

LABOR TIME GUIDE

INDUSTRIAL ENGINES

ISUZU MOTORS LIMITED

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STANDARD LABORTIME GUIDE BOOK APPLICATION INFORMATION

The Labortime Table is designed to record the labortime on an industrial engine. It takes into account any special engine characteristics or capabilities which might necessitate multiple tasking on the engine.

1. Basic Operation Code

The Basic Operation Code establishes a base for the actual performance of a job or task. It indicates the general nature of the job to be performed.

The Basic Operation Code has seven (7) digits. The final two digits are always "00" and are underlined.

2. Additional Operation Code

When performing multiple tasks on the same engine, the Additional Operation Code is applied. The code is divided into two (2) sections.

Additional Operation Code (A):

Like the Basic Operation Code, the Additional Operation Code (A) consists of seven digits. The final two digits will be number ranging from "01" to "09".

Example: 12205 02 ~ 09

Additional Operation Code (B):

The Additional Operation Code (B) also has seven digits. The final two digits will be a number of "10" or greater.

3. Operation Time Units

1/10th of 1 hour is defined as a single time unit:

Examples: 0.1 = 6 minutes

0.2 = 12 minutes

0.5 = 30 minutes

1.0 = 60 minutes or 1 hour

Note: When more than two items of A "B" operation code are carried out at the same time, longer operation hours will be selected.

4. Time Calculation Method (Calculation of Total Operation Time with Allowances)

Let us assume that you are overhauling a 6RA1 Diesel Engine cylinder head. Your total operations time calculation would look like the example below.

Basic Code	12210 00	Cylinder head	R & R	1 pc.	6.7
Add. Code (A)	12210 04	Cylinder head	R & R	2 pc.	1.3
Add. Code (B)	12210 26	Cylinder head	R & R	2 pc.	5.3
Total Operation Time With Allowances. (Hours)					13.3

5. Definition of Standard Labortime Table Terms

- (1) R & R Removal and Reinstallation:
Refers to the removal, and reinstallation of a major component or assembly. This term usually designates a basic operation. One or more combination codes will be required to fill out the Standard Labortime Table.
- (2) Rep. Replacement:
Refers to the removal of a part or component and its replacement with a new part or component.
- (3) Repair Repair:
Refers to an operation or procedure designed to return malfunctioning parts or assemblies to normal working order. The removal, cleaning adjustment, and reinstallation of related parts are also included.
- (4) O.H. Overhaul:
Refers to the disassembly, inspection and cleaning, and reassembly of components or parts and the performance of the required adjustment procedures.
- (5) Test Test:
The testing of a unit to establish that it is functioning normally.
- (6) Adj. Adjustment:
Refer to the process of bringing part or parts operation up to an established standard.
- (7) Reti. Retightening:
- (8) Cle. Cleaning:
- (9) Meas. Measurement:
- (10) Ins. Inspection:
- (11) Reqr. Regrinding:
- (12) ST Actual Time:
- (13) / And:
- (14) Assy. Assembly:

SYMPTOM CODE

Symptom Code	Symptom	Symptom Code	Symptom
1010	Excessive fuel consumption	1241	Water leak-cylinder head or cylinder body
1019	Other	1242	Water leak-water pump.
1020	Excessive fuel consumption	1243	Water leak-oil cooler
1029	Other	1244	Water leak-water pipe
1030	Lack of engine power	1245	Water leak-rubber hose
1039	Other	1249	Other
1040	Overheated	1310	Engine-Abnormal noisy
1049	Other	1319	Other
1050	Overcooled	1322	Injection pump-noisy
1074	Oil pressure-too low	1333	Generator-noisy
1075	Oil pressure-too high	1329	Other
1079	Other	1330	Engine-vibration
7230	Oil pressure-meter system damaged	1339	Other
1081	Black smoke	1412	Cavitation
1082	White smoke	1413	Water hammer
1083	Blue smoke	1414	Engine-over run
1089	Other	1419	Other
1090	Blow-by gas too high	1421	Starter-damaged
1099	Other	1422	Generator-damaged
1111	Engine-rough idle	1425	Injection pump-damaged
1112	Engine-hunting	1429	Other
1119	Others	1510	Engine control system-damaged
1211	Oil leak-cylinder head cover	1519	Other
1211	Oil leak-cylinder head cover gasket	1525	Intake manifold-damaged
1212	Oil leak-cylinder head	1526	Inter cooler-damaged
1213	Oil leak-oil pan	1529	Other
1214	Oil leak-cylinder body	1535	Exhaust manifold-damaged
1215	Oil leak-timing gear case and gasket	1539	Other
1216	Oil leak-flywheel housing gasket	1541	Radiator-corrosion, water leak
1217	Oil leak-crankshaft oil seal	1542	Radiator-cracked
1219	Others	1543	Radiator-chocked
1221	Oil leak-injection pump	1549	Other
1225	Oil leak-oil pipe and hose	1561	Turbocharger-damaged
1229	Other	1562	Turbocharger-abnormal noisy
1231	Gas leak-cylinder head gasket	1569	Other
1232	Gas leak-cylinder head	1711	Injection pump-fuel leak
1233	Gas leak-oil pan, or crank case	1712	Feed pump-fuel leak
1234	Gas leak-Exhaust manifold	1714	Fuel pipe-fuel leak
1239	Other	1719	Other

PARTS DEFECTIVE CODE

Code No.	Parts defective	Code No.	Parts defective
01	Damaged/Broken	22	Omitted
03	Pitted	23	Shorted
05	Cracked/Heatcracked	24	Pin hole/Bubble
06	Worn	25	Choked/Foreign material
09	Bent	26	Plastic deform
10	Deform/Distorted	29	Maladfysted
11	Burnt	31	Wrong parts (Wrong assembly)
12	Binds/Stick	32	Interference
13	Frozen	35	Corrosion/Rust
16	Miscontacted	40	Oil leakage
19	Loose		

INDUSTRIAL FOR LIGHT DUTY ENGINES

2Y SERIES

3Y SERIES

3L SERIES

4L SERIES

3K SERIES

4F SERIES

C- SERIES

4J SERIES

4B SERIES

4HK1X (Tier3)

4JJ1X (Tier3)

4LE2X (Interim Tier4)

4HK1X (Interim Tier4)

4JJ1X (Interim Tier4)

4LE2X (Tier4)

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
ENGINE BODY																	
11060 00	Flywheel Assy.	R & R	0.5	0.5	ST	ST	ST	ST	ST	ST	ST	ST	0.4	0.4	0.4	0.4	0.4
11060 10	Flywheel Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11060 20	Starter Ring Gear	Rep.	1.0	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11060 30	Flywheel Housing	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	0.6
11060 32	Rear Plate	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.3	—	—	0.7
11060 35	Flywheel	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11060 40	Pilot Bearing	Rep.	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11080 00	Engine Cushion Rubber : Front	Rep.	0.3	0.3	0.3	0.3	—	0.3	0.3	0.3	0.3	—	—	0.3	—	—	0.3
11080 02	Both Side	Rep.	0.1	0.1	0.1	0.1	—	—	0.1	0.1	0.1	—	—	0.1	—	—	0.1
11086 00	Drain Plug	R & R	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11086 10	Drain Plug	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11086 15	Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11200 00	Engine Assy.	R & R	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 10	Engine Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11200 20	Engine Assy.	O. H.	10.5	10.5	8.0	9.0	7.0	12.8	12.8	12.8	12.8	—	—	9.0	—	—	10.2
11200 22	Cylinder Block	O. H.	6.0	6.0	5.0	6.0	4.0	8.5	8.5	8.5	8.5	18.9	18.9	6.0	18.9	18.9	7.2
11200 28	Crankshaft Surface	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 30	Cylinder Block Line Boring	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 32	Cylinder Block Surface	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 35	Cylinder Block Water Pressure Test	Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 45	Sealing Plug	Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 90	Engine Bench Test	Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11210 00	Cylinder Block Assy.	R & R	—	—	—	—	—	—	—	—	—	18.9	18.9	—	18.9	18.9	—
11210 10	Cylinder Block Assy.	Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—
11210 26	Cylinder Block Water Pressure Test	Test	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
11210 27	Cylinder Block Crack	Ins.	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
11210 30	Cylinder Liner (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	0.1	—	—	0.1	—	—
11210 31	Cylinder Liner (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	0.2	—	—	0.2	—	—
11210 40	Sealing Plug	Rep.	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
11220 00	Sealing Plug	Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11230 00	Cylinder Block Drain Cock Assy.	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11240 00	Piston & Connecting Rod Assy. (All)	R & R	2.2	2.5	3.0	4.0	3.0	6.0	8.3	8.3	8.3	7.8	8.6	4.0	7.8	8.6	4.4
11240 20	Piston Ring	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11240 25	Piston & Piston Ring (1 - 2 pcs.)	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11240 26	Piston & Piston Ring (3 - 4 pcs.)	Rep.	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11240 40	Connecting Rod Bearing (1 - 2 pcs.)	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11240 41	Connecting Rod Bearing (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	0.2
11240 50	Connecting Rod (1 - 2 pcs.)	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11240 51	Connecting Rod (3 - 4 pcs.)	Rep.	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11240 60	Connecting Rod Bushing (1 - 2 pcs.)	Rep.	0.5	0.5	0.5	0.5	—	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11240 61	Connecting Rod Bushing (3 - 4 pcs.)	Rep.	—	1.0	1.0	1.0	—	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
11240 70	Cylinder Liner (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	1.1	1.1	1.1	0.1	—	—	0.1	—	—
11240 71	Cylinder Liner (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	2.2	2.2	2.2	0.2	—	—	0.2	—	—
11240 90	Oiling Jet	Rep.	—	—	0.2	0.2	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

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		2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)	
CRANKSHAFT · FLYWHEEL																	
11250 00	Crankshaft	R & R	—	—	—	—	—	—	—	—	—	16.8	16.8	—	16.8	16.8	—
11250 10	Crankshaft	Rep.	—	—	—	—	—	—	—	—	—	0.5	0.5	—	0.5	0.5	—
11250 25	Crankshaft Crack	Ins.	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
11250 40	Crankshaft Bearing	Rep.	—	—	—	—	—	—	—	—	—	0.2	0.2	—	0.2	0.2	—
11250 45	Crankshaft Gear	Rep.	—	—	—	—	—	—	—	—	—	0.5	0.5	—	0.5	0.5	—
11252 00	Crankshaft Rear Oil Seal	Rep.	0.9	0.9	ST	ST	ST	ST	ST	ST	ST	0.6	0.6	0.8	0.6	0.6	1.2
11255 00	Crankshaft Pulley	R & R	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11255 10	Crankshaft Pulley	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
11255 20	Damper	Rep.	—	—	—	—	—	—	—	—	—	0.1	—	—	0.1	—	—
11255 25	Crankshaft Front Oil Seal	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11270 00	Oil Pan Fixing Bolt	Rep.	0.2	0.2	—	—	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.4
11272 00	Oil Pan	R & R	0.3	0.3	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.5	0.4	0.9	0.5	0.4	0.9
11272 10	Oil Pan	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11272 20	Oil Pan Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11272 25	Oil Pan	Repair	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11272 30	Oiling Jet	Rep.	—	—	0.2	0.2	—	0.2	0.2	0.2	0.2	0.2	—	0.2	0.2	—	0.2
11272 40	Oil Pump Strainer	Cle.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	0.1	—	0.1
11272 42	Oil Pump Strainer	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	0.1	—	0.1
11272 45	Oil Pump Assy.	Rep.	1.0	1.0	2.0	2.0	—	0.1	0.1	0.1	0.1	—	—	2.0	—	—	5.1
11272 46	Oil Pump Assy.	O. H.	0.1	0.1	0.1	0.1	—	0.4	0.4	0.4	0.4	—	—	0.1	—	—	0.1
11272 47	Oil Pump	Rep.	0.1	0.1	0.1	0.1	—	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
11272 50	Oil Pan Heater	Rep.	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
11273 00	Crank Case & Oil Pan	R & R	—	—	—	—	—	0.8	0.5	0.5	0.8	—	9.8	—	—	9.8	—
11273 10	Oil Pan	Rep.	—	—	—	—	—	0.2	0.2	0.2	0.2	—	0.0	—	—	0.0	—
11273 15	Crank Case	Rep.	—	—	—	—	—	0.2	0.2	0.2	0.2	—	0.1	—	—	0.1	—
11273 20	Oil Pan Gasket	Rep.	—	—	—	—	0.1	0.1	0.1	0.1	0.1	—	0.0	—	—	0.0	—

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			2Y series	3Y series	3L series	4L series	3K series	4F series	C-series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)	
11273 25	Oil Pan	Repair	—	—	—	—	—	—	ST	ST	ST	ST	—	ST	—	—	ST	—
11273 30	Oil Jet	Rep.	—	—	—	—	—	—	0.1	0.1	0.1	0.1	—	0.1	—	—	0.1	—
11273 40	Oil Pump Strainer	Cle.	—	—	—	—	—	—	0.2	0.2	0.2	0.2	—	0.2	—	—	0.2	—
11273 42	Oil Pump Strainer	Rep.	—	—	—	—	—	—	0.1	0.1	0.1	0.1	—	0.1	—	—	0.1	—
11273 45	Oil Pump Assy.	Rep.	—	—	—	—	—	—	—	0.1	0.1	0.1	—	—	—	—	—	—
11273 46	Oil Pump Assy.	O. H.	—	—	—	—	—	—	—	0.4	0.4	0.4	—	—	—	—	—	—
11273 47	Oil Pipe	Rep.	—	—	—	—	—	—	—	0.1	0.1	0.1	—	—	—	—	—	—
11273 50	Oil Pan Heater	Rep.	—	—	—	—	—	—	—	0.1	0.1	0.1	—	—	—	—	—	—
11278 00	Oil Pan Level Gauge Guide Tube	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

CYLINDER HEAD - VALVE MECHANISM

12200 00	Valve Clearance	Adj.	0.5	0.5	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	0.5	1.0	
12205 00	Cylinder Head Cover	R & R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.8	0.2	0.4	0.8
12205 10	Cylinder Head Cover	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1
12205 20	Cylinder Head Cover Gasket	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12205 50	Cylinder Head Bolt	Reti.	0.2	0.2	1.0	1.0	1.0	1.8	0.3	0.3	0.3	—	—	1.0	—	—	1.0	
12205 51	Intake Chamber	Rep.	—	—	—	—	—	—	—	—	—	—	—	0.0	—	—	0.0	
12210 00	Cylinder Head Assy.	R & R	1.5	1.5	1.5	1.9	1.2	3.3	2.5	2.5	2.5	4.8	9.5	2.5	4.8	9.5	2.9	
12210 20	Cylinder Head Water Pressure Test	Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
12210 21	Cylinder Head Crack	Ins.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
12210 22	Cylinder Head Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12210 25	Cylinder Head (Except Valve Insert and Valve Guide Rep.)	O. H.	0.9	0.9	1.0	1.3	1.0	1.6	1.6	1.6	1.6	3.1	3.7	2.5	3.1	3.7	2.5	
12210 31	Cylinder Head	Rep.	1.5	1.5	1.0	1.3	1.0	1.6	1.6	1.6	1.6	3.1	3.7	2.5	3.1	3.7	2.5	
12210 40	Sealing Plug	Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
12210 41	Cylinder Head Surface	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
12210 42	Heat Shield	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	0.0	—	—	0.0	
12210 43	Hot Plug	Rep.	0.2	0.2	0.2	0.3	0.2	0.3	0.3	—	0.3	—	—	0.0	—	—	0.0	

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
12210 51	Nozzle Holder Sleeve (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	1.5	—	—	1.5	—	—
12210 52	Nozzle Holder Sleeve (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	1.6	—	—	1.6	—	—
12210 58	Valve Spring Seat	Rep.	—	—	—	—	—	—	—	—	—	1.1	1.1	0.5	1.1	1.1	0.5
12210 59	Valve Spring	Rep.	—	—	—	—	—	—	—	—	—	1.1	1.1	0.5	1.1	1.1	0.5
12210 60	Valve R & R and Lapping (All)	R & R/ Adj.	0.9	1.0	1.0	1.2	1.2	0.4	0.4	0.4	0.4	3.2	3.2	1.2	3.2	3.2	1.2
12210 61	Valve Rep. and Lapping (All)	Rep./ Adj.	—	—	—	—	—	—	—	—	—	3.2	3.2	1.2	3.2	3.2	1.2
12210 65	Valve Insert Grinding (All)	Rep./ Adj.	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
12210 70	Valve Guide (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	1.8	1.8	—	1.8	1.8	—
12210 71	Valve Guide (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	3.6	3.6	—	3.6	3.6	—
12210 80	Valve Insert (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	0.6	0.6	—	0.6	0.6	—
12210 81	Valve Insert (3 - 4 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	1.2	1.2	—	1.2	1.2	—
12210 83	Valve Insert	Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	—	—	ST	—	—	ST
12210 85	Valve Guide	Rep.	—	—	1.3	1.5	—	1.5	1.5	1.5	1.5	—	—	1.5	—	—	1.5
12210 87	Valve Guide Oil Seal	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.1	1.1	0.5	1.1	1.1	0.5
12210 89	Cylinder Head Stud Bolt	Repair	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
12210 91	Push Rod (All)	Rep.	0.0	0.0	0.0	0.0	—	—	0.0	0.0	0.0	—	—	0.0	—	—	0.0
<u>13210 00</u>	<u>Rocker Arm & Shaft Assy.</u>	<u>R & R</u>	<u>0.6</u>	<u>0.6</u>	<u>0.8</u>	<u>0.8</u>	<u>—</u>	<u>0.5</u>	<u>0.3</u>	<u>0.3</u>	<u>0.3</u>	<u>0.8</u>	<u>1.8</u>	<u>0.8</u>	<u>0.8</u>	<u>1.8</u>	<u>0.8</u>
13210 10	Rocker Arm Bracket	Rep.	—	—	—	—	—	—	—	—	—	0.2	—	—	0.2	—	—
13210 20	Rocker Arm Mechanism	O.H.	0.2	0.2	0.2	0.2	—	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.7	0.2
13210 22	Rocker Arm	Rep.	0.2	0.2	0.2	0.2	—	0.2	0.2	0.2	0.2	0.2	0.6	0.2	0.2	0.6	0.2
13210 23	Rocker Arm Shaft	Rep.	—	—	—	—	—	—	—	—	—	0.2	0.6	0.2	0.2	0.6	0.2
13210 26	Push Rod	Rep.	0.1	0.1	0.1	0.1	—	—	0.1	0.1	0.1	—	—	0.1	—	—	0.1
13210 40	Bridge	Rep.	—	—	—	—	—	—	—	—	—	0.1	—	—	0.1	—	—
<u>13212 00</u>	<u>Tappet</u>	<u>Rep.</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.4</u>	<u>0.9</u>	<u>—</u>	<u>5.2</u>	<u>5.2</u>	<u>5.4</u>	<u>—</u>	<u>—</u>	<u>2.6</u>	<u>—</u>	<u>—</u>	<u>3.0</u>
<u>13216 00</u>	<u>Tappet Chamber Cover</u>	<u>R & R</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C-series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
13216 10	Tappet Chamber Cover	Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	—	—	—
13216 20	Tappet Chamber Cover Gasket	Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	—	—	—
13217 00	Injection Pump Housing Cover	Rep.	—	—	0.4	0.4	—	—	—	—	—	—	—	0.4	—	—	—
13218 00	Valve Rocker Stud	Rep.	0.2	0.2	0.3	0.4	—	0.2	0.4	0.4	0.4	—	—	0.4	—	—	—
CAMSHAFT · TIMING GEAR																	
13240 00	Timing Gear Case Cover	R & R	0.8	0.8	2.5	2.5	—	1.5	0.8	0.8	0.8	1.5	3.9	2.5	1.5	3.9	2.5
13240 10	Timing Gear Case Cover	Rep.	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13240 20	Timing Gear Case Cover Gasket	Rep.	0.0	0.0	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13240 22	Idle Gear	Rep.	0.1	0.1	0.1	0.1	—	0.1	0.1	0.1	0.1	—	0.1	0.1	—	0.1	0.1
13240 26	Camshaft Gear	Rep.	0.2	0.2	0.2	0.2	—	0.1	0.1	0.1	0.1	—	—	0.2	—	—	0.2
13240 28	Crankshaft Gear	Rep.	0.1	0.1	0.1	0.1	—	0.1	0.1	0.1	0.1	—	0.1	0.1	—	0.1	0.1
13240 35	Crankshaft Front Oil Seal	Rep.	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13243 00	Pulley Housing Cover	R & R	—	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—
13243 10	Pulley Housing Cover	Rep.	—	—	—	—	—	0.0	—	—	—	—	—	—	—	—	—
13243 20	Tension Pulley	Rep.	—	—	—	—	—	0.4	—	—	—	—	—	—	—	—	—
13243 21	Idle Pulley	Rep.	—	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—
13243 22	Camshaft Pulley	Rep.	—	—	—	—	—	0.6	—	—	—	—	—	—	—	—	—
13243 23	Oil Pump Pulley	Rep.	—	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—
13243 24	Crankshaft Damper Pulley	Rep.	—	—	—	—	—	0.0	—	—	—	—	—	—	—	—	—
13243 25	Injection Pump Pulley	Rep.	—	—	—	—	—	0.4	—	—	—	—	—	—	—	—	—
13243 26	Crankshaft Front Oil Seal	Rep.	—	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—
13243 28	Crankshaft Timing Pulley	Rep.	—	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—
13243 32	Front Plate	Rep.	—	—	—	—	—	1.1	—	—	—	—	—	—	—	—	—
13243 40	Timing Belt	Rep.	—	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
13245 00	Timing Gear Case	R & R	0.8	0.8	2.5	2.5	2.5	—	—	—	—	—	15.7	2.5	—	15.7	5.0
13245 10	Timing Gear Case	Rep.	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	0.0	0.0	—	0.0	0.0
13245 20	Timing Gear Case Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	0.0	0.0	—	0.0	0.0
13245 21	Idle Gear	Rep.	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	0.0	0.0	—	0.0	0.0
13245 22	Crankshaft Front Oil Seal	Rep.	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	0.0	0.0	—	0.0	0.0
13245 25	Chain Tensioner	Rep.	—	—	—	—	0.1	—	—	—	—	—	0.0	—	—	0.0	—
13245 28	Chain Damper	Rep.	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—	—
13245 30	Chain Guide	Rep.	—	—	—	—	0.1	—	—	—	—	—	0.0	—	—	0.0	—
13245 40	Injection Pump Gear	Rep.	0.2	0.2	0.2	0.2	0.1	—	—	—	—	—	0.0	0.2	—	0.0	—
13245 45	Crank Gear	Rep.	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	0.1	0.1	—	0.1	0.1
13245 55	Timing Chain	Rep.	—	—	—	—	0.1	—	—	—	—	—	0.0	—	—	0.0	—
13245 60	Timing Chain Lever	Rep.	—	—	—	—	—	—	—	—	—	—	0.0	—	—	0.0	—
13245 70	Case Wheel	Rep.	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—	—
13245 76	Crankshaft Timing Wheel	Rep.	—	—	—	—	0.1	—	—	—	—	—	—	—	—	—	—
13245 80	Sprocket Cam Drive	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13245 85	Sprocket Supply Pump	Rep.	—	—	—	—	—	—	—	—	—	—	0.0	—	—	0.0	—
13250 00	Flywheel Housing	R & R	—	—	—	—	—	—	—	—	—	9.8	0.6	—	9.8	0.6	—
13250 10	Flywheel Housing	Rep.	—	—	—	—	—	—	—	—	—	0.1	0.0	—	0.1	0.0	—
13250 22	Idle Gear	Rep.	—	—	—	—	—	—	—	—	—	0.2	—	—	0.2	—	—
13250 26	Camshaft Gear	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13250 28	Crankshaft Gear	Rep.	—	—	—	—	—	—	—	—	—	ST	—	—	ST	—	—
13250 35	Crankshaft Rear Oil Seal	Rep.	—	—	—	—	—	—	—	—	—	0.0	0.2	—	0.0	0.2	—
13250 38	Wearing: Rear	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13255 00	Timing Chain	Rep.	—	—	—	—	2.7	—	—	—	—	—	3.8	—	—	3.8	—
13260 00	Camshaft	R & R	1.2	1.2	6.0	7.0	0.7	1.6	9.9	9.9	9.9	0.9	1.6	7.0	0.9	1.6	8.2
13260 10	Camshaft	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
13260 20	Camshaft Bearing	Rep.	1.4	1.4	1.4	1.4	—	0.0	1.4	1.4	1.4	0.1	—	1.4	0.1	—	1.4

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
13260 30	Camshaft Gear	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
13260 40	Tappet	Rep.	0.2	0.2	0.3	0.3	0.0	—	0.3	0.3	0.3	—	—	0.0	—	—	0.0
13260 50	Camshaft Oil Seal	Rep.	—	—	—	—	—	0.0	—	—	—	—	—	—	—	—	—
INTAKE AND EXHAUST SYSTEM																	
14040 00	Air Cleaner	Cle.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	0.2
14041 00	Air Cleaner Assy.	Rep.	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	—	—	0.3	—	—	0.3
14043 00	Air Cleaner Element	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
14047 00	Air Cleaner Bracket	Rep.	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	—	—	0.3	—	—	0.3
14049 00	Air Intake Hose (Air Cleaner to Manifold)	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	0.3	—	—	0.3
14075 00	Oxidation Catalyst Assy.	R & R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.4
14075 50	Catalyst Assy.	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0
DPD (DIESEL PARTICULATE DEFUSER)																	
14081 00	DPD Assy.	R & R	—	—	—	—	—	—	—	—	—	—	—	—	ST	ST	—
14081 10	DPD Assy.	Rep.	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	—
14081 15	DPD Filter	Rep.	—	—	—	—	—	—	—	—	—	—	—	0.5	0.5	—	—
14081 80	DPD Filter	Cle.	—	—	—	—	—	—	—	—	—	—	—	0.5	0.5	—	—
19547 00	DPD Differential Pressure Pipe (1 - 2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	—
TURBOCHARGER																	
14090 00	Turbocharger Assy.	R & R	—	—	—	0.5	—	0.5	—	0.5	0.5	0.6	2.1	0.5	0.6	2.1	0.5
14090 10	Turbocharger Assy.	Rep.	—	—	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14090 20	Turbocharger Assy.	O.H.	—	—	—	1.3	—	1.3	—	1.3	1.3	—	—	—	—	—	—

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		2Y series	3Y series	3L series	4L series	3K series	4F series	C-series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
14091 00	Turbocharger Oil Pipe (one) R & R	—	—	—	0.1	—	0.1	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14091 01	Turbocharger Oil Pipe (two) R & R	—	—	—	0.1	—	0.1	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14091 10	Oil Pipe Rep.	—	—	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14091 30	Gasket Rep.	—	—	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANIFOLD																
14200 00	Manifold Fixing Bolt Reti.	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
14205 00	Intake & Exhaust Manifold Rep.	0.5	0.6	0.6	0.7	0.6	—	0.7	—	0.3	—	—	0.8	—	—	0.8
14205 10	Intake & Exhaust Manifold Rep.	0.0	0.0	0.0	0.0	0.0	—	0.0	—	—	—	—	0.0	—	—	0.0
14205 20	Exhaust Manifold Rep.	0.1	0.1	0.1	0.1	0.1	—	0.1	—	—	—	—	0.2	—	—	0.2
14205 25	Intake Manifold Rep.	0.1	0.1	0.1	0.1	0.1	—	0.1	—	—	—	—	0.1	—	—	0.1
14205 30	Gasket Rep.	0.0	0.0	0.0	0.0	0.0	—	0.0	—	—	—	—	0.0	—	—	0.0
14205 40	Stud Bolt: Manifold Repair	ST	ST	ST	ST	ST	—	ST	—	—	—	—	ST	—	—	ST
14210 00	Intake Manifold (Intake Cover) R & R	—	—	—	—	—	0.7	—	0.7	0.7	1.4	1.8	—	1.4	1.8	—
14210 10	Intake Manifold Rep.	—	—	—	—	—	0.0	—	0.0	0.0	0.2	0.0	—	0.2	0.0	—
14210 20	Intake Manifold Gasket Rep.	—	—	—	—	—	0.7	—	0.7	0.7	0.0	0.0	—	0.0	0.0	—
14210 25	Throttle Valve Assy. Rep.	—	—	—	—	—	0.2	—	0.2	0.2	—	—	—	—	—	—
14210 30	Intake Shutter Assy. Rep.	—	—	—	—	—	0.2	—	0.2	0.2	0.0	—	—	—	—	—
14215 00	Exhaust Manifold R & R	—	—	—	—	—	0.7	—	0.7	0.7	1.3	2.2	—	1.3	2.2	—
14215 10	Exhaust Manifold Rep.	—	—	—	—	—	0.0	—	0.0	0.0	0.0	0.0	—	0.0	0.0	—
14215 20	Exhaust Manifold Gasket Rep.	—	—	—	—	—	0.0	—	0.0	0.0	0.0	0.0	—	0.0	0.0	—
14215 30	Turbocharger Assy. Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—
14215 40	Stud Bolt: Manifold Repair	—	—	—	—	—	ST	—	ST	ST	ST	ST	—	ST	ST	—
14220 00	Air Intake Duct R & R	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
14220 10	Air Intake Duct Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
14220 20	Air Intake Duct Gasket Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—
14230 00	Throttle Valve Assy. R & R	—	—	—	—	—	—	0.3	0.3	0.3	—	—	—	0.1	0.1	—
14230 10	Throttle Valve Assy. Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	0.0	0.0	—
14230 15	Throttle Valve Gasket Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	0.0	0.0	—
14230 20	Throttle Valve Assy. O. H.	—	—	—	—	—	—	0.5	0.5	0.5	—	—	—	—	—	—
14234 00	Intake Shutter Spring Rep.	—	—	—	—	—	0.1	0.1	0.1	0.1	—	—	—	—	—	—
14235 00	Intake Shutter R & R	—	—	—	—	—	0.3	0.3	0.3	0.3	—	—	—	—	—	—
14235 10	Intake Shutter Rep.	—	—	—	—	—	0.0	0.0	0.0	0.0	—	—	—	—	—	—
14235 15	Intake Shutter Gasket Rep.	—	—	—	—	—	0.0	0.0	0.0	0.0	—	—	—	—	—	—
14235 20	Intake Shutter O. H.	—	—	—	—	—	0.2	0.2	0.2	0.2	—	—	—	—	—	—
LUBRICANT SYSTEM																
15010 00	Oil Pump Assy. R & R	1.0	1.0	2.0	2.0	0.4	2.6	—	—	—	9.9	4.0	2.9	9.9	4.0	6.0
15010 10	Oil Pump Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0
15010 20	Oil Seal Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	0.0	—	—	0.0
15010 30	Oil Pump O. H.	0.3	0.3	0.3	0.3	0.5	0.5	—	—	—	—	—	0.3	—	—	0.3
15020 00	Oil Filter Element Cover R & R	—	—	—	—	—	—	0.1	—	0.1	—	—	—	—	—	—
15020 10	Oil Filter Element Cover Rep.	—	—	—	—	—	—	0.0	—	0.0	—	—	—	—	—	—
15020 20	Oil Filter Element Rep.	—	—	—	—	—	—	0.1	—	0.1	—	—	—	—	—	—
15020 24	O-Ring Rep.	—	—	—	—	—	—	0.0	—	0.0	—	—	—	—	—	—
15020 26	Oil Filter Overflow Valve Rep.	—	—	—	—	—	—	0.0	—	0.0	—	—	—	—	—	—
15020 27	Oil Filter Relief Valve Rep.	—	—	—	—	—	—	0.3	—	0.3	—	—	—	—	—	—
15021 00	Oil Filter Element (Cartridge Type) Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15022 00	Oil Filter Assy. R & R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15022 10	Oil Filter Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OPERATION CODE NO.	OPERATION		INDUSTRIAL														
			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
15022 20	Oil Filter Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
15022 30	Oil Filter Assy.	O. H.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	—	—	—	—	—	—
15025 00	Oil Filter Oil Pipe	R & R	—	—	—	—	—	—	0.1	0.1	0.1	—	—	—	—	—	—
15025 10	Oil Filter Oil Pipe	Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	—	—	—
15025 15	Oil Pipe	Repair	—	—	—	—	—	—	ST	ST	ST	—	—	—	—	—	—
15025 20	Gasket	Rep.	—	—	—	—	—	—	0.0	0.0	0.0	—	—	—	—	—	—
15060 00	Oil Cooler Assy.	R & R	—	—	—	—	—	—	—	—	—	2.5	3.7	—	2.5	3.7	—
15060 10	Oil Cooler Assy.	Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—
15061 00	Oil Cooler Assy. (Separate Type)	R & R	—	—	0.1	0.1	—	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
15061 10	Oil Cooler Assy.	Rep.	—	—	0.0	0.0	—	0.0	0.0	0.0	0.0	—	—	0.0	—	—	0.0
15061 15	Oil Cooler Water hose (one)	Rep.	—	—	0.1	0.1	—	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
15061 16	Oil Cooler Water Hose (two)	Rep.	—	—	0.2	0.2	—	0.2	0.2	0.2	0.2	—	—	0.2	—	—	0.2
15061 20	Oil Cooler Oil Pipe (one)	Rep.	—	—	0.1	0.1	—	0.1	0.1	0.1	0.1	—	—	—	—	—	—
15061 21	Oil Cooler Oil Pipe (two)	Rep.	—	—	0.2	0.2	—	0.2	0.2	0.2	0.2	—	—	—	—	—	—
15061 30	Oil Cooler Assy.	O. H.	—	—	ST	ST	—	ST	ST	ST	ST	—	—	ST	—	—	ST
15061 32	Oil Cooler Water Pressure	Test	—	—	ST	ST	—	ST	ST	ST	ST	—	—	ST	—	—	ST
15063 00	Oil Cooler Water Hose	Rep.	—	—	0.1	0.1	—	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1
15090 00	Oil Relief Valve	Rep.	—	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	—	1.0	0.1	—	1.0
FUEL SYSTEM																	
16030 00	Injection Timing	Adj.	1.2	1.2	1.5	1.8	1.0	0.5	0.3	0.3	0.3	—	—	1.8	—	—	—
16031 00	Injection Pump Assy.	R & R	0.5	0.5	1.0	1.3	1.0	2.0	1.5	1.5	1.5	1.0	4.5	1.3	1.0	4.5	3.2
16031 10	Injection Pump Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16031 20	Injection Pump	Adj.	ST	ST	ST	ST	ST	ST	ST	ST	ST	—	—	ST	—	—	—

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			2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
16031 22	Delivery Valve & Gasket	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	—
16031 24	Injection Pump Assy.	O. H.	ST	ST	ST	ST	ST	ST	ST	ST	ST	—	—	ST	—	—	—
16031 30	Diaphragm Assy.	Rep.	—	—	—	—	—	—	0.3	—	0.3	—	—	—	—	—	—
16031 35	Governor Assy.	Rep.	—	—	—	—	—	—	0.4	0.4	0.4	—	—	—	—	—	—
16031 36	Governor Assy.	O. H.	—	—	—	—	—	—	ST	ST	ST	—	—	—	—	—	—
16031 40	Feed Pump Assy.	Rep.	—	—	—	—	—	—	0.3	0.3	0.3	—	—	—	—	—	—
16031 41	Feed Pump Assy.	O. H.	—	—	—	—	—	—	ST	ST	ST	—	—	—	—	—	—
16031 45	Injection Pump Gear	Rep.	—	—	0.2	0.2	—	—	0.2	0.2	0.2	—	—	0.2	—	—	0.2
16031 50	Injection Pump Timer	Rep.	—	—	—	—	—	—	0.2	0.2	0.2	—	—	—	—	—	—
16031 51	Injection Pump Timer	O. H.	—	—	—	—	—	—	ST	ST	ST	—	—	—	—	—	—
<u>16033 00</u>	<u>Injection Pump Overflow Valve</u>	<u>Rep.</u>	—	—	—	—	—	—	0.3	0.3	0.3	—	—	—	—	—	—
<u>16034 00</u>	<u>Injection Pump Diaphragm</u>	<u>Rep.</u>	—	—	—	—	—	—	—	0.3	—	0.3	—	—	—	—	—
<u>16035 00</u>	<u>Fuel Feed Pump Assy.</u>	<u>R & R</u>	—	—	ST	ST	ST	0.4	0.4	0.4	0.4	—	—	ST	—	—	—
16035 10	Fuel Feed Pump Assy.	Rep.	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	—
16035 20	Fuel Feed Pump Assy.	O. H.	—	—	ST	ST	ST	0.3	0.3	0.3	0.3	—	—	ST	—	—	—
16035 24	Fuel Feed Pump Check Valve	Rep.	—	—	ST	ST	ST	0.2	0.2	0.2	0.2	—	—	ST	—	—	—
16035 30	Priming Pump	Rep.	—	—	—	—	—	—	0.1	0.1	0.1	—	—	—	—	—	—
16035 31	Priming Pump	O. H.	—	—	—	—	—	—	ST	ST	ST	—	—	—	—	—	—
<u>16036 00</u>	<u>Feed Pump Strainer</u>	<u>R & R</u>	—	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	—
16036 10	Strainer	Rep.	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	—
16036 20	Strainer	Cle.	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	—
<u>16040 00</u>	<u>Injection Pipe (1 pc.)</u>	<u>R & R</u>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16040 02	Injection Pipe (2 pcs.)	R & R	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16040 03	Injection Pipe (3 - 4 pcs.)	R & R	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2

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		2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)
16040 10	Injection Pipe Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16040 20	Nozzle Sleeve Rep. Comment Gasket (1 pc.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	0.0
16040 25	Nozzle Holder Rep. O-ring (1 pc.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	0.0
<u>16041 00</u>	<u>Injection Pipe Clip</u> Rep.	0.1	0.1	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	0.1	—
<u>16042 00</u>	<u>Nozzle Leak-off Pipe</u> Rep.	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3
<u>16044 00</u>	<u>Injection Pump Air Bleeding</u>	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	—
<u>16046 00</u>	<u>Fuel Cut Solenoid</u> Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	—
<u>16050 00</u>	<u>Nozzle Holder Assy.</u> R & R (1 pc.)	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.0	0.4	0.4	1.0	0.8
16050 02	Nozzle Holder Assy. R & R (2 pcs.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1
16050 03	Nozzle Holder Assy. R & R (3 - 4 pcs.)	—	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.3
16050 10	Nozzle Holder Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16050 15	Nozzle Injection Ins./Adj. Pressure	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	0.3	—	—	—
16050 20	Nozzle (1 - 2 pcs.) Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	—
16050 21	Nozzle (3 - 4 pcs.) Rep.	—	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	—	—	0.5	—	—	—
16050 30	Nozzle Lapping Adj. (1 - 2 pcs.)	ST	ST	ST	ST	ST	ST	ST	ST	ST	—	—	ST	—	—	—
16050 31	Nozzle Lapping Adj. (3 - 4 pcs.)	—	ST	ST	ST	ST	ST	ST	ST	ST	—	—	ST	—	—	—
<u>16056 00</u>	<u>Common Rail Assy.</u> R & R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.6
16056 10	Common Rail Assy. Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0
<u>16060 00</u>	<u>Fuel Line</u> Cle.	—	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1
<u>16061 00</u>	<u>Fuel Filter</u> Rep. (Cartridge Type)	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	—	—	0.2	—	—	—
<u>16062 00</u>	<u>Fuel Filter Element</u> R & R	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2

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			2Y series	3Y series	3L series	4L series	3K series	4F series	C-series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)	
16062 10	Fuel Filter Element	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16062 30	Fuel Filter	Cle.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1
16063 00	Fuel Filter Assy.	R & R	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.3	0.5	0.2	0.2	0.3	0.2	0.2	0.3	
16063 10	Fuel Filter Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16063 20	Fuel Filter Bracket	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
16065 00	Fuel Filter Overflow Valve	R & R /Ins.	—	—	—	—	—	—	0.3	0.3	0.4	0.1	0.1	—	0.1	0.1	—	
16065 10	Overflow Valve	Rep.	—	—	—	—	—	—	—	—	—	0.0	0.0	—	0.0	0.0	—	
16071 00	Fuel Pipe (Tank to Feed Pump)	Rep.	—	—	—	—	—	—	—	—	—	ST	ST	ST	ST	ST	ST	
16072 00	Fuel Pipe (Feed Pump to Filter)	Rep.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.4	0.1	0.1	0.4	
16074 00	Fuel Pipe (Filter to Injection Pump)	Rep.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.4	0.1	0.1	0.4	
16076 00	Fuel Return Pipe	Rep.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.4	0.1	0.1	0.4	
16077 00	Fuel Hose	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	—	0.2	
COOLING SYSTEM																		
17010 00	Fan Belt	Adj.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17011 00	Fan Belt	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17012 00	Cooling Fan (with Pulley)	R & R	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.3	0.1	0.1	0.3	
17012 10	Cooling Fan	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17012 20	Fan Pulley (with Fan)	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	
17035 00	Water Pump Assy.	R & R	0.5	0.5	0.5	0.5	0.5	0.9	0.6	0.8	0.8	0.4	0.7	0.5	0.4	0.7	0.5	
17035 10	Water Pump Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17035 20	Water Pump Gasket	Rep.	—	—	—	—	—	0.0	—	—	—	—	0.0	0.0	—	0.0	0.0	
17035 22	Cover Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0	—	—	0.0	—	—	0.0	

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17035 30	Water Pump Assy.	O. H.	—	—	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	—	—	0.5	—	—	
17040 00	Water Pipe & Hoses	R & R	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.2	0.2	0.5	0.2	0.2	0.5	
17040 20	Radiator Upper Hose	Rep.	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1	0.1	—	
17040 22	Radiator Lower Hose	Rep.	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1	0.1	—	
17040 24	Water By-pass Hose	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	
17040 30	Water Outlet Pipe	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17040 32	Water Outlet Pipe Gasket	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17040 40	Thermostat Housing	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—	
17040 42	Thermostat Housing Gasket	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—	
17045 00	Thermostat	R & R	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.4	0.3	0.1	0.4	0.3	
17045 10	Thermostat	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17045 20	Thermostat Performance	Test/Ins.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	
EGR SYSTEM																		
19525 00	EGR System Check	Ins.	—	—	—	—	—	—	—	—	—	ST	ST	0.7	ST	ST	0.7	
19525 22	EGR Valve	Rep.	—	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	0.2	
19525 78	EGR Cooler (1 pc.)	Rep.	—	—	—	—	—	—	—	—	—	0.4	0.4	0.5	0.4	0.4	0.5	
19525 79	EGR Cooler (2 pcs.)	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	0.6	—	—	
19525 90	Lead Valve	Rep.	—	—	—	—	—	—	—	—	—	0.2	—	—	0.2	—	—	
VACUUM																		
71010 00	Vacuum Pump	R & R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.3	—
71010 10	Vacuum Pump	Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0	—
71010 20	Vacuum Pump	O. H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.2	—

OPERATION CODE NO.	OPERATION	INDUSTRIAL															
		2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)	
ELECTRICAL PARTS																	
81110 00	<u>Starter Motor Assy.</u> R & R	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	
81110 10	Starter Motor Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
81110 20	Magnetic Switch Rep.	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81110 40	Starter Motor O. H.	ST	ST	ST	ST	ST	ST	ST	ST	ST	1.2	1.2	1.2	1.2	1.2	1.2	
81120 00	<u>Generator Pulley</u> Rep.	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	
81121 00	<u>Generator Assy.</u> R & R	0.4	0.4	0.5	0.5	0.3	0.5	0.5	0.5	0.5	0.2	0.2	0.5	0.2	0.2	0.5	
81121 10	Generator Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	
81121 20	Generator Operation Ins.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
81121 32	Generator Bracket Rep.	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	0.1	—	
81121 33	Adjust Plate Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81121 40	Generator O. H.	0.3	0.3	ST	ST	ST	ST	ST	ST	ST	1.2	1.2	1.2	1.2	1.2	1.2	
81121 50	Vacuum Pump O. H.	—	—	ST	ST	ST	ST	ST	ST	ST	—	—	—	—	—	—	
81125 00	<u>Generator Drive Belt</u> Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1	
81130 00	<u>Voltage Regulator</u> Ins./Adj.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	—	—	0.5	—	—	0.5	
81131 00	<u>Voltage Regulator</u> Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1	
81144 00	<u>Glow Plug</u> R & R /Ins.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	
81144 10	Glow Plug (1 - 2 pcs.) Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81144 20	Glow Plug (3 - 4 pcs.) Rep.	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
81162 00	<u>Glow Plug Relay</u> Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1	
83035 00	<u>Thermometer</u> Rep.	—	—	—	—	—	—	—	—	—	0.3	0.3	0.3	0.3	0.3	0.3	
83040 00	<u>Fuel Meter</u> Rep.	—	—	—	—	—	—	—	—	—	0.3	0.3	0.3	0.3	0.3	0.3	
83050 00	<u>Tachometer</u> Rep.	—	—	—	—	—	—	—	—	—	0.3	0.3	0.3	0.3	0.3	0.3	
83070 00	<u>Meter Bulb</u> Rep.	—	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	0.2	

OPERATION CODE NO.	OPERATION	INDUSTRIAL															
		2Y series	3Y series	3L series	4L series	3K series	4F series	C- series	4J series	4B series	4HK1X (Tier3)	4JJ1X (Tier3)	4LE2X (IT.Tier4)	4HK1X (IT.Tier4)	4JJ1X (IT.Tier4)	4LE2X (Tier4)	
83072 00	Warning Lamp Bulb Rep.	—	—	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	
83080 00	Control Resistor Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	0.2	
84010 00	Starter Switch Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	0.2	—	0.2	
84020 00	Oil Pressure Unit Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	0.1	—	—	0.1	
84405 00	Control Unit R & R	—	—	—	—	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	
84405 11	ECM Rep.	—	—	—	—	—	—	—	—	—	—	ST	ST	ST	ST	ST	
84510 00	Thermo Unit Rep.	—	—	—	—	—	—	—	—	—	—	0.1	—	0.1	0.1	—	0.1
84515 00	Oil Pressure Unit Rep.	—	—	—	—	—	—	—	—	—	—	0.1	—	—	0.1	—	—
84916 00	Switch (Related Engine) R & R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84916 32	Oil Pres. Switch Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 00	Sensor (Related Engine) R & R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84926 10	Coolant Temp. Sensor Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
84926 17	Intake Air Temp. Sensor Rep.	—	—	—	—	—	—	—	—	—	—	ST	ST	—	ST	ST	—
84926 18	Manifold Absolute Pres. Sensor Rep.	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1	0.1	—
84926 19	Boost Pres. Sensor Rep.	—	—	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1
84926 25	Cam Position Sensor Rep.	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1	0.1	—
84926 26	Crank Position Sensor Rep.	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1	0.1	—
84926 34	DPD Temperature Sensor (1 - 2 pcs.) Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—
84926 36	DPD Differential Pressure Sensor Rep.	—	—	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—
87046 00	Harness (Related Engine) Rep.	—	—	—	—	—	—	—	—	—	—	0.2	0.2	—	0.2	0.2	—
18055 00	Auto Stop Motor Assy. R & R	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—
18055 10	Auto Stop Motor Assy. Rep.	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	—
18055 25	Auto Stop Cable Rep.	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	—

INDUSTRIAL FOR MEDIUM AND HEAVY DUTY ENGINES

6B SERIES

6B(T) SERIES

6S SERIES

6S(T) SERIES

6RB1

E120

6RB1T

E120T

6HK1T

6WG1T

6HK1X (Tier3)

6UZ1X (Tier3)

6WG1X (Tier3)

6HK1X (Interim Tier4)

6UZ1X (Interim Tier4)

6WG1X (Interim Tier4)

OPERATION CODE NO.	OPERATION		INDUSTRIAL													
			6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)
ENGINE BODY																
11060 00	Flywheel Assy.	R & R	0.4	0.4	0.6	0.6	0.6	0.6	0.4	0.6	0.4	0.6	0.6	0.4	0.6	0.6
11060 03	With Flywheel P.T.O.		0.7	0.7	—	—	0.7	0.7	—	—	—	—	—	—	—	—
11060 10	Flywheel Assy.	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11060 20	Starter Ring Gear	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11060 35	Flywheel	Regr.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11060 50	Idle Gear Cover O-ring (Flywheel P.T.O.)	Rep.	0.4	0.4	—	—	0.3	0.3	—	—	—	—	—	—	—	—
11060 52	Idle Gear Bearing (Flywheel P.T.O.)	Rep.	1.0	1.0	—	—	1.0	1.0	—	—	—	—	—	—	—	—
11060 54	Idle Gear (Flywheel P.T.O.)	Rep.	1.0	1.0	—	—	1.0	1.0	—	—	—	—	—	—	—	—
11060 60	Crankshaft Oil Seal Retainer: Gasket (Flywheel P.T.O.)	Rep.	0.3	0.3	—	—	0.3	0.3	—	—	—	—	—	—	—	—
11060 62	P.T.O. Drive Gear (Flywheel P.T.O.)	Rep.	1.2	1.2	—	—	1.2	1.2	—	—	—	—	—	—	—	—
11067 00	Flywheel P.T.O. Assy.	R & R	2.3	2.3	—	—	2.3	2.3	—	—	—	—	—	—	—	—
11067 20	Gear Cover O-Ring	Rep.	0.1	0.1	—	—	0.1	0.1	—	—	—	—	—	—	—	—
11067 25	P.T.O. Gear Bearing	Rep.	0.7	0.7	—	—	0.7	0.7	—	—	—	—	—	—	—	—
11067 27	P.T.O. Gear	Rep.	0.7	0.7	—	—	0.7	0.7	—	—	—	—	—	—	—	—
11068 00	Flywheel P.T.O. Oil Pipe	Rep.	0.1	0.1	—	—	0.1	0.1	—	—	—	—	—	—	—	—
11200 00	Engine Assy.	R & R	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11200 06	With Flywheel P.T.O.		0.7	0.7	—	—	0.7	0.7	—	—	—	—	—	—	—	—
11200 10	Engine Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11200 22	Cylinder Block	O. H.	12.8	13.8	10.0	11.2	15.7	17.1	20.9	20.9	20.9	20.9	20.9	20.9	21.5	21.5
11200 90	Engine Bench Test	Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11210 00	Cylinder Block Assy.	R & R	12.8	13.8	10.0	11.2	15.7	17.1	20.9	20.9	20.9	20.9	20.9	20.9	21.5	21.5
11210 10	Cylinder Block Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11210 25	Cylinder Block Surface	Regr.	ST	ST	ST	ST	ST	ST	—	—	—	—	—	—	—	—
11210 26	Cylinder Block Water Pressure Test	Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
11210 27	Cylinder Block Crack Ins.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
11210 30	Cylinder Liner (1 - 2 pcs.) Rep.	1.2	1.2	1.2	1.2	1.2	1.2	0.1	0.1	0.1	1.2	0.1	0.1	1.2	0.1	
11210 31	Cylinder Liner (3 - 4 pcs.) Rep.	2.4	2.4	2.4	2.4	2.4	2.4	0.2	0.2	0.2	2.4	0.2	0.2	2.4	0.2	
11210 32	Cylinder Liner (5 - 6 pcs.) Rep.	3.6	3.6	3.6	3.6	3.6	3.6	0.3	0.3	0.3	3.6	0.3	0.3	3.6	0.3	
11210 40	Sealing Plug Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
11230 00	Cylinder Block Drain Rep. <u>Cock Assy.</u>	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
PISTON CONNECTING ROD																
11240 00	Piston & Connecting Rod R & R <u>Assy. (All)</u>	10.8	10.8	11.5	11.5	13.3	13.3	12.3	11.4	12.3	11.5	11.4	12.3	12.1	12.0	
11240 20	Piston Ring Rep.	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	
11240 25	Piston & Piston Ring (1 - 2 pcs.) Rep.	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	
11240 26	Piston & Piston Ring (3 - 4 pcs.) Rep.	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	
11240 27	Piston & Piston Ring (5 - 6 pcs.) Rep.	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	
11240 40	Connecting Rod Bearing (1 - 2 pcs.) Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
11240 41	Connecting Rod Bearing (3 - 4 pcs.) Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
11240 42	Connecting Rod Bearing (5 - 6 pcs.) Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
11240 50	Connecting Rod (1 - 2 pcs.) Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
11240 51	Connecting Rod (3 - 4 pcs.) Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
11240 52	Connecting Rod (5 - 6 pcs.) Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
11240 60	Connecting Rod Bushing (1 - 2 pcs.) Rep.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
11240 61	Connecting Rod Bushing (3 - 4 pcs.) Rep.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11240 62	Connecting Rod Bushing (5 - 6 pcs.) Rep.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
11240 70	Cylinder Liner (1 - 2 pcs.) Rep.	1.2	1.2	1.2	1.2	1.2	1.2	0.1	0.1	0.1	1.2	0.1	0.1	1.2	0.1	
11240 71	Cylinder Liner (3 - 4 pcs.) Rep.	2.4	2.4	2.4	2.4	2.4	2.4	0.2	0.2	0.2	2.4	0.2	0.2	2.4	0.2	
11240 72	Cylinder Liner (5 - 6 pcs.) Rep.	3.6	3.6	3.6	3.6	3.6	3.6	0.3	0.3	0.3	3.6	0.3	0.3	3.6	0.3	

OPERATION CODE NO.	OPERATION		INDUSTRIAL													
			6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)
11240 90	Oiling Jet	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CRANKSHAFT · FLYWHEEL																
11250 00	Crankshaft	R & R	12.8	12.8	15.5	17.0	15.9	17.1	18.8	18.8	18.8	18.8	18.8	18.8	19.4	19.4
11250 03	With Front P.T.O.		—	—	—	—	1.3	1.3	—	—	—	—	—	—	—	—
11250 04	With Flywheel P.T.O.		0.7	0.7	—	—	0.7	0.7	—	—	—	—	—	—	—	—
11250 10	Crankshaft	Rep.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11250 25	Crankshaft Crack	Ins.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
11250 35	Crankshaft Line Boring	Rep.	—	—	—	—	ST	ST	—	—	—	—	—	—	—	—
11250 40	Crankshaft Bearing	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11250 45	Crankshaft Gear	Rep.	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11252 00	Crankshaft Rear Oil Seal	Rep.	0.6	0.6	0.9	0.9	0.9	0.9	0.6	0.9	0.6	0.9	0.9	0.6	0.9	0.9
11252 20	Wear Ring: Rear	Rep.	ST	ST	—	—	ST	ST	—	—	—	—	—	—	—	—
11255 00	Crankshaft Pulley	R & R	0.5	0.5	0.5	0.5	0.6	0.6	0.4	0.7	0.4	0.4	0.7	0.4	0.4	0.7
11255 10	Crankshaft Pulley	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11255 20	Damper	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11255 25	Crankshaft Front Oil Seal	Rep.	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3
11255 30	Wear Ring: Front	Rep.	—	—	ST	ST	—	—	—	—	—	—	—	—	—	—
OIL PAN · OIL PUMP																
11270 00	Oil Pan Fixing Bolt	Reti.	0.5	0.5	0.6	0.6	0.6	0.6	0.8	1.0	0.8	1.0	1.0	0.8	1.0	1.0
11272 00	Oil Pan	R & R	1.3	1.3	1.2	1.2	1.2	1.2	0.9	1.2	0.9	1.2	1.2	0.9	1.2	1.2
11272 10	Oil Pan	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11272 20	Oil Pan Gasket	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11272 30	Oiling Jet	Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
11272 40	Oil Pump Strainer	Cle.	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2
11272 42	Oil Pump Strainer	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2
11278 00	Oil Lever Gauge Guide Tube	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
CYLINDER HEAD - VALVE SYSTEM																
12200 00	Valve Clearance Adj.	0.8	1.0	1.0	1.2	1.5	1.7	1.0	1.2	1.0	1.2	1.2	1.2	1.0	1.2	1.2
12205 00	Cylinder Head Cover (1 pc.) R & R	0.6	0.8	0.9	1.1	0.9	1.1	0.2	0.4	0.2	0.4	0.4	0.4	0.2	0.4	0.4
12205 02	Cylinder Head Cover (2 pcs.) R & R	—	—	—	—	0.4	0.4	—	—	—	—	—	—	—	—	—
12205 10	Cylinder Head Cover Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12205 20	Cylinder Head Cover Gasket Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12205 50	Cylinder Head Bolt Reti.	0.6	0.8	1.2	1.3	1.4	1.5	—	—	—	—	—	—	—	—	—
12210 00	Cylinder Head Assy. (1 pc.) R & R	4.5	5.0	5.5	6.0	6.7	7.2	6.1	10.0	6.1	10.0	10.0	6.1	10.6	10.6	10.6
12210 04	Cylinder Head Assy. (2 pcs.) R & R	—	—	—	—	1.3	1.3	—	—	—	—	—	—	—	—	—
12210 20	Cylinder Head Water Pressure Test	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
12210 21	Cylinder Head Crack Ins.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
12210 22	Cylinder Head Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12210 25	Cylinder Head (1 pc.) O. H.	4.3	4.3	5.0	5.0	3.1	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12210 26	Cylinder Head (2 pcs.) O. H.	—	—	—	—	5.3	5.3	—	—	—	—	—	—	—	—	—
12210 31	Cylinder Head (1 pc.) Rep.	4.3	4.3	5.0	5.0	3.1	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12210 32	Cylinder Head (2 pcs.) Rep.	—	—	—	—	5.3	5.3	—	—	—	—	—	—	—	—	—
12210 40	Sealing Plug Rep.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
12210 41	Cylinder Head Surface Regr.	ST	ST	ST	ST	ST	ST	—	—	—	—	—	—	—	—	—
12210 51	Nozzle Holder Sleeve (1 - 2 pcs.) Rep.	—	—	—	—	0.2	0.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
12210 52	Nozzle Holder Sleeve (3 - 4 pcs.) Rep.	—	—	—	—	0.4	0.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12210 53	Nozzle Holder Sleeve (5 - 6 pcs.) Rep.	—	—	—	—	0.6	0.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
12210 58	Valve Spring Seat Rep.	0.5	0.5	0.6	0.6	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
12210 59	Valve Spring Rep.	1.4	1.4	1.6	1.6	3.0	3.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
12210 60	Valve R & R and Lapping (All) R&R/Adj.	1.4	1.4	1.6	1.6	3.0	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12210 61	Valve Rep. and Lapping (All) Rep./Adj.	ST	ST	ST	ST	ST	ST	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12210 65	Valve Insert Grinding (All) Rep./Adj.	1.2	1.2	1.4	1.4	2.5	2.5	ST	ST	ST	ST	ST	ST	ST	ST	ST

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		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
12210 70	Valve Guide (1 - 2 pcs.) Rep.	1.7	1.7	1.9	1.9	3.5	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	
12210 71	Valve Guide (3 - 4 pcs.) Rep.	2.2	2.2	2.4	2.4	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
12210 72	Valve Guide (5 - 6 pcs.) Rep.	2.7	2.7	2.9	2.9	5.3	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	
12210 80	Valve Insert (1 - 2 pcs.) Rep.	1.2	1.2	1.2	1.2	3.8	3.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
12210 81	Valve Insert (3 - 4 pcs.) Rep.	1.4	1.4	1.4	1.4	4.3	4.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
12210 82	Valve Insert (5 - 6 pcs.) Rep.	1.8	1.8	1.8	1.8	4.8	4.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	
12210 87	Valve Guide Oil Seal Rep.	0.7	0.7	0.7	0.7	0.7	0.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
12210 89	Cylinder Head Stud Bolt Repair	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
13210 00	Rocker Arm & Shaft Assy. (1 Head) R & R	0.8	0.9	1.2	1.4	2.0	2.2	1.3	1.7	1.3	1.7	1.7	1.3	1.7	1.7	
13210 04	Rocker Arm Bracket (2 Heads) Rep.	—	—	—	—	1.7	1.7	—	—	—	—	—	—	—	—	
13210 10	Rocker Arm Bracket Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
13210 20	Rocker Arm Mechanism O.H.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
13210 22	Rocker Arm Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
13210 23	Rocker Arm Shaft Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
13210 26	Push Rod Rep.	0.2	0.2	—	—	0.2	0.2	—	—	—	—	—	—	—	—	
13210 40	Bridge Rep.	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
13212 00	Tappet R & R	6.2	6.2	—	—	9.7	9.7	—	—	—	—	—	—	—	—	
13216 00	Tappet Chamber Cover R & R	1.0	1.0	—	—	1.2	1.2	—	—	—	—	—	—	—	—	
13216 10	Tappet Chamber Cover Rep.	0.0	0.0	—	—	0.0	0.0	—	—	—	—	—	—	—	—	
13216 20	Tappet Chamber Cover Gasket Rep.	0.0	0.0	—	—	0.0	0.0	—	—	—	—	—	—	—	—	
CAMSHAFT · TIMING GEAR																
13240 00	Timing Gear Case Cover R & R	1.2	1.2	3.2	3.2	3.7	3.7	1.5	1.5	1.9	2.0	1.0	1.9	2.0	1.0	
13240 10	Timing Gear Case Cover Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13240 20	Timing Gear Case Cover Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13240 22	Idle Gear Rep.	0.2	0.2	—	—	0.2	0.2	—	0.2	—	—	0.2	—	—	0.2	
13240 26	Camshaft Gear Rep.	0.2	0.2	—	—	0.3	0.3	—	—	—	—	—	—	—	—	

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
13240 28	Crankshaft Gear Rep.	0.3	0.3	—	—	0.4	0.4	—	0.2	—	0.2	0.2	—	0.2	0.2	
13240 35	Crankshaft Front Oil Seal Rep.	1.4	1.4	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13245 00	Timing Gear Case R & R	3.1	3.1	—	—	4.7	4.7	—	12.0	—	—	12.0	—	—	12.6	
13245 10	Timing Gear Case Rep.	0.0	0.0	—	—	0.0	0.0	—	0.0	—	—	0.0	—	—	0.0	
13245 20	Timing Gear Case Gasket Rep.	0.0	0.0	—	—	0.0	0.0	—	0.0	—	—	0.0	—	—	0.0	
13250 00	Flywheel Housing R & R	3.2	3.2	8.0	8.0	3.5	3.5	11.5	3.1	11.5	14.9	3.1	11.5	15.5	3.1	
13250 10	Flywheel Housing Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	
13250 22	Idle Gear Rep.	—	—	1.0	1.0	—	—	0.2	—	0.2	0.2	—	0.2	0.2	—	
13250 26	Camshaft Gear Rep.	—	—	0.4	0.4	—	—	—	—	—	0.4	—	—	0.4	—	
13250 28	Crankshaft Gear Rep.	—	—	2.0	2.0	—	—	ST	—	ST	2.0	—	ST	2.0	—	
13250 35	Crankshaft Rear Oil Seal Rep.	2.8	2.8	3.4	3.4	3.5	3.5	0.0	—	0.0	0.0	—	0.0	0.0	—	
13250 38	Wearing: Rear Rep.	—	—	ST	ST	—	—	—	—	—	ST	—	—	ST	—	
13260 00	Camshaft R & R	10.5	10.5	6.0	6.0	11.8	11.8	1.4	2.0	1.4	2.0	2.0	1.4	2.1	2.1	
13260 10	Camshaft Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13260 20	Camshaft Bearing Rep.	1.4	1.4	—	—	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
INTAKE AND EXHAUST SYSTEM																
14040 00	Air Cleaner Cle.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	
14041 00	Air Cleaner Assy. (Single) Rep.	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	—	—	—	—	—	—	
14042 00	Air Cleaner Assy. (Double) Rep.	0.6	0.6	0.7	0.7	0.8	0.8	—	—	—	—	—	—	—	—	
14043 00	Air Cleaner Element (Single) Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—	
14044 00	Air Cleaner Element (Double) Rep.	0.4	0.4	0.4	0.4	0.4	0.4	—	—	—	—	—	—	—	—	
14045 00	Dust Pan Assy. Rep.	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—	—	—	
14046 00	Air Cleaner Indicator Assy. Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—	
14047 00	Air Cleaner Bracket Rep.	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	—	—	—	—	—	—	
14049 00	Air Intake Hose Rep. (Air Cleaner to Manifold)	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—	

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
DPD (DIESEL PARTICULATE DEFUSER)																
14081 00	DPD Assy. R & R	—	—	—	—	—	—	—	—	—	—	—	—	ST	ST	ST
14081 10	DPD Assy. Rep.	—	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	0.1
14081 15	DPD Filter Rep.	—	—	—	—	—	—	—	—	—	—	—	—	0.5	0.5	0.5
14081 80	DPD Filter Cle.	—	—	—	—	—	—	—	—	—	—	—	—	0.5	0.5	0.5
19547 00	DPD Differential Pressure Pipe (1 - 2 pcs.) Rep.	—	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	0.1
TURBOCHARGER																
14090 00	Turbocharger Assy. R & R	—	1.5	—	1.0	—	1.5	0.6	0.9	0.6	0.9	0.9	0.6	1.4	1.4	1.4
14090 10	Turbocharger Assy. Rep.	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14092 00	Turbocharger Carbon Cle.	—	0.5	—	0.5	—	0.5	—	—	—	—	—	—	—	—	—
14097 00	Turbocharger O.H.	—	2.5	—	2.5	—	2.5	3.0	4.7	4.2	4.2	4.2	—	—	—	—
MANIFOLD																
14200 00	Manifold Fixing Bolt Reti.	0.3	0.3	0.4	0.4	0.4	0.4	0.2	0.3	0.2	0.5	0.5	0.2	0.5	0.5	0.5
14210 00	Intake Manifold (Intake Cover) R & R	1.1	1.1	1.5	1.5	2.0	2.0	1.5	2.8	1.5	1.5	2.8	1.5	3.5	3.4	3.4
14210 10	Intake Manifold Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14210 20	Intake Manifold Gasket Rep.	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14210 30	Intake Shutter Assy. Rep.	0.1	—	—	—	—	—	—	—	—	0.0	—	—	0.0	0.0	0.0
14215 00	Exhaust Manifold R & R	0.7	0.7	1.4	1.4	1.4	1.4	0.7	1.4	1.3	1.4	1.4	1.3	1.4	1.4	1.4
14215 10	Exhaust Manifold Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14215 20	Exhaust Manifold Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14215 30	Turbocharger Assy. Rep.	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14220 00	Air Intake Duct R & R	—	0.4	—	0.4	—	0.4	0.4	0.4	ST	ST	ST	ST	ST	ST	ST
14220 10	Air Intake Duct Rep.	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14220 20	Air Intake Duct Gasket Rep.	—	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14234 00	Intake Shutter Spring Rep.	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—

OPERATION CODE NO.	OPERATION		INDUSTRIAL													
			6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)
14235 00	Intake Shutter	R & R	0.5	—	—	—	—	—	—	—	—	—	—	—	—	—
14235 20	Intake Shutter	O. H.	0.3	—	—	—	—	—	—	—	—	—	—	—	—	—
LUBRICANT SYSTEM																
15010 00	Oil Pump Assy.	R & R	1.7	1.7	3.0	3.0	3.2	3.2	12.9	1.6	11.6	1.5	1.6	11.6	1.5	1.6
15010 10	Oil Pump Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15010 31	Oil Pump Pipe	O.H.	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15010 32	Oil Pump Gear	Rep.	0.5	0.5	0.5	0.5	0.5	0.5	—	—	—	—	—	—	—	—
15010 33	Oil Pipe Inside Oil Pan	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	—	—	—
15020 00	Oil Filter Element Cover	R & R	0.3	0.3	0.3	0.3	0.4	0.4	—	0.1	—	0.1	0.1	—	0.1	0.1
15020 10	Oil Filter Element Cover	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	—	0.0	0.0	—	0.0	0.0
15020 20	Oil Filter Element	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	—	0.1	0.1	—	0.1	0.1
15020 22	Oil Filter Element	Cle.	0.2	0.2	0.2	0.2	0.2	0.2	—	0.1	—	0.1	0.1	—	0.1	0.1
15020 24	O-Ring	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	0.1	—	0.1	0.1	—	0.1	0.1
15020 26	Oil Filter Overflow Valve	Rep.	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—	—	—
15020 27	Oil Filter Relief Valve	Rep.	0.4	0.4	0.4	0.4	0.4	0.4	—	—	—	—	—	—	—	—
15021 00	Oil Filter Element (Cartridge Type)	Rep.	—	—	—	—	—	—	0.2	—	0.2	—	—	0.2	—	—
15022 00	Oil Filter Assy.	R & R	0.5	0.5	0.5	0.5	0.8	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15022 10	Oil Filter Assy.	Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15022 20	Oil Filter Gasket	Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15022 30	Oil Filter Assy.	O. H.	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—	—	—
15022 40	Oil Filter Relief Valve	Rep.	—	—	—	—	—	—	—	0.2	—	0.2	0.2	—	0.2	0.2
15022 45	Oil Filter Overflow Valve	Rep.	—	—	—	—	—	—	0.2	—	—	—	—	—	—	—
15023 00	Oil Filter (Centrifugal Type)	Cle.	—	—	—	—	0.4	0.4	—	—	—	—	—	—	—	—
15024 00	Oil Filter Assy. (Centrifugal Type)	R & R	—	—	—	—	0.4	0.5	—	—	—	—	—	—	—	—
15024 10	Oil Filter Assy. (Centrifugal Type)	Rep.	—	—	—	—	0.0	0.0	—	—	—	—	—	—	—	—

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
15024 20	Oil Filter Gasket Rep. (Centrifugal Type)	—	—	—	—	0.1	0.1	—	—	—	—	—	—	—	—	
15025 00	Oil Filter Oil Pipe R & R	0.3	0.3	0.3	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
15025 10	Oil Filter Oil Pipe Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15025 20	Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15026 00	Partial Oil Filter Assy. R & R	0.4	0.4	0.4	0.4	0.4	0.4	—	0.2	—	0.2	0.2	—	0.2	0.2	
15026 10	Partial Oil Filter Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	0.0	0.0	—	—	—	
15026 20	Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	0.0	0.0	—	—	—	
15026 22	Partial Oil Filter O. H.	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—	—	—	
15060 00	Oil Cooler Assy. R & R	2.4	2.4	2.0	2.4	4.1	4.1	2.9	2.5	2.9	2.5	2.5	2.9	2.5	2.5	
15060 10	Oil Cooler Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15060 20	Oil Cooler Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15060 32	Oil Cooler Water Pressure Test	ST	ST	ST	ST	ST	ST	—	—	—	—	—	—	—	—	
15090 00	Oil Relief Valve Rep.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
FUEL SYSTEM																
16030 00	Injection Timing Adj.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	—	—	—	—	—	—	
16031 00	Injection Pump Assy. R & R	2.0	2.2	2.0	2.0	2.2	2.2	1.4	2.1	1.0	1.0	1.0	1.0	1.3	1.0	
16031 10	Injection Pump Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16031 22	Delivery Valve & Gasket O. H.	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	—	—	—	—	—	—	
16031 24	Injection Pump Assy. O. H.	ST	ST	ST	ST	ST	ST	ST	ST	—	—	—	—	—	—	
16031 40	Feed Pump Assy. Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—	
16031 50	Injection Pump Timer Rep.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	—	—	—	—	—	—	
16031 55	Injection Pump Coupling Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	0.1	0.1	—	0.1	0.1	
16033 00	Injection Pump Overflow Valve Rep.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	—	0.4	0.4	—	0.4	0.4	
16035 00	Fuel Feed Pump Assy. R & R	0.5	0.5	0.5	0.5	0.5	0.6	0.2	0.2	—	—	—	—	—	—	
16035 10	Fuel Feed Pump Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	—	

OPERATION CODE NO.	OPERATION	INDUSTRIAL													
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)
16035 20	Fuel Feed Pump Assy. O. H.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—
16035 24	Fuel Feed Pump Check Valve Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—
16035 30	Priming Pump Rep.	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—	—	—
16035 31	Priming Pump O. H.	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	—	—	—	—	—
16036 00	Feed Pump Strainer R & R	0.3	0.3	0.3	0.3	0.4	0.4	0.1	0.1	—	—	—	—	—	—
16036 10	Strainer Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	—	—
16036 20	Strainer Cle.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—
16040 00	Injection Pipe (1 pc.) R & R	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.2	0.1	0.1	0.1	0.1	2.2	0.1
16040 02	Injection Pipe (2 pcs.) R & R	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
16040 03	Injection Pipe (3 - 4 pcs.) R & R	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
16040 04	Injection Pipe (5 - 6 pcs.) R & R	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
16040 10	Injection Pipe Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16041 00	Injection Pipe Clip Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2
16042 00	Nozzle Leak-Off Pipe Rep.	0.3	0.3	0.3	0.3	0.8	0.8	0.4	0.7	0.2	0.8	0.8	0.2	0.8	0.8
16050 00	Nozzle Holder Assy. (1 pc.) R & R.	0.4	0.4	0.6	0.6	0.8	0.8	1.2	1.5	0.4	1.0	1.0	0.4	3.0	1.0
16050 02	Nozzle Holder Assy. (2 pcs.) R & R.	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3
16050 03	Nozzle Holder Assy. (3 - 4 pcs.) R & R.	0.3	0.3	0.3	0.3	0.7	0.7	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.5
16050 04	Nozzle Holder Assy. (5 - 6 pcs.) R & R	0.4	0.4	0.4	0.4	1.0	1.0	0.9	0.9	0.6	0.9	0.9	0.6	0.9	0.9
16050 10	Nozzle Holder Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16050 15	Nozzle Injection Pressure Ins./Adj.	0.3	0.3	0.3	0.3	0.3	0.3	ST	ST	—	—	—	—	—	—
16050 20	Nozzle (1 - 2 pcs.) Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—
16050 21	Nozzle (3 - 4 pcs.) Rep.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	—	—	—	—	—	—
16050 22	Nozzle (5 - 6 pcs.) Rep.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	—	—	—	—	—	—
16060 00	Fuel Line Cle.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
16062 00	Fuel Filter Element R & R	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16062 10	Fuel Filter Element Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16062 30	Fuel Filter Cle.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

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		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
16063 00	Fuel Filter Assy. R & R	0.5	0.5	0.5	0.5	0.6	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
16063 10	Fuel Filter Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16063 20	Fuel Filter Bracket Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
16065 00	Fuel Filter Overflow Valve R & R	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
16065 10	Overflow Valve Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16071 00	Fuel Pipe (Tank to Feed Pump) Rep.	0.5	0.5	0.5	0.5	0.8	0.8	ST	ST	ST	ST	ST	ST	ST	ST	
16072 00	Fuel Pipe (Feed Pump to Filter) Rep.	0.4	0.4	0.4	0.4	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
16074 00	Fuel Pipe (Filter to Injection Pump) Rep.	0.5	0.5	0.5	0.5	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
16076 00	Fuel Return Pipe Rep.	0.5	0.5	0.5	0.5	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
COOLING SYSTEM																
17010 00	Fan Belt Adj.	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17011 00	Fan Belt Rep.	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17012 00	Cooling Fan R & R	0.5	0.5	0.5	0.5	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17012 10	Cooling Fan Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17012 20	Fan Pulley Rep.	0.0	0.0	1.5	1.5	2.1	2.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
17035 00	Water Pump Assy. R & R	1.1	1.1	1.4	1.4	1.7	1.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
17035 10	Water Pump Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17035 20	Water Pump Gasket Rep.	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	0.0	0.0	—	0.0	0.0	
17035 22	Cover Gasket Rep.	0.2	0.2	—	—	0.2	0.2	—	—	—	—	—	—	—	—	
17035 30	Water Pump Assy. O. H. (Including Seat Unit, Bearing Rep.)	0.6	0.6	0.6	0.6	0.7	0.7	0.5	2.2	0.5	2.0	2.2	0.5	2.0	2.2	
17040 00	Water Pipe & Hoses R & R	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	
17040 20	Radiator Upper Hose Rep.	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.3	0.2	
17040 22	Radiator Lower Hose Rep.	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.1	ST	ST	0.1	ST	ST	
17040 24	Water By-Pass Hose Rep.	0.1	0.1	0.1	0.1	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

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		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
17040 30	Water Outlet Pipe Rep.	0.1	0.1	—	—	0.5	0.5	0.5	0.5	0.1	0.1	0.5	0.1	0.1	0.5	
17040 31	Water Joint Hose Rep.	—	—	—	—	0.2	0.2	—	—	—	—	—	—	—	—	
17040 32	Water Outlet Pipe Gasket Rep.	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	
<u>17045 00</u>	<u>Thermostat R & R</u>	0.6	0.6	0.6	0.6	0.8	0.8	0.1	0.2	0.1	1.4	0.5	0.1	1.4	0.5	
17045 10	Thermostat Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17045 20	Thermostat Performance Test/Ins.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
17045 22	Thermostat Housing Rep.	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	—	0.0	0.0	—	0.0	0.0	
17045 24	Thermostat Housing Gasket Rep.	0.5	0.5	0.5	0.5	0.5	0.5	—	—	—	—	—	—	—	—	
AIR COMPRESSOR																
<u>19030 00</u>	<u>Air Compressor Assy. R & R</u>	2.6	2.6	2.8	3.0	3.1	3.1	2.0	3.0	2.0	—	—	2.0	—	—	
19030 10	Air Compressor Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	
19030 20	Air Compressor Assy. O. H.	1.1	1.1	1.1	1.1	1.1	1.1	1.8	1.9	1.8	—	—	1.8	—	—	
<u>19031 00</u>	<u>Air Compressor Head R & R</u>	1.3	1.3	1.3	1.3	1.3	1.3	0.7	0.8	0.7	—	—	0.7	—	—	
19031 10	Air Compressor Head Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0	—	—	
<u>19034 00</u>	<u>Air Compressor Air Pipe Rep.</u>	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	—	—	0.3	—	—	
<u>19035 00</u>	<u>Air Compressor Water Pipe Rep.</u>	—	—	0.3	0.3	0.3	0.3	0.3	0.3	0.3	—	—	0.3	—	—	
<u>19037 00</u>	<u>Air Compressor Water Hose Rep.</u>	—	—	0.2	0.2	0.2	0.2	—	—	—	—	—	—	—	—	
EGR SYSTEM																
<u>19525 00</u>	<u>EGR System Check Ins.</u>	—	—	—	—	—	—	—	—	ST	ST	ST	ST	ST	ST	
19525 22	EGR Valve (1 pc.) Rep.	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	2.0	0.4	
19525 23	EGR Valve (2 pcs.) Rep.	—	—	—	—	—	—	—	—	—	0.4	0.4	—	2.1	0.8	
19525 78	EGR Cooler (1 pc.) Rep.	—	—	—	—	—	—	—	—	0.4	0.8	0.8	0.4	0.8	0.8	
19525 79	EGR Cooler (2 pcs.) Rep.	—	—	—	—	—	—	—	—	—	1.1	1.1	0.6	1.1	1.1	
19525 84	EGR Cooler (3 pcs.) Rep.	—	—	—	—	—	—	—	—	—	—	—	0.8	1.4	1.4	
19525 85	EGR Cooler (4 pcs.) Rep.	—	—	—	—	—	—	—	—	—	—	—	—	1.7	1.7	
19525 90	Lead Valve Rep.	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	0.2	

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
ELECTRICAL PARTS																
81110 00	Starter Motor Assy. R & R	0.5	0.5	0.6	0.6	0.8	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81110 10	Starter Motor Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
81110 20	Magnetic Switch Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81110 40	Starter Motor Assy. O. H.	ST	ST	ST	ST	ST	ST	1.2	1.5	1.2	1.5	1.5	1.2	1.5	1.5	
81121 00	Generator Assy. R & R	0.5	0.5	0.6	0.6	0.8	0.8	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	
81121 10	Generator Assy. Rep.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
81121 20	Generator OperationIns.	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	
81121 32	Generator Bracket Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
81121 33	Adjust Plate Rep.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
81121 40	Generator Assy. O. H.	ST	ST	ST	ST	ST	ST	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
81121 50	Vacuum Pump O. H.	0.4	0.4	—	—	—	—	—	—	—	—	—	—	—	—	
81130 00	Voltage Regulator Ins./Adj.	0.8	0.8	0.8	0.8	0.8	0.8	—	—	—	—	—	—	—	—	
81131 00	Voltage Regulator Rep.	0.3	0.3	0.3	0.3	0.3	0.3	ST	ST	ST	ST	ST	ST	ST	ST	
81140 00	Intake Heater Rep.	—	—	—	—	0.3	0.3	—	—	—	—	—	—	—	—	
81144 00	Glow Plug R&R/Ins.	0.3	0.3	0.3	0.3	—	—	0.3	0.2	0.3	2.2	0.2	0.3	2.2	0.2	
81144 10	Glow Plug (1 - 2 pcs.) Rep.	0.1	0.1	0.1	0.1	—	—	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	
81144 20	Glow Plug (3 - 4 pcs.) Rep.	0.2	0.2	0.2	0.2	—	—	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	
81144 21	Glow Plug (5 - 6 pcs.) Rep.	0.3	0.3	0.3	0.3	—	—	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	
83035 00	Thermometer Rep.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	
83040 00	Fuel Meter Rep.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	
83045 00	Oil Pressure Meter Rep.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	
83050 00	Tachometer Rep.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	
83055 00	Ammeter Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
83065 00	Warning Lamp Assy. Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	

OPERATION CODE NO.	OPERATION	INDUSTRIAL														
		6B series	6B(T) series	6S series	6S(T) series	6RB1 E120	6RB1T E120T	6HK1T	6WG1T	6HK1X (Tier3)	6UZ1X (Tier3)	6WG1X (Tier3)	6HK1X (IT.Tier4)	6UZ1X (IT.Tier4)	6WG1X (IT.Tier4)	
83070 00	Meter Bulb Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
83072 00	Warning Lamp Bulb Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
83080 00	Glow Plug Resister Rep.	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	—	—	—	—	—	
84010 00	Starter Switch Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
84012 00	Battery Relay Switch Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
84044 00	Intake Heater Switch Rep.	—	—	—	—	0.3	0.3	—	—	—	—	—	—	—	—	—
84405 00	Control Unit R & R	—	—	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84405 11	ECM Rep.	—	—	—	—	—	—	—	—	ST	ST	ST	ST	ST	ST	ST
84510 00	Thermo Unit Rep.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.3	0.3	0.1	0.3	0.3	0.3
84515 00	Oil Pressure Unit Rep.	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84916 00	Switch (Related Engine) R & R	—	—	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84916 32	Oil Pres. Switch Rep.	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 00	Sensor (Related Engine) R & R	—	—	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84926 10	Coolant Temp. Sensor Rep.	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 17	Intake Air Temp. Sensor Rep.	—	—	—	—	—	—	—	—	ST	ST	ST	ST	ST	ST	ST
84926 18	Manifold Absolute Pres. Sensor Rep.	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 19	Boost Pres. Sensor Rep.	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 25	Cam Position Sensor Rep.	—	—	—	—	—	—	—	—	0.1	—	—	0.1	—	—	—
84926 26	Crank Position Sensor Rep.	—	—	—	—	—	—	—	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84926 34	DPD Temperature Sensor (1 - 2 pcs.) Rep.	—	—	—	—	—	—	—	—	—	—	—	0.1	—	—	—
84926 36	DPD Differential Pressure Sensor Rep.	—	—	—	—	—	—	—	—	—	—	—	0.1	—	—	—
87046 00	Harness (Related Engine) Rep.	—	—	—	—	—	—	—	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2

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