

Why a HEMI®?

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In 1951, Chrysler Corporation introduced its entry in the post-war horsepower race, a V-8 engine designed with hemispherical combustion chambers. Quickly dubbed the HEMI®, its power and efficiency made it an instant favorite for all sorts of motorsport vehicles. Although reluctantly retired in 1959 due to high manufacturing cost, the HEMI design was still unsurpassed. In 1964, NASCAR competition sparked the HEMI's return, and it has remained available for motorsport use ever since. Now, 50 years after the original, there's a new HEMI whose efficiency and power make it ideal for today's needs.

In 1951, we said:

"The secret of the FirePower engine lies in the Hemispherical Combustion Chamber, developed and perfected by Chrysler Engineers."

This type of combustion chamber is used in aircraft engines, and it has been used in several expensive, low production cars of foreign make.

The FirePower engine not only produces more power than any other passenger car engine in the world, but it develops more power for its piston displacement than any competitive engine, which is conclusive proof of its efficiency.

A specially printed Chrysler brochure explained that engines have to breathe just as animals do, inhaling a combustible air-fuel mixture and exhaling the exhaust gases after combustion. The easier the engine breathes, the greater its volumetric efficiency and the more power it produces. The hemispheric combustion chamber design of the 1951 FirePower engine allowed large valves to be located across from each other instead of side-by-side, improving flow and allowing larger valves.

The design of the hemispherical combustion chamber allowed more complete burning of the air-fuel mixture, with flame from the central spark plug kept short, direct and evenly distributed. An efficient engine minimizes heat loss; heat is energy.

Now, we say:

"Our new 5.7-liter HEMI V-8 is an elegantly simple design that delivers the power and fuel efficiency that today's customers desire."

The breathing and combustion advantages of the HEMI remain unchanged; the same laws of physics and thermodynamics still apply.

The new 5.7-liter HEMI engine lets the superiority of the HEMI design benefit from the many advances in engine technologies over the past 50 years.

Among them:

- Aluminum cylinder heads to reduce weight
- Fuel injection and electronic throttle control to achieve more precise air/fuel mixtures
- Two spark plugs per cylinder and coil-over-plug ignition technology to improve the HEMI's famous combustion efficiency still further.
- High-mounted camshaft
- Rocker arms with greater stiffness and low inertia

The result now, as in 1951, is an engine with class-leading performance.

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