

3.0L I-6 DURAMAX TURBO DIESEL, LZ0

TORQUE WHERE IT COUNTS

The LZ0 Duramax 3.0L turbo diesel is the second generation inline-six turbo diesel over the previous LM2. The refinements made to the LZ0 help deliver an impressive 305 horsepower and 495 lb.-ft of torque. Diesel engines are all about torque, the LZ0 delivers it at low rpm, where it counts when taking off under load. The engine's peak torque of 495 lb.-ft. (671 Nm) is achieved at only 2,750 rpm, with 94 percent of that max twisting force available by 1,500 rpm.



3.0L Turbo LZ0 Truck Engine Shown

STATE-OF-THE-ART TECHNOLOGIES

LZ0 Refinements

- Piston design and material changed to steel to help handle higher compression ratio and help optimize air/fuel mixture
- New fuel injectors designed to control higher fuel pressure with optimized spray pattern
- Revised turbocharger assists with increasing torque
- Oil pump belt validated to 200k miles service interval, an increase of 33% from 150k.

Lightweight Aluminum Block and Cylinder Head

- 30% mass reduction over comparable cast iron engine blocks.
- Aluminum lower crankcase extension enhances stiffness.
- Integrated water rails help increase cooling system efficiency.

Variable-Displacement Oil Pump and Oil Flow System

- Crankshaft-driven, variable-displacement oil pump matches the oil supply to the engine load.
- Dedicated line to the turbocharger provides increased oil pressure at the turbo.
- Solenoid valve manages overall oil system flow volume.
- Oil cooler integrated into oil filter mount housing.

Active Thermal Management (ATM) with Split Cooling System

- ATM with split-cooling between the cylinder block and head helps the engine warm up faster and achieve optimal engine temperature for performance and efficiency.
- Three-way rotary coolant valve system distributes coolant through the engine in a targeted manner.

Emissions and Particulate Control with SCRF Technology

- Combines Selective Catalyst Reduction (SCR) in the particulate filter, a design known as SCR on Filter, or SCRF.
- Allows more efficient heat transfer within the system.
- Earlier DEF injection helps enhance cold-start SCR effectiveness for greater overall emissions performance and reduce overall exhaust temperature.
- Electrically heated DEF feed lines help flow in cold weather to the emission system.

ADDITIONAL FEATURES

- Common rail direct injection fuel system
- Ceramic glow plugs for shorter heat-up times and faster cold starts
- Low-pressure EGR system
- Electronic throttle valve
- dexos D 0W-20 engine oil
- B20 biodiesel compatible
- Start/Stop compatible
- GM-developed D1P-66 diesel engine control system

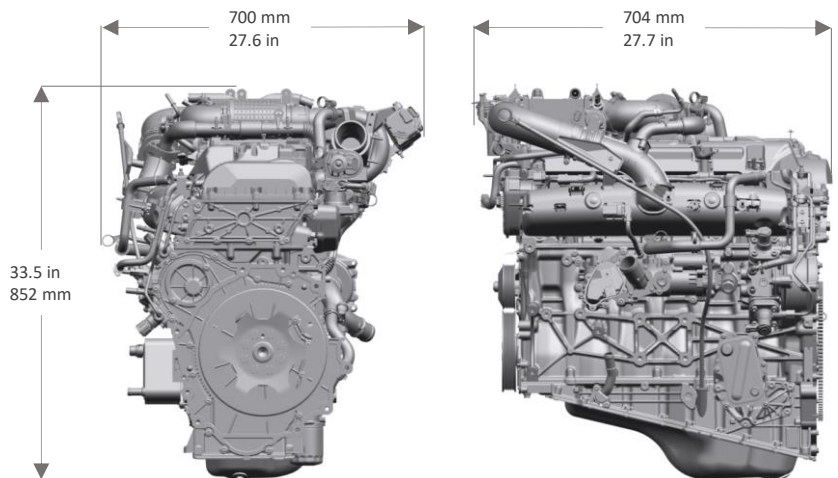
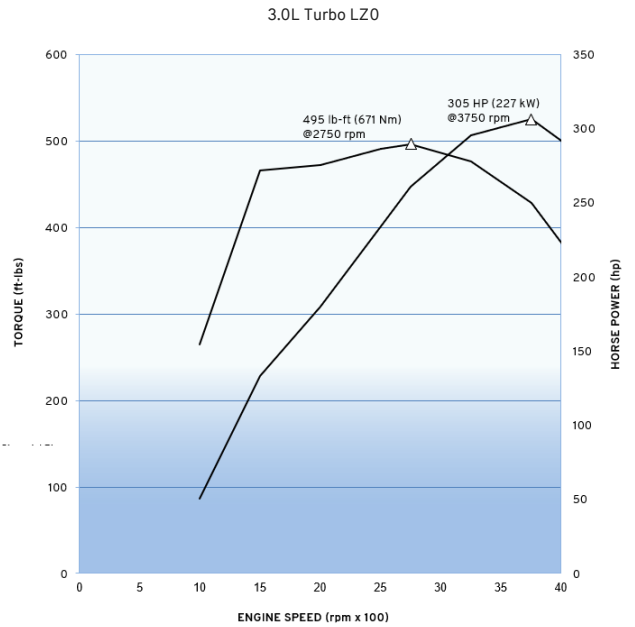
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SPECIFICATIONS

Type:	3.0L I-6
Displacement:	2999 CC (183 CI)
Engine Orientation:	Longitudinal
Compression Ratio:	15.2:1
Valve Configuration:	Dual Overhead Camshafts
Valves Per Cylinder:	Four
Assembly Site:	Flint, MI Of Globally Sourced Parts
Valve Lifters:	Hydraulic
Firing Order:	1-5-3-6-2-4
Bore x Stroke:	84.0 x 90.0 mm
Fuel System:	Direct Injection
Fuel Type:	Ultra-Low Sulfur Diesel And B20 Biodiesel
Horsepower:	305 HP (227 kw) @3750 RPM*
Torque:	495 lb-ft (671 Nm) @2750 RPM*
	*GM Tested in Chevrolet Silverado
	Actual Power Levels May Vary Depending On OEM Calibration And Application

Maximum Engine Speed:	5000 RPM
Emissions Control:	High Pressure EGR (uncooled) Low Pressure EGR (cooled) Close Coupled Diesel Oxide Catalyst (CCDOC) Selective Catalytic Reduction On Particulate Filter (SCRf) Selective Catalytic Reduction (SCR) Ammonia Slip Catalyst (ASC)

Block:	Cast Aluminum
Cylinder Head:	Cast Aluminum
Intake Manifold:	Composite
Exhaust Manifold:	Nodular Iron
Main Bearing Caps:	Nodular Iron
Crankshaft:	Forged Steel
Camshaft:	Assembled Steel
Connecting Rod:	Forged Steel
Turbocharger:	Variable Geometry



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