

6.0L V-8, LC8

INNOVATE VARIABILITY

The 6.0L V-8 LC8 is a dedicated Compressed Natural Gas (CNG) and Liquid Petroleum Gas (LPG) (vans only) version of the L96 engine. Intake flow was improved over previous engines by straightening out and optimizing the flow path from the intake manifold into the cylinder heads, while the exhaust ports are designed for greater flow.



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STATE-OF-THE-ART TECHNOLOGIES

Cast Iron Block and Cast Aluminum Heads

- Cast iron deep-skirt cylinder block with six-bolt main bearing caps that limit crankshaft flex and stiffen the engine's structure.
- High-flow aluminum cylinder head design.
- Cast-aluminum structural oil pan for additional rigidity.
- Shallow sump oil pan for marine applications.

Valvetrain

- Variable Valve Timing using a hydraulic cam phaser to retard cam timing for low-end torque and advance cam timing for high-rpm horsepower.
- Floating pin pistons that reduce noise and increase durability.
- Heavy-duty timing chain with a new leaf spring dampener to ensure quiet operation and long-term durability.
- Steel camshaft, hydraulic roller lifters, and steel roller rocker arms for reduced friction and excellent durability.
- High-temperature exhaust valves for long-term durability

Engine Controls

- Electronic Throttle Body fully compatible with electronic throttle control software in the MEFI-6 engine control module.
- Factory-installed EFI hardware, including coil-near-plug ignition.
- 58X crankshaft position encoder, 4X cam sensor, and dual flat response knock sensors for precise control of ignition timing under all operating conditions.

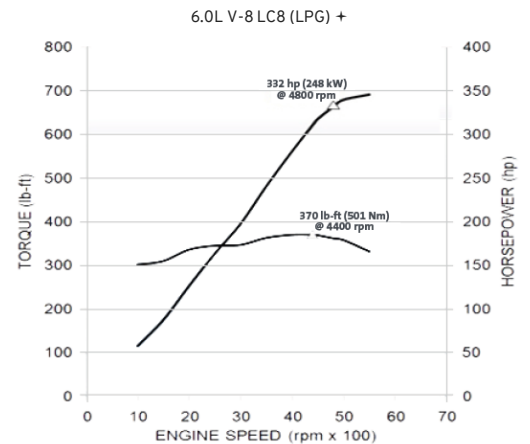
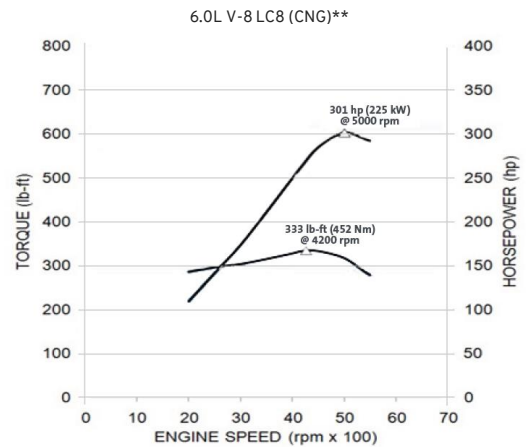
ADDITIONAL FEATURES

- External water crossover integrated into the water pump casting so that no coolant flows through the composite intake manifold.
- Returnless fuel injection with stainless steel fuel rail.
- Iridium-tipped, extended-life sparks
- Sil-1 nitrided intake valve added (E85 capability)
- Brico 3010 intake/exhaust seat inserts (E85 capability)

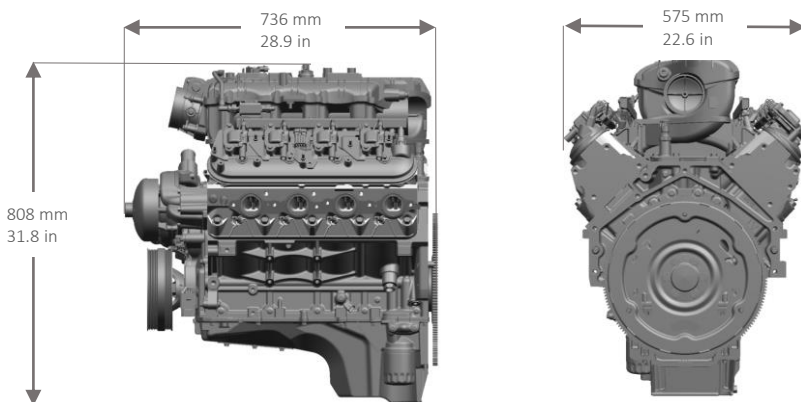
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SPECIFICATIONS

Type:	6.0L Gen-IV V-8 Small-Block
Displacement:	5967 CC (364 CI)
Engine orientation:	Longitudinal
Compression ratio:	9.7:1
Valve configuration:	Overhead valves
Vales per cylinder:	Two
Assembly site:	Carrollton, TX of globally sourced parts
Valve lifters:	Hydraulic roller
Firing order:	1-8-7-2-6-5-4-3
Bore x stroke:	101.6 x 92.0mm
Fuel System:	Sequential Fuel Injection
Fuel type:	CNG and LPG
Horsepower:	360 hp (268 kW) @ 5400 rpm* 301 hp (225 kW) @ 5000 rpm** 332 hp (248 kW) @ 4800 rpm + 380 lb-ft (515 Nm) @ 4200 rpm* 333 lb-ft (452 Nm) @ 4200 rpm** 370 lb-ft (501 Nm) @ 4400 rpm + Actual power levels may vary depending on OEM calibration and application.
Torque:	
Maximum engine speed:	6000 RPM (Silverado)
Emissions control:	Catalytic converter, three-way catalyst, positive crankcase ventilation
Block:	Cast iron
Cylinder head:	Cast aluminum
Intake manifold:	Composite
Exhaust manifold:	Cast nodular iron
Main bearing caps material:	Powdered metal
Crankshaft:	Cast nodular iron with undercut and rolled fillets
Camshaft:	Hollow steel
Connecting rod:	Powdered metal



* As tested in Chevrolet Silverado HD gasoline
 ** As tested in Chevrolet Silverado HD CNG
 + As tested in Chevrolet Express LPG



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