

2009 F-150 Safety

NEW 2009 FORD F-150: MOST CAPABLE

DETROIT, Jan., 13, 2008 – The new Ford F-150 remains the most capable full-size pickup on the market and for 2009 further builds its capability by strengthening the frame while making it lighter, improving horsepower, boosting fuel economy, adding more usable interior space to the SuperCrew models and offering even more standard safety features.

“Capability is currency for many F-150 customers,” said Mike Crowley, Ford Truck and SUV group marketing manager. “That’s why our team has been working so hard to deliver the most capable trucks for our customers, right down to the new F-150’s laser-edge welds that are five times stronger than other trucks’ traditional spot welds. F-150 owners need to know that whether they use these trucks on the job site – or for play – they’re truly ‘Built Ford Tough.’ ”

Improved Chassis Helps Get the Job Done More Efficiently

The new 2009 Ford F-150 features a fully boxed frame constructed from hydro formed high-strength steel side rails – and cross members that pass through the frame rails – for increased durability and safety.

The high-strength steel does double duty, providing about 10 percent more torsional rigidity, enabling engineers to finely tune chassis components, while also contributing to a 100-pound weight reduction versus the current F-150.

“The new, improved chassis helps deliver additional payload and towing capacity as well as improved fuel economy, which we know is top of mind especially for truck customers,” said Matt O’Leary, chief engineer of the new 2009 F-150. “At the same time, we’ve improved the new F-150’s driving dynamics, delivering a truck that’s consistently sure-footed in all driving situations and load conditions, regardless of the weather.”

F-150’s double wishbone short- and long-arm front suspension with coil over shocks shares components with the 2008 Expedition, although it has been further refined for the F-150. Double ball joint links allow for more precise steering inputs.

The Hotchkiss-designed rear suspension mounts the rear shock absorbers outboard of the frame rails for a smoother ride and improved body control. The revised suspension features 6-inch-longer leaf springs. The springs are extended forward to provide better lateral compliance and refined rear axle steer characteristics.

The FX4 features an Electronic Locking Differential axle designed for true off-road performance. There is also a special 17-inch LT tire available to further enhance off-road capability. All 4x4 trucks offer a choice of manual or electronic shift-on-the-fly four-wheel-drive systems.

The F-150’s four-channel Anti-lock Braking System (ABS) not only improves braking performance but provides the necessary foundation for enabling technologies like AdvanceTrac® with RSC® and the integrated trailer brake controller. A large brake booster and master cylinder offer more responsive braking with a better pedal feel and less noise and vibration.

Size Matters, F-150 Delivers

In addition to improved payload and towing capacity, the new 2009 F-150 SuperCrew offers more usable space for moving people and gear – thanks to a 6-inch stretch that improves rear seat legroom and cargo capacity.

A mechanically articulated second-row seat flips up and folds against the back of the cab by simply pushing up on the seat bottom, a move easily done with one hand, allowing easier loading and unloading of the truck's rear seating area. The new SuperCrew's longer door moves the B-pillar further back, improving the driver's peripheral vision.

"The flat load floor and fold-up rear seat allow for a much better use of cargo space," O'Leary said. "After F-150 customers find their way to their favorite electronics store on their 8-inch navigation screen in the instrument panel, they have enough room to safely and securely load their new large flat-screen television into the flat-load floor and take it home."

The flip-up seats combined with the flat-load floor, allows items up to 47.9 inches tall to be stored safely from the outside elements and secured in the locked cab. The total cargo space behind the front seats is a class-leading 57.6 cu. ft.

The center section of the front bench seat features hidden storage and on Lariat models the center section of the back seat folds down into an armrest for rear seat passengers.

Easy on the Ears

Beneath its skin, the new F-150 uses a comprehensive sound package and class-exclusive features to deliver a segment-leading quiet and refined ride.

An exclusive Quiet Steel dash panel combines with an expanded absorber on the engine side of the dash panel to limit the amount of unwanted noise coming from the engine compartment. A single-piece substrate under the instrument panel replaces the former multi-piece unit, reducing the risk of squeaks and rattles and boosting perceived quality. The Regular Cab utilizes a soft-trim back panel to improve interior quietness. All models receive a new acoustic headliner.

The F-150 Platinum adds a laminated windshield and ultra-light, more absorptive carpeting and additional insulation in the dash panel, doors and back panel to deliver the kind of quiet ride that's expected of today's luxury SUVs.

"The F-150 Platinum is quieter inside than the Lexus LX 450, according to tests that combined scores for wind noise, road noise and harshness measured at highway speeds," O'Leary said. "We set the bar high with this truck, because we know customers equate quietness with quality."

All new F-150s have been tuned from top to bottom to reduce NVH, including all the exterior body panels. Computer models were made to determine where to add curvature and grooves to the metal panels to reduce vibration. New powertrain mounts, in addition to being more durable, also deliver vibration-free performance at idle and while cruising on smooth roads.

The powertrain was tuned to optimize vehicle dynamics, shift quality and durability while reducing unwanted noise and vibration. For example, the standard 6-speed transmission on the 5.4-liter and 4.6-liter 3-valve V-8s reduces gear whine by 10 to 15 dB versus the outgoing 4-speed unit.

The new Ford F-150's segment-leading quiet ride stems in part from an ingenious technology called the Multi Activation Regression Simulation (MARS) model. Sound technicians use the MARS computer model to balance different sound inputs coming into the vehicle – from the powertrain, wind and the road – and make all the sounds blend harmoniously.

"There are some vehicles out there that sound unbalanced. They are good for two of the three attributes, say wind and road noise, but are pretty bad for powertrain noise," said Mark McCarthy, Ford Truck NVH Engineering manager. "What we've done with the new F-150 is focus less on getting each attribute as quiet as possible and work on getting all the levels in balance so the vehicle sounds and feels a little bit more harmonious."

The sound balancing exercise and having such precise control over all the sound attributes allowed engineers to focus on the engine note, introducing certain frequencies back into the truck to give the engine a pleasing, powerful sound.

All-V-8 Powertrain Lineup

The new F-150's engines do more than sound good.

- **The 5.4-liter, 3-valve Triton V-8** has been optimized for better performance with improved horsepower and torque and is capable of running on E85 (85 percent ethanol and 15 percent gasoline), pure gasoline or any blend in between.
- **The 4.6-liter, 3-valve V-8** is new for F-150. Both the 5.4-liter and 4.6-liter 3-valve V-8s utilize open valve injection. This unique feature improves the flow of fuel into the combustion chamber and allows for more precise control of the combustion process. This results in an increase in horsepower during towing and higher rpm operations along with an improvement in emissions.
- **The 4.6-liter, 2-valve V-8** is the third V-8 choice in the line-up and delivers more horsepower with the same fuel economy numbers as the outgoing V-6.

All three engines are full LEVII capable meeting California's Tier 2 Bin 4 tailpipe and evaporative emissions regulations.

"We're including Ford-tested-tough V-8 engines throughout our F-150 lineup," O'Leary said. "We listen when customers tell us that performance is much more than horsepower and torque numbers. For them, it's all about towing and hauling, and this powertrain line-up delivers the class-leading capability that customers demand."

The 5.4-liter and 4.6-liter 3-valve V-8s are mated to standard 6-speed automatic transmissions. The 6-speed has been designed to meet the demands expected of America's most-capable pickup while delivering a significant improvement in performance feel and a fuel economy increase of about 1 mile per gallon.

All internal components of the smooth-shifting 6-speed have been upgraded to handle higher torque capacities; these include more robust clutch packs, bigger pump and bigger output shaft. The transmission's hydraulic system also was beefed up to enable improved idle speeds and improved converter clutch duty cycles.

Building on Safety Leadership

The 2009 F-150, with an all-new hydro formed steel body structure including an industry-first use of tubular ultra-high strength steel, is engineered to earn top safety ratings from the National Highway Transportation Safety Administration and the Insurance Institute for Highway Safety.

Standard safety equipment includes: AdvaceTrac® with RSC®; ABS; Safety Canopy™ side curtain air bags with roll-fold technology for enhanced head protection in rollovers and side impacts; front seat-mounted side air bags; Personal Safety System; and new seats and restraints designed to earn a "Good" rating from IIHS in low-speed rear-end collision testing.

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