

- Engineering improvements boost the performance, capability and durability of the Ford-designed and Ford-built 6.7-liter Power Stroke[®] V8 turbo diesel engine
- Upgraded 2015 Ford F-450 pickup offers more towing capability than ever
- 2015 Ford F-Series Super Duty King Ranch restyled, combining authentic Texas heritage with modern luxury

DALLAS, Sept. 26, 2013 – Ford, America’s truck leader, introduces the 2015 F-Series Super Duty lineup today at State Fair of Texas, featuring a second-generation 6.7-liter Power Stroke[®] V8 turbo diesel engine; increased towing capabilities; and a refreshed, Texas-inspired King Ranch model.

“Truck leadership means never resting, and the Super Duty team has been tireless in finding ways to improve the industry’s most popular heavy-duty pickups,” said Joe Hinrichs, executive vice president and president of The Americas, Ford Motor Company. “Super Duty diesel customers will benefit from improved performance and features backed by outstanding Built Ford Tough durability.”

Since the 6.7-liter Power Stroke V8 turbo diesel debuted in 2011, Ford engineers have listened to customers and continued to examine each component of the engine to develop improved performance.

Ford is the only heavy-duty pickup truck manufacturer that designs and builds its own diesel engine and transmission combination, ensuring the powertrain will work seamlessly with all chassis components and vehicle calibrations – from concept to execution.

This approach also enables Ford engineers to optimize the vehicle's performance across the entire lineup.

A key Ford innovation on the original 6.7-liter Power Stroke V8 turbo diesel was its so-called reverse-flow layout. The advanced design places the exhaust inside the engine's V-shape while the air intake is positioned on the outside of the V. This segment-exclusive design naturally improves a variety of attributes:

- Shorter airflow from the exhaust system to the turbocharger sitting between the engine's cylinder banks improves turbo responsiveness – key to providing torque quickly to truck customers when they need it most
- Positioning the turbo inside the engine's valley helps isolate the engine's hottest temperatures, improving performance and efficiency, while also reducing noise, vibration and harshness

Ford engineers built upon the many benefits of this design as they upgraded the Power Stroke. One improvement is a larger GT37 turbocharger that replaces the previous GT32 model, enabling more airflow to the engine to produce more power beyond today's 400 horsepower and 800 lb.-ft. of torque.

Key components of the new GT37 turbocharger

The GT37 features a single, larger 88-millimeter compressor wheel that replaces the GT32's dual-sided compressor design. The compressor forces air into the engine's cylinders to improve performance – especially at high altitude where the air is thinner than at sea level. The turbine size is increased to 72.5 millimeters from 64 millimeters, so exhaust gases have a larger surface area to spin the turbo, providing extra power. The wastegate and the wastegate controls are eliminated, because the turbo operates at

lower peak pressures than the GT32.

“The original designers of the current Power Stroke V8 diesel forecasted needs for higher output. This facilitated the larger turbocharger, increasing airflow and creating more power,” said David Ives, Power Stroke technical specialist. “We’ve dramatically improved performance while reducing overall engine complexity by focusing on the turbo system.”

A further benefit of the larger turbo is improved engine exhaust braking, manually controlled by a push-button switch on the dashboard. Extra braking power helps reduce wear and tear on wheel brakes and requires less manual brake application from the driver, especially on downhill grades.

Fuel system improvements

Turbo changes drove improvements to the fuel delivery system, specifically a new high-pressure fuel pump and fuel injectors. The pump’s cam stroke is increased to deliver more fuel when desired for increased power. All-new injector tips better atomize the fuel, resulting in improved combustion that enables lower noise, vibration and harshness. Other benefits include cleaner emissions and a reduction in the buildup of fuel deposits on the valves over time.

In addition, a new exhaust temperature sensor enables more accurate fuel control, which improves both durability and driveability – especially when towing – and helps the customer drive the Power Stroke diesel to its maximum capability.

Even though the fuel system delivers extra fuel as needed to provide more power, other efficiency improvements ensure 2015 Ford F-Series Super Duty pickup customers see similar

performance to today's best-in-class fuel economy.

Further enhancements to Ford Power Stroke diesel include:

- Ford-designed and -engineered 6R140 TorqShift[®] six-speed transmission uses a new torque converter to manage increased horsepower and torque
- New polymer coating on main bearings for improved wear-and-tear durability and lower friction
- Improved crankshaft fillet design – the transition point between the crankshaft's journals – to increase crankshaft power carrying capability
- Increased crankshaft damper weight to reduce rotating forces on the crankshaft when the engine is performing at peak power levels
- New five-layer head gasket to handle wider range of engine firing pressures resulting from more powerful engine performance
- Added material to the engine's cylinder heads, exhaust manifold and valvetrain to handle increased power levels
- Redesigned turbo oil and cooling lines to improve sealing
- Piston assembly upgrades to increase load-bearing capability
- New four-layer exhaust manifold gasket for improved durability

2015 Ford F-450 upgrades

The 2015 Ford F-450 tops the F-Series Super Duty pickup truck lineup with maximum towing and hauling capability. Changes for 2015 include a strengthened frame, suspension, new commercial-grade 19.5-inch wheels and tires, and core work components shared with F-Series Super Duty chassis cab models.

Just as the next-generation Power Stroke engine reflects changes that improve power while maintaining durability, the Super Duty engineering team took specific actions to bolster key F-450 components to improve towing capability, including:

- Upgraded rear driveline U-joints
- Upgraded suspension components, including new rear leaf springs, front and rear stabilizer bars and shocks
- Increased fifth-wheel and gooseneck trailer capacity
- Stronger steering gears and steering linkages
- Larger brakes shared with Super Duty chassis cab models, including wheel brakes, parking brake and new antilock brake calibration
- F-450-specific Power Stroke diesel engine calibration

King Ranch expresses authentic, rugged luxury

The reinvigorated update to the 2015 Ford F-Series Super Duty King Ranch edition is inspired by the place where American ranching was born.

“King Ranch is an American original with a proud heritage of hard work that defines the American ranching lifestyle,” said Doug Scott, Ford Truck group marketing manager. “The 2015 Ford Super Duty King Ranch seamlessly combines elements of Texas-inspired luxury

and Ford capability.”

As part of the Ford Truck commitment to continuous improvement, the F-Series design team traveled to King Ranch, founded in 1853, for fresh perspective and inspiration from the 825,000-acre working ranch, which is bigger than the state of Rhode Island.

“What really stood out is how prominent the ‘Running W’ is, and how it defines and unifies the ranch,” said Barb Whalen, Ford color and material design manager. “Similarly, we wanted that brand to define the new Super Duty King Ranch.”

On the new Super Duty King Ranch, the Running W – the brand used on cattle raised at the ranch – provides a focal point for the interior. It is cut out and stitched to make the seat backs and center console appear to have been branded.

A lighter, richer shade of Mesa leather trims the seats, center console lid, armrests and steering wheel.

Exterior updates include the new, darker Caribou paint for the wheel lip moldings, bumpers and lower body. The bed rail caps, bumper caps and running boards are executed in black. The Running W brings focus to the wheel caps as well.

“Through premium materials and thoughtful execution, we strived to make the 2015 Ford Super Duty King Ranch have a look and a feel as authentic as the ranch itself,” said Scott.