

PSI HEAVY DUTY LABOR TIME GUIDE

Description	CODE	3.3L & 5.8L	8.1L & 11.1L	15L, 18L & 22L	Comments
Engine assembly	L5001	7	8	10	Remove & Replace
Engine	L5002	0.7	0.7	0.7	Troubleshoot
Fuel injection pump	L5003	3	4	6	Remove & Replace
Fuel injection pump*	L5004	0.5	0.5	0.5	Adjust
Fuel injectors	L5005	1	1.5	3	Remove & Replace
Governor, actuator	L5006	1	1	6	Remove & Replace
Crankshaft and main bearings	L5007	2.8	3	4	Remove & Replace
Crankshaft damper	L5008	0.5	0.5	0.5	Remove & Replace
Crankshaft flywheel seal	L5009	1.8	1.8	2.5	Remove & Replace
Crankshaft front cover seal	L5010	1.5	1.5	2	Remove & Replace
Flywheel	L5011	0.5	0.5	0.8	Remove & Replace
Pistons and/ or rings	L5012	4	5.5	6.25	Remove & Replace
Cylinder head assembly	L5013	3.5	3.5	4	Remove & Replace
Cylinder head assembly*	L5014	3	3	5	Recondition
Cylinder head cover	L5015	0.25	0.25	0.25	Remove & Replace
Cylinder head or gasket	L5016	1	2.5	3.2	Remove & Replace
Valves (Intake&Exhaust)*	L5017	0.5	0.5	1	Adjust
Valve spring or stem seal	L5018	1.5	2	2.5	Remove & Replace
Valve push rod	L5019	0.5	0.5	0.5	Remove & Replace
Cooling water pump	L5020	1.25	1	2	Remove & Replace
Fan pulley assembly	L5021	0.8	1.5	1.5	Remove & Replace
Camshaft, gear	L5022	2	2.75	3.7	Remove & Replace
Camshaft	L5023	2	3	4.25	Remove & Replace
Intake manifold	L5024	0.75	1	1	Remove & Replace
Exhaust manifold	L5025	0.3	0.5	0.5	Remove & Replace
Cooling fan	L5026	1	1	1	Remove & Replace
V-belt	L5027	0.3	0.3	0.3	Remove & Replace
Thermostat	L5028	0.5	0.5	0.7	Remove & Replace
Oil pump	L5029	2	2	2	Remove & Replace
Filters(Oil/Fuel)	L5030	0.5	0.5	0.5	Remove & Replace
Oil system	L5031	0.33	0.33	0.33	Remove & Replace
Oil pan	L5032	1	1	1	Remove & Replace
Coolant system	L5033	0.3	0.5	0.7	Drain & Refill
Air cleaner assembly (standard)	L5034	0.3	0.5	0.6	Remove & Replace
Air cleaner assembly (heavy duty)	L5035	0.5	0.7	0.9	Remove & Replace
Air cleaner element	L5036	0.2	0.3	0.3	Remove & Replace
Air cleaner hoses	L5037	0.2	0.3	0.3	Remove & Replace
Exhaust silencer	L5038	1.5	1.5	3	Remove & Replace
Bellows	L5039	0.5	0.5	0.8	Remove & Replace
Exhaust connector	L5040	1.2	1.2	1.2	Remove & Replace
Radiator assembly	L5041	1	1.25	2	Remove & Replace
Heat exchanger assembly	L5042	1.5	2	2.25	Remove & Replace
Coolant heaters	L5043	0.7	1	1.5	Remove & Replace
Coolant hoses	L5044	0.5	0.5	0.5	Remove & Replace
Starter assembly	L5045	0.5	0.5	0.5	Remove & Replace
Charging alternator assembly	L5046	0.5	0.5	0.5	Remove & Replace
Engine wiring harness	L5047	0.6	0.6	0.7	Remove & Replace
Gauge sender/switch	L5048	0.8	0.8	0.8	Remove & Replace
Engine stop solenoid	L5049	0.33	0.33	0.75	Remove & Replace
Magnetic pick up	L5050	0.25	0.25	0.25	Remove & Replace



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Fuel System Labor Operations

LABOR OPERATION DESCRIPTION	OPERATION NUMBER	TIME ALLOWED
ENGINE CONTROL MODULE (ECM) – REPLACEMENT	E0050	0.9
ENGINE WIRE HARNESS – REPAIR	E1015	0.9
ENGINE WIRE HARNESS – REPLACEMENT	E3001	1.5
FUEL TEMPERATURE (FT) SENSOR – REPLACEMENT	E3002	0.2
ELECTRONIC PRESSURE REGULATOR (EPR) – REPAIR – REPLACE LOW PRESSURE REGULATOR (LPR)	E3005	0.7
VACUUM LINE REPLACE ONE	T1002	0.4
ADD: Additional Line Replace Allowances. Diagnosis Time: 0.1.		0.1
ADAPTER, MIXER TO THROTTLE OR THROTTLE TO INTAKE – REPLACEMENT	E3008	1
ADAPTER, MIXER TO INTAKE MANIFOLD GASKET – REPLACEMENT	E3015	1
BRACKET, EPR MOUNTING – REPLACEMENT	E3009	0.5
BRACKET, ADAPTER – REPLACEMENT	E3010	1.1
THROTTLE BODY O-RING AND/OR SLEEVE – REPLACEMENT	E3012	1
GASKET(S), MIXER - ADAPTER	E3014	1.1
FUEL SHUT-OFF VALVE – REPLACEMENT	F1003	1
TEMP MANIFOLD PRESSURE SENSOR (TMAP) REPLACEMENT	F1019	0.7
FUEL MIXER – REPLACEMENT	M0070	1.1
ELECTRONIC THROTTLE – REPLACEMENT	M0075	1

LABOR OPERATION DESCRIPTION	OPERATION NUMBER	TIME ALLOWED
ELECTRONIC PRESSURE REGULATOR (EPR) REPLACEMENT INCLUDES: Pressure checks and Transfer of all fittings	M1001	1.2
VAPOR LINE-ELECTRONIC PRESSURE REGULATOR (EPR) TO MIXER FUEL - REPLACEMENT	M1003	0.5
LPG FUEL SYSTEM PRESSURE CHECK INCLUDES: Connect fuel pressure gauges. Check EPR primary and secondary pressure. Disconnect gauges.	M1006	0.3
CATALYTIC CONVERTER – REPLACEMENT	N1001	1.2
HEATED EXHAUST GAS OXYGEN SENSOR (HEGO) – REPLACEMENT	N1002	0.8
RESTRICTED EXHAUST SYSTEM DIAGNOSIS	E3017	0.3
COOLANT LINES – REPLACE ALL INCLUDES: Drain & Fill Radiator	T1001	0.5 0.1
GASOLINE FUEL PRESSURE SENSOR MANIFOLD – REPLACE	E3032	0.7
GASOLINE FUEL PUMP REPLACE	J9500	0.7
GASOLINE FUEL INJECTOR RAIL	J9520	0.7
TURBOCHARGER - REPLACE	E3021	1.0

Operation Description 8.8L		Operation Number	Time (hours)
Manifold and/or Gasket, Intake - replace		J0200	2.0
Cover and/or Gasket -Replace			
	Right Bank	J0300	0.6
	Left Bank	J0301	0.5
	Both Banks	J0307	1.0
Rocker Arm - Replace			
	One Cylinder		
	Right Bank	J0350	0.7
	Left Bank	J0351	0.6
	Both Banks	J0357	1.2
ADD:			
A-To replace all rocker arms			
	right or left		0.3
	both		0.4
Stud, Rocker Arm - Replace			
	One Stud		
	Right Bank	J0380	0.9
	Left Bank	J0381	0.8
ADD:			
A - To replace additional studs (each)			0.1
Gasket, Cylinder Head - Replace			
	Right Bank	J0500	5.4
	Left Bank	J0501	5.3
	Both Banks	J0507	8.2
Head, Cylinder - Replace			
	Right Bank	J0510	6.0
	Left Bank	J0511	6.0
	Both Banks	J0517	9.9
Valve - Recondition or Replace			
	One Cilinder		
	Right Bank	J0520	5.7
	Left Bank	J0521	5.7
	Both Banks	J0527	8.8
ADD:			
A - To recondition all valves			
	right or left		1.2
	both		2.4
B - To ream and fit guides			
	one cylinder		0.2
	each additional cylinder		0.1

Spring, Cap and/or Seal, Valve - Replace ADD: A - To replace springs, caps and/or seals each additional cylinder right or left both B - To replace all spring, caps and/or seals right or left both	One Cylinder		
	Right Bank	J0540	1.0
	Left Bank	J0541	1.0
	Both Banks	J0547	1.7
Push Road - Replace ADD: A - To replace all push roads right or left both	One Cylinder		
	Right Bank	J0580	0.7
	Left Bank	J0581	0.6
	Both Banks	J0587	1.2
Guide Push Rod - replace ADD: A - To repalce all guides right or left both	One Cylinder		
	Right Bank	J0590	0.8
	Left Bank	J0591	0.7
	Both Banks	J0597	1.2
Lifter, Valve - Repalce ADD: A - To replace all lifters right or left both	One Cylinder		
	Right Bank	J0620	2.3
	Left Bank	J0621	2.3
	Both Banks	J0627	2.6

Balancer Harmonic - Repalce	J0720	1.0
Seal, Timing Cover Oil - Replace	J0750	1.0
Cover and/or Gasket, Timing - Replace	J0780	2.6
Chain, Timnig - Replace	J0820	2.8
ADD: A - To replace crankshaft gear		0.2
Sprocket, Camshaft Timing - replace	J0840	2.8
ADD: A - To replace crankshaft gear		2.0
Camshaft - Replace	J0850	5.0
Cap, Oli Filter - Replace	J0900	0.2
Filter, Oil - Replace	J0950	0.3
Valve, Oil Filter Bypass - Replace	J0970	0.4
Plung and/or Gasket, Oil Pan Drain - Replace	J0990	0.3
Pan and/or Gasket, Oil - Replace	J1000	2.0
Pump, Engine Oil - Replace	J10200	1.7
Housing and/or Gasket, Rear Main Seal - Replace	J1080	4.1
Seals, Crankshaft Rear Main - Replace	J1120	3.2
Bearing, Crankshaft Main - Replace One Bearing	J1150	2.0
ADD: A - To replace main bearing (each additional).....		0.3
B - To replace all main bearings.....		0.9
C - To replace connecting rod bearings (each)		0.3
D - To replace all connecting rod bearings.....		1.7
Bearing, Connecting Rod - Replace One Bearing	J1180	2.0
ADD: A - To replace connecting rod bearings (each additional).....		0.3
B - To replace all connecting rod bearings		1.7
Crankshaft - Replace	J1200	7.0
ADD: A - To R&R cylinder head		
1 one		2.2
2 both		3.6
B - To replace rings		
1 each piston		0.2
2 all pistones		1.0
C - To replace rods		
1 each rod		0.1
2 all rods		0.4
D - To replace piston (NC: Ream ridge, R&R rings and rod from piston. Inspect piston for size and wear. Chcek bore size, typer and out of round.		
1 each piston		0.3
2 all pistons		2.0

Piston, Rod and/or Rings - Replace		
	One Cylinder	
	Right Bank	J1300
	Left Bank	J1601
	Both Banks	J1307
ADD:		
A - To recondition all valves		2.5
B - To replace rings only		
	each additional piston	0.4
	all pistons	2.4
C - To replace rod and/or pin only		
	each additional rod	0.5
	all rods	2.5
D - To replace piston		
	each additional piston	0.5
	all pistons	2.9
Flywheel - Repalce		J1420
		0.7
Plug, Oil Gallery - Replace		J1640
		2.4
Plug, Camshaft rear bearing - Replace		J1660
		1.2
Engine, Partial - Replace		J1820
		4.0
Engine, assembly - Repalce		J1880
		4.0
Wires, Spark Plug - Replace		J4206
ADD:		
A - To replace each additional wire		0.1
Plug, Spark - replace		J4226
		0.2
ADD: To replace each additional plug		0.1
Coil, Electronic ignition Controls - Replace		J4345
ADD:		
A - To repalce each additional coil		0.1
B - To replace all coils		0.3
Sensor, Camshaft Position - Replace		J4350
ADD: Diagnosis time 0.0 to 0.3 hours depending on actual time		0.3
Sensor, Crankshaft Position - Replace		J4355
ADD: Diagnosis time 0.0 to 0.3 hours depending on actual time		0.3