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2014 Ram Heavy Duty Combines Innovation with a Best-in-class 30,000-lb. Towing Capacity

- Ram engineering continues to lead Heavy Duty segment innovation with Ram 2500 link coil rear suspension to deliver best-in-class ride
- Exclusive factory rear air suspension for Ram 2500 and exclusive factory supplemental air suspension system for Ram 3500
- 2014 destroys the competition with up to 30,000 pounds of towing capacity, beating the closest competitor by nearly 7,000 pounds
- Best-in-class payload of 7,320 pounds
- Best-in-class Gross Combined Weight Rating (GCWR) of 37,600 and best-in-class total cost of ownership
- New gooseneck/fifth wheel capability for Ram 2500
- 2014 Ram Power Wagon features unique front suspension and 6.4-liter HEMI® V-8
- Unsurpassed powertrain warranty – five years/100,000 miles
- Best-in-class, vehicle system interface module (VSIM) for communicating between after-market modules and various vehicle control modules

September 7, 2013, Auburn Hills, Mich. - In the quest to build the most capable heavy-duty pickups available, Ram Heavy Duty owns best-in-class towing and best-in-class Gross Combined Weight Rating (GCWR) titles. The 2014 Ram Heavy Duty also features a factory integrated 5th wheel and gooseneck hitch mount, 2.5-inch receiver hitch, electronic stability control (ESC) for dual-rear-wheels and body-to-frame hydro-mounts that provide improved ride quality. The 2014 Ram Heavy Duty further solidifies the long list of leadership claims, including best-in-class total cost of ownership.

“The new 2014 Ram Heavy Duty capability story starts with a new frame and suspension, complemented by powerful engines to deliver top-of-segment tow capacities of 30,000 pounds on the 3500 and 17,970 pounds on the 2500,” said Mike Cairns, Chief Engineer — Ram Truck, Chrysler Group LLC. “Although the Ram Heavy Duty line can haul like a freight train, customers will be amazed at the comfort level thanks to new link coil and air suspension options.”

FRAME

Ram Heavy Duty trucks feature frames built with high-strength 50,000 psi steel, including eight separate cross-members, hydroformed main rails and fully boxed rear rails for optimal strength and mass efficiency. Chassis controls on the new Ram Heavy Duty ensure outstanding noise, vibration and harshness (NVH) measurements and ride and handling characteristics.

Wide front frame rails enable front suspension springs to be positioned slightly outboard – an enabler for generating positive roll stiffness. A large plated structure interface to the frame brings a lengthened weld surface creating a stiff, robust front section. The design ensures optimum mass efficiency with no need for reinforcements to deliver strength, despite shape complexity. Center frame rail sections are roll-formed, an efficient means for maintaining consistent strength in less complex longitudinal sections. In the rear portion of the new frame, the structure includes fully boxed rear rails and a factory-installed rear axle cross-member with provisions for fifth wheel and gooseneck hitches.

SUSPENSION

Heavy Duty trucks generally have suspension equipped for constant, heavy payloads. This leads to a harsher ride when unloaded. Ram innovation leads again for 2014. The new Ram 2500 takes lessons learned from the Ram 1500

and adds an all-new, segment exclusive five-link coil rear suspension system for best-in-class ride and handling and new air suspension system.

The exclusive five-link coil design provides better articulation over obstacles than a leaf spring system and the robust coil springs are more than up to the task of handling heavy payloads and the best-in-class 17,970 pounds of towing capability on the Ram 2500.

A benefit to a rear coil suspension is superior unloaded ride and improved handling, but the positives don't stop there.

The five-link coil design incorporates support at all major points of force. Leaf spring suspensions struggle to combat axle wrap by using staggered shock absorbers (one mounted on the front of the axle tube and one mounted on the rear of the axle tube). The superior design of the five-link coil system functionally resists unwanted axle rotation. Leaf spring configurations also lack lateral support, forcing the leaf ends and shackles to hold against lateral loads — a task they're not particularly good at and one reason competitive leaf-sprung rear suspensions shutter on rough surfaces.

Because of the unique five-link axle control and natural rotation, U-joints in the driveshaft run smoothly and with less vibration through the suspension's range of motion, an advantage not shared with leaf springs. Another benefit of coil springs is less unsprung mass and elimination of stick-slip friction found between the leaf springs. Additionally, links are engineered in-line with frame rails, so overall packaging is better, not to mention an overall weight reduction of about 40 pounds when compared to a leaf-spring configuration.

The 2014 Ram 2500 also will offer a segment-exclusive rear air suspension system. Two air bags replace the coil springs much like the Ram 1500. Load capacity is not sacrificed and the 2014 Ram 2500's best-in-class ride and handling gets even better, crushing the competition with two doses of engineering innovation (five-link coil standard and air suspension option). Another benefit to the new air suspension design is the load-leveling capability, which automatically detects load on the rear suspension from a trailer or payload. The air pressure increases until the vehicle reaches normal ride height – leveling the truck and improving stability and loaded ride.

The Ram 3500 will continue to feature the rear Hotchkiss leaf spring system, but will now offer a supplemental air suspension system. By adding supplemental air bags to the rear suspension, Ram engineers were able to soften the leaf springs, allowing for more unladed suspension movement. When a high-load capacity condition exists, the air suspension automatically fills the rear air bags to level the truck and improve stability and ride quality — even with a best-in-class 30,000-lb. trailer.

In the front, the Ram Heavy Duty line features an advanced three-link front suspension to ensure roll stiffness. Greater roll stiffness, also known as body roll, is an important characteristic in taller vehicles and especially trucks with heavy payloads. Roll stiffness is measured by the amount the truck's body tips side-to-side, independently of the wheels, during cornering.

Although the Ram Power Wagon benefits from the new five-link rear suspension, it also receives a unique front suspension system to maintain its leadership in off-road capability. The modified front three-link system incorporates high movement joints, allowing for additional flexibility and axle articulation, contributing to Ram Power Wagon's title —the most capable production off-road truck in the industry.

STEERING
The steering system features recirculating ball steering gear, which delivers precise on-center feel despite the vehicles immense towing and payload capacities.

BRAKES
Four-wheel disc brakes are standard on all 2014 Ram Heavy Duty Truck models. Front rotors measure 14.17 inches (373 mm) in diameter and are clamped with dual-piston calipers; rear rotors are 14.09 inches (356 mm) also use dual-piston calipers. The Ram Heavy Duty features four-channel electronic stability control (ESC) for dual rear-wheel (DRW) Ram 3500, the first ESC application on DRW applications in its class, making ESC standard on all Heavy Duty 2500 and 3500 offerings.

BODY

The Ram Heavy Duty comes equipped with robust engine, transmission and body mounts, including pioneering hydro-mounts at C-pillar positions for class-leading noise, vibration and harshness (NVH) characteristics despite the truck's aptitude for higher payloads and towing.

A capless fuel filler on diesel applications is a space-saving initiative that enables side-by-side fuel and diesel exhaust fluid (DEF) port configuration. The result is more convenient fuel and DEF re-fill at pump stations.

The Ram 3500 features a factory-installed seven-pin trailer tow connector in the truck bed, included with the optional fifth wheel or gooseneck tow prep package. For 2014 Ram 2500 offers the same package. Ram is unmatched in terms of offering the most complete "hitch 'n go" towing prep package found anywhere in the heavy-duty category. Additionally, Ram features a standard Class 5 receiver hitch with a four- and seven-pin connectors on the bumper. A tailgate handle-mounted, rear high-definition camera backup system is available with dynamic imaging in the 8.4-inch display. Also, the cargo-view camera located in the center high-mounted stop light (CHMSL) provides a view of the bed for easier connection to fifth wheel or gooseneck trailers as well as monitoring bed loads.

ELECTRICAL

As the Ram Heavy Duty continues to offer more featured content, it created the need for a technology that allows more information to be electronically communicated within the truck. The Powernet electrical architecture system allows both high and low-speed data networks to be equipped with as many as 40 individual modules, all designed to improve vehicle performance and enhance the comfort and safety of driver and passengers. Within the Powernet high-speed network, each module (e.g., electronic stability control) processes its individual data and transmits the appropriate commands within the vehicle to activate any additional systems (e.g. anti-lock brake system and cruise control).

A majority of the commercial truck customers need to tie into the electrical system and certain fleet customers require access to vehicle information to even be considered, especially ambulance packages and some utility companies. A best-in-class vehicle system interface module (VSIM) is capable of communicating between aftermarket modules and various factory control modules. The VSIM upfitter interface module features a total of 53 circuits, including lighting controls, door position, and throttle and transmission position. The class exclusive module acts as a secure gateway to the vehicles' electrical systems and data bus architecture to enable safe, secure plug and play connectivity for upfitter friendliness.

The 2014 Ram Heavy Duty is equipped with intelligent battery sensor technology, which continually measures the flow of current in and out of the battery. The system is an enabler for intelligent load shedding, systematically shutting off select electrical systems onboard the vehicle when the battery is running low to help prevent further depleting the battery.

Ram offers two different dual alternator systems on the 2014 Ram Heavy Duty, providing additional power for higher electrical loads from commercial vehicle upfits and accessories. New for 2014, Ram 2500 models equipped with the Cummins 6.7-liter diesel engine will offer the same dual 220-amp alternators (best-in-class 440 amps) previously only available on the Ram 3500. Ram's diesel alternator systems also incorporate an "auto idle-up" feature, which senses the need for more output and spins the alternator faster to meet the demand (in park/idle conditions).

Both the Ram 2500 and 3500 equipped with the new 6.4-liter HEMI® V-8 gas engine also will offer a dual-alternator system – the first gas-driven application of its kind in either class – that combines 220- and 160-amp units for 380-amps of total best-in-class output.

ADDITIONAL FEATURES

Ram Heavy Duty customers can enjoy the convenience of power folding mirrors and a combination, power rear-sliding window with defrost. Also, central locking includes the RamBox cargo management system and tailgate power locks, creating a convenient solution for locking all exterior doors and storage with one push of a button. Auto rain-sensing wipers and SmartBeam headlamps also are available, adding to a truckload of content offered in the new 2014 Ram Heavy Duty.

Total Cost Of Ownership And Unsurpassed Powertrain Warranty - Five Years/ 100,000 Miles

Operating costs are of great consideration for owners who use their trucks for work. The 2014 Ram Heavy Duty holds

class-leading features in:

- Fuel economy
- Extended maintenance cycle (oil change of 15,000, fuel filter life on diesel)
- Brake life with advanced engine exhaust brake and largest brakes in the segment

The 2014 Ram Heavy Duty is backed with an unsurpassed five-year/100,000-mile Powertrain Limited Warranty. The powertrain-limited warranty covers the cost of all parts and labor needed to repair a covered powertrain component – engine, transmission and drive system. Coverage also includes free towing to the nearest Ram Truck dealer, if necessary. The warranty also is transferable allowing customers who sell their truck during the warranty period to pass the coverage on to the new owner. The standard five-year/36,000-mile Basic Limited Warranty provides bumper-to-bumper coverage for the Ram Heavy Duty, from the body to the electrical system.

MANUFACTURING

The 2014 Ram Heavy Duty is built at the Saltillo Truck Assembly Plant in Coahuila, Mexico.

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