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All-new 2011 Chrysler 300 Sedan Delivers World-class Refinement and Handling with New Advanced Body and Chassis Designs

- All-new 2011 Chrysler 300 sedan's body structure and new second-generation E-segment architecture combine to deliver a solid, world-class ride with segment-leading handling and quiet on-road manners
- Contributing to the Chrysler flagship's world-class interior quietness are two 8-foot premium-composite underbody panels with acoustic insulation, acoustic windshield and front-side glass, under flush-mounted rolled-framed doors, triple door seals and uninterrupted unibody laser-brazing for gap-free surfacing
- All-new premium chassis hardware delivers segment-leading refinement and includes front suspension hydrobushings, monotube shock absorbers, hydroformed steel front- and rear-suspension cradles and a fuel efficient electro-hydraulic power steering (EHPS) system
- Extensive use of advanced ultra high-strength steel enables thinner bodyside pillars, expanding outward visibility by 15 percent compared with the previous-generation Chrysler 300

January 9, 2011, Auburn Hills, Mich. -

Engineered and executed to deliver a world-class luxury sedan experience, the all-new 2011 Chrysler 300 sedan's world-class body structure and chassis deliver a level of quality, capability and refinement that rival the best E-segment competitors from Europe, Asia and North American.

"To make the 2011 Chrysler 300 a premium world-class sedan, we redesigned it from the ground up," said Chris Barman, Vehicle Line Executive - E-Segment Vehicles, Chrysler Group LLC. "Our engineers stiffened the body structure to deliver a confident ride, exceptional passenger protection and interior quietness among the best in the segment. And to make its world-class ride and handling even more precise, our all-new Chrysler flagship was designed with a new second-generation E-segment architecture, providing the ideal geometry, premium suspension hardware and refinement of sedans costing thousands more."

World-class Structural Rigidity

The all-new 2011 Chrysler 300 combines advanced steels, nylon composites and a new second-generation rear-wheel-drive E-segment architecture to deliver maximum refinement and handling precision. With its world-class torsional strength, the Chrysler 300 features tighter and stiffer characteristics for an added sense of confidence and control. In addition, the rear structure of the all-new Chrysler 300 was strengthened by 26 percent to ensure exceptional front-to-rear stiffness continuity.

Acoustically Tuned Interior Cabin

Benchmarked against luxury sedans costing thousands of dollars more, the all-new Chrysler 300 features world-class quietness at an attainable price.

Maximizing its new ultra-rigid structural design, Chrysler 300 engineers were able to tune the cabin for sound quality (as well as sound level) by isolating powertrain, road and wind noise. The all-new Chrysler flagship's unibody packages material and structural design improvements, including two premium-composite underbody panels that provide more than eight feet of acoustic insulation. In addition, the sedan's dual-pane acoustic windshield and front-door side glass, body-cavity silencing foam, under-flush rolled-framed doors with triple seals and acoustic wheel-well liners all help to absorb road noise and quiet the cabin. Combined, these design improvements deliver interior sound quality among the best in the E-segment.

Advanced Materials and Engineering Crashworthiness

Thanks to the extensive use of advanced steels, composites and advanced computer-impact simulations, the all-new 2011 Chrysler 300 is designed to be competitive in all aspects of crashworthiness, including other E-segment vehicles on the market. Designed and engineered for government regulations and third-party ratings around the world, the all-new Chrysler 300 is capable of achieving results at the top of its class.

High-strength and Advanced High-strength Steels

More than 67 percent of the 2011 Chrysler 300 sedan's lower unibody structure and 53 percent of its upper unibody structure are stamped from stronger high-strength or advanced high-strength steels. Strategic use of advanced steels in the all-new 2011 Chrysler 300 inspires confidence during high-performance driving, contributes to a world-class ride dynamic and provides passengers with exceptional protection.

Use of high-strength steel can be found in the vehicle's center tunnel, bodyside, front-wheel housing structures and rails. With approximately twice the tensile strength of high-strength steel, advanced high-strength steel is applied to critical areas of the vehicle that require higher structural rigidity. These body areas include the vehicle's seat cross members and upper-rear cross-car area behind the rear seats, which allow the vehicle to deliver higher cross-car rigidity.

Weight Reduction Through Ultra High-strength Steels

Contributing to its world-class structural strength, the all-new 2011 Chrysler 300 features hot-stamped ultra-high-strength steel in the A-pillars, bodyside doors, upper front-rail section and windshield header.

Delivering the tensile strength of advanced high-strength steel with thinner and lighter applications, Chrysler 300 engineers were able to use ultra-high-strength steel to reduce pillar and door thickness without interrupting its signature silhouette. As a result, total outward visibility improved by 15 percent compared with the previous model, and the windshield header was positioned rearward 3 inches to make it easy for the driver to see stoplights and overhead road signs.

Energy-absorbing Dual-phase Steel for Impact Protection

Delivering twice the strength of high-strength steel with maximum energy absorption during an impact, dual-phase steel enables the all-new 2011 Chrysler 300 to compete with the world's best with respect to crash test ratings. Thin, lightweight dual-phased steel is strategically engineered into the Chrysler 300 sedan's inner-front rails and engine box area for occupant protection.

Transformation Induced Plasticity (TRIP) and Nylon Reinforcements Add Strength, Rigidity

The all-new 2011 Chrysler 300 features advanced transformation induced plasticity (TRIP) steel in its upper unibody structure. TRIP enables the B-pillar, lower header and rocker areas to use thinner, lightweight steel. In addition, the Chrysler 300 strategically integrates nylon-composite reinforcements in sedan's upper header cavities and A- and B-pillars for enhanced passenger crash protection.

Laser Brazing for a Seamless Surface

Enhancing the 2011 Chrysler 300 sedan's sculptural body is the use of laser brazing. This advanced manufacturing technique harmoniously creates an uninterrupted unibody with smooth roof panel and rail sections for a precision-appearance and improved aerodynamics.

New Second-generation E-Segment Architecture Delivers World-class Ride, Handling and Precision

The all-new 2011 Chrysler 300 features redesigned front- and rear-suspension geometries for world-class handling, while its all-new premium suspension hardware delivers world-class refinement.

At the heart of Chrysler 300 sedan's new suspension design are isolated, lightweight front- and rear-suspension cradles that deliver an ultra-rigid assembly needed for precision and performance.

All-new monotube front-shock absorbers, springs and a repositioned lower-front shock-to-suspension-link bushing deliver improved control, ride and comfort. Combined, these suspension components improve the front suspension's handling and durability, while reducing the harshness from road bumps compared with the previous Chrysler 300 sedan. In addition, all-new front-suspension hydrobushings - a premium suspension component - reduce ride harshness and prolong smooth braking characteristics.

At the rear, the all-new Chrysler 300 sedan's five-link rear-suspension design features new roll-steer geometry, allowing independent control of camber and toe suspension movement for world-class handling. All-new monotube shock-absorbers and springs make the ride more refined, while improving handling and dynamics. Premium urethane jounce bumpers and suspension links with rubber shock absorber bushings help the sedan's rear suspension contribute to a quieter interior cabin. In addition, new upper and lower spring-seat isolators provide additional dampening for increased passenger comfort over bumps.

The all-new Chrysler 300 sedan's road-holding capabilities are improved with new front- and rear-camber geometries. Set at -1.0 degrees in the front and -1.75 degrees in the rear, the sedan delivers improved cornering with its tires leaning inboard at the top relative to the body. New larger diameter front- and rear-stabilizer bars keep the chassis nimble during cornering and reduce body lean.

Comfort-tuned and Touring-tuned Suspensions Provide a Nimble and Balanced Chassis

The all-new 2011 Chrysler 300 sedan's world-class suspension delivers the grand-touring performance expected from premium European luxury sedans, to make this all-new American flagship one of the best driving sedans in the world.

With three available suspension tunings and wheel and tire combinations ranging from 17 inches up to 20 inches, the all-new Chrysler 300 sedan perfectly blends confident handling with world-class refinement and ride comfort. The available suspension tunings and wheel/tire combinations are (in order of increasing performance):

- Comfort-tuned:
 - Standard on Chrysler 300 Touring, 300 Limited and 300C with 17-inch or 18-inch wheels and tires
- Touring-tuned AWD:
 - Standard on Chrysler 300C AWD with 19-inch wheels and tires
- Touring-tuned:
 - Available on Chrysler 300 Limited and 300C models with 20-inch wheels and tires

More Tailored Appearance: All-new Chrysler 300C AWD

Taking its new second-generation E-segment architecture further, the all-new 2011 Chrysler 300C AWD delivers precise all-weather handling, world-class refinement and a lowered ride height for a more tailored appearance.

The all-new Chrysler 300C AWD features a 0.5 inch (13 mm) tighter tire-to-fender fitment, a 0.15 inch (4 mm) lowered overall ride height and larger 19-inch wheels with wider P235/55R19 all-season performance tires. Beyond its lower center of gravity, the Chrysler 300C AWD features improved handling with all-new upper- and lower-control arms and shock-absorber bushings. In addition, redesigned half shafts feature sealed high-precision bearing units for added quality and durability.

The Chrysler 300C AWD features a multi-link front suspension with unique steering knuckles, asymmetrical lower-control arm and tubular upper-control arm to manage up to 38 percent of the 5.7-liter HEMI® V-8 engine's power to the front wheels.

Electro-hydraulic Power Steering (EHPS) Delivers Precision-steering for a Connected Sense of the Road

Transmitting the 2011 Chrysler 300 sedan's road-holding abilities to the driver is an all-new EHPS system that transmits precise road feel and improves on-center tracking, steering noise and fuel consumption.

Depending on the control mode, the EHPS system applies variable steering effort to different driving conditions. EHPS analyzes steering angle, vehicle speed, engine rpm and chassis control systems 13 times per second for precise performance-handling feel. When the Chrysler 300 is stationary or moving at low speeds, the hydraulic pump increases power assistance for a lighter steering wheel effort. The pump reduces steering assistance at highway speeds to give the Chrysler 300 a firmer feel, and as a result, the system delivers a fuel savings of up to 1.5 percent by consuming less energy than a belt-driven pump.

For an even higher sense of precision and control, the all-new 2011 Chrysler 300 Limited and 300C with touring-tuned suspension features 25 percent quicker steering, and 20 percent heavier on-center feel.

Maximum Stopping Power

The all-new 2011 Chrysler 300 sedans feature world-class brake systems designed with class-leading performance and feel, state-of-the-art technologies and maximum refinement.

Chrysler 300 sedan's brake systems include:

- Highly tuned brake linings designed for consistent, smooth brake feel with durability and performance
- New brake booster and improved pedal-travel ratio and required force at higher speeds for world-class brake pedal feel
- Performance brake linings on Chrysler 300C (RWD) deliver fade resistance with outstanding pedal feel
- Parasitic-friction reducing high roll-back brake calipers with spreader springs add efficiency
- Hydraulic-boost compensation automatically senses if there is a failure in the vacuum, brake booster or related brake lines. For example, if a line or hose ruptures, the brake controller will run the ABS pump full time and brakes will perform as normal until the system is serviced
- Ready Alert Braking - a segment-exclusive technology that automatically senses when the driver lifts their foot off the accelerator and applies a slight amount of brake pressure (not enough to slow the vehicle) to make sure brake pads and discs are correctly lined up in anticipation of a panic stop
- Rain Brake Support automatically applies a pulse of brake pressure (not enough to slow the vehicle) to remove water film from brake pads. The system engages when the windshield wipers are activated

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