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2019 Ram Chassis Cab Crosses New Capability Threshold to Deliver the Highest Towing and Gross Combined Weight Rating at 35,220 Pounds and 43,000 Pounds

- Ram Chassis Cab takes capability titles in the most important areas of the segment with class-leading 35,
   220 pounds of towing, highest Gross Combined Weight Rating of 43,000 pounds and a payload of 12,510 pounds
- Ram Chassis Cab 3500, 4500 and 5500 represent Class 3, 4 and 5 GVWR and achieve class-maximum GVW — 14,000 pounds, 16,000 pounds, and 19,500 pounds, respectively. Additionally, Ram offers a Class 2 10,000-pound GVW Chassis Cab
- Cost of ownership improvements include fuel efficiency, maintenance schedules, brakes, capability and long-term durability
- Frame features hydroformed front-rail sections and 50,000-psi rear C-channel frame rails with eight separate cross members for long-term durability and new levels of capability
- New braking system upgrades calipers, booster and master cylinder to shorten stopping distances, increase capability and improve brake feel
- Up to 97-percent high-strength steel frames contribute to greater capacities, reduced weight and the highest levels of torsional rigidity
- Relationships and partnerships with body manufacturers and upfitters contribute to the most upfitter-friendly Ram Chassis Cab ever
- Ram Chassis Cab frames are designed with zero component interference above the rear frame rails, providing a flat mounting surface for easy upfit design and installation
- Four industry-standard Cab Axle (CA) frame lengths (CA 60, CA 84, CA 108 and CA 120) and rail spacing
  of 34 inches for a variety of upfits
- Frame sections feature pre-drilled mounting hole provisions along the frame rail to simplify upfit installation
- The most advanced Vehicle System Interface Module (VSIM) in the segment communicates between aftermarket modules and various vehicle control modules with up to 70 inputs and outputs to monitor, including PTO and lighting
- · Diligent engineering and the use of lightweight materials help reduce overall weight by up to 120 pounds

February 7, 2019, Auburn Hills, Mich. - The new 2019 Ram Chassis Cab 3500, 4500 and 5500 trucks are the most durable, most capable and most confident cab and chassis trucks Ram has engineered. With a segment-leading towing capacity up to 35,220 pounds and the highest Gross Combined Weight Rating of 43,000 pounds, Ram's heaviest haulers are built for harsh duty cycles while achieving new levels of efficiency and upfitter friendliness.

The Ram Chassis Cab outpaces the competition with a high-strength steel frame, more powerful braking system, improved suspension tuning and active safety systems such as Automatic Emergency Braking — not found on any other truck in the segment. All combine to deliver the highest capability numbers for diesel- and gas-powered trucks — 35,220 pounds of towing and 43,000 pounds for Gross Combined Weight Rating.

"Our new 2019 Ram Chassis Cab leads by example with upfitter and customer input combined with all-new technology and powertrain systems to achieve the highest available towing capacities of 35,220 pounds and up to 43, 000 pounds of combined weight," said Rob Wichman, Head of Ram Engineering. "The Ram Chassis Cab line of trucks also focuses on areas most important to the customer including total cost of ownership, capability, reliability

and upfit solutions."

#### **FRAME**

Ram Chassis Cab trucks come in four industry-standard frame lengths measured in inches from the cab to the rear axle (CA): CA 60, CA 84, CA 108 and CA 120. Frame rail width also follows industry guidelines at 34-inch spacing. All 2019 frames are built with up to 97-percent high-strength steel and eight separate cross members. Hydroformed front rails provide optimal strength and mass efficiency. With upfits in mind, Ram Chassis Cab rear frame sections feature a C-channel design with flat mounting surface — zero component interference above the rails, making upfit and accessory design/installation easy and reliable. Additionally, pre-drilled holes are designed throughout the structure to route upfit lines or mount hardware related to the upfit. Additionally, Ram was the first medium-duty chassis cab design with all fuel-fill tubes routed through the frame to avoid the need for relocation during upfit.

Increased width on front frame rails accommodate the wider 4500/5500 Chassis Cab track and enable front suspension springs to be positioned slightly outboard to generate positive roll stiffness. The new 3500 cross member brings a lengthened weld surface creating a stiff, robust front section while ensuring optimum mass efficiency with no need for reinforcements despite shape complexity. The track bar is supported by a redesigned frame mount for added lateral strength. Center frame rail sections are roll-formed, an efficient means for maintaining consistent strength in less complex longitudinal sections.

An auxiliary fuel tap exists on top of the fuel tank for additional fueling needs such as a generator or welder and the Diesel Exhaust Fluid (DEF) tank is packaged under the cab, away from the upfit zone. The 2019 MY Ram Chassis Cab also offers a dual fuel-tank system on both diesel and 6.4-liter HEMI V-8 gas engines. The system consists of two fuel tanks with independent fill necks. A mid-ship-positioned tank carries 22 gallons, and the rear tank carries 52 gallons for a best-in-class fuel-volume of 74 gallons. The system is self-leveling, automatically transferring fuel between the tanks, eliminating the need to switch between fuel sources. When both tanks are full, the system draws fuel from the front tank until it's down approximately five gallons, at which point a pump starts transferring fuel to the front tank maintaining the level until the rear tank is depleted. Once the rear tank is depleted, all fuel is drawn from the front tank.

Ram 3500 Chassis Cab 10k trucks come standard with a back-up camera to be custom-mounted depending on the upfit; also optional on 3500, 4500 and 5500. An additional, exclusive, auxiliary wired camera option can be placed in a location which best serves the operator. Both cameras provide high-definition dynamic imaging on the 12-inch or 8.4-inch display for connecting a trailer or maneuvering with limited field of vision. Also, the cargo-view camera located in the Center High- Mounted Stop Light (CHMSL) provides a view of the upfit for easier connection to fifth-wheel or gooseneck trailers as well as monitoring the upfit. The optional 270-degree camera-view system also contributes to the long list of new technology.

## SUSPENSION

Ram Chassis Cab trucks have suspension systems equipped for constant, heavy payloads up to 12,510 pounds. Ram engineers tuned the chassis to handle the highest capability available but also deliver ride quality unloaded.

A three-link, coil-sprung front suspension on 2019 Ram 3500 Chassis Cab is designed to provide greater roll control with larger loads. This is accomplished with a 35mm stabilizer bar and outward-positioned springs, as well as two large frame-to-axle radius arms. Constructed of steel and approximately 40 inches in length, the arms ensure optimal front torsional stiffness with three massive bushings per arm located at the frame and axle connections. The bushings naturally generate a force to counteract roll motion, regardless of load. An optional 10k GVWR Ram 3500 Chassis Cab SRW model provides commercial truck customers a Chassis Cab-truck-light option and is available with the 6.4-liter HEMI V-8 engine.

The front suspension on the Ram 4500 and 5500 Chassis Cab is a five-link, coil-sprung suspension with a beam axle. Its strength and durability equates to lower cost of ownership, and the system provides an outstanding combination of ride, handling and off-road operating characteristics while delivering up to 35,220 pounds of towing capacity and 12, 510 pounds of payload. Four parallel leading links position the axle longitudinally. A track bar provides lateral location. An efficient link-type stabilizer bar and heavy-duty shock absorbers are standard. The added stiffness of rectangular section control arms provides more precise control of suspension travel.

Front shock absorbers have gas-charged pistons and built-in rebound travel stops. Shock-absorber tuning is unique

to each Chassis Cab wheelbase and engine combination. The upper and lower control arms incorporate large rubber bushings at the axle and frame ends to reduce impact-bump harshness, and tall urethane jounce bumpers are tuned to provide gradual engagement during full travel on large bumps. An optional high-capacity front suspension package offered on 4500/5500 Chassis Cab models provides maximum front GAWR enabled by taller springs and higher spring rates. The package is recommended on any vehicle equipped with a forward-biased weight upfit such as an aerial boom or snow-plow packages.

The rear leaf suspension on all 2019 Ram Chassis Cab trucks has been tuned to achieve the highest available towing capacities of 35,220 pounds and up to 43,000 pounds of Gross Combined Weight, helping retain vehicle attitude at load, and provide handling benefits in terms of roll steering and overall vehicle dynamics (front/rear phasing). The system consists of two-stage longitudinal leaf springs to provide a comfortable ride regardless of load.

### **STEERING**

The 2019 MY Ram Chassis Cab lineup features a premium recirculating-ball steering gear with robust steering linkages that deliver enhanced and precise on-center feel despite the vehicles' higher GVWR, payload and GCWR towing capacities. Large-diameter drag (29mm) and cross-vehicle links (51mm) ensure premium steering characteristics regardless of payload or tow load and a premium steering gear incorporates tolerance characteristics for enhanced steering smoothness, reduced lash, and outstanding on-center feel with virtually no perceived drift. The steering system is tuned to reduce steering effort and enhances steering system control and confidence. The steering linkage provides grease fittings, as expected by this segment of the market, to allow maintenance and improve the durability of the steering system. Dimensional control using steering-knuckle caster and camber settings eases wheel alignment for more precise steering and reduced tire wear.

#### **BRAKES**

Four-wheel, hydro-boost disc brakes are standard on 2019 Ram Chassis Cab models (vacuum on 3500 10k variant). The braking system on the 2019 Ram 3500 Chassis Cab upgrades the calipers, booster and master cylinder. Combined with a larger ratio pedal swing, the upgrade delivers a confident and powerful execution with little effort from the driver. The reengineered system also offers shorter stopping distances and braking to match the highest capability. Ram 3500 Chassis Cab front rotors measure 14.17 inches (360mm) in diameter and are clamped with dual-piston calipers; rear rotors are 14.09 inches (358mm) and also use dual-piston calipers.

Ram 4500/5500 Chassis Cab trucks also benefit from increased brake force with reduced brake pedal effort, complementing the increased capability and offering shorter stopping distances. Ram 4500/5500 Chassis Cab front rotors measure 15.35 inches (390mm) in diameter and are clamped with dual-piston calipers; rear rotors also are 15.35 inches (390mm) and also use dual-piston calipers.

## **BODY**

Light-weighting efforts include an aluminum hood, which now weighs 27 pounds less and contributes to an overall weight reduction. The cab back panel area is clear for ease of upfit. Ram Engineering provides instructions to create a pass-through cab for emergency vehicles and select vocational applications.

The 2019 MY Ram Chassis Cab lineup uses tuned powertrain mounts and C-pillar body hydromounts to reduce NVH and improve ride quality. The three-mount powertrain configuration incorporates frame-mounted brackets that carry the engine mounts, while transmission mounts use two rubber-halved dampers and travel limiters. Each are optimally tuned for a specific powertrain configuration. The C-pillar-position body hydromounts — applied on each side of all Crew Cab configured trucks — incorporate two cavities (upper/lower), hydraulic fluid and diameter-specific tuning. Within the mounts, the viscosity of the fluid and the rubber itself have been tuned to Gross Vehicle Weight (GVW) and payload capabilities, enhancing isolation regardless of load or tow conditions.

### **ELECTRICAL**

A majority of the commercial truck upfits need to tie into the vehicle 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 more than 70 inputs and outputs, including lighting controls, door position, and throttle and transmission position. The class-leading 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 and increased reliability. Additional connection points include seven trailer-tow circuits, a high-amperage battery power point for mounting electrical eyelets and factory sealed under-hood auxiliary switch connections.

The 2019 Ram Chassis Cab is equipped with intelligent battery sensor technology, which continually measures the flow of current into 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 2019 Ram Chassis Cab, providing additional power for higher electrical loads from commercial vehicle upfits and accessories. Models equipped with the 6.4-liter HEMI V-8 gas engine also offer a class-exclusive dual-alternator system — the first and only application of its kind in either class — that combines 220- and 160-amp units for best-in-class 380-amps of total output. Ram Chassis Cabs equipped with the Cummins 6.7-liter diesel engine offer dual 220-amp alternators (best-in-class 440 amps total).

## **ADDITIONAL FEATURES**

Ram Chassis Cab customers can enjoy the convenience of power trailer-tow mirrors and a combination, power rearsliding window with defrost. Auto rain-sensing wipers and SmartBeam head lamps also are available, adding to a full load of content offered in the new 2019 Ram Chassis Cab.

TOTAL COST OF OWNERSHIP AND UNSURPASSED POWERTRAIN WARRANTY — 5 -YEARS/ 100,000-MILES Operating costs are of great consideration for owners who use their trucks for work. The 2019 Ram Chassis Cab holds class-leading features in:

- Fuel economy
- Extended maintenance cycle (oil change of 12,000 miles, fuel-filter life on diesel)
- Brake life with advanced engine exhaust brake (Smart Brake)

The 2019 Ram Chassis Cab is backed with an unsurpassed 5-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 3-year/36,000-mile Basic Limited Warranty provides bumper-to-bumper coverage for the Ram Chassis Cab, from the body to the electrical system.

# MANUFACTURING

The 2019 Ram Chassis Cab is built at the Saltillo Truck Assembly Plant in Coahuila, Mexico.

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