Contact:

2014 Ram ProMaster Delivers Efficiency and Capability Two Ways

- North American debut of world-class, torque-rich 3.0-liter I-4 EcoDiesel promises best-in-class fuel efficiency, robust capability and long service intervals
- 280-horsepower output from award-winning 3.6-liter Pentastar V-6 unmatched among Ram ProMaster 1500 competitors
- Standard-equipment Pentastar features best-in-class refinement; more than 16.2 million customer-equivalent test miles herald exceptional durability
- Both engines optimized to accommodate convenient service and reduced operating costs
- Proven 62TE automatic transmission enhanced to suit unique ProMaster application
- Efficient, North American-first M40 automated manual – exclusive to optional diesel – controlled by software logic that responds to road conditions

September 7, 2013, Auburn Hills, Mich. - The 2014 Ram ProMaster van's powertrain lineup packs a formidable one-two punch with an award-winning standard-equipment, gasoline-fueled V-6 and a torque-laden, I-4 EcoDiesel available as a late availability option.

The engines are paired, respectively, with a proven six-speed automatic transmission and an electronically controlled six-speed automated manual. Equipped either way, the breakthrough full-size van promises to be a knockout.

"The Ram ProMaster program affords us the opportunity to expand our powertrain portfolio with a new turbo diesel that delivers a brand of capability unique to the North American market," says Bob Lee, Vice President and Head of Engine and Electrified Propulsion Engineering — Chrysler Group LLC. "The van's debut also gives us a chance to further showcase the unparalleled flexibility of the award-winning Pentastar V-6, which powers more than one third of all vehicles produced by Chrysler Group."

EcoDiesel Debut
The 2014 Ram ProMaster marks the North American introduction of the potent 174-horsepower 3.0-liter inline 4-cylinder EcoDiesel engine that generates peak torque of 295 lb.-ft. at just 1,400 rpm.

Designed by Fiat, which employs the engine in numerous applications including Class 2, 3 and 4 commercial vehicles, the 16-valve, dual-overhead cam I-4 has been adapted for the North American market with a wide range of modifications that enable regulatory compliance, while also enhancing performance.

A new, 29,000-psi (2,000-bar) common-rail fuel-delivery system managed by the engine control unit (ECU) allows for variable timing and duration of multiple fuel-injection events. The combined effect of the extreme injection pressure and optimized injection strategy mitigates emissions, improves fuel economy and offers significant reduction in noise, vibration and harshness (NVH).

Further refinement comes from a host of design features, such as:

- Isolated oil pan
- Hydraulic tappets and roller-finger followers for valve-lash mitigation and friction reduction
- Cast-iron engine block stiffened by bed-plate construction
- Lightweight alloy pistons
- Dual-mass flywheel
- High-efficiency exhaust-gas recirculation (EGR) cooler (which also benefits emissions compliance)

Also new for North America is a quick-response variable-geometry turbocharger that delivers higher boost at low engine speeds. The result is improved driving satisfaction that comes from superior throttle response.

The engine's block has been modified to accommodate a heater, which is standard equipment in Canada and optional in the U.S. The block heater improves cold starts at temperatures as low as minus 40 degrees, the same threshold as the transmission heater on the economical M40 automated manual gearbox that is exclusive to the turbo diesel.

To comply with U.S. and Canadian emissions standards, the engine combines the benefits of a new EGR module with a highly efficient after-treatment system.

The diesel exhaust fluid (DEF) is integrated with heated lines to protect the system from freezing.

The five-gallon DEF tank promises nearly 4,000 miles of service. Low-level warnings alert the driver to replenish the supply via a filler neck conveniently adjacent to the optional locking fuel cap.

Reduced total ownership cost is a primary objective of the engine's design. Key components from the camshaft chain drive to power-steering pump to the high-pressure fuel pump with automatic tensioner (which also benefits NVH) are designed for long life.

Similarly, thoughtful innovations such as wear-resistant cylinder liners, oil-cooled pistons and electronic engine-control units for continuous diagnosis and monitoring are specifically designed to ensure durability.

An oil-level sensor contributes to an oil-change schedule of up to 18,500 miles. The high-efficiency, oil-coalescent filter system features micro-fiber filters and mitigates oil dilution, while robust chrome-ceramic sealing reduces oil consumption throughout the engine's lifetime.

Component location is a key maintenance consideration. Accordingly, the turbo diesel's air intake is mounted at the grille cross-member – which also maximizes cool-air intake levels – on the driver's side.

The air filter service interval is 30,000 miles.

Also all-new to the turbo diesel is a front-end accessory drive (FEAD) that will accommodate an optional 220-amp alternator. A 180-amp unit is standard. The engine is certified to use a maximum blend of 5% biodiesel (B5) fuel, commensurate with ASTM specification D975.

Powered by Pentastar

Beneath the hood of the 2014 Ram ProMaster commercial van, the standard-equipment 3.6-liter Pentastar V-6 retains the characteristics that have firmly established it among the elite high-volume engines anywhere on the planet.

Rated at 280 horsepower with peak torque of 260 lb.-ft., the dual overhead cam, 24-valve Pentastar delivers the capability required of a commercial van without compromising refinement – hallmarks that have contributed to its ranking among Ward's 10 Best Engines for three years running.

The Ram ProMaster's introduction brings to 14 the number of Chrysler Group nameplates in which the lightweight, aluminum-construction Pentastar – which boasts dual-independent variable-valve timing – sees service. Clever design is the enabler as the engine easily allows for a multitude of applications, including the award-winning Ram 1500 full-size pickup.

For the Ram ProMaster, Pentastar adaptations were minimal, but meaningful.

In contrast to competitive vehicles that use four-point mounting systems, the Ram ProMaster features an innovative new three-point mount that builds on existing features that mitigate noise, vibration and harshness (NVH). These include:

- A deep-skirt, die-cast aluminum block with six-bolt main caps
- Inverted-tooth chain drive that minimizes sprocket engagement
- Select-fit lightweight pistons
- Select-fit main and crankshaft bearings
- Structural windage tray and aluminum oil pan
- Glass-reinforced nylon composite intake manifold with low-rumble tuning

Reducing vehicle operating costs was paramount in the minds of the powertrain engineers who contributed to Ram ProMaster's development. Spark plug replacement is recommended at 100,000 miles.

Recommended oil-change intervals range up to 10,000 miles. But an intelligent oil-servicing system that monitors vehicle usage will trigger an alert when service is needed.

Pentastar oil changes also are "green" by virtue of its distinctive paper oil filter. Waste oil can be extracted and the cartridge incinerated.

And when oil changes are necessary, the Pentastar's new oil-filler neck and dipstick afford ready access for easier serviceability.

As with the 3.0-liter EcoDiesel, component location was carefully considered when the Pentastar was adapted for the Ram ProMaster. The air intake, mounted at the grille cross-member for maximum cool air flow, is easily accessible on the passenger's side. Filter service interval is 30,000 miles.

Further enhancing its cooling capabilities is a dual-fan shroud. The fans are activated by temperatures of the coolant, air-conditioning fluid and transmission oil.

Auxiliary transmission oil cooler and auxiliary engine oil cooler are standard with the 3.6-liter powertrain. Coolant capacity is 10 liters and coolant life is 10 years or 150,000 miles.

In addition, Ram ProMaster customers who choose the Pentastar will benefit from:

- Cam-drive and valvetrain components that require no scheduled maintenance
- High-energy, coil-on-plug ignition system with 100,000-mile replacement spark plugs
- Crank seals designed for lifetime leak-free performance
- Organic additive technology (OAT) coolant, which allows extended service life
- 87-octane fuel-grade calibration
- A high-durability accessory-drive belt with 100,000-mile replacement schedule

And to validate the robustness of the engine, Ram engineers punished it with 57,500 hours of dynamometer testing and more than 3.8 million additional customer-equivalent miles of in-vehicle testing.

Also new is a front-end accessory drive that will accommodate an optional 220-amp alternator on cargo and window vans (a 180-amp unit is standard) in addition to an optional non-AC version of the Pentastar.

Trusty transmissions

Just as there has never been a great truck that did not also have a great engine, there has never been a superior engine that was not mated to an outstanding transmission. Accordingly, Ram delivers an exceptional six-speed gearbox for each of the ProMaster's engine choices.

"Ram ProMaster customers will be satisfied with the 62TE automatic and the M40 automated manual," says Mircea Gradu, Vice President and Head of Transmission, Powertrain and Driveline Engineering, Chrysler Group LLC. "Each delivers on the formidable promise of this uniquely capable commercial vehicle."

The smooth-shifting 62TE automatic transmission is upgraded to accommodate the Ram ProMaster's prodigious Gross Vehicle Weight (GVW) and Gross Combined Weight (GCW) ratings. Specifically, its 3.86 final-drive ratio enables comfortable grade transit under full freight.

The transmission more readily adopts the most appropriate ratio for a given driving situation. The numerically lower overall top gear ratio affords more economical highway operation.

A trailer/tow program comes standard with 62TE and the new M40 automated manual.

The automated manual is not only exclusive to the 3.0-liter EcoDiesel, it stands alone in the Ram ProMaster's competitive set.

The unique gearbox delivers the efficiency of a manual transmission with the functionality of an automatic. At its core,

it is a manual, but gearshifts and clutch functions are accomplished with electro-hydraulic actuation system.

However, the driver can opt for manual shift-lever inputs when desired. But the driver needn't do all the work. Gearbox software delivers a unique response to driving conditions.

Shift logic is adjusted according to grade steepness. Particularly challenging conditions, such as hauling full loads through mountainous terrain, trigger the M40's "Everest" setting, which delivers optimal performance.

The new transmission also features road-bend detection, which prevents gearshifts when the Ram ProMaster is negotiating winding curves.

The result is a well-connected driving experience that delivers the fuel economy required of a commercial van such as the Ram ProMaster.

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