

The 5.7-liter HEMI®

June 9, 2004, Auburn Hills, Mich. -

View video animations of the Multi-Displacement System. (Requires Real Player)

"5.7L HEMI Multi-Displacement System (MDS) animation"

(Overhead view, approx. 30 seconds)

[High bandwidth](#)

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"Dodge Magnum HEMI 5.7L V-8 animation"

(Close-up view, approx. 30 seconds)

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- The Chrysler Group 5.7-liter HEMI® is Elegantly Simple, Delivering Power and Fuel Economy

No other engine in U.S. history has the heritage and recognition of the Chrysler Group HEMI®. While completely re-engineered from the legendary 426 HEMI V-8 that powered Chrysler muscle cars of the 1960s, the two features that earn the new 5.7-liter HEMI power plant its HEMI name are:

- The hemispherically shaped combustion chamber designed to accommodate large valves and put the spark plugs close to the center of the combustion chamber
- The cross-flow valve arrangement that is perpendicular to the crank-shaft centerline

Facts and Features

- In the Chrysler 300C, Dodge Magnum RT and the all-new 2005 Jeep® Grand Cherokee, the 5.7-liter HEMI is equipped with Chrysler Group's Multi-Displacement System (MDS), which turns off four of the cylinders when V-8 power is not needed, giving customers up to a 20 percent improvement in fuel economy.
- The 5.7-liter HEMI engine is an internally balanced pushrod, OHV 90-degree V-8.
- The cast iron block is a deep-skirt design with cross-bolted main bearing caps.
- The aluminum cylinder heads feature two valves per cylinder, hemispherical combustion chambers with dual spark plugs and coil-over-plug ignition.
- An Integrated Air Fuel Module (IAFM) incorporates the function of 26 individual components in the induction and fuel system, thereby reducing cost, weight and engine plant complexity.
- The 5.7-liter HEMI marks Chrysler Group's first application of an electronic throttle control in a rear-wheel-drive vehicle.
- A systematic approach to sealing, using premium elastomeric materials and state-of-the-art practices, helps ensure a leak-free, weep-free engine.
- The power plant's simple and efficient design means servicing and repairs are easier and less costly.

Specifications

- **Type and description:** Eight cylinders, 90-degree V-type, liquid cooled
- **Displacement:** 345 cu. in. (5.7-liter)
- **Bore x stroke:** 3.92 in. x 3.58 in. (99.5 mm x 90.9 mm)

- **Valve system:** Pushrod-operated overhead valves, 16 valves (eight deactivating, eight conventional when equipped with Multi-Displacement System), hydraulic roller lifters
- **Fuel injection:** Sequential, multi-port, electronic, returnless
- **Construction:** Deep-skirt cast iron block with cross-bolted main bearing caps. Aluminum alloy heads with hemispherical combustion chambers
- **Compression ratio:** 9.6:1
- **Power (SAE net):** 345 hp (257 kW) @ 5400 rpm, (61.0 hp/L), truck applications; 340 hp (254 kW) @ 5000, passenger vehicle applications
- **Torque (SAE net):** 375 lb.-ft. (508 Nm) @ 4200 rpm, truck applications; 390 lb.-ft. (525 Nm) @ 4000, passenger vehicle applications
- **Max. engine speed:** 5800 rpm (electronically limited)
- **Fuel requirement:** Unleaded mid-grade, 89 octane (R+M)/2 - recommended; Unleaded regular, 87 octane (R+M)/2 - acceptable
- **Oil capacity:** 7 qt. (6.6L)

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