POWERED SOLUTIONS

1.8L I-4, ALTERNATE FUEL, LI3

ALTERNATIVE FUEL MINI-POWERHOUSE

The 1.8L LI3 is a flex-fuel engine refined to run on alternative fuels including Ethanol Blend (E27), 100% Ethanol (E100), Compressed Natural Gas (CNG) and Liquefied Propane Gas (LPG). It's small package size and performance rating is an ideal power unit for off-highway, industrial, construction, or stationary power applications. For engine control integration, the LI3 can be calibrated for most off-highway applications using the latest GM Powered Solutions Electronic Control Module hardware and software.

GM Powered Solutions 1.8L LI3
Simulated Image

STATE-OF-THE-ART TECHNOLOGIES

Alternate Fuel Refinements

- Hardened exhaust valve seats made of AR20 material to help minimize corrosion when using ethanol-based fuels.
- Features hardened seat valves designed to handle higher compression and temperatures typically created when using alternative fuels vs gasoline.
- Pistons designed to help optimize air/fuel mixture and combustion of E27 and E100 fuels.

Cylinder Block

- Cast-iron block is the 1.8L's foundation, matched with an aluminum cylinder head enhances strength while helping minimize weight vs an all-iron assembly.
- The block has fine-cylinder honing for low internal friction.

Light Rotating Assembly

- The tubular camshaft is lighter than conventional solid shafts which helps lower the inertia of the valvetrain, allowing the engine to rev higher and more quickly.

Piston Assembly

- Lightweight aluminum pistons, low friction rings package and forged connecting rod result in less mass and friction inside the engine – leading to more efficiency, decreased vibration, and performance at high rpm.

Engine Control Module (Optional)

- Rugged MEFI-6 E78 ECM hardware and software designed to interface with GM engine components for most non-highway performance calibrations.
- Don't waste time and resources programming aftermarket engine control modules (ECMs) with uncertain outcomes, GM Powered Solution engineers are available to recommend and calibrate GM original engine controls to help optimize engine performance and efficiency for most non-highway applications.

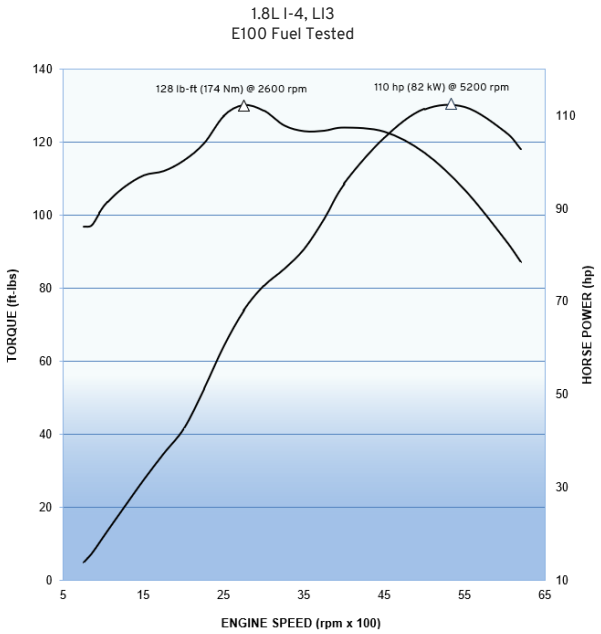
ADDITIONAL FEATURES

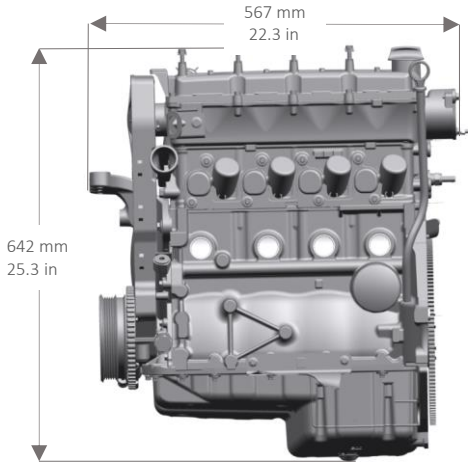
- 12.3 to 1 compression ratio
- Three-layer steel cylinder head gasket
- Intake manifold with optimized flow
- Individual Ignition coils
- Dexos1 Gen3 0W20 engine oil
- Gasoline variant, 1.8L-LHE, also available

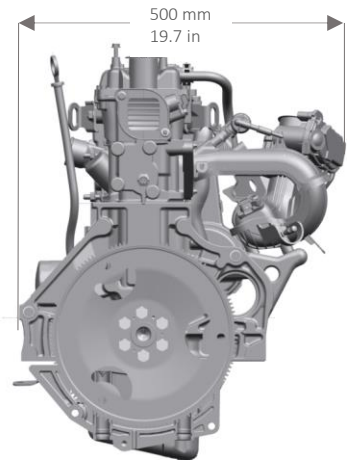
1.8L I-4, ALTERNATE FUEL, LI3

SPECIFICATIONS

Type:	1.8L I-4
Displacement:	1796 CC
Engine Orientation:	Transverse
Compression Ratio:	12.3:1
Valve Configuration:	Single Overhead Camshaft
Vales Per Cylinder:	Two
Assembly Site:	São Jose dos Campos, Brazil
	Of Globally Sourced Parts
Valve Lifters:	Roller Finger Follower With Hydraulic Lash Adjuster
Firing Order:	1-3-4-2
Bore x Stroke:	80.5 x 88.2 mm
Fuel System:	Multi-Port Fuel Injection (MPFI)
Fuel type:	E27, E100, CNG, LPG
Horsepower:	110 hp (82 kW) @ 5200 rpm Using E100
	104 hp (78 kW) @ 5200 rpm Using E27
Torque:	128 lb-ft (174 Nm) @ 2600 rpm Using E100
	122 lb-ft (165 Nm) @ 2600 rpm Using E27
	As Tested In Chevrolet Spin, South America
Maximum Engine Speed:	6300 RPM
Emissions Control:	No Emission Components Included.
	Actual Emission Levels Dependent On
	Customer Calibration And Validation.
Block:	Grey Cast Iron
Cylinder Head:	Aluminum
Intake Manifold:	Composite
Exhaust Manifold:	Steel
Main Bearing Caps:	Grey Cast Iron
Crankshaft:	Nodular Cast Iron
Camshaft:	Tubular (Powdered Metal/Sintered Lobes)
Connecting Rod:	Forged Steel







Simulated images shown
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