

2010 F-150 SVT Raptor Overview

- Ford's Special Vehicle Team (SVT) taps into growing off-road enthusiast market and builds on the Ford F-150's solid foundation to deliver the ultimate off-road performance truck – the 2010 Ford F-150 SVT Raptor
- Internal triple bypass shocks by FOX Racing Shox – an industry-first on a production truck – help provide smooth ride; wider design key to harnessing all-new suspension and tire package
- The F-150 SVT Raptor launched with Ford's proven 5.4-liter Triton® V-8 with 320 horsepower and 390 ft.-lb. of torque for a powerful punch; an optional all-new 6.2-liter V-8 engine with 411 horsepower and 434 ft.-lbs. of torque is also now available

Preparing to blaze new trails, the all-new 2010 Ford F-150 SVT Raptor is ready for the most challenging desert and off-road adventures. But this purpose-built, high-speed off-road truck also is engineered to be versatile enough to take on the everyday commute.

"With Raptor, we're taking the established performance of the F-150 to the next level and proving just how much Ford trucks can do," said Derrick Kuzak, Ford's group vice president for Global Product Development. "The F-150 SVT Raptor doesn't just appear to be off-road-ready. It *is* off-road-ready. It was built with the off-road enthusiast in mind and will give consumers an off-road experience no other vehicle can."

Ford's Special Vehicle Team (SVT), known for engineering high-performance vehicles that exceed customer expectations, has outdone itself with the F-150 SVT Raptor. Combining the SVT performance strategy with the iconic F-150 brand, it delivers the ultimate in "Built Ford Tough."

The 2010 F-150 SVT Raptor was built specifically to fulfill the desires of the highly demanding and growing off-road performance market. High-performance off-road trucks are a market that is largely untapped, allowing SVT Raptor to set the bar for this type of vehicle.

"We took F-150 SVT Raptor one step further than any other truck out there," said Jost Capito, director of global performance vehicles and motorsports business development. "Raptor will show off its tremendous capabilities in nearly any scenario – on road, or off."

F-150 SVT Raptor also has a racing-ready version – F-150 SVT Raptor R – that has established its racing pedigree and performance capability.

Looks tough and fast

Built alongside the F-150 at Ford's Dearborn Truck Plant, the new SVT Raptor takes the tough, chiseled look of the F-150 to a new level with a design that gives the impression it always is on the move.

Noticeable exterior differences between the Ford F-150 SVT Raptor and the conventional F-150 start with a distinctive grille that has the Ford name carved into it. Additional exterior differentiation includes front bumper, front fascia and fenders, functional vented hood extractors, fender extractors with "SVT" bored out, visible FOX Racing Shox and skid plates on the underbody for protection.

Another key difference between Raptor and the base F-150 is that the SVT truck is more than seven inches wider, which was necessary to harness the wider suspension and larger tires. Designers took advantage of this difference and highlighted it with distinctive marker lamps integrated into the F-150 SVT Raptor's front end, as opposed to on top of the cab. When lit up, Raptor's imposing stance is immediately recognizable.

While the exterior design of the F-150 SVT Raptor is about creating an image, the interior design is

about creating the feel of the truck, and both must complement each other.

Design elements from the unique grille and front fascia have been carried through to the interior on the console and dashboard. The steering wheel is wrapped in black leather and features a Molten Orange leather strip that serves as a centering sight line – which is especially useful in extreme driving maneuvers. Two-tone leather-trimmed seats have upper and lower leather bolsters with fabric and perforated leather inserts, for a more comfortable ride.

Revved up and ready

The Ford F-150 SVT Raptor is powered by F-150's proven 5.4-liter Triton V-8 three-valve engine, which delivers 320 horsepower and 390 ft.-lb. of torque to power the truck through any terrain it faces. An optional 6.2-liter V-8 engine is now available, producing 411 horsepower and 434 ft.-lb. of torque.

The Ford powertrain team performed extensive testing to ensure the engines would live up to the Built Ford Tough promise. Hundreds of additional tests beyond the normal verification of truck engines, as well as vehicle testing on a 62-mile durability loop in the desert that simulates the Baja 1000, validated the performance of both engines for reliability and longevity in the harshest conditions.

Takeoff and landing

For the F-150 SVT Raptor, Ford changed the whole front suspension – with a new upper A-arm, new lower A-arm, new tie rod and new half-shaft joints. The truck also provides 12.1 inches of usable travel in the rear suspension and 11.2 inches in the front for a smooth ride – both off- and on-road.

"Building a high-performance off-road truck is not about the horsepower – it's about the suspension – and the F-150 SVT Raptor doesn't disappoint," said Jamal Hameedi, Ford SVT chief nameplate engineer. "It's well beyond what SVT has ever done with one of our vehicles."

Raptor's wider track and softer suspension mean it will comparatively glide over obstacles. And when it has to be "launched," be prepared for a soft landing.

"The suspension does all the work to keep the truck's attitude stable," added Hameedi.

Along with a beefed-up suspension, the F-150 SVT Raptor also boasts unique internal triple bypass FOX Racing Shox – an industry-first on a production truck. The internal bypass position-sensitive dampening feature allows the shock to become significantly stiffer as it travels into compression, preventing the truck from bottoming out.

By working with FOX internal bypass technology and applying the Ford engineering methodology, there haven't been trade-offs to assure extreme off-road handling over on-road ride comfort.

"We took the best of both worlds, the technical knowledge and understanding of off-road, shocks and tuning that FOX has, and the SVT knowledge of on-road, and melded it together and came up with a great solution," said Kerry Baldori, global performance chief functional engineer.

Tough truck, tough tires

The 2010 Ford F-150 SVT Raptor also sports an SVT-tuned 35-inch BFGoodrich® All-Terrain TA/KO 315/70-17 tire, which features a special tread compound to help provide precise and predictable steering.

To improve the tire's performance under a variety of conditions, engineering altered the compound of the tread, making the rubber softer for better performance on- and off-road. The interior of the tire also was modified to improve lateral firmness.

The tall sidewall on the 35-inch tire can handle rocks and irregular surfaces commonly experienced in an off-road environment. A 17-inch cast-aluminum wheel is designed to absorb the impact of objects the truck could encounter in some of the most extreme environments. Engineers were also able to fit a full-size spare tire on the truck for customer convenience.

Specialized technologies

The F-150 SVT Raptor provides the complete package for off-roaders, including state-of-the-art technologies and Class III 6,000-pound towing capability.

"For many years enthusiasts have been struggling with the performance of electronic technologies in the extreme off-road environment since that was not the environment they were designed for," Hameedi said. "What SVT has done is tailor technology to function in both an on-road and an extreme off-road environment."

The F-150 SVT Raptor offers an entire suite of connectivity features, including Ford SYNC®, SIRIUS Travel Link™, Voice-Activated Navigation and Sony® Audio System. Additional technologies on the truck include:

- **Trailer Sway Control** works in conjunction with AdvanceTrac with RSC and can determine from the truck's yaw motion if the trailer is swaying and take measures – such as applying precise braking or reduced engine torque – to bring both vehicle and trailer under control.
- **Integrated Trailer Brake Controller** is factory-installed and allows direct operation of the trailer's electronic brakes by squeezing the control module on the instrument panel with more confidence than the typical aftermarket system.
- **Tow Haul Mode** changes points under acceleration, keeping the truck at a higher rpm and further up in the power range. Tow Haul also prevents the transmission from upshifting when the vehicle crests a hill, and it provides downhill braking that allows the transmission to downshift, letting engine-compression braking slow the vehicle and maintain a steady speed.
- **Auxiliary Switch Board** on the center console makes aftermarket customization easier, with four prewired switches attached to the power distribution box for electrical accessories. Also located on the Auxiliary Switch Board are two switches for improved off-road performance – Hill Descent Control and Off-Road Mode.

Ford and off-road racing

Ford trucks have been a mainstay on the off-road racing scene for more than 20 years because of their long history of capability and durability. And desert off-road racing is something Raptor does well, proved by F-150 SVT Raptor R – the racing version of production Raptor – surviving the grueling 41st Tecate SCORE Baja 1000.

Prepared for racing in long-distance off-road endurance events, the F-150 SVT Raptor R uses stock components of F-150 SVT Raptor, including the frame, engine, steering, brakes, transmission and 4x4 system.

Along with the 2008 showing, Ford has displayed dominance in previous Baja 1000 races. Twelve Ford-powered vehicles have won the overall title for four-wheel vehicles – the most of any engine manufacturer.