

5.3L L83

FIVE GENERATIONS OF REFINEMENT

GM engineers spent more than 10 million hours creating this next-gen technology. Every millimeter of the combustion system was carefully designed to support the most ideal combination of Direct Injection, Active Fuel Management, and Variable Valve Timing, making the most of power, torque, and efficiency.

STATE-OF-THE-ART TECHNOLOGIES

Direct Injection Technology:

- Moves the point where fuel feeds into an engine closer to the point where it ignites, enabling greater combustion efficiency.
- Fosters a more complete burn of the fuel in the air-fuel mixture.
- Operates at a lower temperature than conventional port injection.
- Allows the mixture to be leaner, so less fuel is required to produce the equivalent horsepower of a conventional port-injection fuel system.

Active Fuel Management (AFM) Technology:

- Expands the range of operation by more than 10 percent.
- AFM temporarily deactivates four of the cylinders on the V-8 engines under light load conditions – effectively operating as a V-4.
- When cylinders are deactivated, the engine's pumping work is reduced, which translates into real-world fuel economy improvements.
- Seamlessly reactivates all cylinders when full power is demanded.

Variable Valve Timing (VVT):

- The dual-equal cam phasing system adjusts camshaft timing at the same rate for both intake and exhaust valves.
- Allows linear delivery of torque, with near-peak levels over a broad rpm range, and high specific output without sacrificing overall engine response.

Variable Displacement Pump:

- Advanced Oiling System



ADDITIONAL FEATURES

- All-new weight-saving aluminum cylinder-block casting
- All-new cylinder head design with new port shape and valve placement
- Increased compression ratios
- Advanced Oiling System – variable displacement pump
- High-strength aluminum alloy pistons
- Oil-jet piston cooling
- Stronger, larger-diameter push rods
- High-flow intake manifold and electronic throttle
- Iridium-tipped, extended-life spark plugs
- 58x crank timing

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SPECIFICATIONS

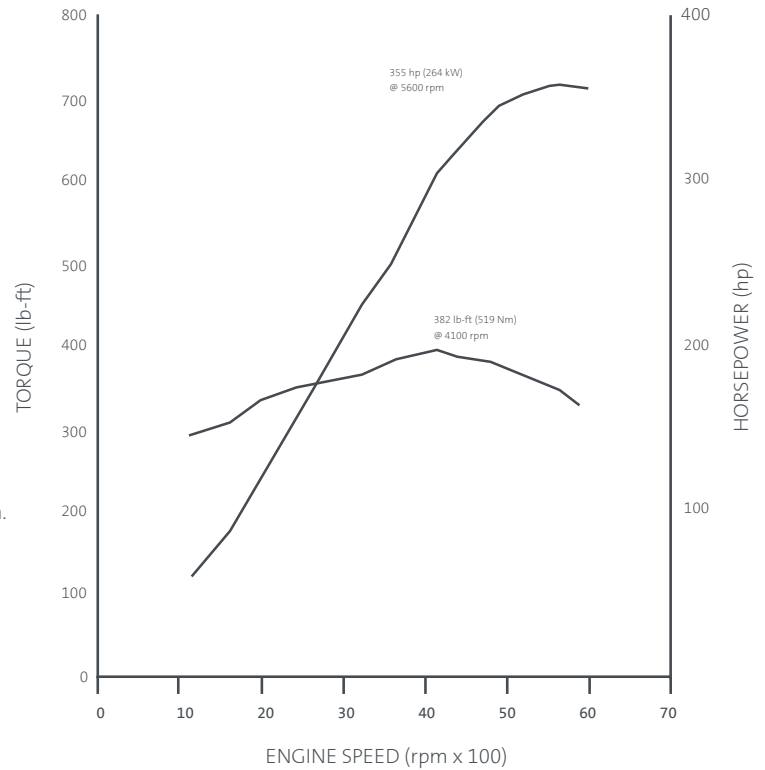
DISPLACEMENT:	5328 cc (325 ci)
ENGINE ORIENTATION:	Longitudinal
COMPRESSION RATIO:	11.0:1
VALVE CONFIGURATION:	Overhead valves
VALVES PER CYLINDER:	2
ASSEMBLY SITES:	Tonawanda, NY, Ramos, Mexico, and St. Catharines, Ontario, Canada
VALVE LIFTERS:	Hydraulic roller
FIRING ORDER:	1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
BORE X STROKE:	96.01 x 92 mm
FUEL SYSTEM:	SIDI
FUEL TYPE:	Regular unleaded and E85
MAXIMUM ENGINE SPEED:	5800 rpm
EMISSIONS CONTROLS:	Catalytic converter, three-way catalyst, positive crankcase ventilation
HORSEPOWER:	355 hp (264 kW) @ 5600 rpm*
TORQUE:	382 lb-ft (519 Nm) @ 4100 rpm*

Actual power levels may vary depending on OEM calibration and application.

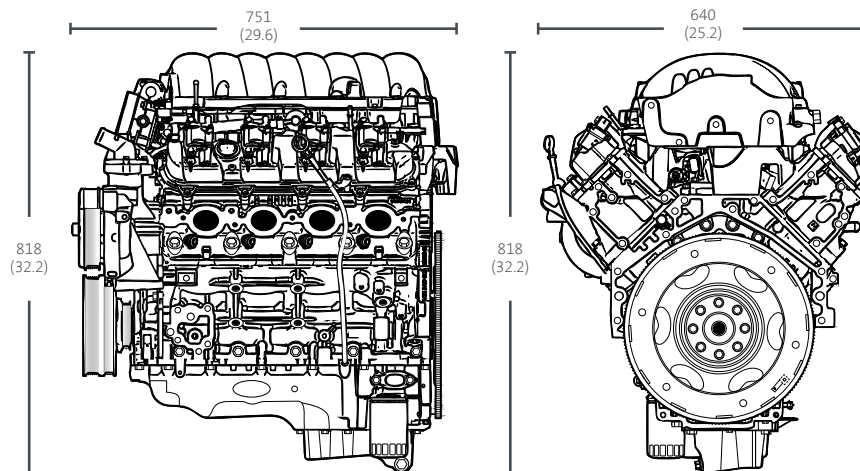
BLOCK:	Cast aluminum
CYLINDER HEAD:	Cast aluminum
INTAKE MANIFOLD:	Composite
EXHAUST MANIFOLD:	Cast nodular iron
MAIN BEARING CAPS:	Powder metal
CRANKSHAFT:	Cast nodular iron
CAMSHAFT:	Billet steel
CONNECTING RODS:	Forged powder metal

5.3L V-8 (L83)*

SAE J1349
Certified Power



*As tested in Chevrolet Silverado and GMC Sierra.



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