

3.0L I-6 TURBO DURAMAX DIESEL, LM2

TORQUE WHERE IT COUNTS

Diesel engines are all about torque, the LM2 delivers it at low rpm, where it counts when taking off under load. The engine's peak torque of 460 lb.-ft. (624 Nm) is achieved at only 1,500 rpm, with 95 percent of that max twisting force available by 1,250 rpm. This gives drivers an immediate feeling of pulling power as soon as they touch the gas pedal. Noise-attenuating elements like acoustic resonators and fully decoupled cam covers with rubber-isolated fasteners help curb sound levels for exceptional refinement.



3.0L TurboLM2 Truck Engine Shown

STATE-OF-THE-ART TECHNOLOGIES

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.
- Thick piston crown and reinforced top ring add strength to support higher cylinder pressures enabled by turbocharging.

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.

Variable Geometry Turbocharging System

- Electrically actuated variable-geometry turbocharger automatically adjust boost pressure and exhaust backpressure.
- Turbo is mounted close to engine exhaust outlet to help turbine “spool up” quicker and faster “light off” of the exhaust catalyst.
- Water-to-air intercooling system produces cooler, denser air charge for greater power.

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.

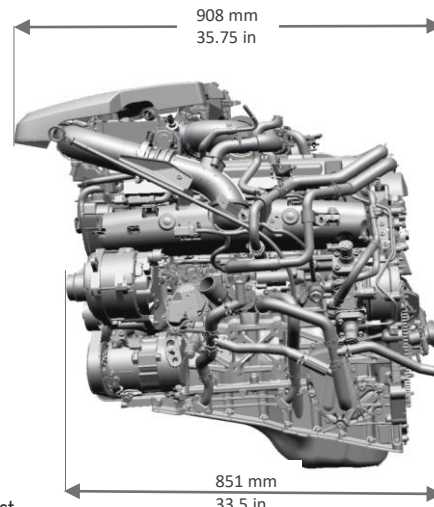
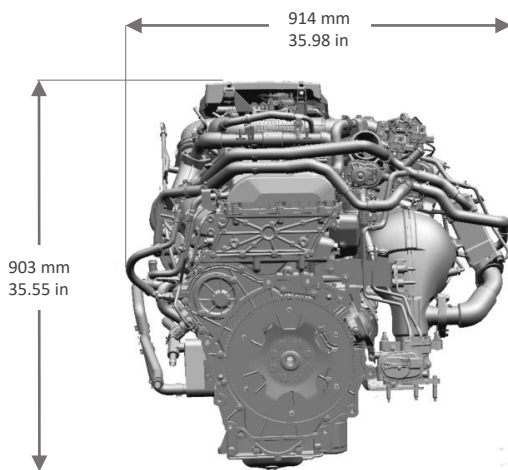
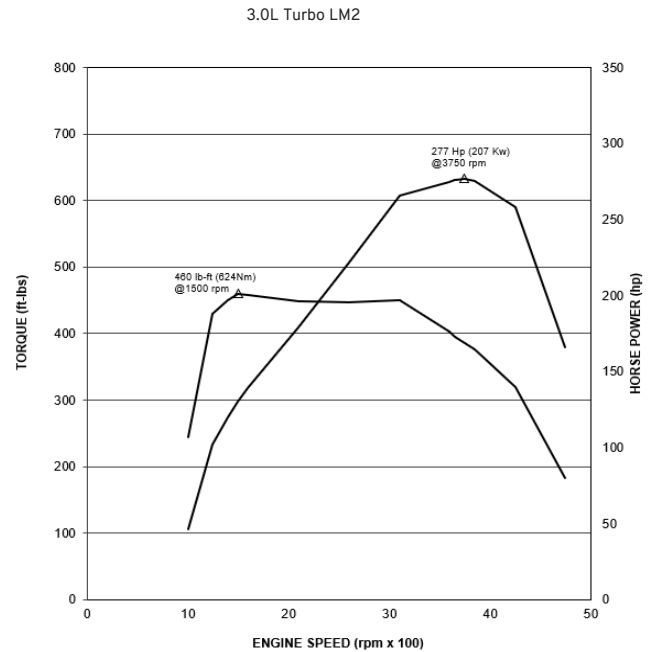
ADDITIONAL FEATURES

- 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
- Double layered aluminum oil pan
- dexos D 0W-20 engine oil
- B20 biodiesel compatible
- Start/Stop compatible
- GM-developed D1P-E98 diesel engine control system

3.0L I-6 TURBO DURAMAX DIESEL, LM2

SPECIFICATIONS

Type:	3.0L I-6
Displacement:	2999 CC (183 CI)
Engine orientation:	Longitudinal
Compression ratio:	15.0:1
Valve configuration:	Dual overhead camshafts
Vales per cylinder:	4
Assembly site:	Flint, MI
Valve lifters:	Hydraulic
Firing order:	1-5-3-6-2-4
Bore x stroke:	84.0 x 90.0mm
Fuel type:	Ultra-low sulfur diesel and B20 Biodiesel
Horsepower:	277 HP (207 kw) @3750 RPM*
Torque:	460 lb-ft (624 Nm) @1500 RPM*
	*GM Tested in Chevrolet Silverado
Maximum engine speed:	5000 RPM
Emissions control:	HP-EGR (uncooled) + LP-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 material:	Nodular iron
Crankshaft:	Forged steel
Camshaft:	Assembled steel
Connecting rod:	Forged steel
Turbo charger:	Variable Geometry



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