | Redi-Sleeve             | 99725      |      |  |
| QTY                         | MAIN BEARINGS           | PART NO.   | SIZE | DESCRIPTION  |
| 1                           | Main Set                | FP-AR4220  | STD  | V-1710; Phase III Only   |
| 1                           | Main Set                | FP-AR4221  | 10   | V-1710; Phase III Only   |
| 1                           | Main Set                | FP-AR4222  | 20   | V-1710; Phase III Only   |
| 1                           | Main Set                | FP-AR4223  | 30   | V-1710; Phase III Only   |
| 4                           | Thrust Washer           | FP-180280  | STD  | V-1710; Phase III Only   |
| CYLINDER COMPONENTS         |                         |            |      |  |
| QTY                         | LINERS                  | PART NO.   | SIZE | DESCRIPTION  |
| 12                          | Liner w/o Sealing Rings | FP-3055099 | STD  | V-1710; Std. Liners  |
| 12                          | Liner w/Sealing Rings   | FP-3801387 | 20   | Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size'). |
| 12                          | Liner w/Sealing Rings   | FP-3803219 | 20   | Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size'). |

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**Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, 44 V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, (cont.) V1710-PG500, V1710-460, V1710-500 Engs. 28.0L 1710 OHV Diesel V12, 5.5" Bore**

**CYLINDER COMPONENTS (cont.)**

| QTY  | LINERS (cont.)                | PART NO.       | SIZE | DESCRIPTION   |
|------|-------------------------------|----------------|------|---|
| 12   | Liner w/Sealing Rings         | FP-3801826     | STD  | Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals. |
| 12   | Cylinder Kit Complete         | FP-3803003     | STD  | V-12, V-28  |
| 12   | Cylinder Kit Complete         | FP-3801834     |      | V-1710; 13.0:1 C.R.   |
| 12   | Cylinder Kit Complete         | FP-3801832     |      | V-1710; 13.7:1 C.R.   |
| 12   | Cylinder Kit Complete         | FP-3801829     |      | V-1710; 13.7:1 C.R.; Premium Plus; Premium Plus   |
| 12   | Cylinder Kit Complete         | FP-3801835     |      | V-1710; 14.0:1 C.R.   |
| 12   | Cylinder Kit Complete         | FP-3801831     |      | V-1710; 14.1:1 C.R.   |
| 12   | Cylinder Kit Complete         | FP-3801828     |      | V-1710; 14.1:1 C.R.; 5 Rings  |
| 12   | Cylinder Kit Complete         | FP-3801836     |      | V-1710; 14.5:1 C.R.   |
| 12   | Cylinder Kit Complete         | FP-3801833     |      | V-1710; 14.7:1 C.R.; Premium  |
| 12   | Cyl. Liner Sealing Ring Kit   | FP-3800174     |      | Incl. (1) FP-215090, (2) FP-3032874   |
| 1    | Sealing Ring, Liner           | FP-215090      |      | V-1710; Crevice Seal  |
| 2    | Sealing Ring, Liner           | FP-3032874     |      | V-1710; Middle & Lower Seal   |
| 12   | Flange Shim                   | FP-3019956     | 8    | .008" Thick, fits Std. & 10/20 sleeves  |
| 12   | Flange Shim                   | FP-3054948     | 20   | .020" Thick, fits Std. & 10/20 sleeves  |
| 12   | Flange Shim                   | FP-3054948B    | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 50  |
| 12   | Flange Shim                   | FP-30549486    | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 6   |
| QTY  | PISTONS                       | PART NO.       | SIZE | DESCRIPTION   |
| 12   | Piston Body w/o Pin           | FP-3058363     | STD  | V-12, V-28  |
| 12   | Piston Body w/o Pin           | FP-3031213     |      | V-1710; 13.0:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-3031049     |      | V-1710; 13.7:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-3003176     |      | V-1710; 13.7:1 C.R.; Premium Plus   |
| 12   | Piston Body w/o Pin           | FP-3031214     |      | V-1710; 14.0:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-175760      |      | V-1710; 14.1:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-3011295     |      | V-1710; 14.1:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-3040097     |      | V-1710; 14.5:1 C.R.   |
| 12   | Piston Body w/o Pin           | FP-3003175     |      | V-1710; 14.7:1 C.R.; Premium  |
| 12   | Piston Kit w/Pin & Retainers  | FP-AR5720      |      | V-1710; 13.7:1 C.R.; Premium Plus   |
| 12   | Piston Kit w/Pin & Retainers  | FP-AR3550      |      | V-1710; 14.1:1 C.R.   |
| 12   | Piston Kit w/Pin & Retainers  | FP-AR45653     |      | V-1710; 14.7:1 C.R.; Premium  |
| 12   | Pin                           | FP-191970      |      | V-12, V-28, V-1710  |
| 12   | Piston Pin Retainer           | FP-175755      |      | V-12, V-28, V-1710  |
| 12   | Pin Bushing                   | FP-43067       |      | w/straight rod; Straight rod bushing; 1.03" Width; 2 req'd. per rod   |
| 12   | Pin Bushing                   | FP-187420      |      | V-1710; 1 piece bushing; 2.20" Width  |
| 2    | Insert, Piston                | FP-3043650     |      | V-1710; PTFE  |
| 12   | Piston With Retainer & Insert | FP-3803002     |      | V-12, V-28  |
| 12   | Piston With Retainer & Insert | FP-3801267     |      | V-1710; 13.0:1 C.R.   |
| 12   | Piston With Retainer & Insert | FP-AR12357     |      | V-1710; 13.7:1 C.R.   |
| 12   | Piston With Retainer & Insert | FP-3801434     |      | V-1710; 14.0:1 C.R.   |
| 12   | Piston With Retainer & Insert | FP-AR12359     |      | V-1710; 14.1:1 C.R.   |
| 12   | Piston With Retainer & Insert | FP-3801666     |      | V-1710; 14.5:1 C.R.   |
| QTY  | CONNECTING RODS & BRGS.       | PART NO.       | SIZE | DESCRIPTION   |
| 12   | Rod Pair                      | FP-200600PR    | STD  | V & VT Series Engs.; Phase 3 Engs.  |
| 24   | Rod Bearing Half Upper/Lower  | FP-200600      | STD  | V-1710  |
| 24   | Rod Bearing Half Upper/Lower  | FP-200601      | 10   | V-1710  |
| 24   | Rod Bearing Half Upper/Lower  | FP-200602      | 20   | V-1710  |
| QTY  | PISTON RINGS                  | PART NO.       | SIZE | DESCRIPTION   |
| 12   | Ring Set Single Cylinder      | FP-4089810     | STD  | V-1710; For Pistons FP-3003175, FP-3058363; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)  |
| 12   | Ring Set Single Cylinder      | FP-4089811     | STD  | V-1710; For Pistons FP-3003176, FP-3011295, FP-3031049, FP-3031213, FP-3031214, FP-3040097  |
| 12   | Ring Set Single Cylinder      | FP-4089812     |      | V-1710; For 5-Ring Piston, FP-175760  |
| 12   | Ring Set Single Cylinder      | FP-3801044 +   |      | V-1710; When depleted use FP-4089812  |
| KITS |                               |                |      |   |
| QTY  | OVERHAUL KIT                  | PART NO.       | SIZE | DESCRIPTION   |
| 1    | Complete Overhaul Kit         | FP-IFK1710OHE  |      | V-1710; With Front & Rear Seals and Upper & Lower Gasket Sets   |
| 1    | Complete Overhaul Kit         | FP-IFKVTA28OHL |      | V-28; With Front & Rear Seals and Upper & Lower Gasket Sets   |

**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CYL. HEAD & PARTS**

| QTY                 | GASKETS                      | PART NO.    | SIZE | DESCRIPTION   |
|---------------------|------------------------------|-------------|------|---|
| 1                   | Valve Cover Gasket           | FP-3077198  |      | VTA-28, VT-1710   |
| 1                   | Rocker Housing Gasket        | FP-3036100  |      | VTA-28, VT-1710   |
| 2                   | Head Gasket                  | FP-BM98021  |      | VTA-28, VT-1710   |
| 1                   | Head Set                     | FP-PG1710SH |      | VTA-28, VT-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds                                |
| 1                   | Head Set                     | PG1710SH +  |      | VTA-28, VT-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds; When depleted use FP-PG1710SH |
| 1                   | Head Set                     | FP-PG1710HP |      | VTA-28, VT-1710; For High Profile Aftercooler; Phase II & III Engines                                 |
| 1                   | Head Set                     | PG1710HP +  |      | VTA-28, VT-1710; For High Profile Aftercooler; Phase II & III Engines; When depleted use FP-PG1710HP  |
| 1                   | Head Set                     | FP-PG1710LP |      | VTA-28, VT-1710; Late; For Low Profile Aftercooler  |
| 1                   | Head Set                     | PG1710LP +  |      | VTA-28, VT-1710; Late; For Low Profile Aftercooler; When depleted use FP-PG1710LP                     |
| 1                   | Head Set                     | FP-3801403  |      | VTA-28, VT-1710; Single Head Set  |
| 1                   | Head Set                     | FP-3803697  |      | VTA-28, VT-1710; Upper Set  |
| QTY                 | VALVE                        | PART NO.    | SIZE | DESCRIPTION   |
| 12                  | Intake                       | FP-135957   |      | VT-1710; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.  |
| 12                  | Exhaust                      | FP-145701   |      | VT-1710; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.                                |
| 24                  | Exhaust                      | FP-3040830  |      | Int. & Exh.; VT12R-600, VT12-700  |
| 12                  | Exhaust Valve Kit            | FP-3803524  |      | VT-1710   |
| 12                  | Intake Valve Kit             | FP-3803512  |      | VT-1710   |
| 48                  | Keeper                       | FP-127554   |      | Exh. & Int.; VT-1710, VT12R-600, VT12-700   |
| QTY                 | VALVE SEAT                   | PART NO.    | SIZE | DESCRIPTION   |
| 24                  | Exh.                         | FP-3017759  | STD  | VT-1710; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth                    |
| 24                  | Exh.                         | FP-30177593 | 3    | VT-1710; Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth                    |
| QTY                 | VALVE GUIDE                  | PART NO.    | SIZE | DESCRIPTION   |
| 24                  | Guide                        | FP-3006456  |      | STD; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.     |
| 24                  | Guide                        | FP-3006457  |      | 10; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2                                 |
| 24                  | Guide                        | FP-3006458  |      | 15; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2                                 |
| QTY                 | VALVE SPRING                 | PART NO.    | SIZE | DESCRIPTION   |
| 24                  | Spring                       | FP-211999   |      | VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2; 2.6850" Free Height                |
| 24                  | Retainer                     | FP-170296   |      | VT-1710, VT12R-600, VT12-700  |
| 24                  | Valve Spring Seat            | FP-3042745  |      | VT-1710, VT12R-600, VT12-700  |
| QTY                 | PUSH RODS                    | PART NO.    | SIZE | DESCRIPTION   |
| 12                  | Push Rod                     | FP-3046432  |      | VT-1710; Injector   |
| 48                  | Push Rod                     | FP-3046419  |      | Int. & Exh.; VT-1710  |
| QTY                 | VALVE MISC.                  | PART NO.    | SIZE | DESCRIPTION   |
| 48                  | Crosshead Valve Assembly     | FP-3030038  |      | Exh. & Int.   |
| QTY                 | ROCKER PARTS                 | PART NO.    | SIZE | DESCRIPTION   |
| 48                  | Cam Follower Roller          | FP-3006699  |      | VT-1710; Valve  |
| 12                  | Injector Cam Roller          | FP-3017511  |      | VT-1710   |
| 48                  | Adjusting Screw Nut          | FP-S212     |      | VT-1710; 1/2" - 20 UNF; Use w/FP-168306   |
| 48                  | Valve Bridge Guide           | FP-123558   |      | VT-1710   |
| 48                  | Valve Roller Pin             | FP-113749   |      | VT-1710; Cam Follower   |
| 48                  | Valve Roller Pin             | FP-163815   |      | VT-1710; Cam Follower   |
| 48                  | Rocker Lever Adjusting Screw | FP-168306   |      | VT-1710; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212   |
| 48                  | Rocker Arm Socket            | FP-194037   |      | VT-1710   |
| 12                  | Bushing                      | FP-218153   |      | VT-1710; Injector; Rocker Lever   |
| 24                  | Bushing                      | FP-140330   |      | VT-1710; Valve; Rocker Lever  |
| 12                  | Cam Follower Socket          | FP-213559   |      | VT-1710; Injector; Cam Follower   |
| 48                  | Cam Follower Socket          | FP-213559   |      | Int. & Exh.; VT-1710; Valve; Cam Follower   |
| INT & EXH MANIFOLDS |                              |             |      |   |
| QTY                 | INT. & EXH. MANIFOLDS        | PART NO.    | SIZE | DESCRIPTION   |
| 12                  | Exhaust Manifold Gasket      | FP-3045941  |      | VT-1710   |

(continued on next page)



**Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, 45  
VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
VTR1710 Engs.  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore**

**INT & EXH MANIFOLDS (cont.)**

| QTY | INT. & EXH. MANIFOLDS<br>(cont.) | PART NO.   | SIZE | DESCRIPTION |
|-----|----------------------------------|------------|------|-------------|
| 3   | Intake Manifold Gasket           | FP-3008591 |      | VTA-1710    |

**CAMSHAFT GROUP**

| QTY | CAMSHAFT/LIFTER        | PART NO.   | SIZE | DESCRIPTION     |
|-----|------------------------|------------|------|-----------------|
| 1   | Camshaft Thrust Washer | FP-92351   |      | Small Cam Engs. |
| 1   | Woodruff Key           | FP-3021601 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-69550   |      | VT-1710; 1"     |
| 1   | Cam Gear Key           | FP-3021592 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021593 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021594 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021595 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021596 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021597 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021598 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021599 |      | VT-1710; 3/4"   |
| 1   | Cam Gear Key           | FP-3021600 |      | VT-1710; 3/4"   |

**ACCESSORY DRIVE**

| QTY | ACCESSORY DRIVE | PART NO. | SIZE | DESCRIPTION  |
|-----|-----------------|----------|------|--------------|
| 1   | Oil Seal        | 50569    |      | 1.625" Shaft |
| 1   | Oil Seal        | 39719    |      | Left Hand    |
| 1   | Redi-Sleeve     | 99162    |      | 1.625" Shaft |
| 1   | Redi-Sleeve     | 99162    |      | Left Hand    |
| 1   | Redi-Sleeve     | 99162    |      | Right Hand   |

**FUEL SYSTEM & PARTS**

| QTY | FUEL INJECTION             | PART NO.   | SIZE | DESCRIPTION                     |
|-----|----------------------------|------------|------|---------------------------------|
| 12  | Fuel Injector Sleeve       | FP-3070486 |      | VT-1710; Thin                   |
| 36  | O-Ring                     | FP-193736  |      | VT-1710; Fuel Injector Mounting |
| 12  | O-Ring                     | FP-3007759 |      | VT-1710; Injector Tube Seal     |
| 1   | Fuel Injection Driver Tang | FP-70690   |      | VT-1710; Typical AFC Pump       |
| 1   | Fuel Injection Driver Tang | FP-70690   |      | VT-1710; Typical PTG Pump       |
| 12  | Fuel Injector Screen       | FP-137808  |      | VT-1710; Typical AFC Pump       |
| 12  | Fuel Injector Screen       | FP-149767  |      | VT-1710; Typical AFC Pump       |
| 12  | Fuel Injector Screen       | FP-200743  |      | VT-1710; Typical AFC Pump       |

| QTY | FUEL FILTERS & PUMP   | PART NO.   | SIZE | DESCRIPTION  |
|-----|-----------------------|------------|------|--|
| 1   | Mechanical Fuel Pump  | FP-3034222 |      | VT-1710; 1 1/4" L.H. Heavy Duty                          |
| 2   | Fuel Pump Gear        | FP-119364  |      | VT-1710; 1 1/4"  |
| 2   | Fuel Pump Gear        | FP-170942  |      | VT-1710; 1"  |
| 1   | Fuel Pump Drive Shaft | FP-3000266 |      | VT-1710; Typical PTG Pump                                |
| 1   | Fuel Pump Drive Shaft | FP-100192  |      | VT-1710; Typical PTG Pump; Main Shaft                    |
| 1   | Fuel Pump Drive Shaft | FP-100217  |      | VT-1710; 1 1/4"; Drive                                   |
| 1   | Fuel Pump Spacer      | FP-144302  |      | VT-1710; Typical AFC Pump                                |
| 1   | Fuel Pump Spacer      | FP-144302  |      | VT-1710; Typical PTG Pump                                |
| 1   | Bolt                  | FP-S2286   |      | VT-1710; Typical PTG Pump; Name Plate; Fuel Pump Housing |
| 1   | O-Ring                | FP-100478  |      | VT-1710; Typical AFC Pump                                |
| 1   | O-Ring                | FP-129888  |      | VT-1710; Typical AFC Pump                                |
| 1   | O-Ring                | FP-145504  |      | VT-1710; Typical AFC Pump                                |
| 1   | O-Ring                | FP-190876  |      | VT-1710; Typical AFC Pump                                |
| 1   | O-Ring                | FP-68061A  |      | VT-1710; Typical AFC Pump                                |
| 1   | O-Ring                | FP-193734  |      | VT-1710; Typical AFC Pump; Fuel Pump Housing             |
| 1   | O-Ring                | FP-151900  |      | VT-1710; Typical AFC Pump; 0.621" OD, 0.494" ID          |
| 1   | O-Ring                | FP-213079  |      | VT-1710; Typical AFC Pump; 0.941" OD, 0.810" ID          |
| 1   | O-Ring                | FP-100099  |      | VT-1710; Typical AFC Pump; 1.627" OD, 1.364" ID          |
| 1   | O-Ring                | FP-139988  |      | VT-1710; Typical AFC Pump; 1.752" OD, 1.489" ID          |
| 1   | O-Ring                | FP-100478  |      | VT-1710; Typical PTG Pump                                |
| 1   | O-Ring                | FP-43696A  |      | VT-1710; Typical PTG Pump; Fuel Pump Housing             |
| 1   | O-Ring                | FP-151900  |      | VT-1710; Typical PTG Pump; 0.621" OD, 0.494" ID          |
| 1   | O-Ring                | FP-100099  |      | VT-1710; Typical PTG Pump; 1.627" OD, 1.364" ID          |
| 1   | O-Ring                | FP-139988  |      | VT-1710; Typical PTG Pump; 1.752" OD, 1.489" ID          |
| 1   | Fuel Pump Gasket      | FP-110855  |      | VT-1710; Fuel Pump Body                                  |
| 1   | Gasket                | FP-70705   |      | VT-1710; Typical AFC Pump; Spring Pack Flange            |
| 1   | Gasket                | FP-70732   |      | VT-1710; Typical PTG Pump                                |
| 1   | Gasket                | FP-70705   |      | VT-1710; Typical PTG Pump; Spring Pack Flange            |

(continued on next page)

**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, (cont.) VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**FUEL SYSTEM & PARTS (cont.)**

| QTY | FUEL FILTERS & PUMP (cont.) | PART NO.    | SIZE | DESCRIPTION                                |
|-----|-----------------------------|-------------|------|--|
| 2   | Oil Seal                    | FP-70809    |      | VT-1710; Typical PTG Pump; Front Cover     |
| 1   | Bushing                     | FP-163944   |      | VT-1710; Typical AFC Pump                  |
| 1   | Fuel Pump Check Valve       | FP-175836   |      | VT-1710; Typical AFC Pump                  |
| 1   | AFC Plunger                 | FP-144178   |      | VT-1710; Fuel Pump Housing                 |
| 1   | AFC Plunger                 | FP-30207391 |      | VT-1710; Typical AFC Pump                  |
| 1   | AFC Plunger                 | FP-30207392 |      | VT-1710; Typical AFC Pump                  |
| 1   | AFC Plunger                 | FP-3021676  |      | VT-1710; Typical AFC Pump                  |
| 1   | Fuel Pump Thrust Bearing    | FP-3027633  |      | VT-1710; Typical AFC Pump                  |
| 1   | Fuel Pump Thrust Bearing    | FP-3027633  |      | VT-1710; Typical PTG Pump                  |
| 1   | Needle Valve                | FP-214144   |      | VT-1710; Typical AFC Pump; No. 162         |
| 1   | Rect. or Square Seal        | FP-154087   |      | VT-1710; Typical AFC Pump                  |
| 1   | Rect. or Square Seal        | FP-154087   |      | VT-1710; Typical PTG Pump                  |
| 2   | Rect. or Square Seal        | FP-154088   |      | VT-1710; Typical PTG Pump                  |
| 1   | Fuel Shutdown Solenoid      | FP-134075   |      | VT-1710; Typical AFC Pump; 12V; 2 Terminal |
| 1   | Fuel Shutdown Solenoid      | FP-134076   |      | VT-1710; Typical AFC Pump; 24V; 2 Terminal |

| QTY | TURBOCHARGER | PART NO.   | SIZE | DESCRIPTION                     |
|-----|--------------|------------|------|---------------------------------|
| 1   | Split Seal   | FP-3034736 |      | VTA-28; Turbocharger Model T-46 |

**GOVERNOR**

| QTY | GOVERNOR                | PART NO.     | SIZE | DESCRIPTION                                     |
|-----|-------------------------|--------------|------|---|
| 1   | Throttle/Governor Shaft | FP-3006355   |      | VT-1710; AFC; Black; Standard Capacity, 0.5018  |
| 1   | Throttle/Governor Shaft | FP-300635015 |      | VT-1710; AFC; Black/Gray; Standard Capacity     |
| 1   | Throttle/Governor Shaft | FP-304668015 |      | VT-1710; AFC; Black/Gray; 0.5038                |
| 1   | Throttle/Governor Shaft | FP-300635011 |      | VT-1710; AFC; Blue/Gray; Standard Capacity      |
| 1   | Throttle/Governor Shaft | FP-304668011 |      | VT-1710; AFC; Blue/Gray; 0.503                  |
| 1   | Throttle/Governor Shaft | FP-30063508  |      | VT-1710; AFC; Brown; Standard Capacity          |
| 1   | Throttle/Governor Shaft | FP-3006360   |      | VT-1710; AFC; Cream; Standard Capacity; 0.5028  |
| 1   | Throttle/Governor Shaft | FP-3046686   |      | VT-1710; AFC; Gray; 0.502                       |
| 1   | Throttle/Governor Shaft | FP-3006352   |      | VT-1710; AFC; Green; Standard Capacity; 0.5012  |
| 1   | Throttle/Governor Shaft | FP-3046682   |      | VT-1710; AFC; Green; 0.5012                     |
| 1   | Throttle/Governor Shaft | FP-300635012 |      | VT-1710; AFC; Green/Gray; Standard Capacity     |
| 1   | Throttle/Governor Shaft | FP-304668012 |      | VT-1710; AFC; Green/Gray; 0.5032                |
| 1   | Throttle/Governor Shaft | FP-3006354   |      | VT-1710; AFC; Orange; Standard Capacity, 0.5016 |
| 1   | Throttle/Governor Shaft | FP-3046684   |      | VT-1710; AFC; Orange; 0.5016                    |
| 1   | Throttle/Governor Shaft | FP-30466809  |      | VT-1710; AFC; Pink                              |
| 1   | Throttle/Governor Shaft | FP-3046687   |      | VT-1710; AFC; Purple; 0.5022                    |
| 1   | Throttle/Governor Shaft | FP-300635020 |      | VT-1710; AFC; Purple/Red; Standard Capacity     |
| 1   | Throttle/Governor Shaft | FP-3006353   |      | VT-1710; AFC; Yellow; Standard Capacity; 0.5014 |
| 1   | Throttle/Governor Shaft | FP-3046683   |      | VT-1710; AFC; Yellow; 0.5014                    |
| 1   | Throttle/Governor Shaft | FP-300635013 |      | VT-1710; AFC; Yellow/Gray; Standard Capacity    |
| 1   | Fuel Governor Plunger   | FP-203355    |      | VT-1710; AFC & PTG; Black; 0.37514              |
| 1   | Fuel Governor Plunger   | FP-203352    |      | VT-1710; AFC & PTG; Green; 0.37484              |
| 1   | Fuel Governor Plunger   | FP-300938010 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938011 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938012 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938013 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938014 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938015 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-300938016 |      | VT-1710; AFC With Tapered Seat                  |
| 1   | Fuel Governor Plunger   | FP-3009381   |      | VT-1710; AFC With Tapered Seat; Blue; 0.37474   |
| 1   | Fuel Governor Plunger   | FP-3009382   |      | VT-1710; AFC With Tapered Seat; Green; 0.37484  |
| 1   | Fuel Governor Plunger   | FP-3009384   |      | VT-1710; AFC With Tapered Seat; Orange; 0.37504 |
| 1   | Fuel Governor Plunger   | FP-3009380   |      | VT-1710; AFC With Tapered Seat; Red             |
| 1   | Fuel Governor Plunger   | FP-3009383   |      | VT-1710; AFC With Tapered Seat; Yellow; 0.37494 |
| 1   | Fuel Governor Plunger   | FP-3040755   |      | VT-1710; AFC; Black; 0.37514                    |
| 1   | Fuel Governor Plunger   | FP-3040751   |      | VT-1710; AFC; Blue; 0.37474                     |
| 1   | Fuel Governor Plunger   | FP-30407508  |      | VT-1710; AFC; Brown                             |
| 1   | Fuel Governor Plunger   | FP-3040756   |      | VT-1710; AFC; Gray; 0.37524                     |
| 1   | Fuel Governor Plunger   | FP-3040752   |      | VT-1710; AFC; Green; 0.37484                    |
| 1   | Fuel Governor Plunger   | FP-3040754   |      | VT-1710; AFC; Orange; 0.37504                   |
| 1   | Fuel Governor Plunger   | FP-30407509  |      | VT-1710; AFC; Pink                              |
| 1   | Fuel Governor Plunger   | FP-3040750   |      | VT-1710; AFC; Red                               |
| 1   | Fuel Governor Plunger   | FP-3040757   |      | VT-1710; AFC; Violet                            |
| 1   | Fuel Governor Plunger   | FP-3040753   |      | VT-1710; AFC; Yellow; 0.37494                   |
| 1   | Fuel Governor Plunger   | FP-169662    |      | VT-1710; PTG; Green; 0.3751                     |

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**Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, 45  
VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
VTR1710 Engs.**

28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**GOVERNOR (cont.)**

| QTY | GOVERNOR (cont.)            | PART NO.   | SIZE | DESCRIPTION                             |
|-----|-----------------------------|------------|------|---|
| 1   | Idler Spring Plunger Button | FP-141624  |      | VT-1710; .2135/.2165; Button Number 7   |
| 1   | Idler Spring Plunger Button | FP-141625  |      | VT-1710; .2185/.2215; Button Number 10  |
| 1   | Idler Spring Plunger Button | FP-141626  |      | VT-1710; .2235/.2265; Button Number 12  |
| 1   | Idler Spring Plunger Button | FP-139894  |      | VT-1710; .2285/.2315; Button Number 15  |
| 1   | Idler Spring Plunger Button | FP-140417  |      | VT-1710; .2335/.2365; Button Number 17  |
| 1   | Idler Spring Plunger Button | FP-141629  |      | VT-1710; .2385/.2415; Button Number 20  |
| 1   | Idler Spring Plunger Button | FP-141630  |      | VT-1710; .2435/.2465; Button Number 22  |
| 1   | Idler Spring Plunger Button | FP-141631  |      | VT-1710; .2485/.2515; Button Number 25  |
| 1   | Idler Spring Plunger Button | FP-141632  |      | VT-1710; .2535/.2565; Button Number 27  |
| 1   | Idler Spring Plunger Button | FP-141633  |      | VT-1710; .2585/.2615; Button Number 30  |
| 1   | Idler Spring Plunger Button | FP-141634  |      | VT-1710; .2635/.2665; Button Number 32  |
| 1   | Idler Spring Plunger Button | FP-140922  |      | VT-1710; .2685/.2715; Button Number 35  |
| 1   | Idler Spring Plunger Button | FP-140418  |      | VT-1710; .2735/.2765; Button Number 37  |
| 1   | Idler Spring Plunger Button | FP-137370  |      | VT-1710; .2785/.2815; Button Number 40  |
| 1   | Idler Spring Plunger Button | FP-140923  |      | VT-1710; .2835/.2865; Button Number 42  |
| 1   | Idler Spring Plunger Button | FP-138862  |      | VT-1710; .2885/.2915; Button Number 45  |
| 1   | Idler Spring Plunger Button | FP-140925  |      | VT-1710; .2985/.3015; Button Number 50  |
| 1   | Idler Spring Plunger Button | FP-145951  |      | VT-1710; .3585/.3615; Button Number 180 |
| 2   | Carrier, Governor Weight    | FP-3024991 |      | VT-1710; Typical AFC Pump               |

**COOLING SYSTEM**

| QTY | WATER PUMP      | PART NO. | SIZE | DESCRIPTION |
|-----|-----------------|----------|------|-------------|
| 1   | Oil Seal        | 39713    |      |             |
| 1   | Redi-Sleeve     | 99125    |      |             |
| QTY | SEALS - FAN HUB | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39835    |      |             |
| 1   | Redi-Sleeve     | 99181    |      |             |
| QTY | THERMOSTAT      | PART NO. | SIZE | DESCRIPTION |
| 1   | Oil Seal        | 39821    |      |             |

**ENGINE BLOCK & PARTS**

| QTY | GASKETS                    | PART NO.   | SIZE | DESCRIPTION   |
|-----|----------------------------|------------|------|---|
| 1   | Oil Pan Gasket             | FP-181256  |      | VTA-28, VT-1710   |
| QTY | GASKET SETS                | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Gasket Conversion Set      | FP-3017564 |      | VTA-28, VT-1710   |
| QTY | CAM BEARINGS               | PART NO.   | SIZE | DESCRIPTION   |
| 28  | Cam Brg.                   | FP-70437   | STD  | Position All Positions; VTA-28, VT-1710   |
| QTY | OIL COOLERS & FILTERS      | PART NO.   | SIZE | DESCRIPTION   |
| 1   | Aftercooler Core Assembly  | FP-3411460 |      | VTA-1710; Big Cam; Three Pass; For Big Cam III and Engs. up-dated to cross bolt mount, O.E. Nos. 3028997 & 3068724. |
| 1   | Aftercooler Gasket Set     | FP-PGC206  |      | VTA-1710; For 3068724 Aftercooler   |
| 1   | Aftercooler Gasket Set     | PGC206 +   |      | VTA-1710; For 3068724 Aftercooler; When depleted use FP-PGC206  |
| 2   | Aftercooler Housing Gasket | FP-216486  |      | VTA-1710  |
| 1   | Aftercooler Gasket         | FP-215044  |      | VTA-1710  |
| 1   | Aftercooler Gasket         | FP-3032348 |      | VTA-1710  |
| 1   | O-Ring                     | FP-109080  |      | VTA-1710; Aftercooler   |
| 1   | O-Ring                     | FP-217037  |      | VTA-1710; Aftercooler   |
| 4   | O-Ring                     | FP-195952  |      | VTA-1710; Aftercooler Core Seal   |
| 1   | Air Crossover Gasket       | FP-216487  |      | VTA-1710  |

**CRANKSHAFT/OIL PUMP**

| QTY | SEALS - FRONT CRANK | PART NO.   | SIZE | DESCRIPTION        |
|-----|---------------------|------------|------|--------------------|
| 1   | Oil Seal            | FP-3020182 |      | Front; VT-1710     |
| 1   | Redi-Sleeve         | FP-3006744 |      | Front; VT-1710     |
| 1   | Redi-Sleeve         | 99376      |      |                    |
| QTY | SEALS - REAR CRANK  | PART NO.   | SIZE | DESCRIPTION        |
| 1   | Oil Seal            | FP-3630681 |      | Rear; VT-1710; Dry |
| 1   | Oil Seal            | FP-3005887 |      | Rear; VT-1710; Wet |
| 1   | Oil Seal            | 39701      |      |                    |
| 1   | Redi-Sleeve         | FP-3006237 |      | Rear; VT-1710      |
| 1   | Redi-Sleeve         | 99725      |      |                    |

(continued on next page)

**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, (cont.) VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CRANKSHAFT/OIL PUMP (cont.)**

| QTY | MAIN BEARINGS | PART NO.  | SIZE | DESCRIPTION             |
|-----|---------------|-----------|------|-------------------------|
| 1   | Main Set      | FP-AR4220 | STD  | VT-1710; Phase III Only |
| 1   | Main Set      | FP-AR4221 | 10   | VT-1710; Phase III Only |
| 1   | Main Set      | FP-AR4222 | 20   | VT-1710; Phase III Only |
| 1   | Main Set      | FP-AR4223 | 30   | VT-1710; Phase III Only |
| 4   | Thrust Washer | FP-180280 | STD  | VT-1710; Phase III Only |

**CYLINDER COMPONENTS**

| QTY | LINERS                      | PART NO.     | SIZE | DESCRIPTION  |
|-----|-----------------------------|--------------|------|--|
| 12  | Liner w/o Sealing Rings     | FP-3055099   | STD  | VT-1710, VT12R-600, VT12-700; LPF; Std. Liners   |
| 12  | Liner w/o Sealing Rings     | FP-3046325   | 20   | VTA-28, VT-1710; .020 UPF  |
| 12  | Liner w/o Sealing Rings     | FP-3065405   | 20   | VTA-28, VT-1710; .020/.040 LPF; 20/40 Oversize lower press-fit liner; Flange Dia. is .020" Larger than Std.; Flange thickness is .020" greater than Std.; Pilot Dia. is .040" larger than Std.   |
| 12  | Liner w/Sealing Rings       | FP-3801826   | STD  | VT-1710; LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals.  |
| 12  | Liner w/Sealing Rings       | FP-3801387   | 20   | VTA-28, VT-1710; .020 UPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size').      |
| 12  | Liner w/Sealing Rings       | FP-3803219   | 20   | VTA-28, VT-1710; .020/.040 LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size'). |
| 12  | Cylinder Kit Complete       | FP-3801834   |      | VT-1710; 13.0:1 C.R.   |
| 12  | Cylinder Kit Complete       | FP-3801832   |      | VT-1710; 13.7:1 C.R.   |
| 12  | Cylinder Kit Complete       | FP-3801829   |      | VT-1710; 13.7:1 C.R.; Premium Plus   |
| 12  | Cylinder Kit Complete       | FP-3801835   |      | VT-1710; 14.0:1 C.R.   |
| 12  | Cylinder Kit Complete       | FP-3801831   |      | VT-1710; 14.1:1 C.R.   |
| 12  | Cylinder Kit Complete       | FP-3801836   |      | VT-1710; 14.5:1 C.R.   |
| 12  | Cylinder Kit Complete       | FP-3801833   |      | VT-1710; 14.7:1 C.R.; Premium  |
| 12  | Cylinder Kit Complete       | FP-3801828   |      | VT-1710, VT12R-600, VT12-700; 14.1:1 C.R.; 5 Rings   |
| 12  | Cyl. Liner Sealing Ring Kit | FP-AR51477 + |      | VT-1710; Incl. (1) FP-215090 crevice seal and (2) FP-3032874 liner seals; When depleted use FP-3800174   |
| 12  | Cyl. Liner Sealing Ring Kit | FP-3800174   |      | VT-1710; Incl. (1) FP-215090, (2) FP-3032874   |
| 12  | Cyl. Liner Sealing Ring Kit | FP-AR51477 + |      | VTA-28; Incl. (1) FP-215090 crevice seal and (2) FP-3032874 liner seals; When depleted use FP-3800174  |
| 12  | Cyl. Liner Sealing Ring Kit | FP-3800174   |      | VTA-28; Incl. (1) FP-215090, (2) FP-3032874  |
| 1   | Sealing Ring, Liner         | FP-215090    |      | VTA-28, VT-170; Crevice Seal   |
| 2   | Sealing Ring, Liner         | FP-3032874   |      | VTA-28, VT-170; Middle & Lower Seal  |
| 12  | Flange Shim                 | FP-3019956   | 8    | .008" Thick, fits Std. & 10/20 sleeves   |
| 12  | Flange Shim                 | FP-3054948   | 20   | .020" Thick, fits Std. & 10/20 sleeves   |
| 12  | Flange Shim                 | FP-3054948B  | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 50   |
| 12  | Flange Shim                 | FP-30549486  | 20   | .020" Thick, fits Std. & 10/20 sleeves; Carton of 6  |

| QTY | PISTONS                       | PART NO.   | SIZE | DESCRIPTION   |
|-----|-------------------------------|------------|------|---|
| 12  | Piston Body w/o Pin           | FP-3031213 |      | VT-1710; 13.0:1 C.R.  |
| 12  | Piston Body w/o Pin           | FP-3031049 |      | VT-1710; 13.7:1 C.R.  |
| 12  | Piston Body w/o Pin           | FP-3003176 |      | VT-1710; 13.7:1 C.R.; Premium Plus  |
| 12  | Piston Body w/o Pin           | FP-3031214 |      | VT-1710; 14.0:1 C.R.  |
| 12  | Piston Body w/o Pin           | FP-3011295 |      | VT-1710; 14.1:1 C.R.  |
| 12  | Piston Body w/o Pin           | FP-3040097 |      | VT-1710; 14.5:1 C.R.  |
| 12  | Piston Body w/o Pin           | FP-3003175 |      | VT-1710; 14.7:1 C.R.; Premium   |
| 12  | Piston Body w/o Pin           | FP-175760  |      | VT-1710, VT12R-600, VT12-700; 14.1:1 C.R.; 5-Ring Piston                          |
| 12  | Piston Kit w/Pin & Retainers  | FP-AR5720  |      | VT-1710; 13.7:1 C.R.; Premium Plus  |
| 12  | Piston Kit w/Pin & Retainers  | FP-AR3550  |      | VT-1710; 14.1:1 C.R.  |
| 12  | Piston Kit w/Pin & Retainers  | FP-AR45653 |      | VT-1710; 14.7:1 C.R.; Premium   |
| 12  | Pin                           | FP-191970  |      | VT-1710, VT12R-600, VT12-700  |
| 12  | Piston Pin Retainer           | FP-175755  |      | VT-1710   |
| 12  | Pin Bushing                   | FP-43067   |      | VT-1710, VT12R-600, VT12-700; Straight rod bushing; 1.03" Width; 2 req'd. per rod |
| 12  | Pin Bushing                   | FP-187420  |      | VT-1710, VT12R-600, VT12-700; 1 piece bushing; 2.20" Width                        |
| 2   | Insert, Piston                | FP-3043650 |      | VT-1710; PTFE   |
| 12  | Piston With Retainer & Insert | FP-3801267 |      | VT-1710; 13.0:1 C.R.  |
| 12  | Piston With Retainer & Insert | FP-AR12357 |      | VT-1710; 13.7:1 C.R.  |

(continued on next page)

*Multi-Purpose Engines* VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, **45**  
 VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
 VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
**VTR1710 Engs.**  
 28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

| QTY  | PISTONS (cont.)               | PART NO.       | SIZE | DESCRIPTION   |
|------|-------------------------------|----------------|------|---|
| 12   | Piston With Retainer & Insert | FP-3801434     |      | VT-1710; 14.0:1 C.R.  |
| 12   | Piston With Retainer & Insert | FP-AR12359     |      | VT-1710; 14.1:1 C.R.  |
| 12   | Piston With Retainer & Insert | FP-3801666     |      | VT-1710; 14.5:1 C.R.  |
| QTY  | CONNECTING RODS & BRGS.       | PART NO.       | SIZE | DESCRIPTION   |
| 12   | Rod Pair                      | FP-200600PR    | STD  | VT-1710, VT12R-600, VT12-700 Engs.; Phase 3 Engs.   |
| 24   | Rod Bearing Half Upper/Lower  | FP-200600      | STD  | VT-1710, VT12R-600, VT12-700  |
| 24   | Rod Bearing Half Upper/Lower  | FP-200601      | 10   | VT-1710, VT12R-600, VT12-700  |
| 24   | Rod Bearing Half Upper/Lower  | FP-200602      | 20   | VT-1710, VT12R-600, VT12-700  |
| QTY  | PISTON RINGS                  | PART NO.       | SIZE | DESCRIPTION   |
| 12   | Ring Set Single Cylinder      | FP-4089810     | STD  | VT-1710; For Piston FP-3003175; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)                          |
| 12   | Ring Set Single Cylinder      | FP-4089811     | STD  | VT-1710; For Pistons FP-3003176, FP-3011295, FP-3031049, FP-3031213, FP-3031214, FP-3040097 |
| 12   | Ring Set Single Cylinder      | FP-4089812     |      | VT-1710, VT12R-600, VT12-700; For 5-Ring Piston FP-175760                                   |
| 12   | Ring Set Single Cylinder      | FP-3801044 +   |      | VT-1710, VT12R-600, VT12-700; When depleted use FP-4089812                                  |
| KITS |                               |                |      |   |
| QTY  | OVERHAUL KIT                  | PART NO.       | SIZE | DESCRIPTION   |
| 1    | Complete Overhaul Kit         | FP-IFK1710OHE  |      | VT-1710; With Front & Rear Seals and Upper & Lower Gasket Sets                              |
| 1    | Complete Overhaul Kit         | FP-IFKVTA28OHL |      | VTA-28; With Front & Rear Seals and Upper & Lower Gasket Sets                               |

# Engine Kit Bill of Material



| Qty.                  | Part No.      | Description                  | Qty.                            | Part No.     | Description                   | Qty.                           | Part No.     | Description                  |                               |             |                              |
|-----------------------|---------------|------------------------------|---------------------------------|--------------|-------------------------------|--------------------------------|--------------|------------------------------|-------------------------------|-------------|------------------------------|
| <b>FP-IFKVT28OHL</b>  |               |                              | <b>FP-NG855PREMOH (cont'd.)</b> |              |                               | <b>FP-VTB903PREM (cont'd.)</b> |              |                              | <b>FP-4B39PREML (cont'd.)</b> |             |                              |
| (12)                  | FP-3801831    | Cylinder Kit Complete        | (1)                             | FP-3801260   | Main Bearing Set              | (16)                           | FP-189772    | Rod Bearing Half Upper/Lower | (1)                           | FP-3802014  | Main Bearing Set             |
| (12)                  | FP-3801832    | Cylinder Kit Complete        | (1)                             | FP-3801261   | Main Bearing Set              |                                |              |                              | (1)                           | FP-3804896S | In-Frame Gasket Set          |
| (12)                  | FP-3801834    | Cylinder Kit Complete        | (1)                             | FP-3801262   | Main Bearing Set              | (16)                           | FP-189773    | Rod Bearing Half Upper/Lower | <b>FP-4B39PREMOH</b>          |             |                              |
| (12)                  | FP-3801835    | Cylinder Kit Complete        | (1)                             | FP-3801263   | Main Bearing Set              | (1)                            | FP-AR3640    | Main Bearing Set             | (4)                           | FP-3802030  | Piston w/Retainer & Rings    |
| (12)                  | FP-3801836    | Cylinder Kit Complete        | (1)                             | FP-3801264   | Main Bearing Set              | (1)                            | FP-AR3641    | Main Bearing Set             | (4)                           | FP-3802032  | Piston w/Retainer & Rings    |
| (24)                  | FP-200600     | Rod Bearing Half Upper/Lower | (1)                             | PG1331NGB    | Custom Gasket Set             | (1)                            | FP-AR3642    | Main Bearing Set             | (4)                           | FP-3802034  | Piston w/Retainer & Rings    |
| (24)                  | FP-200601     | Rod Bearing Half Upper/Lower | (1)                             | PG1330NG     | Head Gasket Set               | (1)                            | FP-AR3643    | Main Bearing Set             | (4)                           | FP-3802060  | Piston w/Retainer & Rings    |
| (24)                  | FP-200602     | Rod Bearing Half Upper/Lower | (1)                             | FP-3801463   | Conversion Gasket Set         | (1)                            | FP-AR3643    | Main Bearing Set             | (4)                           | FP-3802062  | Piston w/Retainer & Rings    |
| (1)                   | FP-AR4220     | Main Bearing Set             | (1)                             | FP-3801464   | Conversion Gasket Set         | (1)                            | FP-3013497S  | In-Frame Gasket Set          | (4)                           | FP-3802064  | Piston w/Retainer & Rings    |
| (1)                   | FP-AR4221     | Main Bearing Set             | (1)                             | PGC100       | Valve Timing Gasket Set       | <b>FP-VTB903PREMOH</b>         |              |                              | (4)                           | FP-3802100  | Piston w/Retainer & Rings    |
| (1)                   | FP-AR4222     | Main Bearing Set             | <b>FP-NH220</b>                 |              |                               | (8)                            | FP-AR11909   | Cylinder Kit Complete        | (4)                           | FP-3802102  | Piston w/Retainer & Rings    |
| (1)                   | FP-AR4223     | Main Bearing Set             | (1)                             | FP-3349820   | Oil Pan Gasket                | (8)                            | FP-AR11928   | Cylinder Kit Complete        | (4)                           | FP-3802104  | Piston w/Retainer & Rings    |
| (1)                   | FP-3803697    | Head Gasket Set              | (6)                             | FP-AR7375    | Cylinder Kit Complete         | (8)                            | FP-3023475   | Cylinder Kit Complete        | (4)                           | FP-3802132  | Piston w/Retainer & Rings    |
| (1)                   | FP-3017564    | Conversion Gasket Set        | (6)                             | FP-AR7383    | Cylinder Kit Complete         | (16)                           | FP-189770    | Rod Bearing Half Upper/Lower | (4)                           | FP-3802134  | Piston w/Retainer & Rings    |
| <b>FP-IFK1710OHE</b>  |               |                              | (6)                             | FP-AR7399    | Cylinder Kit Complete         | (16)                           | FP-189771    | Rod Bearing Half Upper/Lower | (4)                           | FP-3802160  | Piston w/Retainer & Rings    |
| (12)                  | FP-3801828    | Cylinder Kit Complete        | (12)                            | FP-203670    | Rod Bearing Half Upper/Lower  | (16)                           | FP-189772    | Rod Bearing Half Upper/Lower | (4)                           | FP-3802170  | Piston w/Retainer & Rings    |
| (12)                  | FP-3801829    | Cylinder Kit Complete        | (12)                            | FP-203671    | Rod Bearing Half Upper/Lower  | (16)                           | FP-189773    | Rod Bearing Half Upper/Lower | (4)                           | FP-3802172  | Piston w/Retainer & Rings    |
| (12)                  | FP-3801833    | Cylinder Kit Complete        | (12)                            | FP-203672    | Rod Bearing Half Upper/Lower  | (16)                           | FP-189773    | Rod Bearing Half Upper/Lower | (4)                           | FP-3802174  | Piston w/Retainer & Rings    |
| (24)                  | FP-200600     | Rod Bearing Half Upper/Lower | (12)                            | FP-203673    | Rod Bearing Half Upper/Lower  | (1)                            | FP-AR3640    | Main Bearing Set             | (4)                           | FP-3934048  | Piston Pin                   |
| (24)                  | FP-200601     | Rod Bearing Half Upper/Lower | (12)                            | FP-203674    | Rod Bearing Half Upper/Lower  | (1)                            | FP-AR3641    | Main Bearing Set             | (8)                           | FP-3901171  | Rod Bearing Half Upper/Lower |
| (24)                  | FP-200602     | Rod Bearing Half Upper/Lower | (12)                            | FP-203674    | Rod Bearing Half Upper/Lower  | (1)                            | FP-AR3642    | Main Bearing Set             | (8)                           | FP-3901173  | Rod Bearing Half Upper/Lower |
| (1)                   | FP-AR4220     | Main Bearing Set             | (1)                             | FP-3801260   | Main Bearing Set              | (1)                            | FP-AR3643    | Main Bearing Set             | (8)                           | FP-3901174  | Rod Bearing Half Upper/Lower |
| (1)                   | FP-AR4221     | Main Bearing Set             | (1)                             | FP-3801261   | Main Bearing Set              | (1)                            | FP-3013497   | Head Gasket Set              | (8)                           | FP-3901174  | Rod Bearing Half Upper/Lower |
| (1)                   | FP-AR4222     | Main Bearing Set             | (1)                             | FP-3801262   | Main Bearing Set              | (1)                            | FP-3014458   | Conversion Gasket Set        | (8)                           | FP-3939859  | Rod Bearing Half Upper/Lower |
| (1)                   | FP-AR4223     | Main Bearing Set             | (1)                             | FP-3801263   | Main Bearing Set              | (1)                            | FP-SK3021094 | Oil Seal Kit                 | (1)                           | FP-3802010  | Main Bearing Set             |
| (1)                   | FP-3803697    | Head Gasket Set              | (1)                             | FP-3801264   | Main Bearing Set              | (6)                            | FP-AR61504   | Cylinder Kit Complete        | (1)                           | FP-3802011  | Main Bearing Set             |
| (1)                   | FP-3017564    | Conversion Gasket Set        | (1)                             | FP-3802077   | Head Gasket Set               | (6)                            | FP-3277991   | Cylinder Kit Complete        | (1)                           | FP-3802012  | Main Bearing Set             |
| <b>FP-NG855PREM</b>   |               |                              | (12)                            | FP-157620    | Rod Bearing Half Upper/Lower  | (12)                           | FP-157621    | Rod Bearing Half Upper/Lower | (1)                           | FP-3802013  | Main Bearing Set             |
| (1)                   | PGC300        | Oil Pan Gasket Set           | (12)                            | FP-157622    | Rod Bearing Half Upper/Lower  | (12)                           | FP-157622    | Rod Bearing Half Upper/Lower | (1)                           | FP-3802014  | Main Bearing Set             |
| (6)                   | FP-CK66305405 | Cylinder Kit Complete        | (12)                            | FP-157623    | Rod Bearing Half Upper/Lower  | (12)                           | FP-157623    | Rod Bearing Half Upper/Lower | (1)                           | FP-3804896  | Head Gasket Set              |
| (6)                   | FP-LK166630   | Cylinder Kit Complete        | (12)                            | FP-203661    | Rod Bearing Half Upper/Lower  | (12)                           | FP-3012360   | Rod Bearing Half Upper/Lower | (1)                           | FP-3802375  | Conversion Gasket Set        |
| (12)                  | FP-203660     | Rod Bearing Half Upper/Lower | (12)                            | FP-203662    | Rod Bearing Half Upper/Lower  | (12)                           | FP-3012361   | Rod Bearing Half Upper/Lower | <b>FP-4B39PREMOHL</b>         |             |                              |
| (12)                  | FP-203661     | Rod Bearing Half Upper/Lower | (12)                            | FP-203662    | Rod Bearing Half Upper/Lower  | (12)                           | FP-3012362   | Rod Bearing Half Upper/Lower | (4)                           | FP-3802248  | Piston w/Retainer & Rings    |
| (12)                  | FP-203662     | Rod Bearing Half Upper/Lower | (12)                            | FP-203663    | Rod Bearing Half Upper/Lower  | (12)                           | FP-3012363   | Rod Bearing Half Upper/Lower | (4)                           | FP-3802249  | Piston w/Retainer & Rings    |
| (12)                  | FP-214950     | Rod Bearing Half Upper/Lower | (12)                            | FP-214951    | Rod Bearing Half Upper/Lower  | (1)                            | FP-BM99830   | Main Bearing Set             | (4)                           | FP-3802250  | Piston w/Retainer & Rings    |
| (12)                  | FP-214951     | Rod Bearing Half Upper/Lower | (12)                            | FP-214952    | Rod Bearing Half Upper/Lower  | (1)                            | FP-BM99831   | Main Bearing Set             | (4)                           | FP-3802251  | Piston w/Retainer & Rings    |
| (12)                  | FP-214952     | Rod Bearing Half Upper/Lower | (12)                            | FP-214953    | Rod Bearing Half Upper/Lower  | (1)                            | FP-BM99832   | Main Bearing Set             | (4)                           | FP-3802252  | Piston w/Retainer & Rings    |
| (12)                  | FP-214953     | Rod Bearing Half Upper/Lower | (1)                             | FP-3801260   | Main Bearing Set              | (1)                            | FP-BM99833   | Main Bearing Set             | (4)                           | FP-3802253  | Piston w/Retainer & Rings    |
| (1)                   | FP-3801260    | Main Bearing Set             | (1)                             | FP-3801261   | Main Bearing Set              | (1)                            | FP-3277752   | Head Gasket Set              | (4)                           | FP-3802247  | Piston w/Retainer & Rings    |
| (1)                   | FP-3801261    | Main Bearing Set             | (1)                             | FP-3801262   | Main Bearing Set              | (1)                            | FP-3801657   | Conversion Gasket Set        | (4)                           | FP-3802487  | Piston w/Retainer & Rings    |
| (1)                   | FP-3801262    | Main Bearing Set             | (1)                             | FP-3801263   | Main Bearing Set              | (12)                           | FP-3012363   | Rod Bearing Half Upper/Lower | (4)                           | FP-3802493  | Piston w/Retainer & Rings    |
| (1)                   | FP-3801263    | Main Bearing Set             | (1)                             | FP-3801264   | Main Bearing Set              | (1)                            | FP-BM99830   | Main Bearing Set             | (4)                           | FP-3802495  | Piston w/Retainer & Rings    |
| (1)                   | PG1330NG      | Head Gasket Set              | (1)                             | FP-3802077   | Head Gasket Set               | (1)                            | FP-BM99831   | Main Bearing Set             | (4)                           | FP-3802562  | Piston w/Retainer & Rings    |
| (1)                   | PG1330SNG     | Head Gasket Set              | (1)                             | FP-3802077A  | Conversion Gasket Set         | (1)                            | FP-BM99832   | Main Bearing Set             | (4)                           | FP-3802565  | Piston w/Retainer & Rings    |
| <b>FP-NG855PREMOH</b> |               |                              | (1)                             | FP-3802077   | Head Gasket Set               | <b>FP-4B39PREML</b>            |              |                              | (4)                           | FP-3802747  | Piston w/Retainer & Rings    |
| (6)                   | FP-CK66305405 | Cylinder Kit Complete        | (1)                             | FP-3802077A  | Conversion Gasket Set         | (4)                            | FP-3802248   | Piston w/Retainer & Rings    | (4)                           | FP-3934047  | Piston Pin                   |
| (6)                   | FP-LK166630   | Cylinder Kit Complete        | (1)                             | FP-3802075A  | Conversion Gasket Set         | (4)                            | FP-3802249   | Piston w/Retainer & Rings    | (8)                           | FP-3901171  | Rod Bearing Half Upper/Lower |
| (12)                  | FP-203660     | Rod Bearing Half Upper/Lower | <b>FP-PK12742</b>               |              |                               | (4)                            | FP-3802250   | Piston w/Retainer & Rings    | (8)                           | FP-3901172  | Rod Bearing Half Upper/Lower |
| (12)                  | FP-203661     | Rod Bearing Half Upper/Lower | (4)                             | FP-3906223WP | Piston Kit w/Pin & Retainers  | (4)                            | FP-3802251   | Piston w/Retainer & Rings    | (8)                           | FP-3901173  | Rod Bearing Half Upper/Lower |
| (12)                  | FP-203662     | Rod Bearing Half Upper/Lower | (4)                             | FP-3802040   | Ring Set, Single Cylinder     | (4)                            | FP-3802252   | Piston w/Retainer & Rings    | (8)                           | FP-3901174  | Rod Bearing Half Upper/Lower |
| (12)                  | FP-203663     | Rod Bearing Half Upper/Lower | <b>FP-PK12742B</b>              |              |                               | (4)                            | FP-3802253   | Piston w/Retainer & Rings    | (8)                           | FP-3939859  | Rod Bearing Half Upper/Lower |
| (12)                  | FP-203664     | Rod Bearing Half Upper/Lower | (6)                             | FP-3906223WP | Piston Kit w/Pin & Retainers  | (4)                            | FP-3802248   | Piston w/Retainer & Rings    | (1)                           | FP-3802010  | Main Bearing Set             |
| (12)                  | FP-214950     | Rod Bearing Half Upper/Lower | (6)                             | FP-3802040   | Ring Set, Single Cylinder     | (4)                            | FP-3802493   | Piston w/Retainer & Rings    | (1)                           | FP-3802011  | Main Bearing Set             |
| (12)                  | FP-214951     | Rod Bearing Half Upper/Lower | <b>FP-PK22742A</b>              |              |                               | (4)                            | FP-3802495   | Piston w/Retainer & Rings    | (1)                           | FP-3802012  | Main Bearing Set             |
| (12)                  | FP-214952     | Rod Bearing Half Upper/Lower | (1)                             | FP-PK22742A  | Piston Kit w/Rings & Bearings | (4)                            | FP-3802562   | Piston w/Retainer & Rings    | (1)                           | FP-3802013  | Main Bearing Set             |
| (12)                  | FP-214953     | Rod Bearing Half Upper/Lower | <b>FP-PK22742B</b>              |              |                               | (4)                            | FP-3802565   | Piston w/Retainer & Rings    | (1)                           | FP-3802014  | Main Bearing Set             |
| (12)                  | FP-203664     | Rod Bearing Half Upper/Lower | (1)                             | FP-PK22742B  | Piston Kit w/Rings & Bearings | (4)                            | FP-3934047   | Piston Pin                   | (1)                           | FP-3804896  | Head Gasket Set              |
| (12)                  | FP-203664     | Rod Bearing Half Upper/Lower | <b>FP-VTB903PREM</b>            |              |                               | (8)                            | FP-3901171   | Rod Bearing Half Upper/Lower | (1)                           | FP-3802375  | Conversion Gasket Set        |
| (12)                  | FP-214950     | Rod Bearing Half Upper/Lower | (8)                             | FP-AR11909   | Cylinder Kit Complete         | (8)                            | FP-3901172   | Rod Bearing Half Upper/Lower | <b>FP-504PREM</b>             |             |                              |
| (12)                  | FP-214951     | Rod Bearing Half Upper/Lower | (8)                             | FP-AR11928   | Cylinder Kit Complete         | (8)                            | FP-3901173   | Rod Bearing Half Upper/Lower | (8)                           | FP-AR61504  | Cylinder Kit Complete        |
| (12)                  | FP-214952     | Rod Bearing Half Upper/Lower | (8)                             | FP-3023475   | Cylinder Kit Complete         | (8)                            | FP-3901174   | Rod Bearing Half Upper/Lower | (8)                           | FP-3277991  | Cylinder Kit Complete        |
| (12)                  | FP-214953     | Rod Bearing Half Upper/Lower | (16)                            | FP-189770    | Rod Bearing Half Upper/Lower  | (8)                            | FP-3901174   | Rod Bearing Half Upper/Lower | (16)                          | FP-157620   | Rod Bearing Half Upper/Lower |
| (12)                  | FP-214954     | Rod Bearing Half Upper/Lower | (16)                            | FP-189771    | Rod Bearing Half Upper/Lower  | (1)                            | FP-3802010   | Main Bearing Set             | (16)                          | FP-157621   | Rod Bearing Half Upper/Lower |
|                       |               | (cont'd. next column)        |                                 |              | (cont'd. next column)         | (1)                            | FP-3802011   | Main Bearing Set             | (16)                          | FP-157622   | Rod Bearing Half Upper/Lower |
|                       |               |                              |                                 |              |                               | (1)                            | FP-3802012   | Main Bearing Set             | (16)                          | FP-157623   | Rod Bearing Half Upper/Lower |
|                       |               |                              |                                 |              |                               | (1)                            | FP-3802013   | Main Bearing Set             | (16)                          | FP-3012360  | Rod Bearing Half Upper/Lower |
|                       |               |                              |                                 |              |                               |                                |              | (cont'd. next column)        |                               |             | (cont'd. next page)          |



# Engine Kit Bill of Material

| Qty.                        | Part No.   | Description                  | Qty.                          | Part No.      | Description                  | Qty.                         | Part No.      | Description                  | Qty.             | Part No.     | Description                  |
|-----------------------------|------------|------------------------------|-------------------------------|---------------|------------------------------|------------------------------|---------------|------------------------------|------------------|--------------|------------------------------|
| <b>FP-504PREM</b> (cont'd.) |            |                              | <b>FP-6B59PREML</b> (cont'd.) |               |                              | <b>FP-6C83PREM</b> (cont'd.) |               |                              | <b>KS2-2506A</b> |              |                              |
| (16)                        | FP-3012361 | Rod Bearing Half Upper/Lower | (12)                          | FP-3901171    | Rod Bearing Half Upper/Lower | (1)                          | FP-3802212    | Main Bearing Set             | (8)              | FP-3277626   | Cylinder Kit Complete        |
| (16)                        | FP-3012362 | Rod Bearing Half Upper/Lower | (12)                          | FP-3901172    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945917    | Main Bearing Set             | (8)              | FP-556350PR  | Connecting Rod Bearing Pair  |
| (16)                        | FP-3012363 | Rod Bearing Half Upper/Lower | (12)                          | FP-3901173    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945918    | Main Bearing Set             | (1)              | FP-BM99820   | Main Bearing Set             |
| (1)                         | FP-BM99820 | Main Bearing Set             | (12)                          | FP-3901174    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945919    | Main Bearing Set             | (1)              | FP-2601625   | Gasket Kit                   |
| (1)                         | FP-BM99821 | Main Bearing Set             | (12)                          | FP-3939859    | Rod Bearing Half Upper/Lower | <b>FP-6C83PREMOH</b>         |               |                              | <b>PK1-2742</b>  |              |                              |
| (1)                         | FP-BM99822 | Main Bearing Set             | (1)                           | FP-3802070    | Main Bearing Set             | (6)                          | FP-LK9247792  | Cylinder Kit Complete        | (4)              | FP-3906223WP | Piston Kit w/Pin & Retainers |
| (1)                         | FP-BM99823 | Main Bearing Set             | (1)                           | FP-3802071    | Main Bearing Set             | (6)                          | FP-LK92479937 | Cylinder Kit Complete        | (4)              | FP-3802040   | Ring Set, Single Cylinder    |
| (1)                         | FP-3277753 | Head Gasket Set              | (1)                           | FP-3802072    | Main Bearing Set             | (6)                          | FP-3802372    | Cylinder Kit Complete        | <b>PK2-2742A</b> |              |                              |
| (1)                         | FP-3801658 | Conversion Gasket Set        | (1)                           | FP-3802073    | Main Bearing Set             | (6)                          | FP-3802388    | Cylinder Kit Complete        | (4)              | 4205CP       | Connecting Rod Bearing Pair  |
| <b>FP-555PREM</b>           |            |                              | (1)                           | FP-3802074    | Main Bearing Set             | (6)                          | FP-3802399    | Cylinder Kit Complete        | (1)              | FP-3802010   | Main Bearing Set             |
| (8)                         | FP-3277626 | Cylinder Kit Complete        | (1)                           | FP-3802075    | Main Bearing Set             | (6)                          | FP-3802400    | Cylinder Kit Complete        | (4)              | FP-3906223WP | Piston Kit w/Pin & Retainers |
| (8)                         | FP-3277634 | Cylinder Kit Complete        | (1)                           | FP-3804897S   | In-Frame Gasket Set          | (6)                          | FP-3802401    | Cylinder Kit Complete        | (4)              | FP-3802040   | Ring Set, Single Cylinder    |
| (16)                        | FP-556350  | Rod Bearing Half Upper/Lower | <b>FP-6B59PREMOH</b>          |               |                              | (6)                          | FP-3802402    | Cylinder Kit Complete        |                  |              |                              |
| (16)                        | FP-556351  | Rod Bearing Half Upper/Lower | (6)                           | FP-3802030    | Piston w/Retainer & Rings    | (6)                          | FP-3802403    | Cylinder Kit Complete        |                  |              |                              |
| (16)                        | FP-556352  | Rod Bearing Half Upper/Lower | (6)                           | FP-3802032    | Piston w/Retainer & Rings    | (6)                          | FP-3802404    | Cylinder Kit Complete        |                  |              |                              |
| (16)                        | FP-556353  | Rod Bearing Half Upper/Lower | (6)                           | FP-3802034    | Piston w/Retainer & Rings    | (6)                          | FP-3802406    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-BM99820 | Main Bearing Set             | (6)                           | FP-3802060    | Piston w/Retainer & Rings    | (6)                          | FP-3802609    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-BM99821 | Main Bearing Set             | (6)                           | FP-3802062    | Piston w/Retainer & Rings    | (6)                          | FP-3802610    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-BM99822 | Main Bearing Set             | (6)                           | FP-3802064    | Piston w/Retainer & Rings    | (6)                          | FP-3802743    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-BM99823 | Main Bearing Set             | (6)                           | FP-3802100    | Piston w/Retainer & Rings    | (6)                          | FP-3802811    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-AR63520 | Head Gasket Set              | (6)                           | FP-3802102    | Piston w/Retainer & Rings    | (6)                          | FP-3934588    | Cylinder Kit Complete        |                  |              |                              |
| (1)                         | FP-3801659 | Conversion Gasket Set        | (6)                           | FP-3802104    | Piston w/Retainer & Rings    | (6)                          | FP-4020061    | Cylinder Kit Complete        |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802104    | Piston w/Retainer & Rings    | (6)                          | FP-4020062    | Cylinder Kit Complete        |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802132    | Piston w/Retainer & Rings    | (12)                         | FP-3901430    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802134    | Piston w/Retainer & Rings    | (12)                         | FP-3901431    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802160    | Piston w/Retainer & Rings    | (12)                         | FP-3901432    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802170    | Piston w/Retainer & Rings    | (12)                         | FP-3901433    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802172    | Piston w/Retainer & Rings    | (12)                         | FP-3901433    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802174    | Piston w/Retainer & Rings    | (12)                         | FP-3901434    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802747    | Piston w/Retainer & Rings    | (1)                          | FP-3802210    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3934048    | Piston Pin                   | (1)                          | FP-3802211    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901171    | Rod Bearing Half Upper/Lower | (1)                          | FP-3802212    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901172    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945917    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901173    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945918    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901174    | Rod Bearing Half Upper/Lower | (1)                          | FP-3945919    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (12)                          | FP-3939859    | Rod Bearing Half Upper/Lower | (1)                          | FP-4025271    | Head Gasket Set              |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802070    | Main Bearing Set             | (1)                          | FP-3802389    | Conversion Gasket Set        |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802071    | Main Bearing Set             | <b>FP6B5.9PREM-OHL</b>       |               |                              |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802072    | Main Bearing Set             | (6)                          | FP-3802248    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802073    | Main Bearing Set             | (6)                          | FP-3802249    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802363    | Head Gasket Set              | (6)                          | FP-3802250    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (1)                           | FP-3804897    | Head Gasket Set              | (6)                          | FP-3802251    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (1)                           | FP-4089649    | Head Gasket Set              | (6)                          | FP-3802252    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802376    | Conversion Gasket Set        | (6)                          | FP-3802253    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | <b>FP-6C83PREM</b>            |               |                              | (6)                          | FP-3802247    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-LK9247792  | Cylinder Kit Complete        | (6)                          | FP-3802487    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-LK92479937 | Cylinder Kit Complete        | (6)                          | FP-3802493    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802372    | Cylinder Kit Complete        | (6)                          | FP-3802495    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802388    | Cylinder Kit Complete        | (6)                          | FP-3802562    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802399    | Cylinder Kit Complete        | (6)                          | FP-3802564    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802400    | Cylinder Kit Complete        | (6)                          | FP-3802565    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802401    | Cylinder Kit Complete        | (6)                          | FP-3802747    | Piston w/Retainer & Rings    |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802402    | Cylinder Kit Complete        | (6)                          | FP-3934047    | Piston Pin                   |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802403    | Cylinder Kit Complete        | (12)                         | FP-3901171    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802404    | Cylinder Kit Complete        | (12)                         | FP-3901172    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802406    | Cylinder Kit Complete        | (12)                         | FP-3901173    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802609    | Cylinder Kit Complete        | (12)                         | FP-3901174    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802610    | Cylinder Kit Complete        | (12)                         | FP-3939859    | Rod Bearing Half Upper/Lower |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802743    | Cylinder Kit Complete        | (1)                          | FP-3802070    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (6)                           | FP-3802811    | Cylinder Kit Complete        | (1)                          | FP-3802071    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (6)                           | FP-3934588    | Cylinder Kit Complete        | (1)                          | FP-3802072    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (6)                           | FP-4020061    | Cylinder Kit Complete        | (1)                          | FP-3802073    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (6)                           | FP-4020062    | Cylinder Kit Complete        | (1)                          | FP-3804897    | Head Gasket Set              |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901430    | Rod Bearing Half Upper/Lower | (1)                          | FP-4089649    | Head Gasket Set              |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901431    | Rod Bearing Half Upper/Lower | (1)                          | FP-3802376    | Conversion Gasket Set        |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901432    | Rod Bearing Half Upper/Lower | <b>KS2-2423A</b>             |               |                              |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901433    | Rod Bearing Half Upper/Lower | (8)                          | FP-AR61504    | Cylinder Kit Complete        |                  |              |                              |
|                             |            |                              | (12)                          | FP-3901434    | Rod Bearing Half Upper/Lower | (8)                          | FP-3012360PR  | Connecting Rod Bearing Pair  |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802210    | Main Bearing Set             | (1)                          | FP-BM99820    | Main Bearing Set             |                  |              |                              |
|                             |            |                              | (1)                           | FP-3802211    | Main Bearing Set             | (1)                          | FP-2601543    | Gasket Kit                   |                  |              |                              |
|                             |            |                              | (cont'd. next column)         |               |                              |                              |               |                              |                  |              |                              |

# Numerical List



| Part No.       | Line No.                  | Part No.        | Line No.   | Part No.  | Line No.                                      |
|----------------|---------------------------|-----------------|--|-----------|---|
| E-623KC        | CUI 3                     | FP-PGC220K      | CUI 33   | FP-137370 | CUI 40, 45                                    |
| FP-AR1176      | CUI 44                    | FP-PGC300       | CUI 38   | FP-137808 | CUI 38, 40, 45                                |
| FP-AR11909     | CUI 39, 40                | FP-PGE743HS     | CUI 33, 35   | FP-138862 | CUI 40, 45                                    |
| FP-AR11928     | CUI 39, 40                | FP-PGNH220IF    | CUI 33, 35   | FP-138887 | CUI 29, 30, 36, 39, 40                        |
| FP-AR11929     | CUI 39, 40                | FP-PG1330NG     | CUI 38   | FP-138937 | CUI 29, 30, 36, 39, 40                        |
| FP-AR11930     | CUI 29, 30, 36, 39, 40    | FP-PG1330SNG    | CUI 38   | FP-139894 | CUI 40, 45                                    |
| FP-AR12098     | CUI 22, 23, 33-35, 42, 43 | FP-PG1331NGB    | CUI 38   | FP-139988 | CUI 40, 45                                    |
| FP-AR12357     | CUI 44, 45                | FP-PG1710HP     | CUI 44, 45   | FP-140120 | CUI 39, 40                                    |
| FP-AR12359     | CUI 44, 45                | FP-PG1710LP     | CUI 45   | FP-140330 | CUI 33, 44, 45                                |
| FP-AR2883      | CUI 33-35                 | FP-PG1710SH     | CUI 44, 45   | FP-140417 | CUI 40, 45                                    |
| FP-AR3550      | CUI 44, 45                | FP-PK12742      | CUI 4  | FP-140418 | CUI 40, 45                                    |
| FP-AR3560      | CUI 38                    | FP-PK12742B     | CUI 12   | FP-140922 | CUI 40, 45                                    |
| FP-AR3640      | CUI 39, 40                | FP-PK22742A     | CUI 4  | FP-140923 | CUI 40, 45                                    |
| FP-AR3641      | CUI 39, 40                | FP-PK22742B     | CUI 12   | FP-140925 | CUI 40, 45                                    |
| FP-AR3642      | CUI 39, 40                | FP-PK3164       | CUI 26   | FP-141624 | CUI 40, 45                                    |
| FP-AR3643      | CUI 39, 40                | FP-PK5878       | CUI 26   | FP-141625 | CUI 40, 45                                    |
| FP-AR40063     | CUI 14, 15, 24, 25        | FP-PK5879       | CUI 26   | FP-141626 | CUI 40, 45                                    |
| FP-AR4220      | CUI 44, 45                | FP-PK6208       | CUI 12   | FP-141629 | CUI 40, 45                                    |
| FP-AR4221      | CUI 44, 45                | FP-PK6209       | CUI 12   | FP-141630 | CUI 40, 45                                    |
| FP-AR4222      | CUI 44, 45                | FP-PK6223       | CUI 12   | FP-141631 | CUI 40, 45                                    |
| FP-AR4223      | CUI 44, 45                | FP-PK7707       | CUI 26   | FP-141632 | CUI 40, 45                                    |
| FP-AR45653     | CUI 44, 45                | FP-PK9161       | CUI 26   | FP-141633 | CUI 40, 45                                    |
| FP-AR4920      | CUI 8, 9, 19, 20          | FP-PK9247       | CUI 26   | FP-141634 | CUI 40, 45                                    |
| FP-AR51477+    | CUI 45                    | FP-SK3021094    | CUI 40   | FP-142608 | CUI 38  |
| FP-AR51478     | CUI 38                    | FP-SL2271G+     | CUI 33, 35   | FP-143693 | CUI 19, 20                                    |
| FP-AR5720      | CUI 44, 45                | FP-S16256       | CUI 19, 27, 28                                     | FP-144178 | CUI 40, 45                                    |
| FP-AR60740     | CUI 14, 15, 24, 25        | FP-S2037        | CUI 33, 34, 42, 43                                 | FP-144302 | CUI 40, 45                                    |
| FP-AR60801     | CUI 14, 15                | FP-S212         | CUI 14, 15, 24, 25, 27, 28, 33, 39-41, 44, 45      | FP-1449M  | CUI 39, 40                                    |
| FP-AR61392     | CUI 14, 15, 24, 25        | FP-S2286        | CUI 40, 45   | FP-144911 | CUI 22, 23, 31, 33, 35, 42, 43                |
| FP-AR61504     | CUI 14, 15, 24, 25        | FP-VG529        | CUI 16, 17, 19, 20                                 | FP-145504 | CUI 40, 45                                    |
| FP-AR61788     | CUI 14, 15, 24, 25        | FP-VK123        | CUI 16, 17, 19, 20                                 | FP-145701 | CUI 41, 44, 45                                |
| FP-AR61789     | CUI 24, 25                | FP-VTB903PREM   | CUI 39, 40   | FP-145951 | CUI 40, 45                                    |
| FP-AR62258     | CUI 11, 21                | FP-VTB903PREMOH | CUI 39, 40   | FP-146731 | CUI 39, 40                                    |
| FP-AR63520     | CUI 27, 28                | FP-V1957        | CUI 11, 14, 15, 21, 24, 25, 27, 28                 | FP-146732 | CUI 39, 40                                    |
| FP-AR73350     | CUI 1                     | FP-100099       | CUI 40, 45   | FP-146733 | CUI 39, 40                                    |
| FP-AR73351     | CUI 1                     | FP-100192       | CUI 40, 45   | FP-147100 | CUI 38  |
| FP-AR73352     | CUI 1                     | FP-100215       | CUI 27, 28, 33, 39, 40                             | FP-147263 | CUI 33, 35                                    |
| FP-AR73353     | CUI 1                     | FP-100217       | CUI 44, 45   | FP-149767 | CUI 38, 40, 45                                |
| FP-AR7375      | CUI 33                    | FP-100478       | CUI 40, 45   | FP-150288 | CUI 33  |
| FP-AR7383      | CUI 33, 35, 42            | FP-101322       | CUI 14, 15, 24-28                                  | FP-151101 | CUI 36, 37                                    |
| FP-AR7399      | CUI 33                    | FP-102522       | CUI 38   | FP-151770 | CUI 14, 15, 24, 25                            |
| FP-AR7420      | CUI 33                    | FP-107371       | CUI 33, 35   | FP-151900 | CUI 40, 45                                    |
| FP-AR7440      | CUI 33                    | FP-107738       | CUI 24, 25, 27, 28                                 | FP-152082 | CUI 39, 40                                    |
| FP-AR7460      | CUI 34                    | FP-108186       | CUI 14, 15, 24, 25, 27, 28, 39, 40                 | FP-152838 | CUI 14, 24                                    |
| FP-AR7510      | CUI 33, 35                | FP-108692       | CUI 33-35  | FP-152936 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-AR8069      | CUI 39, 40                | FP-109080       | CUI 38, 45   | FP-152937 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-BM27253     | CUI 31-35, 38, 41         | FP-110827       | CUI 14, 15, 24, 25, 33                             | FP-153679 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-BM60610     | CUI 19                    | FP-110848       | CUI 14, 15, 22-25, 33, 35, 42, 43                  | FP-154019 | CUI 14, 15                                    |
| FP-BM62730     | CUI 19                    | FP-110855       | CUI 14, 15, 24, 25, 27, 28, 33, 35, 39, 40, 44, 45 | FP-154087 | CUI 40, 45                                    |
| FP-BM76506     | CUI 33                    | FP-111272       | CUI 14, 15, 24, 25, 27, 28                         | FP-154088 | CUI 40, 45                                    |
| FP-BM76928     | CUI 19                    | FP-111446       | CUI 23, 31, 33, 35, 42, 43                         | FP-154390 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-BM79352     | CUI 19                    | FP-112847       | CUI 19   | FP-154571 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-BM98021     | CUI 44, 45                | FP-112851       | CUI 19   | FP-154916 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-BM98224     | CUI 22, 23, 33-35, 42, 43 | FP-112904       | CUI 19   | FP-155267 | CUI 39, 40                                    |
| FP-BM98226     | CUI 33                    | FP-113749       | CUI 44, 45   | FP-155641 | CUI 14, 15, 24, 25, 27, 28, 39, 40            |
| FP-BM99820     | CUI 21, 24, 25, 27, 28    | FP-114223       | CUI 14, 15, 24, 25, 27, 28                         | FP-156641 | CUI 41  |
| FP-BM99821     | CUI 21, 24, 25, 27, 28    | FP-116391       | CUI 44   | FP-157018 | CUI 24, 25, 27, 28                            |
| FP-BM99822     | CUI 21, 24, 25, 27, 28    | FP-118377       | CUI 33, 41   | FP-157098 | CUI 38  |
| FP-BM99823     | CUI 21, 24, 25, 27, 28    | FP-118378       | CUI 33, 41   | FP-157620 | CUI 14, 15, 24, 25                            |
| FP-BM99824     | CUI 24, 25, 27, 28        | FP-118939       | CUI 33, 41   | FP-157621 | CUI 14, 15, 24, 25                            |
| FP-BM99830     | CUI 11, 14, 15            | FP-119363       | CUI 27, 28, 33, 39, 40                             | FP-157622 | CUI 14, 15, 24, 25                            |
| FP-BM99831     | CUI 11, 14, 15            | FP-119364       | CUI 44, 45   | FP-157623 | CUI 14, 15, 24, 25                            |
| FP-BM99832     | CUI 11, 14, 15            | FP-120819       | CUI 41   | FP-157624 | CUI 14, 15, 24, 25                            |
| FP-BM99833     | CUI 11, 14, 15            | FP-123558       | CUI 33, 44, 45                                     | FP-157978 | CUI 14, 15, 24, 25                            |
| FP-BM99834     | CUI 14, 15                | FP-127554       | CUI 29, 30, 36-41, 44, 45                          | FP-160586 | CUI 14, 15, 24, 25                            |
| FP-CK66305405  | CUI 38                    | FP-127730       | CUI 19, 20   | FP-163037 | CUI 11, 14, 15, 21, 24, 25, 27, 28            |
| FP-CWB008      | CUI 38                    | FP-127730PR     | CUI 5-10, 13, 16, 17, 19, 20                       | FP-163815 | CUI 44, 45                                    |
| FP-IFKVT28OHL  | CUI 44, 45                | FP-127731       | CUI 19, 20   | FP-163944 | CUI 40, 45                                    |
| FP-IFK1710OHE  | CUI 44, 45                | FP-127731PR     | CUI 5-10, 13, 16, 17, 19, 20                       | FP-165153 | CUI 14, 15, 24, 25                            |
| FP-LK166630    | CUI 38                    | FP-127732       | CUI 19, 20   | FP-166009 | CUI 14, 15, 24, 25, 27                        |
| FP-LK9247792   | CUI 26                    | FP-127732PR     | CUI 5-10, 13, 16, 17, 19, 20                       | FP-166407 | CUI 14, 15, 24, 25                            |
| FP-LK92479937  | CUI 26                    | FP-127733       | CUI 19, 20   | FP-166630 | CUI 38  |
| FP-NG855PREM   | CUI 38                    | FP-127733PR     | CUI 5-10, 13, 16, 17, 19, 20                       | FP-166772 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-NG855PREMOH | CUI 38                    | FP-129888       | CUI 40, 45   | FP-167166 | CUI 14, 15, 24, 25                            |
| FP-NH220       | CUI 33                    | FP-130360       | CUI 19   | FP-167169 | CUI 14, 15, 24, 25                            |
| FP-NH220OH     | CUI 33                    | FP-130394       | CUI 38   | FP-168306 | CUI 14, 15, 24, 25, 27, 28, 33, 39-41, 44, 45 |
| FP-PGC100      | CUI 38                    | FP-130500       | CUI 19   | FP-169042 | CUI 14, 15, 24, 25                            |
| FP-PGC101      | CUI 38                    | FP-132770       | CUI 44   | FP-169154 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-PGC1014     | CUI 38                    | FP-134075       | CUI 40, 45   | FP-169327 | CUI 39, 40                                    |
| FP-PGC200      | CUI 38                    | FP-134076       | CUI 40, 45   | FP-169351 | CUI 39, 40                                    |
| FP-PGC204      | CUI 38                    | FP-135675       | CUI 33, 34, 38-40                                  | FP-169630 | CUI 14, 15, 24, 25, 27, 28                    |
| FP-PGC205      | CUI 38                    | FP-135957       | CUI 41, 44, 45                                     | FP-169662 | CUI 40, 45                                    |
| FP-PGC206      | CUI 45                    |                 |  |           |   |





# Numerical List

| Part No.    | Line No.                                  | Part No.     | Line No.                   | Part No.     | Line No.                                  |
|-------------|---|--------------|----------------------------|--------------|---|
| FP-170296   | CUI 44, 45                                | FP-203663    | CUI 38                     | FP-3006740   | CUI 39, 40                                |
| FP-170942   | CUI 39, 40, 44, 45                        | FP-203664    | CUI 38                     | FP-3006741   | CUI 39, 40                                |
| FP-173287   | CUI 27, 28                                | FP-203670    | CUI 33, 34                 | FP-3006742   | CUI 38                                    |
| FP-173640S  | CUI 11, 21, 24, 25, 27, 28                | FP-203670PR  | CUI 18, 22, 23, 31-33, 35  | FP-3006743   | CUI 33, 38                                |
| FP-174316   | CUI 19                                    | FP-203671    | CUI 33, 34                 | FP-3006744   | CUI 44, 45                                |
| FP-175726   | CUI 14, 15, 19, 20                        | FP-203671PR  | CUI 18, 22, 23, 31-33, 35  | FP-3006745   | CUI 27, 28, 39, 40                        |
| FP-175727   | CUI 24, 25, 27, 28                        | FP-203672    | CUI 33, 34                 | FP-3007713   | CUI 39, 40                                |
| FP-175755   | CUI 33-35, 38, 42-45                      | FP-203672PR  | CUI 18, 22, 23, 31-33, 35  | FP-3007759   | CUI 14, 15, 24, 25, 27, 28, 39-41, 44, 45 |
| FP-175760   | CUI 44, 45                                | FP-203673    | CUI 33, 34                 | FP-3008017   | CUI 33, 35                                |
| FP-175836   | CUI 40, 45                                | FP-203673PR  | CUI 18, 22, 23, 31-33, 35  | FP-3008591   | CUI 38, 45                                |
| FP-175866   | CUI 14, 15, 24, 25                        | FP-203674    | CUI 33, 34                 | FP-3008706   | CUI 14, 15, 24, 25, 27                    |
| FP-177596   | CUI 14, 15, 24, 25, 33                    | FP-208134    | CUI 38                     | FP-3009380   | CUI 40, 45                                |
| FP-179901   | CUI 38                                    | FP-209700    | CUI 38-41                  | FP-300938010 | CUI 40, 45                                |
| FP-180280   | CUI 44, 45                                | FP-209865    | CUI 39, 40                 | FP-300938011 | CUI 40, 45                                |
| FP-181085   | CUI 44                                    | FP-211999    | CUI 41, 44, 45             | FP-300938012 | CUI 40, 45                                |
| FP-181187   | CUI 44                                    | FP-212161    | CUI 38                     | FP-300938013 | CUI 40, 45                                |
| FP-181213   | CUI 38                                    | FP-212217+   | CUI 39, 40                 | FP-300938014 | CUI 40, 45                                |
| FP-181256   | CUI 44, 45                                | FP-212224    | CUI 36, 37, 39, 40         | FP-300938015 | CUI 40, 45                                |
| FP-181449   | CUI 33-35, 42, 43                         | FP-212940+   | CUI 39, 40                 | FP-300938016 | CUI 40, 45                                |
| FP-183014   | CUI 14, 15, 24, 25, 27, 28                | FP-213058    | CUI 39, 40                 | FP-3009381   | CUI 40, 45                                |
| FP-184400   | CUI 33-35, 42, 43                         | FP-213061    | CUI 39, 40                 | FP-3009382   | CUI 40, 45                                |
| FP-184420   | CUI 33                                    | FP-213079    | CUI 40, 45                 | FP-3009383   | CUI 40, 45                                |
| FP-186348   | CUI 39, 40                                | FP-213394    | CUI 38                     | FP-3009384   | CUI 40, 45                                |
| FP-186780   | CUI 14, 15, 24, 25, 33-35, 38-40          | FP-213395    | CUI 38                     | FP-3010457   | CUI 14, 15, 24, 25, 34, 38                |
| FP-187420   | CUI 33, 36-38, 41, 42, 44, 45             | FP-213485    | CUI 38                     | FP-3010459   | CUI 14, 15, 24, 25, 27, 28                |
| FP-187608   | CUI 39, 40                                | FP-213559    | CUI 39, 40, 44, 45         | FP-3010461   | CUI 27, 28                                |
| FP-188329   | CUI 33-35                                 | FP-213806    | CUI 40                     | FP-3010464   | CUI 14, 15, 24, 25                        |
| FP-189763   | CUI 29, 30, 39, 40                        | FP-214144    | CUI 40, 45                 | FP-3010465   | CUI 14, 15, 24, 25, 27, 28                |
| FP-189770   | CUI 39, 40                                | FP-214633R1  | CUI 33, 34                 | FP-3011272   | CUI 41                                    |
| FP-189770PR | CUI 39, 40                                | FP-214751    | CUI 39, 40                 | FP-3011273   | CUI 41                                    |
| FP-189771   | CUI 39, 40                                | FP-214950    | CUI 38                     | FP-3011295   | CUI 44, 45                                |
| FP-189771PR | CUI 39, 40                                | FP-214950PR  | CUI 38                     | FP-3011463   | CUI 33                                    |
| FP-189772   | CUI 39, 40                                | FP-214951    | CUI 38                     | FP-3012360PR | CUI 11, 14, 15, 21, 24, 25                |
| FP-189772PR | CUI 39, 40                                | FP-214951PR  | CUI 38                     | FP-3012361PR | CUI 11, 14, 15, 21, 24, 25                |
| FP-189773   | CUI 39, 40                                | FP-214952    | CUI 38                     | FP-3012362PR | CUI 11, 14, 15, 21, 24, 25                |
| FP-190876   | CUI 40, 45                                | FP-214952PR  | CUI 38                     | FP-3012590   | CUI 19, 20                                |
| FP-191970   | CUI 38, 44, 45                            | FP-214953    | CUI 38                     | FP-3012595   | CUI 19, 20                                |
| FP-193734   | CUI 40, 45                                | FP-214954    | CUI 38                     | FP-3012972   | CUI 38                                    |
| FP-193736   | CUI 14, 15, 24, 25, 27, 39, 41, 45        | FP-215041    | CUI 38                     | FP-3013497   | CUI 39, 40                                |
| FP-194037   | CUI 14, 15, 24, 25, 27, 28, 39-41, 44, 45 | FP-215044    | CUI 38, 45                 | FP-3013497S  | CUI 39, 40                                |
| FP-194106   | CUI 33, 35                                | FP-215045    | CUI 38                     | FP-3013498   | CUI 36, 37, 39, 40                        |
| FP-194840   | CUI 24, 25                                | FP-215090    | CUI 38, 44, 45             | FP-3013508   | CUI 36, 37                                |
| FP-195000   | CUI 14, 15, 24, 25, 27, 28                | FP-215390    | CUI 39, 40                 | FP-3013522   | CUI 24, 25, 27, 28                        |
| FP-195240   | CUI 14, 15                                | FP-215705    | CUI 44                     | FP-3013623   | CUI 38                                    |
| FP-195950   | CUI 38                                    | FP-215983    | CUI 33-35, 42, 43          | FP-3014458   | CUI 39, 40                                |
| FP-195952   | CUI 38, 45                                | FP-216283    | CUI 14, 15, 24, 25, 27, 28 | FP-3014459   | CUI 41                                    |
| FP-196949   | CUI 39, 40                                | FP-216284    | CUI 14, 15, 24, 25, 27, 28 | FP-3016660   | CUI 40                                    |
| FP-199180   | CUI 40                                    | FP-216484    | CUI 14, 15, 24, 25, 27, 28 | FP-3017035   | CUI 39, 40                                |
| FP-199821   | CUI 33, 35, 42                            | FP-216486    | CUI 38, 45                 | FP-3017062   | CUI 24, 25, 27, 28                        |
| FP-200600   | CUI 44, 45                                | FP-216487    | CUI 38, 45                 | FP-3017063   | CUI 14, 15                                |
| FP-200600PR | CUI 42, 44, 45                            | FP-216524    | CUI 38                     | FP-3017511   | CUI 44, 45                                |
| FP-200601   | CUI 44, 45                                | FP-216707    | CUI 29, 30, 36, 39, 40     | FP-3017544   | CUI 33, 41                                |
| FP-200602   | CUI 44, 45                                | FP-216879    | CUI 33-35, 42, 43          | FP-3017564   | CUI 44, 45                                |
| FP-200680   | CUI 33                                    | FP-217037    | CUI 45                     | FP-3017750   | CUI 38, 41                                |
| FP-200710   | CUI 33, 43                                | FP-218153    | CUI 33, 44, 45             | FP-3017759   | CUI 41, 44, 45                            |
| FP-200730   | CUI 34                                    | FP-218853    | CUI 14, 15, 39, 40         | FP-30177593  | CUI 41, 44, 45                            |
| FP-200743   | CUI 38, 40, 45                            | FP-245107310 | CUI 29, 30, 36, 37         | FP-3019116   | CUI 14, 15, 24, 25, 33, 35                |
| FP-200780   | CUI 39, 40                                | FP-2601625   | CUI 27, 28                 | FP-3019287   | CUI 39, 40                                |
| FP-200790   | CUI 39, 40                                | FP-3000266   | CUI 40, 45                 | FP-3019369   | CUI 27, 28                                |
| FP-200800   | CUI 14, 15, 24, 25                        | FP-3002483   | CUI 39, 40                 | FP-3019634   | CUI 27, 28                                |
| FP-200861   | CUI 44                                    | FP-3003175   | CUI 44, 45                 | FP-3019955   | CUI 38                                    |
| FP-201766   | CUI 33                                    | FP-3003176   | CUI 44, 45                 | FP-3019956   | CUI 38, 41, 44, 45                        |
| FP-201950   | CUI 27, 28                                | FP-3003602   | CUI 39, 40                 | FP-3019957   | CUI 38                                    |
| FP-202013   | CUI 33                                    | FP-3004316   | CUI 34                     | FP-3019959   | CUI 38                                    |
| FP-202226   | CUI 38                                    | FP-3005887   | CUI 44, 45                 | FP-3019960   | CUI 38                                    |
| FP-20222610 | CUI 38                                    | FP-3006237   | CUI 44, 45                 | FP-3020083   | CUI 40                                    |
| FP-20222620 | CUI 38                                    | FP-300635011 | CUI 40, 45                 | FP-3020182   | CUI 41, 44, 45                            |
| FP-20222630 | CUI 38                                    | FP-300635012 | CUI 40, 45                 | FP-3020183   | CUI 33                                    |
| FP-2022265  | CUI 38                                    | FP-300635013 | CUI 40, 45                 | FP-3020184   | CUI 39, 40                                |
| FP-202227   | CUI 38                                    | FP-300635015 | CUI 40, 45                 | FP-3020187   | CUI 44                                    |
| FP-202605   | CUI 33                                    | FP-300635020 | CUI 40, 45                 | FP-3020737   | CUI 14, 15, 24, 25                        |
| FP-203070   | CUI 33-35, 42, 43                         | FP-30063508  | CUI 40, 45                 | FP-30207391  | CUI 40, 45                                |
| FP-203131   | CUI 26                                    | FP-3006352   | CUI 40, 45                 | FP-30207392  | CUI 40, 45                                |
| FP-203170   | CUI 39, 40                                | FP-3006353   | CUI 40, 45                 | FP-3020943   | CUI 33, 35, 41                            |
| FP-203352   | CUI 40, 45                                | FP-3006354   | CUI 40, 45                 | FP-3021094   | CUI 40                                    |
| FP-203355   | CUI 40, 45                                | FP-3006355   | CUI 40, 45                 | FP-3021581   | CUI 38-40                                 |
| FP-203660   | CUI 38                                    | FP-3006360   | CUI 40, 45                 | FP-3021592   | CUI 45                                    |
| FP-203660PR | CUI 38                                    | FP-3006456   | CUI 38, 41, 44, 45         | FP-3021593   | CUI 45                                    |
| FP-203661   | CUI 38                                    | FP-3006457   | CUI 41, 44, 45             | FP-3021594   | CUI 45                                    |
| FP-203661PR | CUI 38                                    | FP-3006458   | CUI 41, 44, 45             | FP-3021595   | CUI 45                                    |
| FP-203662   | CUI 38                                    | FP-3006699   | CUI 44, 45                 | FP-3021596   | CUI 45                                    |
| FP-203662PR | CUI 38                                    | FP-3006736   | CUI 38                     | FP-3021597   | CUI 45                                    |
|             |   | FP-3006737   | CUI 33, 34, 38, 41         |              |   |

# Numerical List



| Part No.     | Line No.                       | Part No.    | Line No.                           | Part No.    | Line No.       |
|--------------|--------------------------------|-------------|------------------------------------|-------------|----------------|
| FP-3021598   | CUI 45                         | FP-3070486  | CUI 39-41, 44, 45                  | FP-3802010  | CUI 4          |
| FP-3021599   | CUI 45                         | FP-3071147  | CUI 41                             | FP-3802011  | CUI 4          |
| FP-3021600   | CUI 45                         | FP-3071466* | CUI 39, 40                         | FP-3802012  | CUI 4          |
| FP-3021601   | CUI 45                         | FP-3071467* | CUI 39, 40                         | FP-3802013  | CUI 4          |
| FP-3021676   | CUI 40, 45                     | FP-3076489  | CUI 14, 15, 24, 25                 | FP-3802014  | CUI 4          |
| FP-3022529   | CUI 27, 28                     | FP-3077198  | CUI 44, 45                         | FP-3802040  | CUI 2, 4, 12   |
| FP-3022530   | CUI 14, 15, 24, 25             | FP-3077646  | CUI 39, 40                         | FP-3802042  | CUI 2, 4, 12   |
| FP-3023177   | CUI 33, 35, 41                 | FP-3201388  | CUI 14, 15, 24, 25, 27, 28         | FP-3802044  | CUI 2, 4, 12   |
| FP-3023475   | CUI 40                         | FP-3226064  | CUI 34                             | FP-3802060  | CUI 2, 4, 12   |
| FP-3023867   | CUI 39, 40                     | FP-3275266  | CUI 24, 25, 27                     | FP-3802062  | CUI 2, 4, 12   |
| FP-3024709   | CUI 38                         | FP-3275354  | CUI 11, 14, 15, 21, 24, 25, 27, 28 | FP-3802064  | CUI 2, 4, 12   |
| FP-3024991   | CUI 40, 45                     | FP-3275356  | CUI 11, 14, 15, 21, 24, 25, 27, 28 | FP-3802070  | CUI 12         |
| FP-3026315   | CUI 39, 40                     | FP-3275431  | CUI 27, 28                         | FP-3802071  | CUI 12         |
| FP-3027633   | CUI 40, 45                     | FP-3275538  | CUI 14, 15                         | FP-3802072  | CUI 12         |
| FP-3028665   | CUI 39, 40                     | FP-3275779  | CUI 11, 14, 15, 21, 24, 25, 27, 28 | FP-3802073  | CUI 12         |
| FP-3028673   | CUI 39, 40                     | FP-3275912  | CUI 28                             | FP-3802074  | CUI 12         |
| FP-3029099   | CUI 14, 15, 24, 25, 33, 39, 40 | FP-3275949  | CUI 27, 28                         | FP-3802075  | CUI 33-35      |
| FP-3029340   | CUI 38                         | FP-3275989  | CUI 27                             | FP-3802075A | CUI 33, 35     |
| FP-3029341   | CUI 33, 34                     | FP-3277099  | CUI 24, 25, 27, 28                 | FP-3802076  | CUI 33, 35     |
| FP-3029416   | CUI 38                         | FP-3277100  | CUI 14, 15                         | FP-3802077  | CUI 33, 34     |
| FP-3030038   | CUI 44, 45                     | FP-3277332  | CUI 14, 15, 24, 25                 | FP-3802085  | CUI 26         |
| FP-3030891   | CUI 24, 25, 27, 28             | FP-3277336  | CUI 14, 15, 24, 25                 | FP-3802132  | CUI 3          |
| FP-3031037   | CUI 14, 15, 24, 25, 27, 28     | FP-3277462  | CUI 24, 25, 27                     | FP-3802134  | CUI 3          |
| FP-3031049   | CUI 44, 45                     | FP-3277463  | CUI 14, 15                         | FP-3802160  | CUI 3          |
| FP-3031213   | CUI 44, 45                     | FP-3277592  | CUI 11, 14, 15, 21, 24, 25         | FP-3802210  | CUI 26         |
| FP-3031214   | CUI 44, 45                     | FP-3277608  | CUI 27, 28                         | FP-3802211  | CUI 26         |
| FP-3032348   | CUI 38, 45                     | FP-3277626  | CUI 27, 28                         | FP-3802212  | CUI 26         |
| FP-3032874   | CUI 38-40, 44, 45              | FP-3277634  | CUI 27, 28                         | FP-3802230  | CUI 3          |
| FP-3034222   | CUI 44, 45                     | FP-3277752  | CUI 14, 15                         | FP-3802232  | CUI 3          |
| FP-3034736   | CUI 45                         | FP-3277753  | CUI 24, 25                         | FP-3802234  | CUI 3          |
| FP-3036100   | CUI 44, 45                     | FP-3277991  | CUI 14, 15, 24, 25                 | FP-3802263  | CUI 26         |
| FP-3037413   | CUI 39, 40                     | FP-3278031  | CUI 28                             | FP-3802344  | CUI 26         |
| FP-3037414   | CUI 40                         | FP-3278173  | CUI 11, 14, 15, 21, 24, 25, 27, 28 | FP-3802355  | CUI 2-4, 12    |
| FP-3038903   | CUI 33, 41                     | FP-3278345  | CUI 14, 15, 24, 25, 27, 28         | FP-3802356  | CUI 2-4, 12    |
| FP-3038904   | CUI 33, 41                     | FP-3278723  | CUI 11, 14, 15, 21, 24, 25, 27, 28 | FP-3802363  | CUI 12         |
| FP-3040097   | CUI 44, 45                     | FP-3281721  | CUI 26                             | FP-3802370  | CUI 26         |
| FP-3040750   | CUI 40, 45                     | FP-3284377  | CUI 12                             | FP-3802376  | CUI 12         |
| FP-3040750B  | CUI 40, 45                     | FP-3286277  | CUI 2-4, 12                        | FP-3802388  | CUI 26         |
| FP-30407509  | CUI 40, 45                     | FP-3349820  | CUI 33-35, 38, 41                  | FP-3802389  | CUI 26         |
| FP-3040751   | CUI 40, 45                     | FP-3353977  | CUI 26                             | FP-3802398  | CUI 26         |
| FP-3040752   | CUI 40, 45                     | FP-3376382  | CUI 38                             | FP-3802401  | CUI 26         |
| FP-3040753   | CUI 40, 45                     | FP-3390118  | CUI 39, 40                         | FP-3802406  | CUI 26         |
| FP-3040754   | CUI 40, 45                     | FP-3406659  | CUI 38                             | FP-3802407  | CUI 26         |
| FP-3040755   | CUI 40, 45                     | FP-3411460  | CUI 45                             | FP-3802429  | CUI 26         |
| FP-3040756   | CUI 40, 45                     | FP-3417713  | CUI 31                             | FP-3802463  | CUI 26         |
| FP-3040757   | CUI 40, 45                     | FP-3602788  | CUI 38                             | FP-3802601  | CUI 26         |
| FP-3040830   | CUI 41, 45                     | FP-3608833  | CUI 38                             | FP-3802602  | CUI 26         |
| FP-3042745   | CUI 44, 45                     | FP-3630681  | CUI 44, 45                         | FP-3802609  | CUI 26         |
| FP-3043650   | CUI 44, 45                     | FP-378PREM  | CUI 14, 15                         | FP-3802610  | CUI 26         |
| FP-3044795   | CUI 39, 40                     | FP-3800174  | CUI 44, 45                         | FP-3802657  | CUI 26         |
| FP-3045941   | CUI 44, 45                     | FP-3800828  | CUI 26                             | FP-3802811  | CUI 26         |
| FP-3046325   | CUI 45                         | FP-3801030  | CUI 31, 33-35, 41                  | FP-3802820  | CUI 12         |
| FP-3046418   | CUI 33                         | FP-3801044+ | CUI 44, 45                         | FP-3803002  | CUI 44         |
| FP-3046419   | CUI 44, 45                     | FP-3801106  | CUI 38                             | FP-3803003  | CUI 44         |
| FP-3046431   | CUI 33                         | FP-3801260  | CUI 31-35, 38, 41                  | FP-3803219  | CUI 38, 44, 45 |
| FP-3046432   | CUI 44, 45                     | FP-3801261  | CUI 31-35, 38, 41                  | FP-3803512  | CUI 41, 44, 45 |
| FP-304668011 | CUI 40, 45                     | FP-3801262  | CUI 31-35, 38, 41                  | FP-3803513  | CUI 39, 40     |
| FP-304668012 | CUI 40, 45                     | FP-3801263  | CUI 31-35, 38, 41                  | FP-3803524  | CUI 41, 44, 45 |
| FP-304668015 | CUI 40, 45                     | FP-3801264  | CUI 33, 34, 38, 41                 | FP-3803697  | CUI 44, 45     |
| FP-30466809  | CUI 40, 45                     | FP-3801267  | CUI 44, 45                         | FP-3803996  | CUI 31         |
| FP-3046682   | CUI 40, 45                     | FP-3801324  | CUI 41                             | FP-3804276  | CUI 41         |
| FP-3046683   | CUI 40, 45                     | FP-3801348  | CUI 41                             | FP-3804897  | CUI 12         |
| FP-3046684   | CUI 40, 45                     | FP-3801387  | CUI 38, 44, 45                     | FP-3806180  | CUI 26         |
| FP-3046686   | CUI 40, 45                     | FP-3801403  | CUI 44, 45                         | FP-3822959  | CUI 38         |
| FP-3046687   | CUI 40, 45                     | FP-3801434  | CUI 44, 45                         | FP-3822960  | CUI 38         |
| FP-3052514   | CUI 38                         | FP-3801463  | CUI 38                             | FP-3822961  | CUI 38         |
| FP-3053377   | CUI 33                         | FP-3801464  | CUI 38                             | FP-3822963  | CUI 38         |
| FP-3054160   | CUI 39, 40                     | FP-3801466  | CUI 33                             | FP-3823681  | CUI 38         |
| FP-3054841   | CUI 38, 41                     | FP-3801541  | CUI 36, 37                         | FP-3900250  | CUI 2-4, 12    |
| FP-3054948   | CUI 38, 41, 44, 45             | FP-3801657  | CUI 14, 15                         | FP-3900276  | CUI 4, 12      |
| FP-3054948B  | CUI 38, 41, 44, 45             | FP-3801658  | CUI 24, 25                         | FP-3900299  | CUI 4, 12      |
| FP-30549486  | CUI 38, 41, 44, 45             | FP-3801659  | CUI 27, 28                         | FP-3901085  | CUI 2-4, 12    |
| FP-3055099   | CUI 38, 44, 45                 | FP-3801666  | CUI 44, 45                         | FP-3901097  | CUI 4, 12      |
| FP-3058363   | CUI 44                         | FP-3801826  | CUI 38, 44, 45                     | FP-3901171  | CUI 2-4, 12    |
| FP-3062096   | CUI 33, 41                     | FP-3801828  | CUI 44, 45                         | FP-3901172  | CUI 2-4, 12    |
| FP-3065125   | CUI 33, 41                     | FP-3801829  | CUI 44, 45                         | FP-3901173  | CUI 2-4, 12    |
| FP-3065405   | CUI 38, 45                     | FP-3801831  | CUI 44, 45                         | FP-3901174  | CUI 12         |
| FP-3065406   | CUI 38                         | FP-3801832  | CUI 44, 45                         | FP-3901177  | CUI 26         |
| FP-3066843   | CUI 38                         | FP-3801833  | CUI 44, 45                         | FP-3901306  | CUI 2-4, 12    |
| FP-3066844   | CUI 38                         | FP-3801834  | CUI 44, 45                         | FP-3901430  | CUI 26         |
| FP-3067568   | CUI 33, 41                     | FP-3801835  | CUI 44, 45                         | FP-3901431  | CUI 26         |
| FP-3069098   | CUI 38                         | FP-3801836  | CUI 44, 45                         | FP-3901432  | CUI 26         |
| FP-3070080*  | CUI 44                         | FP-3801920  | CUI 38                             | FP-3901433  | CUI 26         |

| Part         |               | Part            |                                      | Part        |                                    |
|--------------|---------------|-----------------|--------------------------------------|-------------|------------------------------------|
| No.          | Line No.      | No.             | Line No.                             | No.         | Line No.                           |
| FP-3901434   | CUI 26        | FP-3925879      | CUI 26                               | FP-68061A   | CUI 40, 45                         |
| FP-3901693   | CUI 26        | FP-3925879WP    | CUI 26                               | FP-68210    | CUI 33, 35                         |
| FP-3901717   | CUI 26        | FP-3926126      | CUI 26                               | FP-68513    | CUI 33, 41                         |
| FP-3901764   | CUI 26        | FP-3926700      | CUI 4, 12                            | FP-69550    | CUI 45                             |
| FP-3901969   | CUI 26        | FP-3927642      | CUI 26                               | FP-69936    | CUI 33                             |
| FP-3902089   | CUI 26        | FP-3928031      | CUI 26                               | FP-69965    | CUI 33, 43                         |
| FP-3902425   | CUI 26        | FP-3928639      | CUI 26                               | FP-6996520  | CUI 33, 43                         |
| FP-3902466   | CUI 26        | FP-3929005      | CUI 26                               | FP-699655   | CUI 33, 43                         |
| FP-3903380   | CUI 4, 12, 26 | FP-3929036      | CUI 4                                | FP-70183    | CUI 39, 40                         |
| FP-3903787   | CUI 26        | FP-3929037      | CUI 12                               | FP-70437    | CUI 42-45                          |
| FP-3904105   | CUI 4, 12     | FP-3929161      | CUI 26                               | FP-70624    | CUI 38                             |
| FP-3904166   | CUI 2-4, 12   | FP-3929161WP    | CUI 26                               | FP-70690    | CUI 38, 40, 45                     |
| FP-3904408   | CUI 4, 12     | FP-3930324      | CUI 4, 12                            | FP-70705    | CUI 40, 45                         |
| FP-3904409   | CUI 4, 12     | FP-3931348      | CUI 26                               | FP-70732    | CUI 40, 45                         |
| FP-3905449   | CUI 26        | FP-3931623      | CUI 2-4, 26                          | FP-70772    | CUI 38                             |
| FP-3905870   | CUI 26        | FP-3932063      | CUI 26                               | FP-70809    | CUI 40, 45                         |
| FP-3905928   | CUI 26        | FP-3932453*     | CUI 4, 12                            | FP-80210020 | CUI 38                             |
| FP-3906081   | CUI 26        | FP-3934046      | CUI 26                               | FP-90004    | CUI 38                             |
| FP-3906206   | CUI 4, 12     | FP-3934048      | CUI 2, 3, 12                         | FP-90210011 | CUI 38                             |
| FP-3906208   | CUI 12        | FP-3934586      | CUI 26                               | FP-90210020 | CUI 34                             |
| FP-3906208WP | CUI 2, 4, 12  | FP-3934588      | CUI 26                               | FP-90210035 | CUI 34, 38                         |
| FP-3906209   | CUI 12        | FP-3936993      | CUI 26                               | FP-9097     | CUI 33, 35                         |
| FP-3906209WP | CUI 2, 4, 12  | FP-3939258*     | CUI 26                               | FP-92351    | CUI 33, 44, 45                     |
| FP-3906223   | CUI 12        | FP-3939353*     | CUI 26                               | FP-92601    | CUI 33, 41                         |
| FP-3906223WP | CUI 2, 4, 12  | FP-3939859      | CUI 2-4, 12                          | FP-9266     | CUI 41                             |
| FP-3906412   | CUI 26        | FP-3940059      | CUI 4, 12                            | FP-9266A    | CUI 41                             |
| FP-3906659   | CUI 4, 12, 26 | FP-3945329      | CUI 26                               | FP-9822KX   | CUI 22, 23, 35                     |
| FP-3906783   | CUI 26        | FP-3945967      | CUI 26                               | J1396       | CUI 31-33, 35, 38                  |
| FP-3906784   | CUI 26        | FP-3948071      | CUI 26                               | KS2-2423A+  | CUI 24, 25                         |
| FP-3906785   | CUI 26        | FP-3948095      | CUI 26                               | KS2-2506A+  | CUI 27, 28                         |
| FP-3906788   | CUI 26        | FP-3957544      | CUI 12                               | PGC1014+    | CUI 38                             |
| FP-3906854   | CUI 4, 12     | FP-3959052      | CUI 12                               | PGC20+      | CUI 38                             |
| FP-3907163WP | CUI 3         | FP-3974815      | CUI 26                               | PGC200+     | CUI 38                             |
| FP-3907177   | CUI 26        | FP-4B39PREML    | CUI 4                                | PGC204+     | CUI 38                             |
| FP-3907555   | CUI 26        | FP-4B39PREMOH   | CUI 4                                | PGC205+     | CUI 38                             |
| FP-3907792   | CUI 26        | FP-4B39PREMOHL  | CUI 4                                | PGC206+     | CUI 45                             |
| FP-3908096   | CUI 26        | FP-4025271      | CUI 26                               | PGC300+     | CUI 38                             |
| FP-3908815WP | CUI 3         | FP-4025271S     | CUI 21, 24, 25                       | PGE743HS+   | CUI 33, 35                         |
| FP-3908816WP | CUI 3         | FP-4058790      | CUI 38, 41                           | PGJ-10      | CUI 38                             |
| FP-3909356   | CUI 4, 12     | FP-4062902      | CUI 34                               | PGNH220-IF+ | CUI 33, 35                         |
| FP-3909410   | CUI 12, 26    | FP-4089649*     | CUI 12                               | PG1331NGB+  | CUI 38                             |
| FP-3910521   | CUI 26        | FP-4089810      | CUI 36-38, 41, 44, 45                | PG1710HP+   | CUI 44, 45                         |
| FP-3910739   | CUI 26        | FP-4089811      | CUI 44, 45                           | PG1710LP+   | CUI 45                             |
| FP-3910824   | CUI 4, 12, 26 | FP-4089812*     | CUI 44, 45                           | PG1710SH+   | CUI 44, 45                         |
| FP-3911558   | CUI 26        | FP-43067        | CUI 18, 22, 23, 31-33, 35, 38, 42-45 | PK1-2742+   | CUI 4                              |
| FP-3911582   | CUI 26        | FP-43696A       | CUI 40, 45                           | PK2-2742A+  | CUI 4                              |
| FP-3912473   | CUI 26        | FP-43828B       | CUI 38                               | SL-2271G+   | CUI 33, 35                         |
| FP-3913990   | CUI 26        | FP-4919811*     | CUI 33                               | ST-2002     | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3914017+  | CUI 26        | FP-4936080      | CUI 4, 12                            | ST-2002BC   | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3914301   | CUI 26        | FP-4939587      | CUI 12                               | VG-1325     | CUI 12                             |
| FP-3914302   | CUI 26        | FP-4944710      | CUI 26                               | VG-1330     | CUI 12                             |
| FP-3914308   | CUI 26        | FP-4944711      | CUI 26                               | VG-1331     | CUI 12                             |
| FP-3914310   | CUI 26        | FP-4944712      | CUI 26                               | VG-529+     | CUI 16, 17, 19, 20                 |
| FP-3916588   | CUI 26        | FP-4944713      | CUI 26                               | VK-123+     | CUI 16, 17, 19, 20                 |
| FP-3917707   | CUI 26        | FP-4944714      | CUI 26                               | VK-138      | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3917707WP | CUI 26        | FP-4957806      | CUI 38                               | VK-138B     | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3917728   | CUI 26        | FP-504PREM      | CUI 24, 25                           | VK-138R     | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3917729   | CUI 26        | FP-551079       | CUI 14, 15                           | VK-286      | CUI 12                             |
| FP-3917780   | CUI 26        | FP-551143       | CUI 14, 24                           | VK-66       | CUI 16, 22, 23, 31, 33, 35         |
| FP-3918174   | CUI 26        | FP-552335       | CUI 14, 15, 24, 25                   | VK-66R      | CUI 16, 22, 23, 31, 33, 35         |
| FP-3918191   | CUI 26        | FP-554320       | CUI 27, 28                           | V-1957+     | CUI 11, 14, 15, 21, 24, 25, 27, 28 |
| FP-3918192   | CUI 26        | FP-554321       | CUI 27, 28                           | V-4384      | CUI 12                             |
| FP-3918332   | CUI 26        | FP-554438       | CUI 14, 15, 24, 25                   | V-4385      | CUI 12                             |
| FP-3918986   | CUI 26        | FP-554785       | CUI 27, 28                           | W-645KX     | CUI 10                             |
| FP-3919247   | CUI 26        | FP-555PREM      | CUI 27, 28                           | W-920KX     | CUI 5                              |
| FP-3919247WP | CUI 26        | FP-555420       | CUI 28                               | W-920X      | CUI 5                              |
| FP-3919435   | CUI 26        | FP-555421       | CUI 27                               | 1449M+      | CUI 39, 40                         |
| FP-3919937   | CUI 26        | FP-556350       | CUI 27, 28                           | 213-201+    | CUI 38                             |
| FP-3920691   | CUI 2, 3      | FP-556350PR     | CUI 27, 28                           | 213-3021581 | CUI 38-40                          |
| FP-3920773   | CUI 26        | FP-556351       | CUI 27, 28                           | 245-1073-10 | CUI 29, 30, 36, 37                 |
| FP-3920867   | CUI 2-4, 12   | FP-556351PR     | CUI 27, 28                           | 245-1722-E1 | CUI 12                             |
| FP-3920868   | CUI 2-4, 12   | FP-556352       | CUI 27, 28                           | 260-1527    | CUI 12                             |
| FP-3921444   | CUI 26        | FP-556352PR     | CUI 27, 28                           | 260-1544+   | CUI 21, 24                         |
| FP-3921978   | CUI 26        | FP-556353       | CUI 27, 28                           | 260-1625    | CUI 28                             |
| FP-3923164   | CUI 26        | FP-556355       | CUI 24, 25, 27                       | 260-1667    | CUI 39, 40                         |
| FP-3923164WP | CUI 26        | FP-556356       | CUI 14, 15                           | 260-1679V+  | CUI 38                             |
| FP-3923478   | CUI 26        | FP-6B59PREM     | CUI 12                               | 260-2088+   | CUI 38                             |
| FP-3923564   | CUI 26        | FP-6B59PREML    | CUI 12                               | 260-6004+   | CUI 38                             |
| FP-3924492   | CUI 26        | FP-6B59PREMOH   | CUI 12                               | 260-7000+   | CUI 38                             |
| FP-3924582   | CUI 26        | FP6B5.9PREM-OHL | CUI 12                               | 2743PN      | CUI 3                              |
| FP-3925343   | CUI 26        | FP-6C83PREM     | CUI 26                               | 39302       | CUI 31-33, 35, 38                  |
| FP-3925878   | CUI 26        | FP-6C83PREMOH   | CUI 26                               | 39701       | CUI 42, 44, 45                     |
| FP-3925878WP | CUI 26        | FP-66890        | CUI 22, 23, 31, 33-35, 42, 43        | 39703       | CUI 31-33, 35                      |

# Numerical List



| Part No. | Line No.   | Part No. | Line No. | Part No. | Line No. |
|----------|--|----------|----------|----------|----------|
| 39705    | CUI 42   |          |          |          |          |
| 39713    | CUI 44, 45   |          |          |          |          |
| 39719    | CUI 39, 40, 44, 45                                   |          |          |          |          |
| 39803    | CUI 12   |          |          |          |          |
| 39807    | CUI 31-33, 35  |          |          |          |          |
| 39809    | CUI 16, 17, 19, 20                                   |          |          |          |          |
| 39813    | CUI 31-33, 35  |          |          |          |          |
| 39821    | CUI 27, 28, 31-33, 44, 45                            |          |          |          |          |
| 39823    | CUI 31-33, 35  |          |          |          |          |
| 39835    | CUI 14, 15, 24, 25, 27, 28, 31-33, 35, 38-40, 44, 45 |          |          |          |          |
| 39877    | CUI 31-33, 35, 38-40                                 |          |          |          |          |
| 415012V  | CUI 5-10   |          |          |          |          |
| 451147H  | CUI 16, 17, 19, 20                                   |          |          |          |          |
| 470334   | CUI 5-10   |          |          |          |          |
| 473010N  | CUI 31-33, 35, 38                                    |          |          |          |          |
| 50569    | CUI 44, 45   |          |          |          |          |
| 645KX+   | CUI 10   |          |          |          |          |
| 9822KX+  | CUI 22, 23, 33, 35                                   |          |          |          |          |
| 99125    | CUI 44, 45   |          |          |          |          |
| 99147    | CUI 39, 40   |          |          |          |          |
| 99162    | CUI 44, 45   |          |          |          |          |
| 99172    | CUI 5-10   |          |          |          |          |
| 99174    | CUI 16, 17, 19, 20                                   |          |          |          |          |
| 99181    | CUI 14, 15, 24, 25, 27, 28, 31-33, 35, 38-40, 44, 45 |          |          |          |          |
| 99225    | CUI 39   |          |          |          |          |
| 99248    | CUI 12   |          |          |          |          |
| 99290    | CUI 5-10   |          |          |          |          |
| 99311    | CUI 16, 17, 19, 20                                   |          |          |          |          |
| 99363    | CUI 31-33, 35  |          |          |          |          |
| 99372    | CUI 14, 15, 24, 25                                   |          |          |          |          |
| 99376    | CUI 42, 44, 45                                       |          |          |          |          |
| 99395    | CUI 40   |          |          |          |          |
| 99599    | CUI 31-33, 35  |          |          |          |          |
| 99725*   | CUI 42, 44, 45                                       |          |          |          |          |

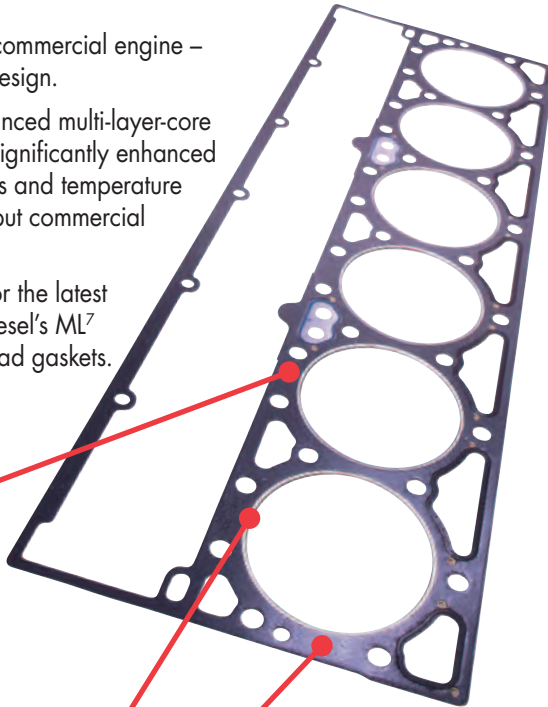


# ML<sup>7</sup>,™ THE FP DIESEL® 7-LAYER HEAD GASKET THAT SEALS REBUILT ENGINES BETTER!

Sealing the most demanding area in a commercial engine – it takes today’s most advanced gasket design.

FP Diesel® has introduced a highly advanced multi-layer-core head gasket technology that will bring significantly enhanced combustion and fluid sealing capabilities and temperature resistance to a broad range of high-output commercial diesel engines: The ML<sup>7</sup> head gasket.

As commercial engine rebuilders look for the latest and best engine sealing solutions, FP Diesel’s ML<sup>7</sup> gasket provides a new generation of head gaskets.



### BODY CONSTRUCTION

The ML<sup>7</sup> head gasket’s 7-layer construction features an advanced graphite material over a thicker, perforated stainless steel core for significantly increased rigidity. The key to determining the thickness of the gasket body, armor and wire is achieving optimal load balance among the components and materials. The result is a much more solid and durable part.

### LOW-CARBON STEEL WIRE

Copper flash-coated low-carbon steel (LCS) wire ring offers the ability to absorb stress without causing cracks or other problems.

### EXPANDED GRAPHITE FACING

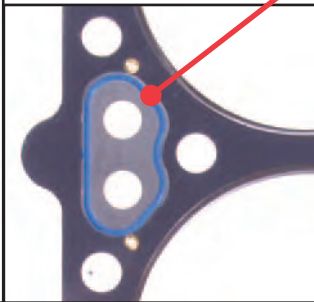
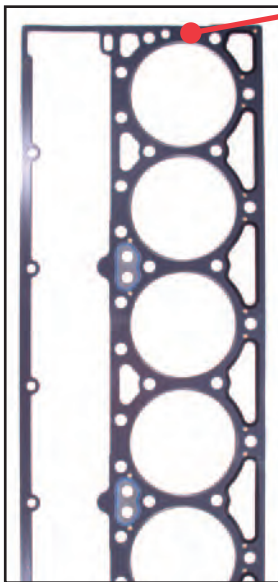
The ML<sup>7</sup>’s resilient, conformable graphite facing provides excellent fluid sealability and low creep relaxation, and stands up to temperature extremes and corrosive chemicals.

### MOLY COATING WITH SILICONE TOP COAT

Federal-Mogul engineers developed a moly coating specifically for the aftermarket service environment. This coating helps seal imperfections in the head and block mating surfaces and allows the gasket to adapt to lateral and vertical casting motion caused by combustion pressures and extreme operating temperatures. The special silicone top coat provides no-stick release for future engine work.

### FULLY ENCAPSULATED GROMMETS

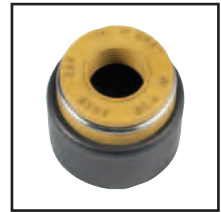
Some aftermarket gasket designs feature grommets that are then either staked or welded into place. But being fixed in place, they lack the flexibility to seat properly, leading to unwanted sealing issues. By contrast, the ML<sup>7</sup> gasket’s silicone rubber grommets are eyeleted into the gasket body. These “floating” grommets accommodate casting movement, allowing for dramatically improved seating over competing designs.



## FP DIESEL SMART TIP

Cummins® utilizes several types of valve stem seals on the 24 valve ISB engines, depending on the fuel system. Please review the references below to assist you in ordering the correct valve stem seals.

**For 1998-2002 engines using the VP44 Injection Pump, with serial number 46239408 and below use:**

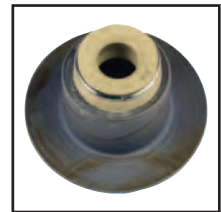


**INTAKE VALVE STEM SEAL**  
Yellow Viton® Center  
Part No. FP-3942989



**EXHAUST VALVE STEM SEAL**  
Green Viton® Center  
Part No. FP-3945438

**For 2003-2009 engines using the HPCR System, with serial number 46239409 and above use:**



**INTAKE VALVE STEM SEAL**  
Yellow Viton® Center  
Part No. FP-3955393



**EXHAUST VALVE STEM SEAL**  
Green Viton® Center  
Part No. FP-3955394

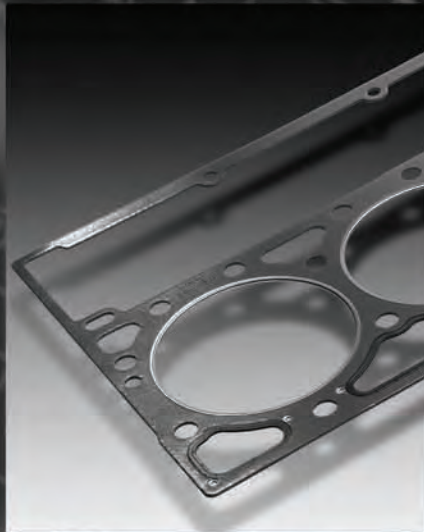






## Cummins M11 Replacement Piston

- Exclusive open cooling gallery design reduces piston crown heat providing improved durability
- Improved material properties and proprietary coatings improve break-in performance, reduce pin bore scuffing and enhance service life
- More robust to oil cooling jet alignment/wear



## FP Diesel ML<sup>7</sup>™ Head Gaskets

- Patented multi-layer design provides unprecedented strength
- Expanded graphite outer facings fills in minor voids in sealing surfaces
- Stainless steel armors provide robust, long lasting combustion seal
- Solid steel core provides enhanced lateral stability



## [www.FMe-cat.com](http://www.FMe-cat.com)

- Commercial vehicle electronic catalog – available at [www.FMe-cat.com](http://www.FMe-cat.com)
- User friendly interface features the most complete product offering and latest coverage data
- Online solution offers fast, easy access to virtual catalog pages covering the thousands of FP Diesel® components
- Eases locating components for heavy-duty applications and enables users to accurately navigate in a virtual catalog environment of commercial vehicles



**GLOBAL TECHNOLOGY behind every part**