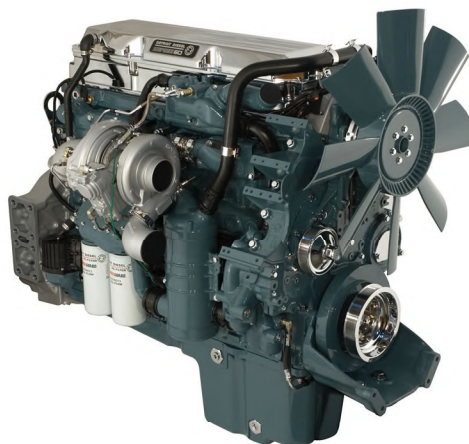


DIESEL **REBUILD** KITS

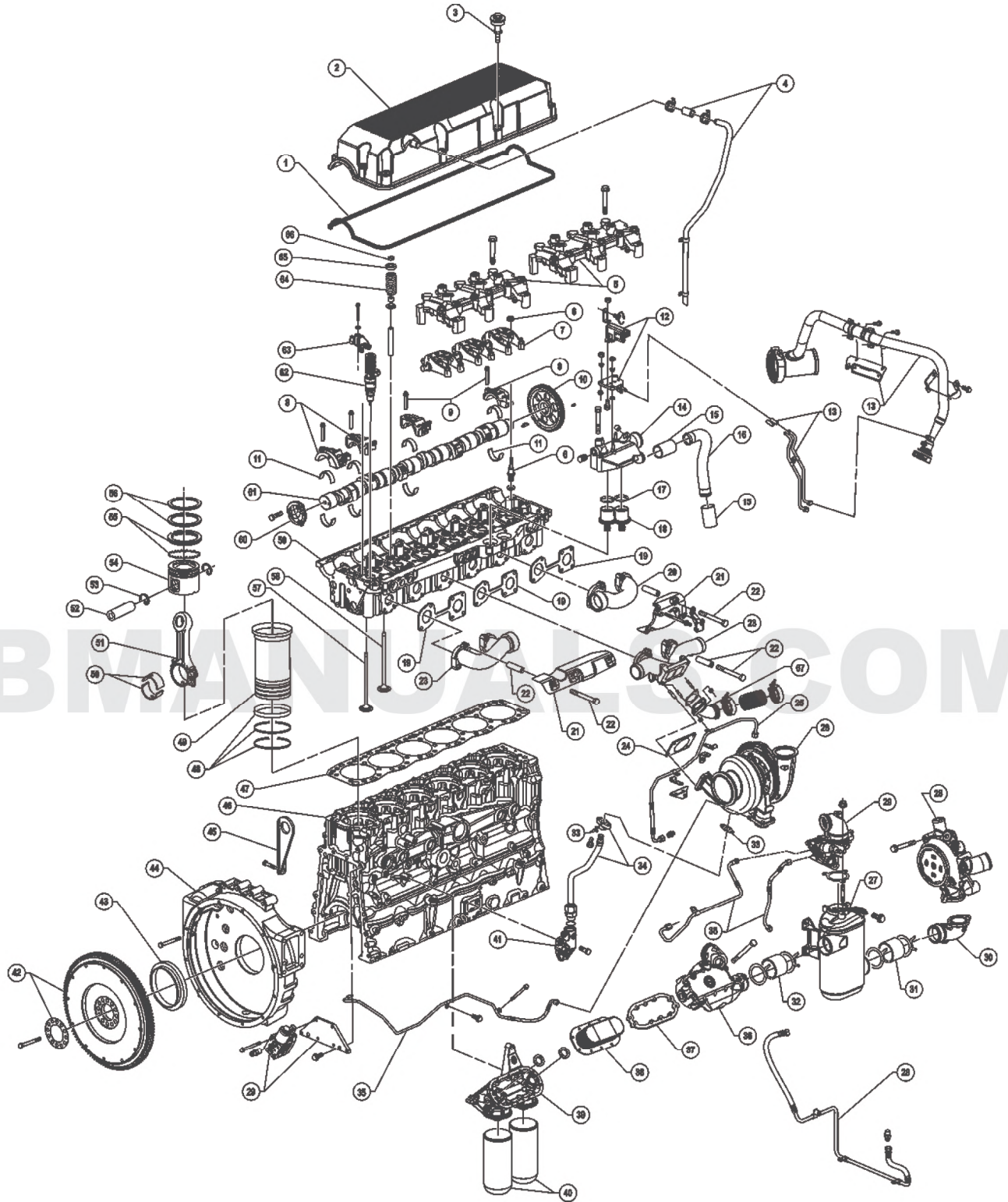
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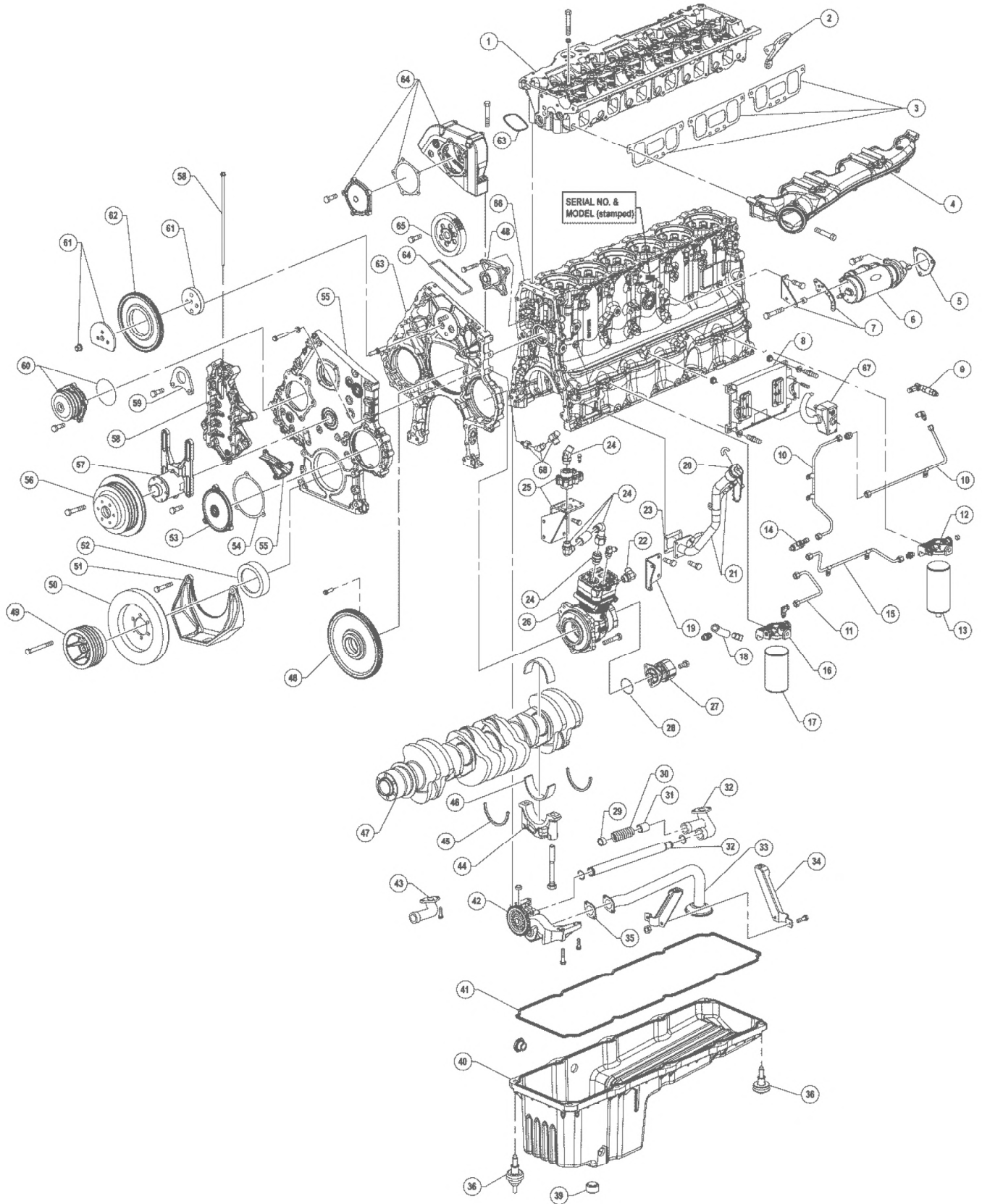
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DETROIT DIESEL







11.1L, 12.7L Series 60 In-Frame Overhaul

KIT NUMBER	COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
S60	23519625	6		Cylinder Kit Complete	Engs. w/Standard Liner; 2.50 mm top ring; round piston design
	23519637	6		Cylinder Kit Complete	Engs. w/Standard Liner; 3.50 mm top ring
	23523951	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 2.50 mm top ring; round piston design
	23523952	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 3.50 mm top ring
	23523954	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 2.50 mm top ring; oval piston design
	8929710	6	Std.	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929711	6	.254 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929712	6	.508 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929713	6	.762 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	23515581	6	Std.	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515582	6	.254 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515583	6	.508 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515584	6	.762 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	8929670A	6	Std.	Main Bearing Plain	
	8929671A	6	.254 mm	Main Bearing Plain	
	8929672A	6	.508 mm	Main Bearing Plain	
	8929673A	6	.762 mm	Main Bearing Plain	
	8929680	1	Std.	Main Bearing Flanged	
	8929681	1	.254 mm	Main Bearing Flanged	
	8929682	1	.508 mm	Main Bearing Flanged	
	8929683	1	.762 mm	Main Bearing Flanged	
	8929085	2	Std.	Thrust Washer	
	8929697	2	.127 mm	Thrust Washer	
	8929698	2	.254 mm	Thrust Washer	
	8929102	1		Oil Pan Gasket	
	23501572	1		Head Gasket Set	

11.1L, 12.7L Series 60 Complete Overhaul

KIT NUMBER	COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
S60-OH	23519625	6		Cylinder Kit Complete	Engs. w/Standard Liner; 2.50 mm top ring; round piston design
	23519637	6		Cylinder Kit Complete	Engs. w/Standard Liner; 3.50 mm top ring
	23523951	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 2.50 mm top ring; round piston design
	23523952	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 3.50 mm top ring
	23523954	6		Cylinder Kit Complete	Engs. w/Top Liner Cooling (TLC); 2.50 mm top ring; oval piston design
	8929710	6	Std.	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929711	6	.254 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929712	6	.508 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	8929713	6	.762 mm	Rod Bearing Pair	1.7100" or 43.430 mm O.A.L.
	23515581	6	Std.	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515582	6	.254 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515583	6	.508 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	23515584	6	.762 mm	Rod Bearing Pair	1.8670." or 47.430 mm O.A.L.
	8929670A	6	Std.	Main Bearing Plain	
	8929671A	6	.254 mm	Main Bearing Plain	
	8929672A	6	.508 mm	Main Bearing Plain	
	8929673A	6	.762 mm	Main Bearing Plain	
	8929680	1	Std.	Main Bearing Flanged	
	8929681	1	.254 mm	Main Bearing Flanged	
	8929682	1	.508 mm	Main Bearing Flanged	
	8929683	1	.762 mm	Main Bearing Flanged	
	8929085	2	Std.	Thrust Washer	
	8929697	2	.127 mm	Thrust Washer	
	8929698	2	.254 mm	Thrust Washer	
	23512691	1		Complete Gasket Set	Crankshaft seals not included

Engine Finding Index				
Engine	Line No.	Engine	Line No.	
11.1L 677 SOHC Turbo-Diesel L6 5.118" Bore.....	1	12.7L 774 SOHC Turbo-Diesel L6 5.118" Bore.....	2	
Engine Code Index				
Engine Code	Engine Description	Line No.	Engine Code	Engine Description
60 Series ... Multi-Purpose Engines.....	11.1L 677 SOHC Turbo-Diesel L6 5.118" Bore.....	1	60 Series ... Multi-Purpose Engines.....	12.7L 774 SOHC Turbo-Diesel L6 5.118" Bore.....
				2

<i>Multi-Purpose Engines Series 60 Eng. 1</i> 11.1L 677 SOHC Turbo-Diesel L6, 5.118" Bore				
CYL. HEAD & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	23506153 *		Intermediate to upper rocker cover gsckt.; 98.38" circumference; Diamond shaped 0.146" thick; For 3 piece cover; Use w/O.E. No. 23505973 rocker cover
1	Valve Cover Gasket	23511992 *		Intermediate to upper rocker cover gsckt.; 98.38" circumference; Diamond shaped 0.186" thick; For 3 piece cover
1	Valve Cover Gasket	8929803 *		Lower to upper rocker cover gsckt.; 106.68" circumference; Diamond shaped 0.146" thick; for 2 piece cover; Use w/O.E. No. 8929653 rocker cover
1	Valve Cover Gasket	23511991 *		Lower to upper rocker cover gsckt.; 106.68" circumference; Diamond shaped 0.186" thick; For 2 piece cover
1	Valve Cover Gasket	23522269 *		New design rocker cover; Black polyacrylate
1	Valve Cover Gasket	23516322		Standard rocker cover; Gray silicone
1	Breather Seal Ring	5103646		
1	Head Gasket	23530421		
1	Head Gasket	23522588 +		When depleted use 23530421
1	Head Set	23501572		
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
2	Pipe Plug	8923313		Cylinder head
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
38	Head Bolt	23530768 *		
38	Washer	8929328		Cylinder head bolt
QTY	MISCELLANEOUS	PART NO.	SIZE	DESCRIPTION
8	Bolt	11504822		Rocker cover mntg.
QTY	MANIFOLD STUDS	PART NO.	SIZE	DESCRIPTION
4	Exhaust Manifold Stud	23507438		Manifold to Turbo; M10 x 1.5 x 44.0
4	Exhaust Manifold Stud	8929425		Manifold to Turbo; M10 x 1.5 x 50.0
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	8929589		30 deg. seat; Also available as Sealed Power No. V2514; 1.7320" Head Dia., .3421" Stem Dia., 8.4980" O.A.L.
12	Exhaust	23506350		Identification H
12	Exhaust	8929590		30 deg. seat; Identification U; Also available as Sealed Power No. V3947; 1.5760" Head Dia., .3421" Stem Dia., 8.4980" O.A.L.
12	Exhaust Valve Kit	23507504		Identification H; Incl. valve, valve seal, keeper & rotocap
12	Exhaust Valve Kit	23501577		Identification U; Incl. valve, valve seal, keeper & rotocap
12	Intake Valve Kit	23501576		Incl. valve, valve seal, keeper & rotocap
48	Keeper	8929573		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
12	Exh.	8929126		
12	Int.	8929127		
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	23518571		Exh.; 14.30MM - 14.32MM Dia.
24	Guide	23518572		Exh.; 14.43MM - 14.45MM Dia.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	8929415		Exh.
QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
24	Rotocap	8929105		
4	Isolator, Rocker Cover Bolt	8929255		Use w/One piece rocker cover
4	Isolator, Rocker Cover Bolt	23517912		Use w/One piece rocker cover
10	Isolator, Rocker Cover Bolt	23517911		Use w/Two piece rocker cover
1	Oil Fill Cap	5117362		
1	Chain, Oil Filler Cap	5113825		

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Detroit Diesel

1 Multi-Purpose Engines Series 60 Eng.				
(cont.) 11.1L 677 SOHC Turbo-Diesel L6, 5.118" Bore				
CYL. HEAD & PARTS (cont.)				
QTY	VALVE MISC. (cont.)	PART NO.	SIZE	DESCRIPTION
1	Crankcase Breather	5101760		4"
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	23523930		
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
12	Adj. Screw	23520819		Exh. valve adjusting
12	Adj. Screw	23520818		Int. valve adjusting
30	Nut	23514371		Arm adj. screw
30	Valve Button	5138643		Arm adj. screw
IGNITION				
QTY	IGNITION	PART NO.	SIZE	DESCRIPTION
6	Spark Plug	23515946		Natural gas Eng.
4	Bolt	11504822		ECM mounting plate
8	Isolator Bushing	23502879		ECM mounting; DDECII
8	Isolator Bushing	23512307 *		ECM mounting; DDECIII
ELECTRICAL				
QTY	ELECTRICAL	PART NO.	SIZE	DESCRIPTION
5	Bolt	11504822		Tach drive cover
1	Gasket	8929130		Tach drive cover
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
12	Bolt	8929357		Manifold to head; M10 x 1.5 x 1.20
3	Exhaust Manifold Gasket	23511666		
3	Air Intake Gasket	23517875		
CAMSHAFT GROUP				
QTY	TIMING	PART NO.	SIZE	DESCRIPTION
1	Bushing	8929108		Cam Gear
1	Pipe Plug	8924517		Gear case cover; 3/8" x 18 square
2	Dowel Pin	8929015		Gear case housing
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
2	Bolt	11504822		Balance shaft thrust plate
1	Sealing Ring	23521935		Thrust plate; Cylinder head
1	O-Ring	23528491		Thrust plate; Gear housing
1	O-Ring	8929318		Thrust plate; Gear housing; When depleted use 23528491
1	Oil Seal	8929740		Cap bearing seal; .134" x .074" x .480"
2	Oil Seal	23522975 *		Front cap seal
1	Oil Seal	23521894		Thrust plate; Cylinder head
ACCESSORY DRIVE				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Lock Ring	23509204		Accessory drive
1	Lock Ring	23511746		Accessory gear
1	Lock Ring	8929062		Air compressor
1	Lock Ring	23505643		Power steering pump
1	Ball Brg.	23518178		Accessory drive
1	Ball Brg.	23509203		Accessory gear shaft
1	Ball Brg.	8929024		Bearing assembly
1	Ball Brg.	23503704		Fan shaft inner
1	Ball Brg.	23503535		Fan shaft outer
1	Cylindrical Brg.	23511745		Accessory drive
2	Snap Ring	8929064		Accessory drive; 3.121" OD
1	Retaining Ring	8929216		Accessory drive; 1.618" OD
1	Retaining Ring	8929063		Accessory drive; 3.734" OD
1	O-Ring	8929253		Acc. drive cover; .139" x 4.609" ID
1	Gasket	8929130		Upper right rear & cam access cover
1	Gasket	8929299		Acc. drive front
1	Redi-Sleeve	99133		Use w/8929154 seal
1	Oil Seal	8929154		Oil accessory drive; Also available as National No. 484156V
AIR COMPRESSOR				
QTY	AIR COMPRESSOR	PART NO.	SIZE	DESCRIPTION
1	Ball Brg.	8929820		
1	Drive Coupling	5141773		Air compressor drive
1	Gasket	8929299		Drive housing

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AIR COMPRESSOR (cont.)				
QTY	AIR COMPRESSOR (cont.)	PART NO.	SIZE	DESCRIPTION
1	Air Compressor Mounting Gskt.	23515145		
FUEL SYSTEM & PARTS				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Seal Ring	23515470		Injector hole tube
2	Fuel Injector Seal Ring	5234699		Lower
1	Fuel Injector Seal Ring	5234702		Upper
6	Injector Hole Tube Kit	23501580		
6	Adj. Screw	23520820		Injector adjusting
6	Bolt	8929393 *		Injector clamp
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
1	Fuel Pump Coupling	23505249		For high capacity fuel pump
1	Fuel Pump Coupling	8929479		For std. capacity fuel pump
1	Fuel Pump Coupling	8929787		15.875MM ID
1	Fuel Pump Drive	23506558		For high capacity fuel pump
1	Fuel Pump Drive	23511964		For std. capacity fuel pump
1	Fuel Pump Hub	8929480		12.70MM ID
1	Fuel Pump Gear	23506546		Drive gear; .375
1	Fuel Pump Gear	23511959		Driven gear; .275
1	Fuel Pump Drive Shaft	23506545		Drive shaft
1	Fuel Pump Drive Shaft	23506549		Driven shaft
1	Fuel Cap	23506555		Pump Relief Valve
1	Fuel Pump Check Valve Kit	23506563 *		
1	Fuel Pump Check Valve	8923528		Injector check valve
1	Fuel Pump Spacer	23506560		Relief Valve
1	Fuel Pump Relief Valve Spring	23506557 *		
1	Sealing Ring	23506556		Relief valve
1	Cylindrical Brg.	8923526		Fuel pump shaft
5	Bolt	11504822		Fuel pump drive assy.
1	Fuel Pump Repair Part	23506564		Relief valve shear pin
1	Fuel Pump Body Plug	23506553		
1	O-Ring	8929253		Fuel cover; .139" x 4.609" ID
1	O-Ring	23524657		Fuel/water separator
1	Fuel Pump Drive Adapter Gskt.	5150193		
1	Fuel Pump Gasket	23505248		Fuel pump mounting
QTY	TURBOCHARGER	PART NO.	SIZE	DESCRIPTION
1	Turbocharger Exhaust Gasket	8929529		Inlet connection
1	Turbocharger Oil Return Gskt.	8929285		
GOVERNOR				
QTY	GOVERNOR	PART NO.	SIZE	DESCRIPTION
1	Retaining Ring	9411502		Mechanical governor weight
COOLING SYSTEM				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump Shaft	8929157		Front mounted pumps
1	Water Pump Shaft	23505896		Gear case mounted pumps
1	Water Pump Impeller	8929512		Front mounted pumps
1	Water Pump Impeller	23517973		Gear case mounted pumps
1	Water Pump Repair/Rebuild Kit	23509105		
1	Water Pump Cover	8922383		Non-metallic
1	Woodruff Key	8929334		FWP shaft
1	Water Pump Retainer Ring	8929427		Bearing & seal
1	Water Pump Retainer Ring	8922407		FWP cover
1	Water Pump Mech. Shaft Seal	23522433		Unitized seal
1	Ball Brg.	8929422		Water pump shaft
1	Lock Nut	11509584		Water pump
1	Water Pump Gasket	23507073		
1	Rect. or Square Seal	23505024		Water pump cover
1	Water Pump Seal Ring	8929158		Water pump; Front mounted pumps
1	Water Pump Seal Ring	23520377		Water pump; Gear case mounted pumps
1	Water Pump Seal Ring	8929510		Water pump cover; Front mounted pumps
1	Oil Seal	5103951		Fan shaft
1	Oil Seal	8929213		Fan spindle
1	Oil Seal	8929134		Water pump; Lip type
1	O-Ring	23512048		Water pump cover; Gear case mounted pumps
5	Bolt	11504822		Fan mount support
2	Bolt	11504822		Water pump cover

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Detroit Diesel

1 Multi-Purpose Engines Series 60 Eng.				
(cont.) 11.1L 677 SOHC Turbo-Diesel L6, 5.118" Bore				
COOLING SYSTEM (cont.)				
QTY	WATER PUMP (cont.)	PART NO.	SIZE	DESCRIPTION
1	Retaining Ring	8929216		Fan drive; 1.618" OD
1	Retaining Ring	8929063		Fan drive; 3.734" OD
QTY	HOSES	PART NO.	SIZE	DESCRIPTION
2	Silicone Hose	8929875		Water bypass tube
2	Silicone Hose	23506325		Water pump to cooler
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	23503827		160 Deg.
1	Thermostat	23503825		180 Deg.
1	Thermostat	8929878		190 Deg.
2	Oil Seal	5132155		Thermostat
ENGINE BLOCK & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	8929102		Standard oil pan; Gray silicone
1	Oil Pan Gasket	23522279 *		Use for oil pan w/o cord modified seal system
10	Oil Pan Isolator Bushing	23517242		Oil pan
10	Bolt	11504571 *		Oil pan
1	Copper Washer	23513842		Oil gauge adapter
1	Oil Seal	8929740		Block to gear case; .134" x .074" x .480"
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Gasket Set	23512691		Crankshaft seals not incl.
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
7	Cam Brg.	8929690	STD	
7	Cam Brg.	8929691	.254MM	
7	Cam Brg.	8929692	.508MM	
7	Cam Brg.	8929693	.762MM	
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	8547625		4 plate
1	Oil Cooler	8547626		8 plate
6	Bolt	11504822		Transfer cooler adapter housing
2	O-Ring	8929289		Oil cooler housing
1	Oil Cooler Core Gasket	8929348		
2	Oil Cooler Seal Ring	23508392		Filter adapter housing
1	Gasket	23506247		Core housing
2	Rect. or Square Seal	8929280		Oil cooler
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
1	Pipe Plug	8926993		
1	Pipe Plug	8923313		Block
CRANKSHAFT/OIL PUMP				
QTY	CRANKSHAFT & OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	23515597		12 hole
1	Vibration Damper	8929294		
1	Ball Brg.	23503707		Position Clutch pilot
1	Oil Seal/Sleeve Kit	23513578		Rear; Double lip wrap around
1	Oil Seal/Sleeve Kit	23516969		Rear; Teflon lip
6	Washer	5133981		Vibration damper
1	Lo Pressure Regulator Valve	8922740		
1	Bushing	5127978 *		Oil pump
1	Oil Pump Spring	5126327		Outlet bypass valve
1	Bolt	11504822		Inlet tube
4	Bolt	11504822		Outlet pipe
2	Bolt	11504822		Pressure regulator
2	Bolt	11504822		Pressure relief vlv.
1	Bolt	11504822		Screen bracket
1	Oil Pump Intake Gasket	8929344		Pump to block
1	Oil Pump Outlet Gasket	8929347		
1	Rect. or Square Seal	8929341		Oil filter
1	Rect. or Square Seal	8929340		Oil filter bypass
1	Lo Press. Reg. Body Gasket	5117269		
1	Gasket	8929302		Fill tube adapter
1	Gasket	8929302		Oil filter cover
1	Oil Filter Seal Ring	8929342		Oil filter adapter
1	Oil Drain Plug	23511574		1" Pipe plug
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	7363M Std-10		
6	Plain Main Brg.	8929670A	STD	

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* New Item — Check For Availability

CRANKSHAFT/OIL PUMP (cont.)

QTY	MAIN BEARINGS (cont.)	PART NO.	SIZE	DESCRIPTION
6	Plain Main Brg.	8929671A	.254MM	
6	Plain Main Brg.	8929672A	.508MM	
6	Plain Main Brg.	8929673A	.762MM	
1	Flanged Main Brg.	8929680	STD	
1	Flanged Main Brg.	8929681	.254MM	
1	Flanged Main Brg.	8929682	.508MM	
1	Flanged Main Brg.	8929683	.762MM	
1	Lower End Bearing Kit	23531604 *		Incl. 1.7100" or 43.430MM O.A.L. rod bearings
1	Lower End Bearing Kit	23531605		Incl. 1.8670" or 47.430MM O.A.L. rod bearings
1	Thrust Washer Set	8929085S *		Position Upper; Also available as Sealed Power No. 4771F
2	Thrust Washer	8929085		Position Upper
2	Thrust Washer	8929697		Position Upper; .127MM oversize
2	Thrust Washer	8929698		Position Upper; .254MM oversize

CYLINDER COMPONENTS

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Ring	23532361 *		Engs. w/Standard liner
6	Liner w/o Sealing Ring	8929442		Engs. w/Standard liner; When depleted use 23532361
6	Liner w/o Sealing Ring	23530226 *		Engs. w/Top Liner Cooling (TLC)
6	Liner w/o Sealing Ring	23523392		Engs. w/Top Liner Cooling (TLC); When depleted use 23530226
6	Wet Sleeve	23531249 *		23523392 liner incl.
6	Wet Sleeve	23523948		23523392 liner incl.; When depleted use 23531249
6	Wet Sleeve	23532468 *		8929442 liner incl.
6	Wet Sleeve	23505278		8929442 liner incl.; When depleted use 23532468
6	Cylinder Kit Complete	23532590 *		Engs. w/Standard liner; 2.50MM top ring; round piston design
6	Cylinder Kit Complete	23519625		Engs. w/Standard liner; 2.50MM top ring; round piston design; When depleted use 23532590
6	Cylinder Kit Complete	23519637		Engs. w/Standard liner; 3.50MM top ring
6	Cylinder Kit Complete	23523954		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; oval piston design
6	Cylinder Kit Complete	23532555 *		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; round piston design
6	Cylinder Kit Complete	23523951		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; round piston design; When depleted use 23532555
6	Cylinder Kit Complete	23523952		Engs. w/Top Liner Cooling (TLC); 3.50MM top ring
6	Sealing Ring, Liner	8929013		Crevice seal
12	Sealing Ring, Liner	8929176		D-ring seal
6	Cntr. Bore Insert	23525500		
6	Lower Block Bore Sleeve	20042		

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Kit w/Pin & Retainers	23519646		Engs. w/Top Liner Cooling (TLC) & 2.50MM top ring. Oval piston design
6	Piston Kit w/Pin & Retainers	23519624		Engs. w/Top Liner Cooling (TLC) & 2.50MM top ring. Round piston design
6	Piston Kit w/Pin & Retainers	23519635		Engs. w/3.50MM top ring
6	Piston Skirt	23521802 *		Aluminum skirt for forged steel crown articulated piston
6	Piston Skirt	23516681		Ductile iron for standard cross head piston
6	Pin	8929087		
12	Piston Pin Bolt	8929337		
12	Piston Pin Bolt Spacer	8929504 *		
6	Piston Cooling Nozzle	23528493 *		

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Con. Rod Bolt	8929355 *		
12	Con. Rod Nut	8929019		
6	Rod Pair	8929712	.508MM	O.A.L. 1.7100" or 43.430MM
6	Rod Pair	8929713	.762MM	O.A.L. 1.7100" or 43.430MM
6	Rod Pair	8929710	STD	O.A.L. 1.7100" or 43.430MM; Also available as Sealed Power No. 4770P
6	Rod Pair	8929711	.254MM	O.A.L. 1.7100" or 43.430MM; Also available as Sealed Power No. 4770P .25MM
6	Rod Pair	23515583	.508MM	O.A.L. 1.8670" or 47.430MM
6	Rod Pair	23515584	.762MM	O.A.L. 1.8670" or 47.430MM
6	Rod Pair	23515581	STD	O.A.L. 1.8670" or 47.430MM; Also available as Sealed Power No. 4770PA
6	Rod Pair	23515582	.254MM	O.A.L. 1.8670" or 47.430MM; Also available as Sealed Power No. 4770PA .25MM

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Detroit Diesel

1 Multi-Purpose Engines Series 60 Eng.				
(cont.) 11.1L 677 SOHC Turbo-Diesel L6, 5.118" Bore				
CYLINDER COMPONENTS (cont.)				
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	23503747	STD	2.50MM top ring
6	Ring Set Single Cylinder	23505729	STD	3.50MM top ring
6	Compression Ring	8929845		Bottom
6	Compression Ring	8929844		Top; 2.50MM
6	Compression Ring	23504941		Top; 3.50MM
6	Oil Ring	23515500		
6	Oil Ring Expander	23529379 *		
6	Oil Ring Expander	23515499		When depleted use 23529379
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	S60		
1	Complete Overhaul Kit	S60-OH		
2 Multi-Purpose Engines Series 60 Eng.				
12.7L 774 SOHC Turbo-Diesel L6, 5.118" Bore				
CYL. HEAD & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	23506153 *		Intermediate to upper rocker cover gskt.; 98.38" circumference; Diamond shaped 0.146" thick; For 3 piece cover; Use w/O.E. No. 23505973 rocker cover
1	Valve Cover Gasket	23511992 *		Intermediate to upper rocker cover gskt.; 98.38" circumference; Diamond shaped 0.186" thick; For 3 piece cover
1	Valve Cover Gasket	8929803 *		Lower to upper rocker cover gskt.; 106.68" circumference; Diamond shaped 0.146" thick; for 2 piece cover; Use w/O.E. No. 8929653 rocker cover
1	Valve Cover Gasket	23511991 *		Lower to upper rocker cover gskt.; 106.68" circumference; Diamond shaped 0.186" thick; For 2 piece cover
1	Valve Cover Gasket	23522269 *		New design rocker cover; Black polyacrylate
1	Valve Cover Gasket	23516322		Standard rocker cover; Gray silicone
1	Breather Seal Ring	5103646		
1	Head Gasket	23530421		
1	Head Gasket	23522588 +		When depleted use 23530421
1	Head Set	23501572		
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
2	Pipe Plug	8923313		Cylinder head
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
38	Head Bolt	23530768 *		
38	Washer	8929328		Cylinder head bolt
QTY	MISCELLANEOUS	PART NO.	SIZE	DESCRIPTION
8	Bolt	11504822		Rocker cover mntg.
QTY	MANIFOLD STUDS	PART NO.	SIZE	DESCRIPTION
4	Exhaust Manifold Stud	23507438		Manifold to Turbo; M10 x 1.5 x 44.0
4	Exhaust Manifold Stud	8929425		Manifold to Turbo; M10 x 1.5 x 50.0
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	8929589		30 deg. seat; Also available as Sealed Power No. V2514; 1.7320" Head Dia., .3421" Stem Dia., 8.4980" O.A.L.
12	Exhaust	23506350		Identification H
12	Exhaust	8929590		30 deg. seat; Identification U; Also available as Sealed Power No. V3947; 1.5760" Head Dia., .3421" Stem Dia., 8.4980" O.A.L.
12	Exhaust Valve Kit	23507504		Identification H; Incl. valve, valve seal, keeper & rotocap
12	Exhaust Valve Kit	23501577		Identification U; Incl. valve, valve seal, keeper & rotocap
12	Intake Valve Kit	23501576		Incl. valve, valve seal, keeper & rotocap
48	Keeper	8929573		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
12	Exh.	8929126		
12	Int.	8929127		
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	23518571		Exh.; 14.30MM - 14.32MM Dia.
24	Guide	23518572		Exh.; 14.43MM - 14.45MM Dia.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	8929415		Exh.
QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
24	Rotocap	8929105		
4	Isolator, Rocker Cover Bolt	8929255		Use w/One piece rocker cover

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CYL. HEAD & PARTS (cont.)				
QTY	VALVE MISC. (cont.)	PART NO.	SIZE	DESCRIPTION
4	Isolator, Rocker Cover Bolt	23517912		Use w/One piece rocker cover
10	Isolator, Rocker Cover Bolt	23517911		Use w/Two piece rocker cover
1	Oil Fill Cap	5117362		
1	Chain, Oil Filler Cap	5113825		
1	Crankcase Breather	5101760	4"	
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	23523930		
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
12	Adj. Screw	23520819		Exh. valve adjusting
12	Adj. Screw	23520818		Int. valve adjusting
30	Nut	23514371		Arm adj. screw
30	Valve Button	5138643		Arm adj. screw
IGNITION				
QTY	IGNITION	PART NO.	SIZE	DESCRIPTION
6	Spark Plug	23515946		Natural gas Eng's.
4	Bolt	11504822		ECM mounting plate
8	Isolator Bushing	23502879		ECM mounting; DDECII
8	Isolator Bushing	23512307 *		ECM mounting; DDECIII
ELECTRICAL				
QTY	ELECTRICAL	PART NO.	SIZE	DESCRIPTION
5	Bolt	11504822		Tach drive cover
1	Gasket	8929130		Tach drive cover
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
12	Bolt	8929357		Manifold to head; M10 x 1.5 x 1.20
3	Exhaust Manifold Gasket	23511666		
3	Air Intake Gasket	23517875		
CAMSHAFT GROUP				
QTY	TIMING	PART NO.	SIZE	DESCRIPTION
1	Bushing	8929108		Cam gear
1	Pipe Plug	8924517		Gear case cover; 3/8" x 18 square
2	Dowel Pin	8929015		Gear case housing
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
2	Bolt	11504822		Balance shaft thrust plate
1	Sealing Ring	23521935		Thrust plate; Cylinder head
1	O-Ring	23528491		Thrust plate; Gear housing
1	O-Ring	8929318		Thrust plate; Gear housing; When depleted use 23528491
1	Oil Seal	8929740		Cap bearing seal; .134" x .074" x .480"
2	Oil Seal	23522975 *		Front cap seal
1	Oil Seal	23521894		Thrust plate; Cylinder head
ACCESSORY DRIVE				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Lock Ring	23509204		Accessory drive
1	Lock Ring	23511746		Accessory gear
1	Lock Ring	8929062		Air compressor
1	Lock Ring	23505643		Power steering pump
1	Ball Brg.	23518178		Accessory drive
1	Ball Brg.	23509203		Accessory gear shaft
1	Ball Brg.	8929024		Bearing assembly
1	Ball Brg.	23503704		Fan shaft inner
1	Ball Brg.	23503535		Fan shaft outer
1	Cylindrical Brg.	23511745		Accessory drive
2	Snap Ring	8929064		Accessory drive; 3.121" OD
1	Retaining Ring	8929216		Accessory drive; 1.618" OD
1	Retaining Ring	8929063		Accessory drive; 3.734" OD
1	O-Ring	8929253		Acc. drive cover; .139" x 4.609" ID
1	Gasket	8929130		Upper right rear & cam access cover
1	Gasket	8929299		Acc. drive front
1	Redi-Sleeve	99133		Use w/8929154 seal
1	Oil Seal	8929154		Oil accessory drive; Also available as National No. 484156V

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Detroit Diesel

2 Multi-Purpose Engines Series 60 Eng. (cont.) 12.7L 774 SOHC Turbo-Diesel L6, 5.118" Bore

AIR COMPRESSOR				
QTY	AIR COMPRESSOR	PART NO.	SIZE	DESCRIPTION
1	Ball Brg.	8929820		
1	Drive Coupling	5141773		Air compressor drive
1	Gasket	8929299		Drive housing
1	Air Compressor Mounting Gskt.	23515145		Air Compressor Mntg.
FUEL SYSTEM & PARTS				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Seal Ring	23515470		Injector hole tube
2	Fuel Injector Seal Ring	5234699		Lower
1	Fuel Injector Seal Ring	5234702		Upper
6	Injector Hole Tube Kit	23501580		
6	Adj. Screw	23520820		Injector adjusting
6	Bolt	8929393 *		Injector clamp
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
1	Fuel Pump Coupling	23505249		For high capacity fuel pump
1	Fuel Pump Coupling	8929479		For std. capacity fuel pump
1	Fuel Pump Coupling	8929787		15.875MM ID
1	Fuel Pump Drive	23506558		For high capacity fuel pump
1	Fuel Pump Drive	23511964		For std. capacity fuel pump
1	Fuel Pump Hub	8929480		12.70MM ID
1	Fuel Pump Gear	23506546		Drive gear; .375
1	Fuel Pump Gear	23511959		Driven gear; .275
1	Fuel Pump Drive Shaft	23506545		Drive shaft
1	Fuel Pump Drive Shaft	23506549		Driven shaft
1	Fuel Cap	23506555		Pump Relief Valve
1	Fuel Pump Check Valve Kit	23506563 *		
1	Fuel Pump Check Valve	8923528		Injector check valve
1	Fuel Pump Spacer	23506560		Relief Valve
1	Fuel Pump Relief Valve Spring	23506557 *		
1	Sealing Ring	23506556		Relief valve
1	Cylindrical Brg.	8923526		Fuel pump shaft
5	Bolt	11504822		Fuel pump drive assy.
1	Fuel Pump Repair Part	23506564		Relief valve shear pin
1	Fuel Pump Body Plug	23506553		
1	O-Ring	8929253		Fuel cover; .139" x 4.609" ID
1	O-Ring	23524657		Fuel/water separator
1	Fuel Pump Drive Adapter Gskt.	5150193		
1	Fuel Pump Gasket	23505248		Fuel pump mounting
QTY	TURBOCHARGER	PART NO.	SIZE	DESCRIPTION
1	Turbocharger Exhaust Gasket	8929529		Inlet connection
1	Turbocharger Oil Return Gskt.	8929285		
GOVERNOR				
QTY	GOVERNOR	PART NO.	SIZE	DESCRIPTION
1	Retaining Ring	9411502		Mechanical governor weight
COOLING SYSTEM				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump Shaft	8929157		Front mounted pumps
1	Water Pump Shaft	23505896		Gear case mounted pumps
1	Water Pump Impeller	8929512		Front mounted pumps
1	Water Pump Impeller	23517973		Gear case mounted pumps
1	Water Pump Repair/Rebuild Kit	23509105		
1	Water Pump Cover	8922383		Non-metallic
1	Woodruff Key	8929334		FWP shaft
1	Water Pump Retainer Ring	8929427		Bearing & seal
1	Water Pump Retainer Ring	8922407		FWP cover
1	Water Pump Mech. Shaft Seal	23522433		Unitized seal
1	Ball Brg.	8929422		Water pump shaft
1	Lock Nut	11509584		Water pump
1	Water Pump Gasket	23507073		
1	Rect. or Square Seal	23505024		Water pump cover
1	Water Pump Seal Ring	8929158		Water pump; Front mounted pumps
1	Water Pump Seal Ring	23520377		Water pump; Gear case mounted pumps
1	Water Pump Seal Ring	8929510		Water pump cover; Front mounted pumps
1	Oil Seal	5103951		Fan shaft
1	Oil Seal	8929213		Fan spindle
1	Oil Seal	8929134		Water pump; Lip type

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COOLING SYSTEM (cont.)				
QTY	WATER PUMP (cont.)	PART NO.	SIZE	DESCRIPTION
1	O-Ring	23512048		Water pump cover; Gear case mounted pumps
5	Bolt	11504822		Fan mount support
2	Bolt	11504822		Water pump cover
1	Retaining Ring	8929216		Fan drive; 1.618" OD
1	Retaining Ring	8929063		Fan drive; 3.734" OD
QTY	HOSES	PART NO.	SIZE	DESCRIPTION
2	Silicone Hose	8929875		Water bypass tube
2	Silicone Hose	23506325		Water pump to cooler
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	23503827		160 Deg.
1	Thermostat	23503825		180 Deg.
1	Thermostat	8929878		190 Deg.
2	Oil Seal	5132155		Thermostat
ENGINE BLOCK & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	8929102		Standard oil pan; Gray silicone
1	Oil Pan Gasket	23522279 *		Use for oil pan w/o cord modified seal system
10	Oil Pan Isolator Bushing	23517242		Oil pan
10	Bolt	11504571 *		Oil pan
1	Copper Washer	23513842		Oil gauge adapter
1	Oil Seal	8929740		Block to gear case; .134" x .074" x .480"
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Gasket Set	23512691		Crankshaft seals not incl.
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
7	Cam Brg.	8929690	STD	
7	Cam Brg.	8929691	.254MM	
7	Cam Brg.	8929692	.508MM	
7	Cam Brg.	8929693	.762MM	
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	8547625		4 plate
1	Oil Cooler	8547626		8 plate
6	Bolt	11504822		Transfer cooler adapter housing
2	O-Ring	8929289		Oil cooler housing
1	Oil Cooler Core Gasket	8929348		
2	Oil Cooler Seal Ring	23508392		Filter adapter housing
1	Gasket	23506247		Core housing
2	Rect. or Square Seal	8929280		Oil cooler
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
1	Pipe Plug	8926993		
1	Pipe Plug	8923313		Block
CRANKSHAFT/OIL PUMP				
QTY	CRANKSHAFT & OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	23515599		12 Hole
1	Vibration Damper	8929502		
1	Ball Brg.	23503707		Position Clutch pilot
1	Oil Seal/Sleeve Kit	23513578		Rear; Double lip wrap around
1	Oil Seal/Sleeve Kit	23516969		Rear; Teflon lip
6	Washer	5133981		Vibration damper
1	Lo Pressure Regulator Valve	8922740		
1	Bushing	5127978 *		Oil pump
1	Oil Pump Spring	5126327		Outlet bypass valve
1	Bolt	11504822		Inlet tube
4	Bolt	11504822		Outlet pipe
2	Bolt	11504822		Pressure regulator
2	Bolt	11504822		Pressure relief vlv.
1	Bolt	11504822		Screen bracket
1	Oil Pump Intake Gasket	8929344		Pump to block
1	Oil Pump Outlet Gasket	8929347		
1	Rect. or Square Seal	8929341		Oil filter
1	Rect. or Square Seal	8929340		Oil filter bypass
1	Lo Press. Reg. Body Gasket	5117269		
1	Gasket	8929302		Fill tube adapter
1	Gasket	8929302		Oil filter cover
1	Oil Filter Seal Ring	8929342		Oil filter adapter
1	Oil Drain Plug	23511574		1" Pipe plug

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* New Item — Check For Availability

Detroit Diesel

2 Multi-Purpose Engines Series 60 Eng. (cont.) 12.7L 774 SOHC Turbo-Diesel L6, 5.118" Bore

CRANKSHAFT/OIL PUMP (cont.)				
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	7363M	Std-10	
6	Plain Main Brg.	8929670A	STD	
6	Plain Main Brg.	8929671A	.254MM	
6	Plain Main Brg.	8929672A	.508MM	
6	Plain Main Brg.	8929673A	.762MM	
1	Flanged Main Brg.	8929680	STD	
1	Flanged Main Brg.	8929681	.254MM	
1	Flanged Main Brg.	8929682	.508MM	
1	Flanged Main Brg.	8929683	.762MM	
1	Lower End Bearing Kit	23531604 *		Incl. 1.7100" or 43.430MM O.A.L. rod bearings
1	Lower End Bearing Kit	23531605		Incl. 1.8670" or 47.430MM O.A.L. rod bearings
1	Thrust Washer Set	8929085S *		Also available as Sealed Power No. 4771F
2	Thrust Washer	8929085		Position Upper
2	Thrust Washer	8929697		Position Upper; .127MM oversize
2	Thrust Washer	8929698		Position Upper; .254MM oversize
CYLINDER COMPONENTS				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Ring	23532361 *		Engs. w/Standard liner
6	Liner w/o Sealing Ring	8929442		Engs. w/Standard liner; When depleted use 23532361
6	Liner w/o Sealing Ring	23530226 *		Engs. w/Top Liner Cooling (TLC)
6	Liner w/o Sealing Ring	23523392		Engs. w/Top Liner Cooling (TLC); When depleted use 23530226
6	Wet Sleeve	23531249 *		23523392 liner incl.
6	Wet Sleeve	23523948		23523392 liner incl.; When depleted use 23531249
6	Wet Sleeve	23532468 *		8929442 liner incl.
6	Wet Sleeve	23505278		8929442 liner incl.; When depleted use 23532468
6	Cylinder Kit Complete	23532590 *		Engs. w/Standard liner; 2.50MM top ring; round piston design
6	Cylinder Kit Complete	23519625		Engs. w/Standard liner; 2.50MM top ring; round piston design; When depleted use 23532590
6	Cylinder Kit Complete	23519637		Engs. w/Standard liner; 3.50MM top ring
6	Cylinder Kit Complete	23523954		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; oval piston design
6	Cylinder Kit Complete	23532555 *		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; round piston design
6	Cylinder Kit Complete	23523951		Engs. w/Top Liner Cooling (TLC); 2.50MM top ring; round piston design; When depleted use 23532555
6	Cylinder Kit Complete	23523952		Engs. w/Top Liner Cooling (TLC); 3.50MM top ring
6	Sealing Ring, Liner	8929013		Crevice seal
12	Sealing Ring, Liner	8929176		D-ring seal
6	Cntr. Bore Insert	23525500		
6	Lower Block Bore Sleeve	20042		
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Kit w/Pin & Retainers	23519646		Engs. w/Top Liner Cooling (TLC) & 2.50MM top ring. Oval piston design
6	Piston Kit w/Pin & Retainers	23519624		Engs. w/Top Liner Cooling (TLC) & 2.50MM top ring. Round piston design
6	Piston Kit w/Pin & Retainers	23519635		Engs. w/3.50MM top ring
6	Piston Skirt	23521802 *		Aluminum skirt for forged steel crown articulated piston
6	Piston Skirt	23516681		Ductile iron for standard cross head piston
6	Pin	8929087		
12	Piston Pin Bolt	8929337		
12	Piston Pin Bolt Spacer	8929504 *		
6	Piston Cooling Nozzle	23528493 *		
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Con. Rod Bolt	8929355 *		
12	Con. Rod Nut	8929019		
6	Rod Pair	8929712	.508MM	O.A.L. 1.7100" or 43.430MM
6	Rod Pair	8929713	.762MM	O.A.L. 1.7100" or 43.430MM
6	Rod Pair	8929710	STD	O.A.L. 1.7100" or 43.430MM; Also available as Sealed Power No. 4770P
6	Rod Pair	8929711	.254MM	O.A.L. 1.7100" or 43.430MM; Also available as Sealed Power No. 4770P .25MM
6	Rod Pair	23515583	.508MM	O.A.L. 1.8670" or 47.430MM
6	Rod Pair	23515584	.762MM	O.A.L. 1.8670" or 47.430MM
6	Rod Pair	23515581	STD	O.A.L. 1.8670" or 47.430MM; Also available as Sealed Power No. 4770PA

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Detroit Diesel

Multi-Purpose Engines Series 60 Eng. 2
12.7L 774 SOHC Turbo-Diesel L6, 5.118" Bore (cont.)

CYLINDER COMPONENTS (cont.)				
QTY	CONNECTING RODS & BRGS. (cont.)	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	23515582	.254MM	O.A.L. 1.8670" or 47.430MM; Also available as Sealed Power No. 4770PA .25MM
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	23503747	STD	2.50MM top ring
6	Ring Set Single Cylinder	23505729	STD	3.50MM top ring
6	Compression Ring	8929845		Bottom
6	Compression Ring	8929844		Top; 2.50MM
6	Compression Ring	23504941		Top; 3.50MM
6	Oil Ring	23515500		
6	Oil Ring Expander	23529379 *		
6	Oil Ring Expander	23515499		When depleted use 23529379
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	S60		
1	Complete Overhaul Kit	S60-OH		

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