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Driven by performance

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GREAT PARTS FOR GREAT ENGINES CLEVITE REPLACEMENT PARTS FOR GEN III & EARLY IV SERIES 60[®]

HEAVY DUTY REPLACEMENT PARTS OFFERING

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HD-1-1110



VICTOR REINZ
Sealing Products

CLEVITE

GREAT PARTS FOR GREAT ENGINES!

The Detroit Diesel® Series 60® engines proved an immediate success from the start of production in 1987 – and in the 20+ years that followed, more than one million engines were produced. For 12 of those years it claimed the position as the most popular truck engine in the world. Available in 11.1L, 12.7L and 14.0L displacements, the Series 60 was the first production heavy duty diesel with fully integrated electronic controls and it offered excellent fuel optimization. It is still considered one of the best engines in the market after more than two decades.

The Series 60 transitioned successfully into off-highway markets as well. It delivered up to 825 horsepower and was available for Truck, Bus, Construction & Industrial, Gen Sets, and Marine applications.

The B50 life (the point which 50% of the engines are still running and 50% require a rebuild) of a Series 60 diesel engine is 1.2 million miles – that's the highest in the heavy duty industry.

With this type of endurance, it makes economic sense to rebuild these engines with the right parts so you can ensure the same longevity experienced on the original build. MAHLE Clevite now offers sleeve assemblies and complete engine kits for the 12.7L Gen III and Early Gen IV engines.

Liner: Patented design for increased strength

The new Clevite® liner design (patent pending) features a non-directional “High-Flow Liner Cooling Gallery” that increases stiffness and reduces liner distortion. To ensure these liners exhibit increased wear resistance and limited thermal growth in the high temperature operating environments, premium Bainatic materials are used. Using Bainatic materials instead of gray cast-iron material increases the overall cost of production, however, the benefits greatly outweigh the cost.

Piston: Crown-Forged steel crown with a phosphate coating

The piston includes a manganese phosphate coating for two reasons. First, it serves as a soft coating that “wicks” oil into

the pin joint and aids lubrication of the pin bore. The coating process actually etches the base material and the phosphate, which is a soft crystal, grows on the etched surface. One small drop of oil on the phosphate coating quickly expands over a large area as the oil is absorbed. The phosphate is compressed by the pin and is retained by the micro peaks and valleys [~10 microns] of the etched surface preventing an unwanted steel to steel contact.

Second, it serves as a rust preventative until installation. This is the reason the whole piston is coated and not the just the pin bore.

Rings: Chrome-faced for long life

Both compression rings are chrome-faced ductile iron to ensure long life and durability.

Piston Oilers: Included for Upgrade

All Clevite sleeve assemblies include a new piston oiler and bolt for engine upgrades.

Piston Pins: Two different pin designs

The two pin designs available are referred to as light and heavy. A light pin has a 1.020”/26mm center hole and the heavy pin has a .860”/22mm center hole.



“STANDARD” AND “PREMIUM” INFRAME AND OVERHAUL KITS

MAHLE Clevite replacement kits for the Detroit Diesel Series 60® are offered in two levels – standard and premium.

- **Standard kits** [listed in *black*] do not include rocker cover gaskets, injector O rings, head bolts, cam bearings or seals – they must be purchased separately.
- **Premium kits** [listed in *blue*] include the rocker cover gaskets, injector O rings, head bolts, cam bearings and seals.

Qty	Part #	Description	ENGINE KITS															
			468-1094	468-1095	468-1096	468-1097	468-1098	468-1099	468-1100	468-1101	468-5094	468-5095	468-5096	468-5097	468-5098	468-5099	468-5100	468-5101
6	226-1990	Cylinder Kit [OE#2353256] 22mm Heavy Pin, 15.0:1 CR	●	●						●	●							
6	226-1991	Cylinder Kit [OE#23532883] 26mm Light Pin, 15.0:1 CR, Before 9/02			●				●			●				●		
6	226-1992	Cylinder Kit [OE#23532562] 22mm Heavy Pin, 16.5:1 CR				●			●				●			●		
6	226-1993	Cylinder Kit [OE#23532885] 26mm Light Pin, 16.5:1 CR, Before 9/02					●			●				●			●	
1	MS-2093P*	Main Bearing Set [OE#8929680(1) + 8929670(6)]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	TW-600S	Thrust Washer Set [OE#8929085(2)]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	CB-1836P*	Connecting Rod Bearing Set [OE#23526142]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	FS54157	Gasket Set, Overhaul-Full Set [OE#23532720] HS & CS may be substituted	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	HS54157	Gasket Set, Head [OE#23532333]								●	●	●	●	●	●	●	●	●
1	VS50278	Gasket Set, Valve Cover [OE#23516322] Gray, 4 Bolt	●						●	●	●	●				●	●	●
1	VS50404	Gasket Set, Valve Cover [OE#23522269] Black, 10 Bolt	○						○	○	○	○				○	○	○
1	OS32204	Gasket Set, Oil Pan [OE#8929102] Gray	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	67744	Seal, Crankshaft Rear [OE#23513578] Double Lip	●						●	●	●							
1	67745	Seal, Crankshaft Front [OE#23518355]	●						●	●	●							
1	GS33539	Bolt Set, Cylinder Head [OE#23530768(38)]	●						●	●	●	●				●	●	●
6	GS33448	Injector O Ring Set [OE#'s 23511870(1) + 5234702(1) + 5234699(2) + 5104701(1)]	●						●	●	●	●				●	●	●
7	SH-1986	Camshaft Bearing [OE#8929690] 2 shells per package	●						●	●	●	●				●	●	●

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* Undersize substitutions available
○ Optional, contact Customer Service