The first production Gen-IV supercharged V8 for the marine industry

# "LSA" 6.2L V8 SC Marine Engine

## **Features & Benefits**

- High flow cylinder head design with Swirl-Wing technology
- Enhanced valvetrain with offset intake rocker arms to enable a more direct intake port
- Returnless fuel injection with center feed stainless steel fuel rail
- 103.25 mm bore block with structural improvements and nodular iron bearing caps
- New sumped pistons with 9.1:1 compression ratio
- 6.52 gms/sec. high flow injectors
- 1.9L /rev Roots type four lobe rotor supercharger with 160 deg. rotor twist
- Integrated single brick charge air cooler
- Piston oil spray cooling
- Forged steel crankshaft
- Four active layer MLS head gasket
- Stacked plate aluminum oil cooler





"LSA" 6.2L V8 SC Marine (Premium Fuel Required)

MEFI-5 (Marine Electronic Fuel Injection - Fifth-Generation), is an advanced engine controller capable of meeting all the emissions, OBD-M and driveability requirements of marine applications.

#### **Available Options**

- An electronic control module (ECM) and related hardware are available in kit form. The ECM uses state-of-the-art technology to optimize fuel and spark control
- "LSA" acoustic cover and related mounting hardware are available in kit form
- GM-designed accessory drive components will be available in kit form (includes supercharger drive parts)

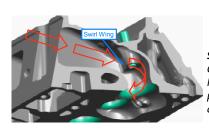
#### "LSA" 6.2L Feature Focus

Considered by many as a key "new" member in our "Image" engine category, the "LSA" makes its debut for marine applications in the 2009 model year. The "LSA" introduces the first production supercharged Gen-IV small block engine to the marine industry and is slated to exceed customer expectations with outstanding overall performance.



**Piston Squirter** Block-mounted oil squirter for piston cooling





Swirl Wing Cylinder Head Cast aluminum cylinder head with wing in inlet port to induce combustion chamber swirl





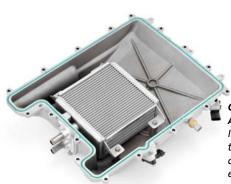
Oil Cooler Assembly
Stacked plate aluminum oil
cooler for direct mounting to oil
pan (requires closed cooling).



as shipped)



Sumped 9.1:1 Piston
Cast hypereutectic coated skirt
piston with sump in dome for
compression control.



#### Charge Air Cooler Assembly

Integrated single brick tube and fin charge air cooler with rear coolant entry (requires closed cooling)

### **Specifications**

Type: 6.2L Gen-IV V8 Small Block Displacement: 6162 cc (376.0 ci)

Compression Ratio: 9.1:1

Valve Configuration: Overhead Valves

Assembly Site: Silao, Mexico
Valve Lifters: Hydraulic Roller
Firing Order: 1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
Bore x Stroke: 103.25 x 92 mm
Fuel System: Sequential Fuel Injection
Fuel Type: Premium Fuel Required
Engine Orientation: Longitudinal

Valves Per Cylinder: 2 Bore Center (mm): 111.76 Engine Mass: 467 lbs (212 kg)

Horsepower:

540 hp (403 kW) @ 5400 rpm (Preliminary/Estimated)

**Torque:** 

540 lb-ft (732 Nm) @ 4000 rpm (Preliminary/Estimated)

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

and application.

Fuel Shutoff: 5600 rpm

#### **Materials:**

Block: Cast Aluminum

Cylinder Head: A356-T6 Rotocast Cast Aluminum

Intake Manifold: Cast Aluminum

Exhaust Manifold: High Silicon/High Moly Cast Iron

Main Bearing Caps: Nodular Iron

Crankshaft: Forged Steel Camshaft: Hollow Steel

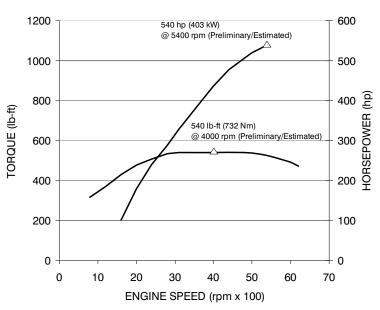
Connecting Rods: Forged Powder Metal Additional Features: 1.9 L/rev Supercharger

Integrated Single Coolant To Air

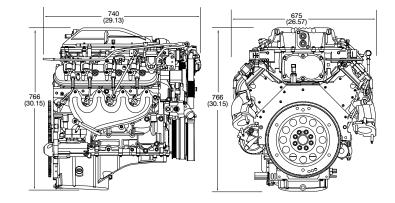
Intercooler

Requires closed cooling system

Piston Oil Spray Cooling Direct Mount Ignition Coils



Actual power levels may vary depending on OEM calibration and application. Plot depicted represents Marine "LSA" engine as tested with Premium Fuel (Preliminary/Estimated values).





#### GM Powertrain

www.qmpowertrain.com