

2018  
*SHELBY GT 350*







## WORLD-CLASS PERFORMANCE

When Carroll Shelby developed his original 1965 GT350, his goal was to achieve ultra-quick lap times on road-racing courses – a car that could beat the then-dominant Jaguars and Corvettes in production sports-car racing. And Shelby's creation succeeded beyond all expectations.

When the men and women at Ford Performance began work on the new, 21st-century GT350, their goal was essentially the same – create a highly race-track-capable car with world-class performance. The result of their efforts is the most dynamically athletic production Mustang yet.

The Ford engineers took an innovative, no-compromise approach. They evaluated the performance and function of every system, component and shape, then designed and optimized all the parts to work in balanced harmony, and to reduce weight wherever possible. They also pushed the envelope with cutting-edge materials and technologies. The result: Driving a Shelby GT350 is the most balanced, nimble and exhilarating experience ever found in a production Mustang.



## PERFORMANCE CHOICES: GT350 OR GT350R

The GT350 and GT350R model variants of the 2018 Shelby GT350 are both highly capable performers for lapping days at race tracks, and both are street legal. However, the GT350R is more race-track oriented, with several comfort and convenience features deleted to lighten its weight.

### Shelby GT350

This dynamically athletic production Mustang is powered by the most powerful naturally aspirated Ford production engine ever. The engine's flat-plane crankshaft is the first of its kind ever used in a Ford V8-powered car. It gives very quick throttle response, and produces the GT350's exotic and unique exhaust snarl.

The Ford Performance engineers' extensive design and development work on the body created efficient air flow for powertrain and brake cooling. It achieved drag and weight reduction, along with balanced front and rear downforce. Every bit of the bodywork from the windshield forward is unique to this car, as are the rear fascia and diffuser.

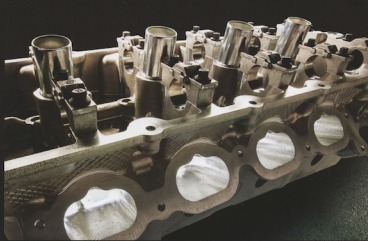
The GT350 is meant for owners who want a car with some hard-core racing equipment in it for track days, but also want one that's very streetable for everyday driving. The option packages offer higher-end equipment for comfort and convenience.

### Shelby GT350R

If you are not too concerned about comfort or convenience for street use, if you want to take your car to a race track to wring out that last tenth of a second of lap time, then the GT350R is for you. Some might even want it as the basis for an all-out, non-streetable race car. Ford Performance has deleted anything that adds unnecessary, performance-robbing weight, or causes parasitic power losses.

The R-Electronics Package makes the ultimate GT350 for non-racetrack use, or more comfortable on-track use. It allows serious lapping on a race track, in reasonable comfort, and also for street driving with the a good range of comfort and convenience features.

**NOTE:** Beginning in April 2018, all GT350R models will be produced with the R-Electronics Package as standard equipment.



## POWERTRAIN: SIMPLY AWESOME

### Engine

With 526 horsepower\* and 429 foot-pounds of torque on tap, the GT350's 5.2-liter V8 is the most powerful naturally aspirated production engine Ford has ever produced. This very special engine's flat-plane crankshaft was developed exclusively for this car, and it represents the first use of a flat-plane crank in a production Ford V8.

The engine breathes through an intake manifold with charge motion control (CMC) valves that are larger than those in the stock 5.0 V8, and thanks to high-lift camshafts with increased duration, the cylinder heads flow massive amounts of air.

The aluminum block's iron cylinder liners are removed, and plasma transferred wire arc (PTWA) technology is used on the bores. This larger bore diameter results in an over-square configuration – approximately 94 mm bore x 93 mm stroke – which increases low-end torque. PTWA also improves performance and durability, due to lighter weight plus reduced friction and heat transfer. The flat-plane crankshaft gives quick throttle response, and the exhaust's unique, throaty snarl.

The custom, high-flow exhaust system has "dual-mode" rear mufflers with single entries and dual outlets. An actuator valve in the muffler canister can be open or closed, depending on the driver's preference. When it is closed, the car is quiet and civilized; when open, the exhaust is essentially "free-flow" through the muffler, and the exhaust note is loud and guttural – a great sound that's unlike any other Mustang, or any other car, in fact.

### Transmission

The Tremec® 3160 6-speed, lightweight manual transmission is connected to the engine with a high-strength, dual-disc clutch. This combination has all the necessary torque capability, along with excellent high-rev shifting capability. This is essentially a bespoke transmission for the GT350, since the people at Ford Performance designed and tooling up a new case and gear set just for this car.

### Rear Axle

The torque bias and pre-loads in the TORSEN® limited-slip differential are specifically engineered for the GT350. The rear-axle ratio is 3.73:1.

### Cooling Systems

The GT350's engine water radiator is upsized from that of the Mustang GT and carries a higher volume of coolant.

All GT350s are equipped with oil-cooling radiators for the engine, transmission, and rear-axle.

The engine oil radiator's design is an elegant solution, located in the front bumper on the driver's side, with ducting to provide optimum air flow.

The transmission-oil radiator is on the other side of the front bumper, and the transmission circuit has its own internal pump.

The differential oil cooler is mounted in the lower rear diffuser, which allows much shorter runs of plumbing. Special ducting directs air through the cooler and out the rear bumper. The cooler also has its own electric pump, with a thermostat.

\* Achieved with 93 octane fuel.



## CHASSIS SYSTEMS: DYNAMIC REFINEMENT

### Basis: High Torsional Stiffness

The GT350's meticulously developed and tuned chassis systems help deliver the most balanced, nimble and exhilarating production Mustang yet. Their foundation is the 2015 Mustang platform – the strongest yet in the history of the brand, with torsional stiffness increased by 28 percent over the previous model.

### Suspension

The unique suspension design has new, lighter and stiffer knuckles front and rear (aluminum on the front), and new wheel bearings all around. They are designed specifically for lateral stiffness for very precise steering, and also to enhance brake modulation capabilities. Springs and stabilizer bars also are designed and tuned specifically for the GT350. Due to spring compression characteristics imparted by the independent rear suspension, coils in the left and right rear springs are wound in opposite directions to ensure that the spring rates are exactly the same on both sides.

### MagneRide®

All GT350s have MagneRide® dampers front and rear – the first-ever Ford application of this electronically controlled, semi-active suspension. Damping properties can be changed continuously, on the fly. The hydraulic fluid contains tiny metal particles that conduct an electric current, and adjustments in the current will magnetically change the fluid's viscosity almost instantaneously. Sensors monitor ride height, pitch, dive, and many more characteristics. A Ford-developed control module responds to an event within seven milliseconds, altering damping at individual corners to suit performance requirements.

### Brakes

The GT350's brakes are the biggest and most powerful ever installed on a production Mustang, and were designed and developed in-house by the Ford Performance team.

Front rotors measure 15.5 inches in diameter and 1.4 inches thick. They are cross-drilled, and have directional vanes in place of standard rotor vents – a very unusual feature for a production car. These vanes direct air flow through and away from the rotor much more efficiently, for more effective cooling.

The rotors are made in two pieces, with an aluminum "hat" in the center that bolts to the wheel hub, surrounded by the iron rotor. This design reduces unsprung weight, and also reduces heat transfer into the hub and bearing.

Clamping the front rotors are Brembo 6-piston fixed calipers. They are extraordinarily stiff, delivering pedal feel that is smooth, refined, and easy to modulate.

The rear brake rotors are 14.9 inches by 1 inch, also manufactured from two pieces – aluminum hat and iron ring – with Brembo 4-piston calipers.

### Steering

The electric power rack-and-pinion steering system is very precise and responsive. Control arm attachment points are revised to spread the double ball joints farther apart. This moves the steering angle outward for increased steering responsiveness. The EPAS system's tuning pack has selectable Normal, Sport, Track and Wet settings that are specially calibrated for GT350.



### Wheels & Tires

GT350 wheels are the Ebony Black painted aluminum alloy, measuring 19 x 10.5 inches in front, and 19 x 11 at the rear. They are shod respectively with 295/35 ZR19 and 305/35 ZR19 Michelin Pilot Super Sport tires that are specially developed for the GT350.

The GT350R is equipped with lightweight carbon-fiber wheels that provide approximately 60lb. of weight savings over equivalent aluminum wheels. The front wheels measure 19 x 11 inches and rears are 19 x 11.5, with ultra-high-performance Michelin Pilot Sport Cup 2 tires – 305/30 ZR19 front and 315/30 ZR19 rear – also developed for these specific models.

### AERODYNAMIC DESIGN: BALANCE AND FLOW

The entire front of the GT350 is specially designed to reduce drag and front-end lift. The fascia is more closely sculpted around the front of the car, and the hood is significantly lower, wrapping snugly over the engine.

All air that flows through the front fascia is managed. It flows through the powertrain coolers, and through the GT350's unique brake ducts to provide a large volume of cooling air. An air extractor in the aluminum hood vents hot air from around the engine, and also exhausts trapped air that creates lift and drag.

The front splitter and belly pan were designed together as a system for both aerodynamic and structural purposes. Vertical winglets on the outer



sides of the splitter help create efficient airflow around the body and, farther back, additional winglets on the front of the rocks manage air flow along the lower sides of the body.

The belly pan provides structural support for the splitter, which has to withstand high aerodynamic loads. The belly pan also helps block air from entering the engine bay and causing front-end lift. It has several mini venturi tunnels that help create downforce and reduce drag, and some of them direct air into the wheel arches to help cool the brakes. The wheel arch liners themselves are specially designed to manage airflow from the front of the car.

The GT350's aluminum front fenders are wider than the Mustang GT's to accommodate larger wheels and tires, and designed to optimize aero performance. Functional vents behind the wheels exhaust hot air that's trapped in the wheel well.

At the rear of the car, a unique diffuser is designed to channel air into the rear axle cooler, and to manage airflow out of the back to control downforce.

From the beginning, the GT350's design and development processes incorporated a carefully planned and coordinated approach. The goal – and the achievement – was to harmonize front and rear downforce to create a car with exceptionally well-balanced performance dynamics.

## 2018 SHELBY GT350 TECHNICAL DATA

### POWERTRAIN

- Ford 5.2-liter DOHC all-aluminum V8 engine
- Bore x stroke: 94mm x 93mm
- 12:1 compression ratio
- 526 hp @ 7500 rpm (achieved with 93 octane fuel)
- 429 lb.-ft. torque @ 4,750 rpm
- Redline: 8,250 rpm
- 87mm throttle body
- Flat-plane, forged-steel crankshaft
- Forged-aluminum pistons
- Forged-steel, I-beam connecting rods
- Lightweight polymer oil pan with windage tray

High flow dual exhaust with X-pipe and active-valve mufflers

Lightweight Tremec® 3160 6-speed manual transmission

Dual-mass flywheel  
215mm dual-disc clutch

3.73:1 TORSEN® limited-slip differential with GT350-specific bias ratios

Engine, transmission and differential oil coolers

### SUSPENSION AND STEERING

MagneRide® semi-active suspension front and rear

Front suspension: independent MacPherson strut with double ball joints

- 194 lb./in. coil springs
- 240 lb./in. coil springs
- 34 x 5.7mm tubular stabilizer bar
- Aluminum knuckles with performance wheel bearings
- Lightweight tower-to-tower strut brace

Rear suspension: independent multi-link  
914 lb./in. counter-wound coil springs  
22.2 x 3.9mm tubular stabilizer bar

Electric power assist rack-and-pinion steering

### FRONT BRAKES

SHW® 394mm rotors with aluminum center "hat" and cross-drilled iron ring with directional cooling vents

Brembo™ 6-piston monobloc calipers, fixed-bridge, radial mount

### REAR BRAKES

SHW® 381 x 25.4mm rotors with aluminum center "hat" and vented, cross-drilled iron ring

Brembo™ 4-piston monobloc calipers

Drum-in-hat parking brake

### WHEELS & TIRES, GT350

Ebony-Black-painted aluminum wheels,  
19 x 10.5 in. front, 19 x 11 in. rear

Specialty developed Michelin Pilot Super Sport tires,  
295/35 ZR19 front, 305/35 ZR19 rear

### WHEELS & TIRES, GT350R

Lightweight carbon-fiber wheels, 19 x 11 in. front,  
19 x 11.5 in. rear

Specialty developed Michelin Pilot Sport Cup 2 tires,  
305/30 ZR19 front, 315/30 ZR19 rear

### SELECTED FEATURES

Standard exterior colors available: Kona Blue Metallic (new), Lead Foot Gray (new), Shadow Black, Magnetic Metallic, Lightning Blue Metallic, Race Red, Oxford White

Aerodynamic treatments: front splitter and grille, underbody shield, diffuser, rear spoiler, air curtains

Aluminum hood with center air extractor

Aluminum front fenders with air extractors

Aluminum front bumper

Selectable drive modes: Normal, Sport, Weather, Track, Dragstrip

Performance shift indicator

Driver and steering mode control

Unique instrument panel and gauges

RECARO cloth seats with Mikro® suede inserts, manual adjustment

### GT350R Deleted Content

- Rear seats
- Air conditioning
- Audio system
- Auxiliary gauges
- Rear-view camera
- Floor mats
- The inflator and sealant kit
- SYNC® and USB port
- Auxiliary audio jack



### PACKAGES AND OPTIONS

#### Shelby GT350

##### ELECTRONICS PACKAGE

- 9-speaker audio system
- SiriusXM® radio
- SYNC® 3 – enhanced voice recognition communications and entertainment system. Includes 8" LCD touchscreen with AppLink™, 911 Assist®, and 2 smart-charging USB ports
- Dual-zone automatic temperature control
- Soft door rollover
- Turn signal mirrors
- Universal garage door opener
- Voice-activated touchscreen navigation system with SiriusXM Traffic and Travel Link®

##### CONVENIENCE PACKAGE

- Includes all Electronics Package content, plus:
  - Leather-trimmed sport seats with seat back map pockets (replaces standard RECARO cloth/Mikro® suede sport seats)
  - 4-way adjustable head restraints
  - 6-way power driver seat with power lumbar
  - 6-way power passenger seat
  - Heated and cooled front seats
  - Memory recline (driver's side only)

##### Stand-Alone Options

- Painted black roof
- "Over-the-top" racing stripe
- Orange Fury Metallic Tri-Coat paint (new)
- Ruby Red Metallic Tinted clearcoat paint
- Triple Yellow tri-coat paint

Factory Invoiced Accessories (FIA) – Shipped separately from the vehicle for dealer installation  
- Full Vehicle Cover (WeatherShield; Cobra® logo on hood area, Shelby® logo on back)

#### Shelby GT350R

##### R-ELECTRONICS PACKAGE

- (standard beginning in April 2018)
- 9-speaker audio system
- AM/FM stereo, single-CD player
- SiriusXM® radio
- SYNC® 3 – enhanced voice recognition communications and entertainment system. Includes 8" LCD touchscreen, voice-activated navigation system, AppLink™, 911 Assist® and 2 smart-charging USB ports
- Dual-zone automatic temperature control
- Rear view camera
- Soft door rollover
- Turn signal mirrors
- Universal garage door opener
- Auxiliary gauges
- Floor mats
- Tire inflator and sealant kit

##### Stand-Alone Options

- "Over-the-top" racing stripe
- Orange Fury Metallic Tri-Coat paint (new)
- Ruby Red Metallic Tinted clearcoat paint
- Triple Yellow tri-coat paint

Factory Invoiced Accessories (FIA) – Shipped separately from the vehicle for dealer installation  
- Full Vehicle Cover (WeatherShield; Cobra® logo on hood area, Shelby® logo on back)

