HEAVY DUTY PULLING POWER

The L5P engine advances General Motors' Duramax® legacy for powerful, quiet, and durable diesels by offering more of those attributes with greater efficiency compared to the previous 6.6L LML engine. For confident towing power from the start, ninety percent of peak torque is produced from 1,550 rpm thru 2,850 rpm. Along with a 19-percent increase in max torque over previous generations, the enhanced L5P turbo-diesel's performance is quieter and smoother, reducing noise at idle by 38 percent.

STATE-OF-THE-ART TECHNOLOGIES

Electronically Controlled, Variable-Geometry Turbocharger
- Variable-vane mechanism allows greater exhaust temperature capability, enabling the engine to achieve higher power at lower cylinder pressure.
- Enhances the capability of the exhaust-brake system compared to previous Duramax® 6.6L turbo chargers

Venturi Jet Drain Oil Separator
- Designed to maximize oil control in sustained full-load operation
- Totally sealed system helps maximize the collection of misted oil entrained in the blow-by gas for reuse in the engine

Cold-Start System
- Fuel injection system and combustion chamber shape helps optimize cold-weather performance
- Enhanced ceramic glow plugs and automatic temperature compensation assist with quicker heat ups and reliable starting down to -40 deg F (-40 deg C)

Robust Crank and Valvetrain Design
- Updated crankshaft with induction hardened main bearing journals and high pressure rolled fillets for strength and longevity
- Pistons with refined aluminum material along with an oil cooling gallery help maximize performance and robustness vs previous Duramax® 6.6L engines

Refined Engine Cooling System
- Updated engine oil cooler for lower oil temperatures under high load conditions vs previous Duramax® 6.6L engines
- Gear-driven water pump provides optimized cooling system performance and reliability vs previous belt driven designs

ADDITIONAL FEATURES

- Strong cast-iron cylinder block and aluminum cylinder heads
- Strong micro-alloy rotating and reciprocating assembly
- Optimized oil-flow and coolant flow capacity
- Segment-first re-melt piston bowl rim
- Exhaust Gas Recirculation system with single cooler and integrated bypass
- Advanced solenoid fuel system
- GM designed electronic controls
- Full-length damped steel oil pan that contributes to quietness
- Rocker cover/fuel system acoustical treatments
- B20 biodiesel compatibility
6.6L V-8 TURBO DURAMAX® DIESEL, L5P

SPECIFICATIONS

Type: 6.6L V-8 Turbo Diesel
Displacement: 6604 CC (403 CI)
Engine orientation: Longitudinal
Compression ratio: 16.0:1
Valve configuration: Overhead valves
Valves per cylinder: Four
Assembly site: Moraine, Ohio of globally sourced parts
Valve lifters: Mechanical roller
Firing order: 1-2-7-8-4-5-6-3
Bore x stroke: 103 x 99mm
Fuel System: DI with high-pressure common rail
Fuel type: Ultra-low sulfur diesel and B20 diesel
Horsepower: 445 hp (332 kW) @ 2800 rpm*
Torque: 910 lb-ft (1,234 Nm) @ 1600 rpm*

*GM tested per SAE J1349
Actual power levels may vary depending on OEM calibration and application

Maximum Powered Speed: 3450 rpm
Maximum Braking Speed: 4800 rpm
Emissions control:
Cooled Exhaust Gas Recirculation (EGR)
Selective Catalytic Reduction (SCR)
Diesel Particulate Filter (DPF)
Intake throttle

Block: Cast iron
Cylinder head: Cast aluminum
Intake manifold: Cast aluminum
Exhaust manifold: Cast nodular iron with steel pipe extension
Main bearing caps material: Cast nodular iron
Crankshaft: Forged steel
Camshaft: Steel
Connecting rod: PM iron

**As tested in the Chevrolet Silverado HD and GMC Sierra HD.

900 mm 35.4 in
807 mm 31.8 in
992 mm 39.1 in