

*The high-performance
version of the largest V8
in the marine industry*

Vortec HP 8100 Marine Engine

Features & Benefits

- Returnless fuel injection eliminates fuel return lines between the engine and the gasoline tank, eliminating heat transfer from the engine to the tank and reducing evaporative emissions
- Cylinder head features sintered powder metal exhaust valve seat inserts for durability
- High-power marine camshaft with hydraulic roller lifters provides maximum performance
- Coil-near-plug ignition includes crankshaft sensor, camshaft sensor, ESC sensors, and eight ignition coils
- Marine-specific torsional damper with integral six-rib pulley and provisions for bolt-on accessory, such as a seawater pump
- Floating pin pistons feature wrist pins that “float” inside the rod bushing and the pin bores in the piston barrel
- Roller timing chain for improved durability at marine engine speeds
- Platinum tip long-life spark plugs
- Positive Crankcase Ventilation (PCV) system is integral to intake manifold (no valve 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.



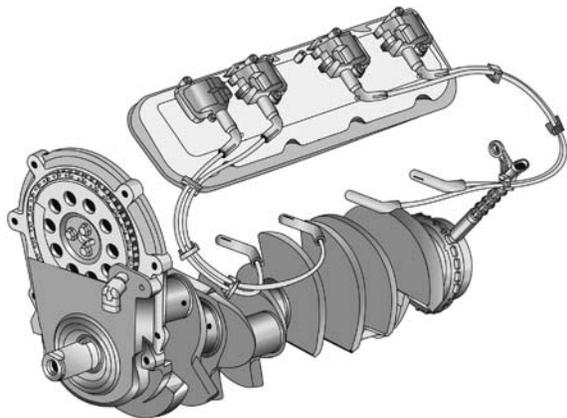
Factory-installed EFI hardware, including coil-near-plug ignition, is standard on the Vortec High-Performance 8100 marine engine.

Available Options

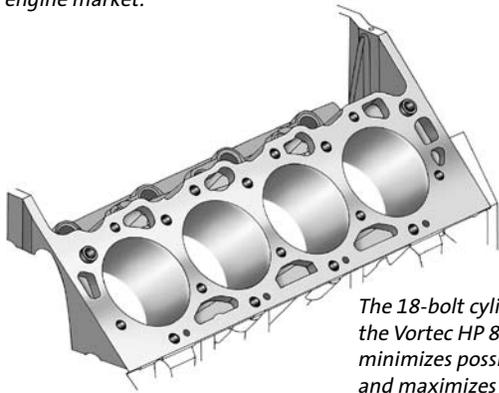
- An electronic control module (ECM) and related hardware are available in kit form. The ECM uses state-of-the-art technology to optimize fuel and spark requirements.
- Vortec HP 8100 Sight Shield and related mounting hardware are available in kit form.
- Electronic Throttle Control hardware is available in kit form.
- GM-designed accessory drive components are available in kit form.

Vortec HP 8100 Feature Focus

GM Powertrain takes its expertise in designing outstanding Vortec truck and SUV engines and leverages it to make sophisticated yet extremely durable marine engines. In addition, the well-recognized Vortec brand name by itself has become a valuable selling tool for OEMs.



The coil-near-plug ignition system, with both crankshaft sensor and camshaft sensor, is another example of GM Powertrain bringing advanced automotive technology to the marine engine market.



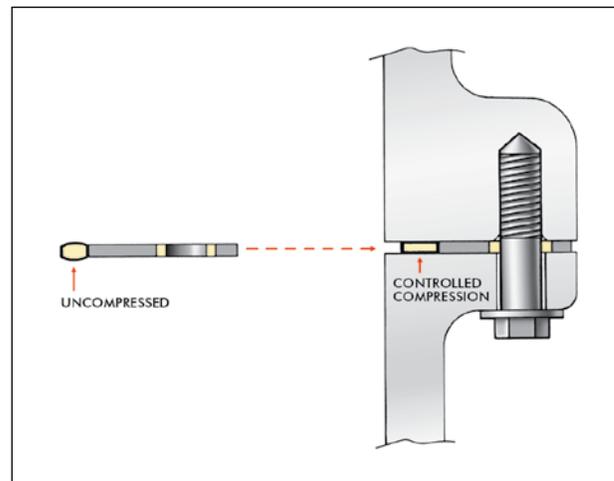
The 18-bolt cylinder head on the Vortec HP 8100 engine minimizes possible distortion and maximizes durability.



The Vortec HP 8100 engine combines large displacement with advanced technology to produce an extraordinarily powerful engine.



Many of GM marine engines are Vortec engines. Vortec means uncompromised power — outstanding power with no sacrifice in fuel efficiency or durability and very little required maintenance.



The controlled-compression gasket is state-of-the-art technology for long-term protection against oil leaks.

Additional Features

- Coated cast aluminum 8-quart oil pan with full baffle and 12-mm drain plugs on port and starboard sides
- Marine-specific 2-bolt flanged external water crossover (no seawater in intake manifold)
- Internally balanced engine
- Coated, flat top hypereutectic cast aluminum pistons
- Pan rail quick-connect oil fittings for quick assembly of marine oil coolers or remote oil systems
- Durable cast-iron water pump with marine-specific impeller for use in open and closed cooled systems
- Superior engine sealing system features one-piece rear main seal, one-piece front crankshaft seal, and controlled-compression gaskets on the oil pan, front cover, raised rail rocker arm covers, and intake manifold side gaskets
- High-density cast nodular iron crankshaft has undercut and rolled fillets for added strength

Specifications

Type: 8.1L V8

Displacement: 496 cid (8128 cc)

Engine Orientation: Longitudinal

Compression Ratio: 9.1:1

Valve Configuration: Overhead Valve
(2 valves per cylinder)

Assembly Site: Tonawanda, New York

Valve Lifters: Hydraulic Roller

Firing Order: 1 - 8 - 7 - 2 - 6 - 5 - 4 - 3

Bore x Stroke: 107.95 X 111 mm

Bore Center: 122.94 mm

Bore Area: 732.19 cm²

Fuel System: Gaseous Fuel

Fuel Type: Regular Unleaded

Horsepower:

419 hp (312 kW) @ 5000 rpm

Torque:

503 lb-ft (682 Nm) @ 4000 rpm

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

Fuel Shutoff: OEM Defined

Shipping Weight: 727 lbs (330 kg)

Emissions Controls: OEM Defined

Materials:

Block: Cast Iron

Cylinder Head: Cast Iron

Intake Manifold: Cast Aluminum

Exhaust Manifold: Cast Stainless Steel

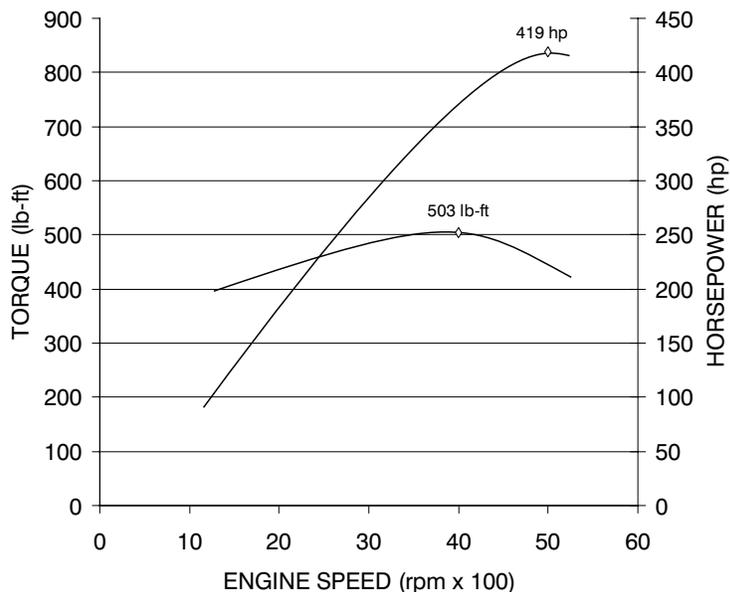
Main Bearing Caps: Cast Nodular Iron

Crankshaft: Cast Nodular Iron

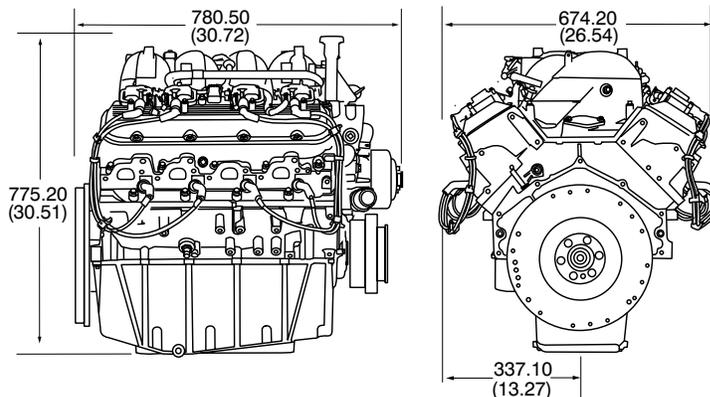
Camshaft: Steel

Connecting Rods: Forged Steel

Information may vary with application. All specifications listed are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.



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GM Powertrain

www.gmpowertrain.com