



F-150 RAPTOR

2017 Ford F-150 Raptor

OVERVIEW

The all-new 2017 F-150 Raptor is the toughest, smartest, most capable Raptor ever, and re-defines what it means to be the only purpose-built, high-performance off-road truck—all with a base MSRP under \$50,000.

Ford developed the high-performance off-road truck segment with the first-generation and race-proven F-150 Raptor, and the all-new 2017 model spares no expense to build on the nameplates legacy by adding more power and torque, shedding up to 500 pounds over the previous model through the use of high strength, military grade, aluminum alloy, and has the most advanced powertrain, transfer case and suspension ever in an F-150. Raptor's average height increased two-inches and the custom-engineered Fox shocks are upsized to 3 inches in diameter. The truck also gets a unique set of BFGoodrich tires, which were designed specifically to enable Raptor to conquer any terrain.

Further technology improvements include an innovative Terrain Management System™ that changes between two-, four-wheel and AWD modes with terrain-specific powertrain calibrations based on the terrain mode selected to optimize performance in any driving condition. Other technological advancements include three steering modes, available SYNC® 3, and large multi-function LED screens on the center stack and IP capable of providing vehicle status monitoring and exterior visibility via a 360-degree camera system with Split-view Display.®

A fully street-legal stock 2017 Ford F-150 Raptor completed the 49th SCORE Baja 1000, as well as four Best in the Desert races through the 2016 season. This is the same truck that goes on sale in December 2016, with only minimal modifications made in order comply with safety regulations, including a roll cage, light bar, fuel cell and minor shock changes to handle the additional weight of the safety equipment. The race truck runs on the same BFGoodrich tires that will be standard on the production vehicle.

The truck performed flawlessly during the Baja 1000 and Greg Foutz and the team from Foutz Motorsports finished the race in 35 hours, 59 minutes and 8 seconds to place third in the stock full class. The crew then drove the truck back to their home shop near Phoenix, almost 400 miles away.

Original Raptor retained approximately 87.8% of its value, which is extraordinarily high for a two-year-old vehicle.

MSRP: \$49,520 – SuperCab, destination, taxes and fees extra



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DESIGN

Designed by Ford Performance, the 2017 F-150 Raptor enjoys a sculpted body design, which fits the profile of a desert racer that not only conveys a vision of performance but has functional gains from a 6-inch wider track, aggressive stance with flared wheel arches and redesigned front/rear bumpers. Key design features include:

- **Wide Body** – With an aggressive stance that adds six-inches of track width and nearly two inches more ground clearance over its predecessor, the 2017 F-150 Raptor features rounded wheel arches with large wheel lip profile moldings, and redesigned front/rear bumpers – all of which enables longer travel suspension and greater lateral stability for enhanced handling on- and off-road
- **Exterior Design** – The F-150 Raptor enjoys use of exclusive high-strength military grade aluminum in the body design that includes a dropped beltline, true dual rear exhaust, bold FORD lettering on rear tailgate and front mesh grille, which gives 360 degree harmony to the design, aerodynamic optimization, front fender extractors, front skid plates, signature LED grille lights and blacked out headlamps, exterior lighting and redesigned front and rear bumpers that improve approach and departure angles for extreme off-road capability – all to define the unique Raptor high-performance design language
- **Improved Aerodynamics** – The new F-150 Raptor features a 5 percent improvement in aerodynamics when compared to the previous generation model, thanks to improved body styling, upper and lower active grille shutters, optimized exterior component geometry (running boards, tow hooks covers, skid plates), functional hood and fender vents and under body shielding
- **Interior Design** – F-150 Raptor interior features include deep bolstered seating with exclusive embroidered Raptor logos and available color accent leather, a performance contoured steering wheel with magnesium paddle shifters, and optional carbon fiber trim accents that put the finishing touches on a spacious and generously-appointed interior. And for hardcore customers, roof-mounted auxiliary switches are located overhead for easy reach and can be used to control aftermarket equipment



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CHASSIS

Available in both SuperCab and SuperCrew, the all-new high-strength, military-grade aluminum alloy body on a high-strength steel box frame with extended suspension height and high-performance springs, and uniquely developed Fox shocks 3-inch racing dampers provide smoother on-road driving with increased off-road control and capability. Unique Raptor specifications include:

- **Designed for Raptor** – The all-new 2017 F-150 Raptor features its own high-strength steel box frames and include a Raptor-only SuperCab configuration with 134.2-inch wheelbase
- **Lighter, Yet Stronger** – F-150 Raptor is up to 500-pounds lighter than its predecessor thanks to its lighter, high-strength military-grade aluminum body, high-strength steel chassis and strategic use of lightweight materials. The results are a more agile, yet stronger chassis with greater torsional rigidity
- **Upgraded FOX Shocks** – Joint-engineered by Ford Performance and FOX, the 2017 Raptor gets 44 percent larger FOX shocks with 3-inch diameter shock canisters (2.5-inch previously) and nine-stage bypass damping for improved suspension control, plus integrated hydraulic bump stops minimize bottoming-out over rough terrain and improved overall heat dissipation
- **Increased Suspension Travel and Ride Height** – With the added 0.8-inches front and 1.9-inch rear wheel of increased wheel travel compared to its predecessor, the 2017 F-150 Raptor benefits from 13-inch front and 13.9-inch rear suspension travel. (Note: F-150 Raptor offers an increase of 5.7-inches and 4.4-inched rear suspension travel vs. F-150 with FX4 package which has 7.3-inches and 9.5-inches of front/rear suspension travel respectively.)
- **Aggressive Approach, Breakover and Departure Angles** – Along with increased ride height, redesigned front and rear bumper overhangs enable the 2017 Raptor to hit the trail hard and fast with its 30-degree front approach angle, 22-degree breakover angle, and 23-degree departure angle
- **Exclusive Tires and Off-Road Rims** – The 2017 Raptor comes with second-generation BF Goodrich KO2 tires designed exclusively for the Raptor's extended off-road capabilities. Ford Performance mounted them to available 17-inch forged alloy bead-lock capable rims for ultimate off-road traction and durability



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ENGINE

All-new second-generation 3.5-liter high-output EcoBoost V6 engine producing out 510 lb.-ft. of torque and 450 horsepower across a wide power band.

- 76 more ft.-lb. of torque (510 ft.-lb. vs. 434 ft.-lb.)
- 39 more horsepower (450 hp vs. 411 hp)
- 23 percent improvement in EPA combined fuel economy (16 mpg vs. 13 mpg)
- 22 percent improvement of torque-to-weight ratio

High power-density:

- 145 ft.-lb./L (up 107 percent compared to 6.2L's 70 ft.-lb./L)
- 128 hp/L (up 94 percent compared to 6.2L's 66 hp/L)

New engine features include:

- **H.O. Performance** – Includes piston-cooling oil jets. Higher boost twin turbochargers enable an increase of 85 horsepower and 50 lb.-ft. torque over the standard F-150 EcoBoost 3.5-liter engine
- **Dual Fuel Injection** – New port and direct fuel injection system draws on the power, efficiency and clean emissions that a dual fuel strategy provides, leaving many of the disadvantages behind (i.e. cold start GDI emissions)
- **New Lower-End Structure** – Includes crankshaft and bearing upgrades plus a two-piece oil pan for improved robustness, performance and best-in-class NVH
- **New Valve Train** – A new lightweight cam and dual-chain cam drive design saves weight and reduces parasitic friction loss
- **New Turbo Design** – Includes innovative electric actuated waste gate for more accurate boost control
- **Variable Displacement Oil Pump** – Electronic controlled, the new design modulates oil flow based on need to further reduce parasitic loss
- **Improved Powertrain Cooling** – Raptor-specific air-charge cooling system with dual 100-watt fans, plus standard heavy duty trailer-tow cooling system with a 23 percent larger core radiator (32 mm vs. 26 mm) and dual 700 watt brushless radiator cooling fans.
- **True Dual Exhaust** – Designed from scratch to ensure the maximum power from the Raptor high-output EcoBoost twin-turbo V6 and tuned to deliver an all-new performance signature sound.



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TRANSMISSION

All-new segment-first 10-speed automatic transmission delivers the right gear at the right time for improved power and torque application as well as improved fuel efficiency. New features include:

- **10-Speeds** – Maximizes shift points and 7.4 span gear ratios to optimize engine power, torque and efficiency, and can non-sequentially select the right gear ratio based on need for best-in-class performance
- **High-Speed One-Way Clutch** – Improves coasting, enables low-speed non-sequential shifts
- **Improved Kinematics (Reduced Internal Friction)** – minimizes nearly all internal torque loss for improved efficiency
- **Trailer/Tow Mode** – Reprograms shift points, adds engine braking
- **Ford Patented Hydraulics Controls** – Improves shift performance and overall flexibility
- **Gen II High Efficiency Filtration** – Improves system cleanliness for longer life, eliminates frequent fluid change requirements
- **Adaptive Learn Mode** – improves shift/drivability
- **Compact Package** – Only 25 mm longer than common 6-speed transmission
- **Patents** – Power flow, hydraulic controls, low flow fluid filtration (pending)
- **Internal Start/Stop Oil Pump** – Simplifies system integration, smoother restarts
- **Paddle Shifters** – Wheel mounted magnesium paddle shifters for fast manual mode up/down shifts



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TRANSFER CASE

All new advanced four-wheel-drive torque-on-demand transfer case with Terrain Management System™ automatically manages power and torque distribution to where it provides the best traction and optimizes driving performance. Key features include:

- **AWD/4WD Combination** – The first-of-its-kind transfer case merges all-wheel-drive and four-wheel-drive capabilities automatically so the Raptor can handle any driving situation on-road and off. Features a clutch-based torque-on-demand system that can automatically apply torque between the front and rear wheels, and also has a true mechanical lock for 4x4 High and 4x4 Low, combining the best of both worlds.
- **Terrain Management System™** – Exclusive patent pending six-mode driver control system automatically selects the most suitable two-, four (high/low)- and all-wheel drive mode as well as recalibrates engine, transmission, braking and stability control systems for optimum all-terrain performance. Terrain modes include:
 - **Normal** – Uses 2H for normal everyday driving an optimal fuel efficiency
 - **Sport** – Increases throttle response and provides a sportier feel – while the transmission holds gears longer to keep the truck in power, longer
 - **Weather** – Ideal AWD setting for inclement weather, while throttle response and AdvanceTrac is optimized for improved traction
 - **Mud and Sand** – 4H locked through the transfer case for increase traction in deep, loose surfaces, such as mud and sand. The rear differential is automatically locked.
 - **Baja** – 4H with locked transfer case with unique transmission shift schedule and engine controls utilizing anti-lag technology enabling maximum performance and quick response
 - **Rock Crawl** – 4L with locking rear differential, while using additional gear reduction (2.64:1 ratio) to provide a 50:1 crawl ratio for enhanced capability with improved powertrain response
- **Steering Modes** –For customized steering feedback, the selectable-effort electric power-assisted steering of Raptor offers 3 modes:
 - Normal for everyday driving
 - Sport for higher effort and more torque feedback
 - Comfort for lighter, easier to use steering



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IMPROVED EPA FUEL ECONOMY

Thanks to its all-new 3.5-liter high-output EcoBoost V6 engine paired with the first volume production 10-speed transmission, the 2017 F-150 Raptor enjoys improvement in all three EPA fuel economy label estimates – city, highway and combined – all while delivering more low-end torque and greater overall horsepower.

Combined EPA fuel economy increased 23 percent over the first generation Raptor. EPA estimated fuel economy* ratings for the 2017 F-150 Raptor are:

- 15 mpg city
- 18 mpg highway
- 16 mpg combined

TECHNOLOGY

The 2017 F-150 Raptor is the smartest, most technology-advanced Raptor ever with the advanced SYNC® 3 connectivity system, large LED multi-purpose screens in the center stack and instrument panels that display vehicle status monitors and extended exterior visibility via the 360-degree camera system with Split-view Display®. Additional technology features include:

- **SYNC® 3** – The most advanced passenger connectivity tool from Ford, SYNC® 3 enables voice-activated communications and entertainment system with advanced smartphone integration to Apple CarPlay™/Android Auto™ for improved device integration and flexibility
- **LED Multi-purpose Screens** – The new 8-inch center stack HMI screen and the multi-function Productivity Screen located in the instrument cluster provides drivers with relevant vehicle information and SYNC® 3 connectivity that includes vehicle status monitors, smart phone integration, navigation and entertainment
- **360-View Camera** – The 360-degree camera with available Split-view Display* allows drivers better all-around exterior visibility for improved maneuverability down narrow off-road trails, backing up in tight areas and towing. A unique lens washer system on the front camera is activated with the windshield wipers
- **Overhead Aux Switches** – Ceiling mounted overhead auxiliary switches are easy-to-reach and are configurable for aftermarket add-ons such as off-road lights or auxiliary compressor.



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