

# Shelby GT500 | 2013

## Table of Contents

### What's Important

Key Messages	58
Key Features Overview	58
New for 2013	59

### Model Lineup

Shelby GT500 Coupe and Convertible	60, 61
------------------------------------	--------

### Performance/Handling

Aerodynamics	70
AdvanceTrac	
Sport Mode	67
Driving Modes	68
Axle, Rear	67
Bilstein™ Electronically Selectable Dampers (ESD)	69
Brakes, 4-wheel Disc	70
Driveshaft, One-piece Carbon Fiber	66
Dual Exhaust System	65
Emergency Tire Inflation Kit	70
Engine, Supercharged 5.8L DOHC 32-valve V8	
Air-to-Water Intercooler	65
Aluminum Engine Block	63
Engine Cooling	64
Engine Over-rev Indicator	63
Key Features	62
Plasma Transferred Wire Arc (PTWA) Technology	63
Roots-type Eaton Supercharger	65
Ford Racing Mustangs	19
Fuel Economy, EPA-estimated	65
Interactive Launch Control	67
Packages	
SVT Performance Package	72
SVT Track Package	72
Steering	
Drift Control	70
Driver Selectable-effort	70
Electric Power-assisted (EPAS)	70
Suspension	
3-link Rear with Panhard Rod	69
MacPherson Strut Front	69
Track Apps	71
Transmission	
Programmable Performance Shift Indicator	66
TREMEC® 6-speed Manual	66
Wheels and Tires	70

### Safety/Security

**NOTE:** See the Mustang Safety/Security section for descriptions of shared features.

AdvanceTrac Electronic Stability Control	23
Airbag, Front-seat Side	24
Anti-lock Braking System (ABS)	23
Anti-theft Systems	25
Crash Test Ratings	
IIHS	27
NHTSA	26
LATCH System	25
MyKey	25
Personal Safety System	24
SOS Post-Crash Alert System	25
Tire Pressure Monitoring System (TPMS)	24
Traction Control	24

### Comfort/Convenience

**NOTE:** See the Mustang Comfort/Convenience section for descriptions of shared features.

4.2" LCD Message Center	29
Audio/Navigation/Entertainment	
Audio Input Jack	33
HD Radio™	34
Shaker™ System	33
Shaker Pro System	33
SiriusXM Satellite Radio	34
SiriusXM Traffic and SiriusXM Travel Link Services	35
Voice-activated Navigation System	35
Dual-zone Electronic Automatic Temperature Control	30
Easy Fuel Capless Fuel Filler	29
Electronics Package	73
Integrated Blind Spot Mirrors	28
Keyless Entry with Integrated Keyhead Transmitter	30
Rear View Camera	28
Reverse Sensing System	28
Seating	
Features	73
Fold-down Rear-seat Head Restraints	31
Split-fold Rear Seat Backs	31
Spring-assisted Front Seat Backs	31
SYNC Technology	32
Universal Garage Door Opener	30

### Quality/Reliability/Durability

**NOTE:** See the Mustang Quality/Reliability/Durability section for descriptions of shared features.

24-Hour Roadside Assistance	37
Durability Testing	37
NVH Features	74
One-piece Instrument Panel	74
Warranties	37

### Design/Styling

**NOTE:** See the Mustang Design/Styling section for descriptions of shared features.

Ambient Lighting	77
Convertible Features	47, 48
Exterior	75, 76
Flow-through Center Console	77
Glass Roof	75
Headlamps, High-intensity Discharge (HID)	39
Instrument Panel	73, 76
Interior	77
MyColor	43
Sequential LED Tri-bar Turn Signals	40
Stripes	76
SVT Performance Package	77

### Wheels

	78
--	----

### Color and Trim, Stripe Choices

	78, 79
--	--------

### Key Product Specifications

	80
--	----

2013

# Shelby GT500

## *What's Important*

### Key Messages

**NOTE:** This section is dedicated to Shelby GT500-specific information. See the Mustang section for features shared by Shelby GT500 and Mustang.

- New for 2013 Shelby GT500 is an aluminum 5.8L supercharged V8 engine that produces 650 horsepower<sup>(1)</sup> and 600 lb.-ft. of torque,<sup>(1)</sup> making it the most powerful production V8 engine in the world<sup>(2)</sup>
- Nearly every vehicle system has been optimized, including the powertrain, brakes, gearing and suspension
- SVT Performance Package now features Bilstein™ electronically selectable dampers and a TORSEN® limited-slip differential
- New Track Apps gives drivers instant performance information, such as measuring g-forces, acceleration times and braking distance and more, on a 4.2" LCD screen located in the instrument cluster
- New performance-driven exterior design features new downforce-generating front grilles, aggressive lower splitter, dual exhaust system with quad-tips and two new wheel designs

### Key Features Overview

**Supercharged 5.8L DOHC V8 engine with 650 horsepower<sup>(1)</sup> and 600 lb.-ft. of torque<sup>(1)</sup>**  
(pp. 62, 63)

**6-piston Brembo™ front brake calipers**  
(p. 70)

**SVT Performance Package and SVT Track Package**  
(p. 72)

**Interactive launch control**  
(pp. 67)

**Bilstein™ electronically selectable dampers (ESD)**  
(p. 69)

**One-piece carbon fiber driveshaft**  
(p. 66)



**TREMEC® 6-speed manual transmission**  
(p. 66)

(1) Pending SAE approval.

(2) Based on current production models, and manufacturer horsepower data. Coming Summer 2012.

# Shelby GT500

## What's Important

# 2013

Shelby GT500

### New for 2013

#### Performance/Handling

- 5.8L supercharged V8 engine
- Performance switches for launch control, steering and driver selectable dampers
- Aerodynamic advancements that enhance performance and handling
- Brembo™ 6-piston front calipers
- Upgraded front and rear brake rotors and linings
- Eaton TVS Series 2300 Supercharger
- Interactive launch control with selectable rpm
- Engine over-rev to 7000 rpm
- Upgraded clutch and clutch control system
- Upgraded and optimized transmission
- Upgraded 3.31:1 rear axle with limited slip differential with carbon fiber clutch plates
- Dual exhaust with quad-tip mufflers
- SVT Track Package
  - Differential cooler with electric pump
  - External engine oil-to-air cooler
  - Transmission cooler with integrated mechanical pump
- Shelby Track Apps
- Upgraded cooling system
- Updated SVT Performance Package
  - TORSEN® 3.31:1 limited-slip rear axle differential
  - 19" x 9.5" (front) and 20" x 9.5" (rear) "Tarnish" painted forged aluminum wheels
  - Spoiler with Gurney Flap
  - Bilstein™ electronically selectable dampers (ESD)
  - SVT-tuned front and rear suspension
    - Unique front and rear springs
    - Unique front and rear stabilizer bars
  - Unique gear shift knob
  - One-piece carbon fiber driveshaft
  - Upgraded fuel system

#### Safety/Security

No changes for 2013

#### Comfort/Convenience

- 4.2" LCD message center
- Audio systems
  - Shaker™ system comes with 8 speakers and 370 watts of power
  - Shaker Pro system comes with 9 speakers and 550 watts of power
- Electronics Package now available with Shaker™ Pro audio system
- Optional heated driver and front-passenger seats
  - Not available with RECARO seats
- SYNC with SYNC Services (Traffic, Directions and Information, 911 Assist, Vehicle Health Report, AppLink and live Operator Assist)

#### Quality/Reliability/Durability

- No changes for 2013

#### Design/Styling

- Classic Shelby wide stripes design on all models
- Exterior colors
  - Deep Impact Blue Metallic
  - Sterling Gray Metallic
  - Red Candy Metallic Tinted Clearcoat<sup>(1)</sup>
- Front air splitter
- Grilles
- High-intensity discharge (HID) headlamp design
- Light-emitting diode (LED) taillamp design
- Rear fascia with quad-tipped exhaust
- Unique instrument cluster with over-rev indicator
- New armor instrument panel trim
- Leather shifter and hand brake boots

(1) Extra-cost option.

2013

# Shelby GT500

## Model Lineup

### Model Lineup Pages

The Model Lineup pages are based on the Dealer Ordering Guide and are designed to show key features/equipment on the 2013 Shelby GT500 as well as Equipment Group content. The Shelby GT500 is available as a Coupe or Convertible.

### Shelby GT500 Coupe and Convertible — Standard models



#### Performance/Handling

- AdvanceTrac Sport Mode
- Axle — modified 8.8" with 3.31:1 gear ratio and limited-slip differential
- Brakes
  - Anti-lock Braking System (ABS)
  - Vented four-wheel disc with Brembo™ front 6-piston calipers and rotors
- Driveshaft — one-piece carbon fiber
- Drivetrain — rear-wheel drive
- Engine — supercharged 5.8L 4V V8
  - 3-row air-to-water intercooler
  - Aluminum engine block
- Exhaust — stainless steel dual with H-pipe design and quad tips
- Interactive launch control
- Steering — electric power-assisted (EPAS)
  - Drift control
  - Driver-selectable effort
- Suspension — SVT-tuned
  - 3-link rear with panhard rod
  - Independent MacPherson strut front
- Tires — high-performance Goodyear® Eagle F1 Supercar G2
  - P265/40R19 front
  - P285/35R20 rear
- Track apps
- Transmission — TREMEC® 6-speed manual with performance shift indicator

#### Safety/Security

- Active anti-theft system
- AdvanceTrac electronic stability control
- Airbags
  - Dual-stage front
  - Integrated front-seat side
- Belt-Minder
- Emergency tire inflation kit
- LATCH (Lower Anchors and Tethers for Children) System
- MyKey
- Personal Safety System
- Safety belts
  - Front pretensioners
  - Manual 3-point shoulder and lap safety belt system on all seating positions
- SecuriLock passive anti-theft system
- SOS Post-Crash Alert System
- GT500 specific Tire Pressure Monitoring System (TPMS)

#### Comfort/Convenience

- 12V powerpoints (2)
- Air conditioning — manual
- Audio — Shaker™ single-CD/MP3 and 8 speakers
- Console — center, locking with full armrest and storage
- Convertible top, cloth — power with glass rear window
  - 5-bow design
  - Black soft boot
- Cruise control — steering wheel-mounted
- Cupholders — covered (2)
- Decklid release — remote
- Defroster — rear window
- Door locks — power
- Easy Fuel capless fuel filler
- Floor mats — black carpeted front with driver retention hook
  - Embroidered "GT500" logo
- Footrest — driver

- Instrument cluster
    - 4.2" LCD message center with over-rev indicator and Track Apps
    - 4-gauge with tachometer, speedometer, water temperature and fuel
  - Lighting — interior
    - Header-mounted dome
    - Illuminated entry
    - Lighted bezel (Convertible)
  - Map pockets — front doors and back of driver and front passenger seats
  - Mirrors, exterior — dual power with integrated blind spot mirrors
  - Remote Keyless Entry System with two integrated keyhead transmitters
  - Seating — leather-trimmed
    - Sport bucket seats with coiled Cobra logo and racing stripes
    - Driver 6-way power adjust with power lumbar and 4-way adjustable head restraint
    - Front passenger 2-way manual adjust and 4-way adjustable head restraint
    - Front-seat 4-way adjustable head restraints
    - Split-fold 50/50 rear (Coupe)
    - Rear-seat head restraints
    - Fixed rear seat backs (Convertible)
  - SiriusXM Satellite Radio
  - Steering wheel — GT500-specific leather-wrapped with thumb pads and tilt
  - Sun visors — include illuminated vanity mirrors, multi-purpose storage system
  - SYNC with SYNC Services
    - 911 Assist
    - AppLink
    - Live Operator Assist
    - Traffic, Directions and Information
    - Vehicle Health Report (VHR)
  - Universal garage door opener
  - Windows — power with one-touch-up/-down and global open controls
  - Windshield wipers — variable interval
- Quality/Reliability/Durability**
- Exhaust — stainless steel dual

(continued on next page)

**NOTE:** The above information is an excerpt to be used with pages 2–3 of the 3/1/12 Shelby GT500 Dealer Ordering Guide. For more information and the latest Dealer Ordering Guide, go to [fmcdealer.com](http://fmcdealer.com).

# Shelby GT500

## Model Lineup

# 2013

Shelby GT500

### Shelby GT500 Coupe and Convertible — Standard models cont'd

#### Design/Styling

- Air registers — aluminum accent
- Ambient lighting
- Badging
  - “SHELBY” on the rear decklid
  - “Shelby GT500” on the rear badge gas cap
- Fascia, front — GT500-specific with larger air intake and lower air splitter
- Fascia, rear — GT500-specific with underbody air diffuser
- Fog lamps, front — integrated into the fascia
- Grille — upper with coiled Cobra® badge
- Headlamps — high-intensity discharge (HID)
- Hood, aluminum — GT500-specific with functional heat extractor
- Instrument panel finish — aluminum with armor pattern
- Mirrors, exterior — body-color caps
- MyColor
  - 125 customizable colors
  - Instrument cluster backlighting
  - Speedometer and tachometer halo lighting
- Pedals — bright accelerator, brake and clutch
- Rear spoiler — GT500-specific, decklid-mounted with Gurney Flap
- Shift knob — white “cue ball” style
- Stripes
  - “GT500” side stripes
  - “Over-the-top” racing stripes (Coupe)
- Wheels — premium painted forged aluminum
  - 19" x 9.5" front
  - 20" x 9.5" rear

#### SHELBY GT500 EQUIPMENT GROUPS/OPTIONS

##### Equipment Groups

##### Equipment Group 820A

- Includes all Shelby GT500 standard equipment

##### Equipment Group 821A

##### SVT Performance Package

- TORSEN® 3.31:1 limited-slip rear axle differential
- 19" x 9.5" (front) and 20" x 9.5" (rear) “Tarnish” painted forged aluminum wheels
- Spoiler with Gurney Flap
- SVT-engineered Bilstein™ electronically selectable dampers (ESD)
- SVT-tuned front and rear suspension
  - Unique front and rear springs
  - Larger front and rear stabilizer bars
- Unique gear shift knob

##### Freestanding Options

##### Performance/Handling

- **SVT Track Package (55S) (Coupe with 821A only)**
  - Differential cooler with electric pump
  - External engine oil-to-air cooler
  - Transmission cooler with integrated mechanical pump

##### Comfort/Convenience

- **Electronics Package (58N)**
  - Dual-zone electronic automatic temperature control
  - HD Radio™
  - Voice-activated Navigation System
- Heated driver and front-passenger seats (51S) (Not available with 821A or 88Q)
- RECARO® leather-trimmed Sport bucket front seats (88Q) — manual adjustment
- Shaker™ Pro audio system (918)

##### Design/Styling

- Glass roof (59G) (Not available on Convertible)
- Tape stripe delete (46D)

**NOTE:** The above information is an excerpt to be used with pages 2–3 of the 3/1/12 Shelby GT500 Dealer Ordering Guide. For more information and the latest Dealer Ordering Guide, go to [fmcdealer.com](http://fmcdealer.com).

2013

# Shelby GT500

## Performance/Handling

### Key Messages

**NOTE:** The content covered in this area is specific to Shelby GT500. For more information on the Performance/Handling features common to Shelby GT500 and Mustang, see the Mustang section.

- New 5.8L supercharged V8 produces 650 horsepower<sup>(1)</sup> and 600 lb.-ft. of torque,<sup>(1)</sup> making it the most powerful production V8 engine in the world<sup>(2)</sup>
- New Eaton TVS Series 2300 supercharger features a larger, more efficient design than the previous supercharger
- Upgraded cooling system includes larger cooling fan, fan shroud with high-speed pressure-relief doors, a more efficient charge air cooler, a higher-flow intercooler pump and an intercooler heat exchanger with volume increased 36 percent compared to the 5.4L engine
- New computer-engineered carbon fiber driveshaft designed to handle the specific horsepower, torque and rpm requirements of Shelby GT500

## 5.8L Supercharged V8 Engine

### Key Features

- 5.8L aluminum block with PTWA cylinder liner technology
- 650 horsepower @ 6500 rpm<sup>(1)</sup>
- 600 lb.-ft. of torque @ 4000 rpm<sup>(1)</sup>
- 9.0:1 compression ratio
- “Powered by Ford SVT” is cast into the coil covers
- 60mm dual-bore electronic throttle body
- New Roots-type Eaton TVS Series 2300 supercharger creates 2.3L of displacement and features a design unique to the 5.8L engine
- Improved supercharger is less restrictive of airflow compared to the 5.4L engine
  - Channels the supercharged air/fuel mixture to the cylinders
  - Allows the entire induction system to be effectively packaged under the special aluminum air-extractor hood
- Aluminum cylinder heads and specially calibrated dual overhead camshafts with 4 valves per cylinder deliver optimum engine breathing, good fuel efficiency and emissions
  - Cross-drill vents to help improve cooling
  - Nimonic® super steel alloy exhaust valve material and thicker valve heads help withstand increased cylinder pressure
  - Stellite exhaust valve seats offer increased surface hardness
  - Increased valve lift supports the extra airflow of the 5.8L engine’s larger supercharger
- New, larger-diameter and stronger pistons feature thick bulkheads to better support the piston dome
  - Angled geometry of the bulkhead helps improve connecting rod strength
- Piston cooling jets help improve oil warm-up and cooling, and help maintain cooler piston temperatures
- Oil capacity increased to 8.5 quarts with an oil change interval of 6 months or 7,500 miles<sup>(3)</sup>
  - Oil change interval of every 5,000 miles under severe duty or track conditions
- Forged-steel crankshaft, forged connecting rods and forged pistons handle the extra strain on the lower end of the block
  - Due to slightly heavier pistons, crankshaft balance had to be revised
  - Forged crankshaft offers precise balance with heavy tungsten slugs pressed into the crankshaft counterweights to help support a new over-rev capability of 7000 rpm, up from 6250, for track-oriented driving



(1) Pending SAE approval.

(2) Based on current production models, and manufacturer horsepower data. Coming Summer 2012.

(3) Under normal driving conditions.



### 5.8L Supercharged V8 Engine cont'd

#### Engine Over-rev Indicator

- Helps increase the performance range of Shelby GT500
- Over-rev is indicated on the tachometer by raising the redline from (6250 to 7000 rpm)
  - When conditions permit, over-rev is indicated by a 7000 rpm redline
  - If conditions limit over-rev accessibility, the tachometer redline is illuminated at 6250 rpm
- Engine torque and maximum rpm are limited until coolant temperature reaches 170 degrees F
- Warm-up is indicated when the illuminated tachometer redline changes from 6250 rpm to 7000 rpm
- Once the engine is warm, the over-rev feature allows 8 seconds above 6250 rpm up to 7000 rpm
- If the 8-second time limit is exceeded, maximum engine rpm is reduced to 6250 until both of the following occur:
  - Engine is operated for at least 15 seconds below 6000 rpm
  - Engine rpm falls below 5000

#### Aluminum Engine Block

- Lighter than cast iron
- Plasma transferred wire arc (PTWA) cylinder liner technology
  - Coating is 0.006-inch thick and eliminates the need for a cast iron cylinder liner for reduced weight
- Reinforced with structural webbing
- Unique bulkhead chilled process helps maintain strength
- Billet main bearing caps feature 6-bolt design for high-performance reliability
- Increased bore diameter – from 90.2mm to 93.5mm – thanks to the recent progress of spray-bore technology
  - Technique Ford debuted in the 2011 Shelby GT500 5.4L aluminum engine block
  - Allowed engineers to reach 5.8L with the stock 5.4L stroke
- New coolant passages in the cylinder heads and engine block deck help improve engine cooling
- Cast aluminum oil pan instead of stamped sheet metal to achieve the complex shape it requires
  - Combination oil pan gasket/windage tray keeps windage below 5%, even at high rpm
  - Tray is molded from glass-filled nylon into the complex shape
  - Tight fit and nylon construction mean the tray acts like a scraper to shave oil off the rotating assembly

#### ENGINEERING INSIGHT

##### "Cross-drilled" Engine Block

Just below the edge of the between-cylinder water hole is a drilled passage that leads to that cylinder's matching water hole. This small passage provides the needed inter-cylinder deck cooling required by the 5.8L engine.

#### ENGINEERING INSIGHT

##### PTWA Cylinder Liner Technology

##### What PTWA Is

- A Ford-patented cylinder liner coating process that applies a 150-micron composite coating containing nanoparticles on the internal surfaces of the engine cylinder bores
- Replaces the cast iron cylinder liners typically used in aluminum engine blocks

##### How It Works

- The PTWA process uses air and electricity to create a 35,000-degree F plasma jet, which melts a steel wire that's fed into a rotating spray gun
- Using atomized air, the melted steel is applied to the cylinder bore surfaces
- The cylinder bore surfaces have been specially machined to receive the coating
- During the process of melting and being applied to the cylinder bore surface, the steel oxidizes, creating a composite consisting of iron and iron oxide

##### Why PTWA Is Important

- Offers improved performance and durability compared to more typical iron cylinder liners
- Helps reduce friction between the cylinder wall and the piston rings
- Helps lower heat transfer
- Provides an approximate 8.5-lb. weight savings over typical iron-sleeved aluminum block

##### What PTWA Means to the Customer

- Overall lighter weight of the engine helps improve fuel economy and performance without a trade-off in reliability and durability

### 5.8L Supercharged V8 Engine cont'd

#### Improved Engine Cooling

- Use of computational fluid dynamics (CFD) modeling allowed engineers to improve engine cooling for the 5.8L engine
  - Both the head and block castings are carryover from the 5.4L engine
  - Additional paths in the cylinder heads route coolant between the exhaust seats at the correct flow velocities and volumes
    - Drilled coolant passages on the cylinder heads direct water to between the exhaust valve seats, improving engine durability to run at maximum torque with no significant wear to the engine
    - Once the coolant has flowed between the valve seats, it rejoins the general water flow in the larger cooling jacket above the combustion chamber
  - Small passages drilled in the block and heads of the 5.8L engine provide the needed extra coolant flow, eliminating the need to make a casting change to the 5.4L engine block or heads
- Piston squirters are positioned in the newly drilled passages in the main bearing bulkhead
  - Shooting path is through a carefully placed diagonal hole drilled into the side of the main bearing bulkhead
    - Path is aimed at the underside of the dome and pin boss, not the skirts or connecting rod beam, to ensure oil stream meets an on-target average of 60% of piston stroke
    - Path ensures complete coolant flow around the cylinders just below the block, as well as between the exhaust valve seats in the cylinder heads
  - Squirter valves are tensioned to open at 50 psi to ensure adequate oil flow at the critical main bearing-to-crank journal clearance and provide maximum flow at higher loads and crankshaft speeds when the piston needs extra cooling
    - Having the squirters continuously flow at full volume could cause excessive windage, which drags on the crankshaft, reducing horsepower and fuel economy
  - Due to the oil use of the piston oil squirters, the 5.8L engine requires two more quarts of oil compared to the 5.4L engine

#### Two Oil Cooling Systems

- Oil-to-water is standard
- Oil-to-air included in SVT Track package
- Both systems use full synthetic 5W-50, which can survive up to 300 degrees F
  - Typical oil temperatures are 200 degrees F with oil-to-water cooling
  - Extended track driving will raise oil temperatures closer to 300 degrees F

#### Oil-to-Water Cooling System

- Standard on Shelby GT500
- Transfers oil heat to the water in the engine's regular cooling system for rapid warm-up and stable oil temperatures
- Provides total engine cooling to meet street driving needs and some track driving
- Will not overheat when used for track driving
  - Powertrain control module (PCM) will start closing the throttle and limiting engine speed when coolant temperature reaches 251 degrees F
  - If the driver continues to push the engine, or if there is a mechanical concern such as a punctured radiator, the powertrain control module will deactivate the cylinders into a "limp home" mode

#### Oil-to-Air Cooling System

- Included in the SVT Track Package
- Offers greater cooling capacity than the oil-to-water cooling system
- Offers 20% more cooling capacity than with the 5.4L supercharged V8 engine
- "Larger" radiator no longer has to shed oil heat – just engine heat
- Oil is cooled through its own cooler, so the total heat exchanger area to the atmosphere is increased

#### ENGINEERING INSIGHT

##### Two Oil Cooling Systems

How the Special Vehicle Team (SVT) got Shelby GT500 to offer two oil cooling systems is rather clever: bolted to the left side of the engine block is a convoluted aluminum casting full of passages and the oil filter mount, which looks similar to an aluminum brick. With standard cooling, this snake-like casting also mounts an oil-to-water heat exchanger. The casting features hose nipples for piping the coolant between the radiator and the oil-to-water brick. For the SVT Track Package, the oil-to-water brick is replaced by a thermostatic housing. The hose nipples are exchanged for threaded plumbing fittings to connect with an air-to-oil heat exchanger mounted in the front of the vehicle behind the grille. This way, the casting's passages are converted from water to oil galleys, so another adaptor isn't needed.



### 5.8L Supercharged V8 Engine cont'd

#### Roots-type Eaton Supercharger

- New for 2013
- TVS Series 2300 creates 2.3 liters of displacement per revolution
- Design unique to the Shelby GT500 5.8L V8 engine
  - Features four-lobe rotors and high-flow inlet and outlet ports that greatly enhance thermal efficiency, deliver high volumetric capacity and enable higher operating speeds
  - Features a smaller, pressed-on blower pulley that's 69mm in diameter
- Efficient design flows more air through the engine, helping produce increased horsepower
  - Higher helix angle of the rotors, coupled with redesigned inlet and outlet ports, improves air-handling characteristics without increasing the overall size of the unit
- Operates at up to 15 pounds per square inch (psi) to force-feed a higher-density air/fuel mixture into each cylinder

#### Air-to-water Intercooler

- Updated for 2013 to be less restrictive to charge the air passing over it
- More efficient air charge cooler and higher-flow intercooler pump help keep air intake temperatures lower, which helps produce more power
- Larger intercooler heat exchanger with volume increased 36% to help make the power production more consistent in hotter ambient conditions

#### Dual Exhaust System

- Unique exhaust manifolds help to move spent gases out of the cylinders and into the custom-tuned mufflers and dual exhaust system with quad tips
- More than 40 different muffler tunings were tested, measured and evaluated for the right sound to get a custom-tuned, aggressive exhaust note
- The H-pipe stamping creates the desired sound and helps increase power output

#### MAKE THE POINT: 5.8L Dipstick

The Shelby GT500 enthusiast may notice that the 5.8L dipstick has extra marks in it. These are for "overfill" use by the plants. Explain to the customer that the engine, depending on the oil cooling system – the standard oil-to-water or the oil-to-air included with the SVT Track Package – has two different oil fill levels. The engine is filled with oil at the engine plant and is then topped off at the vehicle assembly plant. If the SVT Track Package is ordered, cooler lines are added, so when the engine is filled with oil, the level drops. The extra marks are simply used as a visual check by the plants to ensure the engine has the proper amount of oil – an attention to detail your Shelby GT500 customer will appreciate.



#### EPA-estimated Fuel Economy

Engine/Transmission	City mpg	Highway mpg
5.8L V8/6-speed Manual	15	24

#### ENGINEERING INSIGHT: Developing Reliable Horsepower

Supercharging	Intercooling
<p>A supercharger uses engine power to spin an impeller. The impeller compresses the air charge and "blows" it into an engine's intake.</p> <p>Boost is created when the supercharger pushes enough air into the engine to overcome the vacuum naturally created by the engine's air intake. The supercharger on the Shelby GT500 produces boost of up to 15 psi.</p>	<p>Because air heats up as it is compressed, a supercharger is often coupled with an intercooler to remove heat from the compressed air before it enters the engine's intake system to provide a cooler, denser intake charge.</p> <p>An intercooler works just like a radiator — it cools air as the air flows over fins and plates inside the intercooler. This generates a denser intake charge and increases the engine's ability to produce horsepower and torque.</p>

2013

# Shelby GT500

## Performance/Handling

### TREMEC® 6-speed Manual Transmission

#### Key Features

- Pedal box design helps improve clutch pedal feel
- Short-throw performance 6-speed transmission
- Proven heavy-duty performance to handle the high torque output of the supercharged engine
- Less shifting is needed to find the “sweet spot” in keeping the revs “on cam” for power to pass
- Makes the most of the engine’s broad, flat torque curve
- New ratios
- Twin disc clutch
- New clutch slave cylinder for increased released travel and rpm support
- New clutch master cylinder and over-center spring in pedal box

#### Programmable Performance Shift Indicator

- When activated, provides a visual (SHIFT LAMP) and/or audible cue (SHIFT TONE) to upshift the transmission to the next gear at a preset engine rpm
- SHIFT LAMP and SHIFT TONE can be programmed to be used separately, or together, via the message center controls
- SHIFT LAMP feature illuminates the SVT logo in the tachometer in a bright orange when the programmed engine rpm shift point is reached. SVT logo is backlit in red under normal driving
- SHIFT TONE feature sounds an audible tone when the programmed engine rpm shift point is reached
- Engine rpm shift points can be set in 100 rpm increments between 1500-7000 rpm

**NOTE:** The performance shift indicator and fuel economy upshift indicator operate independently.

### One-piece Carbon Fiber Driveshaft

#### Key Features

- Computer-engineered for the specific horsepower, torque and rpm requirements of Shelby GT500
- Made of continuous filament wound carbon fiber
  - Actual forming done on a mandrel, which has been treated with release agents
  - Forming is accomplished using a filament winding process
  - The winding profile is engineered to handle both the torque and speed to which the driveshaft may be subjected
  - After two full axial wraps of carbon fiber, a circumferential winding of E-glass (continuous filament fiberglass) is applied, serving two purposes:
    - Provides structural integrity in the hoop or circumference direction
    - Pulls down and consolidates the composite layup

#### Benefits

Compared to the steel two-piece unit used on previous Shelby GT500 models, the one-piece carbon fiber driveshaft is designed to offer these benefits:

- Weight reduction of approximately 13 pounds
- Less rotational mass
- Less noise and vibration
- Increased durability
- 200 mph + capability



## Traction

### AdvanceTrac Sport Mode

- Includes Anti-lock Braking System (ABS) and traction control as well as yaw stability control
- A unique calibration of the AdvanceTrac system that allows more spirited driving while AdvanceTrac is enabled
- Standard on Shelby GT500
- See page 23 in the Mustang Safety/Security purchase motivator section or the Safety section of the Source Book Appendices on **eSourceBook** for a complete description of AdvanceTrac

### TORSEN® Differential

- A full-time torque-sensing system designed to improve power delivery to the rear wheels
- Differential continuously manages power delivery between the rear axles, helping maximize traction over a variety of road conditions
- A better balance of power delivery helps improve overall vehicle handling and acceleration capability
- TORSEN differential uses a parallel helical gear system
  - Helical gearset is more robust than a limited-slip differential with a clutch pack design
- Included in the SVT Performance Package

### Rear Axle

- Modified 8.8" live axle
- 3.31:1 gear ratio helps balance overall performance and fuel efficiency
  - TORSEN differential with 3.31:1 gear ratio included in the SVT Performance Package
- Limited-slip differential helps improve traction and off-the-line acceleration
- Filled with new 75W-85 premium synthetic hypoid gear lubricant that is more thermally stable

### Interactive Launch Control

- New for 2013
- Lets drivers set and hold the desired launch rpm depending on tire temperature, surface conditions or weather
  - Not intended for cold, wet or slippery conditions
  - Intended for use only where consistent acceleration is desired
- Integrated with AdvanceTrac and the engine control system to maximize traction from a standing start while accelerating in a straight line
- Provides a unique “drag start” traction calibration specifically designed for high-grip surfaces
- Can be turned on and off via the Launch Control button in the instrument panel or the 5-way control button on the left side of the steering wheel
  - Rpm setpoint can only be changed in the Track Apps menu using the 5-way control button
  - Launch control setting does not turn on/off with key cycle
  - Launch control engine rpm setpoint range is available in 1000 rpm increments
- Refer to the AdvanceTrac driving modes table on p. 68 for a description of operating modes

**NOTE:** Launch Control is engineered to be used with the original equipment provided on Shelby GT500. Any modifications to the vehicle may affect feature function or performance.

2013

# Shelby GT500

## Performance/Handling

### Traction cont'd

A CLOSER LOOK: AdvanceTrac Driving Modes			
Mode	Driving Mode	AdvanceTrac Setting	Benefit
1	Street Driving	<ul style="list-style-type: none"> <li>• NORMAL with all-weather calibration</li> </ul>	<ul style="list-style-type: none"> <li>• No action required by the driver</li> <li>• Optimal calibration for standard and high-performance driving</li> </ul>
2	Street Driving	<ul style="list-style-type: none"> <li>• NORMAL with all-weather calibration</li> <li>• Traction control off</li> </ul>	<ul style="list-style-type: none"> <li>• Allows the driver to spin the tires in a straight line without electronic intervention</li> </ul>
3	Race track driving	<ul style="list-style-type: none"> <li>• SPORT calibration</li> </ul>	<ul style="list-style-type: none"> <li>• Provides enhanced control by increasing AdvanceTrac thresholds for high-speed road course driving</li> </ul>
4	Expert race track driving	<ul style="list-style-type: none"> <li>• AdvanceTrac off</li> <li>• Traction control off</li> <li>• ABS on</li> </ul>	<ul style="list-style-type: none"> <li>• No electronic intervention for AdvanceTrac or traction control systems for enhanced driving</li> </ul>
5	Drag strip driving	<ul style="list-style-type: none"> <li>• NORMAL with all-weather calibration</li> <li>• Launch Control on</li> </ul>	<ul style="list-style-type: none"> <li>• Enables Launch Control to maximize straight line acceleration</li> <li>• Provides NORMAL AdvanceTrac dynamic control</li> </ul>
6	Expert drag strip driving	<ul style="list-style-type: none"> <li>• NORMAL with all-weather calibration</li> <li>• Two-stage rpm control with traction control off</li> <li>• Launch Control on</li> </ul>	<ul style="list-style-type: none"> <li>• Enables the engine rev limiter, if the vehicle is stationary, with no traction assist</li> <li>• Provides NORMAL AdvanceTrac dynamic control</li> </ul>
7	Expert drag strip driving	<ul style="list-style-type: none"> <li>• SPORT calibration</li> <li>• Launch Control on</li> </ul>	<ul style="list-style-type: none"> <li>• Enables Launch Control to maximize straight line acceleration</li> <li>• Provides SPORT AdvanceTrac dynamic control</li> </ul>
8	Expert drag strip driving	<ul style="list-style-type: none"> <li>• AdvanceTrac off</li> <li>• Two-stage rpm control with traction control off</li> <li>• ABS on</li> <li>• Launch Control off</li> </ul>	<ul style="list-style-type: none"> <li>• No electronic intervention for AdvanceTrac or traction control systems</li> <li>• Launch Control off</li> </ul>

## Chassis

### Balanced Weight Distribution

- 57 percent of the weight is in the front and 43 percent is in the rear of the Shelby GT500 Coupe
- 56 percent front and 44 percent rear for the Shelby GT500 Convertible

### Independent MacPherson Strut Front Suspension

- Delivers precise handling, incredible responsiveness and a smooth, comfortable ride
- High spring rates handle the weight of the car and help reduce roll
- Reverse L-shaped lower control arms have a number of advantages over classic A-arm or wishbone design
  - Firm bushing controls side-to-side motion for excellent steering response
  - Softer bushing controls fore-and-aft motion and helps dampen road shocks
- 33.2mm front stabilizer bar helps reduce body roll
- 34.6mm front stabilizer bar on Shelby GT500 models equipped with the SVT Performance Package



### 3-link Rear Suspension with Panhard Rod

- Gives precise control of the rear axle
- Panhard rod bushings are tuned to handle more torque and firmly control the rear axle during hard cornering
- 23mm rear stabilizer bar helps reduce body roll
- 25mm rear stabilizer bar on Shelby GT500 models equipped with the SVT Performance Package

### Bilstein™ Electronically Selectable Dampers (ESD)

- Allows drivers to select suspension damping modes on all four shocks/struts with the simple push of a button to deliver the handling characteristics they desire
  - Damper button is located in the instrument panel
  - Damper setting is indicated in the Track Apps display
- Can be set in NORMAL or SPORT Mode
  - NORMAL is optimized for most street and daily driving
  - SPORT is race track-tuned and should be selected for optimal performance when ride comfort is of less concern
- Included in the SVT Performance Package

### Key Benefits of Suspension Design

- Constant-rate coil springs and outboard shock absorbers are specially tuned for controlled and precise handling
- Shock absorbers are on the outside of the rear structural rails, near the wheels, to reduce the lever effect of the axle and let the shock valves be tuned more precisely and slightly softer

#### ENGINEERING INSIGHT

##### Electronically Selectable Dampers (ESD)

###### What It Is

- A technology that helps control the vertical movement of the wheels with an onboard system rather than the movement being determined entirely by the road surface, allowing for a greater degree of ride quality and vehicle handling and improved traction and control at higher speeds

###### How It Works

- Uses a main adjusting valve and two secondary valves: one for NORMAL and one for SPORT
- A solenoid allows the NORMAL valve to be connected hydraulically in parallel with the SPORT valve
  - When the solenoid is energized, magnetic force pulls up the slider below it to open the flow channel through NORMAL Mode
    - The main flow passes this valve, and NORMAL is generated
  - When the solenoid is not energized, a return spring presses the slider onto the valve seat to interrupt oil flow
    - The NORMAL valve is switched off, and the complete oil flow goes through the SPORT valve, generating the sportier handling characteristic
- The NORMAL valve can be tuned in a similar way to conventional shock absorber valves: the hydraulic resistances on the rebound and compression sides of the valve are adjusted using preload elements and bypass channels

###### Key Benefits

- Virtually eliminates body roll and pitch variation in many driving situations including cornering, accelerating, and braking
- Provides the performance-inspired handling characteristics Shelby GT500 drivers want from their vehicle



### Chassis cont'd

#### Disc Brakes

- Front Brembo™ 6-piston aluminum calipers and large 15" vented rotors
- Rear 13.8" vented rotors with single-piston calipers
- Vented discs provide better cooling and help resist brake fade better than drum brakes
- High-performance friction brake pad material helps provide outstanding stopping power for confident braking performance
- Includes Anti-lock Braking System (ABS)

#### Electric Power-Assisted Steering (EPAS) with Driver-selectable Effort and Drift Control

- EPAS is a sophisticated electric speed-sensitive steering assist system
- Offers light, responsive steering around town and for parking
- At higher speeds, EPAS delivers less steering assist for more confident control
- EPAS replaces the hydraulic gear system that pulled power (and efficiency) from the engine via a belt
- Helps improve fuel economy and eliminate hydraulic noises common with hydraulic systems

#### Driver-selectable Effort

- Offers customer choice of three settings
  - **Comfort Mode** provides the least amount of road force felt in the steering wheel and requires the least amount of steering effort
  - **Sport Mode** provides the most road force felt through the steering wheel and requires the highest level of steering effort
  - **Standard Mode** is a balance between the Comfort and Sport settings
- Settings are accessed and programmed via the message center
- EPAS setting does not turn on/off with key cycle
- EPAS will revert to SPORT and display Sport-locked mode when AdvanceTrac Sport or OFF is selected

#### ENGINEERING INSIGHT

##### Emergency Tire Mobility Kit

To help save weight, the Shelby GT500 does not have a spare tire. Instead, there is a standard tire mobility kit. The kit includes a compressor and a can of tire sealer used to inflate and seal small punctures in the tire caused by road hazards. By eliminating the extra weight of the spare tire, engineers were able to improve the power-to-weight ratio and give the Shelby GT500 improved performance.

#### Drift Control

- An automatic system that uses EPAS to help continuously correct for road irregularities and improve overall steering feel
- System is continually “learning” and adapting to steering conditions and compensates for changes that can cause the vehicle to pull left or right
  - Assists the steering effort to help the driver maintain a straighter path
  - Helps driver avoid unwanted lane changes (or drift)
- Reduces steering effort required when driving on crowned roads or in heavy side winds

#### Wheels and Tires

- Premium painted forged aluminum wheels with SVT center caps are standard
  - 19" x 9.5" (front)
  - 20" x 9.5" (rear)
- New Goodyear F1 Supercar G:2 high-performance tires were developed specifically for the Shelby GT500
  - These tires offer superb dry traction and precise handling characteristics
  - Front: P265/40R19
  - Rear: larger P285/35R20
- Wider rear tires help deliver the engine's power to the ground better when accelerating off the line
- Help improve handling balance when powering out of a turn

#### Aerodynamics

- New aerodynamic advancements provide optimum performance at all speeds, improving the cooling system, maximizing downforce and minimizing drag
  - New front splitter and upper and lower grille inserts expose the radiator to help funnel air and cool the internal components of the vehicle
  - New large splitter helps create downforce when the vehicle is hitting stop speeds
- SVT Track Package updates minimize drag by reducing lift
  - Reworked front upper and lower grilles include an integrated air dam to help minimize drag
  - Gurney flap helps reduce lift
- The result is a vehicle that tracks more securely and feels more “planted” to the road surface while providing racetrack performance, improved cooling and fuel economy

### Track Apps

4.2" LCD screen message center allows the driver to select various performance options in the Track Apps menu:

#### Accelerometer

- The red dot in the center of the gauge is a real-time indication of the vehicle's longitudinal and latitudinal acceleration and updates continuously
- The numbers on the outside of the ring represent the maximum accelerations since the customer last reset the values
- The gauge updates only when it's being displayed

#### Acceleration Timer

- Brings up a selection of tests that the driver can run
- Once the test has been selected, the driver can select from two different starting methods:
  - Countdown Start
    - Provides a racing "Pro Tree" (the red, yellow and green staging lights found at drag strips) style of starting
    - Driver will be prompted to pull up to the starting line and then be prompted to start the countdown
    - Colors will flash a half-second apart, and if the start is successful it will end in green
    - If the driver accelerates early, the color will be red and no data will be recorded
  - Automatic Start
    - Useful if there is an external starting mechanism
    - Once the driver presses "OK," the timer will wait until the vehicle starts moving and then the time will begin
- Once the timer start is successful, the screen will change to show an elapsed time and a progress bar to show how close to the end of the test the customer is
- When the data collection finishes, the screen will display the results
- Timer will attempt to fill in as many of the times and speeds as it can. For example, if the customer picks a 1/4-mile test, all the results should be filled in provided the vehicle exceeded 100 mph
- The recorded times and speeds are similar to the results that a drag strip would provide at the end of a run

#### Boost Gauge

- In gauge mode, the boost gauge numerical and digital display can be selected

#### Brake Performance

- Brings up a selection of tests that the driver can run
- Driver is instructed to accelerate above the speed requested in the previous screen
- Once the proper speed is attained, the driver is instructed to apply the brakes
- The screens will then change to the data acquisition screen
- Data acquisition screen shows the elapsed time and a progress bar showing how close to the end of the test the vehicle is
- When the data is acquired, the results will be displayed

#### View/Clear Results

- Brings up a menu of data management actions the driver can take
- Track Apps will store three sets of data: Last Run, Saved and All-time Best
- Driver can clear All-time Best data separately from the Last Run and Saved data (only when vehicle is stopped)
- Selecting View Acceleration Timer will display the results from the last acceleration run and the saved data
- Driver can select any result and save it. Saving a result will overwrite the previous saved result
- Results with more than one data parameter can only save all the parameters together
  - Selecting View Brake Results will display the results from the last brake performance run and the saved data
    - Driver can select any result and save it. Saving a result will overwrite the previous saved result
  - Selecting View All-time Best will display the All-time Best results
    - Track Apps automatically saves All-time Best data any time it sees a result that is better than a stored result
- All-time Best data is from the Acceleration Timers and the Brake Performance Runs

#### Performance State

- Screen divided into four areas
- Shows status for each Performance Mode selection
  - Steering
  - Interactive launch control
  - Driver selectable dampers
  - AdvanceTrac

2013

# Shelby GT500

## *Performance/Handling*

### Packages

#### SVT Performance Package

##### Performance/Handling Features

- Available in Equipment Group 821A
- TORSEN® 3.31:1 limited-slip rear axle differential
- SVT-engineered Bilstein™ electronically selectable dampers (ESD)
- SVT-tuned front and rear suspension
  - Unique front and rear springs
  - Larger front and rear stabilizer bar diameters

##### Design/Styling Features

- 19" x 9.5" (front) and 20" x 9.5" (rear) "Tarnish" painted forged aluminum wheels
- Spoiler with Gurney Flap
- Unique gear shift knob

#### SVT Track Package

- Differential cooler with electric pump
- External engine oil-to-air cooler
- Transmission cooler with integrated mechanical pump
- Optional on Shelby GT500 Coupe with SVT Performance Package only



# Shelby GT500

## Comfort/Convenience

# 2013

Shelby GT500

### Key Messages

**NOTE:** The content covered in this area is specific to Shelby GT500. For more information on the Comfort/Convenience features common to Shelby GT500 and Mustang, see the Mustang section.

- New instrument cluster with 4.2" message center includes MyColor backlighting and Track Apps
- Electronics Package now available with Shaker™ Pro audio system
- SYNC with SYNC Services includes Traffic, Directions and Information, 911 Assist, Vehicle Health Report, AppLink and live Operator Assist
- New optional driver and front-passenger heated seats

## Interior

### Seating Features

- Driver 6-way power adjust with power lumbar and 4-way adjustable head restraints
- Front passenger 2-way manual adjust seat with 4-way adjustable head restraints
- Optional RECARO® leather-trimmed Sport bucket front seats with accent stripe
  - Designed by SVT in cooperation with RECARO for high-performance Mustang models like Shelby GT500 and Boss 302
  - Thick side bolstering provides lateral support to keep the driver firmly placed in the seat during aggressive cornering maneuvers
  - 4-way manual adjust for driver, 2-way manual adjust for passenger
- New optional heated driver and front passenger seats provide added comfort in cold weather
  - Not available with RECARO seats



### Instrument Panel

- 4.2" LCD message center with Track Apps
  - Track Apps display includes AdvanceTrac, steering feel, damper control and launch control states
- 4-gauge instrument cluster with tachometer, speedometer, water temperature and fuel
  - Programmable Shelby performance shift indicator light included with the tachometer
  - The tachometer has an over-rev feature which is indicated by an illuminated redline at 7000 rpm. If conditions limit over-rev accessibility, the illuminated redline will change to indicate 6250 rpm
  - Boost gauge is located in 4.2" LCD message center
- One-touch buttons for launch control (LC), electronically selectable dampers (ESD) (if equipped) and electric power-assisted steering (EPAS)

### Electronics Package

- For 2013, the package is now available with Shaker Pro audio system
- Dual-zone electronic automatic temperature control
- HD Radio™
- Voice-activated Navigation System

2013

# Shelby GT500

## Quality/Reliability/Durability

### Key Messages

**NOTE:** The content covered in this area is specific to Shelby GT500. For more information on the Quality/Reliability/Durability features common to Shelby GT500 and Mustang, see the Mustang section.

- NVH (noise, vibration and harshness) features designed to help lower road and wind noise
- One-piece instrument panel helps reduce interior squeaks and rattles
- Testing in multiple countries ensures high levels of quality, reliability and durability
- Easy maintenance with a 7500-mile oil change intervals<sup>(1)</sup>
- Powertrain limited warranty protection for 5 years/60,000 miles

### NVH Features

#### Shelby GT500 Models

- Engine-side dash absorber
- Sealing between the doors and the lower rockers
- Rear-wheel arch liner helps reduce road noise on gravel roads and in the rain

#### Shelby GT500 Convertible

- Stiff “V-brace” with gussets
- Stiff #2 crossmember
- Front “Z-brace” connecting to the #1 and #2 crossmembers
- A-pillar stiffening foam

### Quality

#### One-piece Instrument Panel

- Designed to help reduce squeaks and rattles and has tight fit and finish
- Provides an overall sense of build quality and attention to detail



<sup>(1)</sup> Under normal driving conditions. See vehicle Owner Guide.



### Key Messages

**NOTE:** The content covered in this area is specific to Shelby GT500. For more information on the Design/Styling features common to Shelby GT500 and Mustang, see the Mustang section.

- New performance-driven exterior design features new downforce-generating front grilles, aggressive lower front air splitter and quad-tipped exhaust
- New high-intensity discharge (HID) headlamp and light-emitting diode (LED) taillamp designs
- New wheel designs accentuate the exterior
- Interior includes a soft-touch instrument panel with unique armor pattern aluminum inserts and Smoke Satin accents, exhaust-influenced air registers and instrument cluster with over-rev indicator offset by 360-degree chrome rings and conical lenses
- Seats include Le Mans racing stripes matched to the exterior stripe color

## Exterior

### Glass Roof

- Adds the panoramic feel of a convertible while maintaining the legendary aggressive style and athletic stance of the Shelby GT500 Coupe
- Coupe styling is complemented while maintaining interior versatility and head room, at about half the price of the Convertible
- Constructed of laminated safety glass, which includes a thin layer of vinyl sandwiched between two pieces of glass to maintain excellent interior acoustics and quietness
- Tinted privacy glass helps maintain a climate-controlled environment and protect interior fabrics from the sun's ultraviolet (UV) rays
  - The UV protection is equivalent to an SPF 50 sunscreen rating
- Interior temperatures of a GT500 Coupe equipped with a glass roof vary by no more than 2 degrees F compared to a Coupe without the glass roof
- Manual roller blind sunshade offers a choice of additional protection from the sun or increased privacy



### Shelby GT500 Convertible Features

- The same 650-horsepower<sup>(1)</sup> 5.8L supercharged V8 engine and TREMEC® 6-speed manual transmission as the Shelby GT500 Coupe
  - Top speed limited to 155 mph on convertible
- Coupe-like ride and handling is a result of good torsional rigidity that allowed the engineers to add fewer reinforcements to the chassis
  - Less added weight meant few suspension modifications were needed to achieve excellent handling characteristics
- Cloth convertible top uses premium material found on luxury cars and is designed to be more durable
  - “Floating” 5-bow design creates a tauter top, resulting in a very quiet interior while driving with the top up
  - Glass rear window will not discolor, scratch or stain like plastic
  - Includes Black soft boot

### Up Front Features

- Functional lower air splitter at the bottom of the unique front fascia limits airflow under the car, helping improve high-speed aerodynamics
- Aluminum hood with heat extractor vent is specific to Shelby GT500
  - The functional air extractor helps improve underhood temperatures by increasing airflow
- Large upper and lower grille openings help improve airflow to the radiator and intercooler and give a strong visual connection to vintage Shelby 427 Cobras
- High-intensity discharge (HID) headlamps provide a distinctive look and excellent nighttime visibility
- Distinctive coiled Cobra™ badging offset in the grille

(1) Pending SAE approval.

2013

# Shelby GT500

## *Design/Styling*

### Exterior cont'd

#### Features Along the Side

- Distinctive coiled Cobra™ badging on the front fenders
- Premium painted forged aluminum wheels with SVT center caps
  - 19" x 9.5" (front)
  - 20" x 9.5" (rear)



#### Features At the Rear

- Rear fascia features a roll pan with airflow diffuser to help improve aerodynamic efficiency
- Rear spoiler is a modern application of the classic Shelby GT500 design and helps provide aerodynamic downforce at higher speeds
  - Includes Gurney Flap
- "SHELBY" lettering is boldly shown on the trunk lid, under the spoiler
- SHELBY GT500 and coiled Cobra logos are seen on the "gas cap" badge



#### Stripes

- Le Mans-style "Over-the-Top" racing stripes are true to Shelby Mustang heritage and are available in four colors, depending on the exterior color
  - Two distinctive 9"-wide Le Mans-style "Over-the-Top" racing stripes
  - Stripes cover the fascias, hood and decklid of Coupe models, include stripes over the roof (excludes glass roof top)
- "GT 500" side stripes just above the rocker panels of Coupe and Convertible, are available in five colors, depending on the exterior color
- Four stripe colors are available, depending on exterior color:
  - Black
  - Blue
  - White
  - Red
- Stripe delete option available



#### Exterior Colors

- Black
- Grabber Blue
- Ingot Silver Metallic
- Deep Impact Blue Metallic
- Performance White
- Race Red
- Red Candy Metallic Tinted Clearcoat
- Sterling Gray Metallic
- See pages 78–79 for color and trim availability

## Seating

### Front Bucket Seats

- Charcoal Black leather-trimmed front bucket seats feature rolled-and-pleated perforated inserts with exterior color-matched Le Mans-style racing stripes
- Seat side bolsters include Alcantara® suede inserts while the bolsters and head restraints offer contrast color thread stitching
- Coiled Cobra logo is embossed on the front seat backs

### Rear Seats

- Feature exterior color-matched Le Mans-style racing stripe inserts



## Interior

### Instrument Panel and Trim

- Smoke Satin finish trim replaces the traditional chrome-finish trim around the instrument cluster rings, air conditioning registers and speaker rings
- Brushed aluminum inserts feature an' armor pattern
- Integrated center stack sweeps down from the double-brow instrument panel and into the flow-through center console and places audio and climate controls within easy reach of the driver or front passenger
- Instrument cluster with over-rev indicator offset by 360-degree chrome rings and conical lenses
- Gauges with white lettering are a unique SVT performance cue pioneered on the original Mustang Cobra
- Programmable Shelby performance shift indicator light is included with the tachometer

### Steering Wheel

- Leather-wrapped steering wheel has a thicker wrap than Mustang
- Features Alcantara suede-trimmed thumb pads positioned for enthusiast driving
- "GT500" script and coiled Cobra™ logo on the steering wheel center pad

### Flow-through Center Console

- Forms the backbone of the interior
- Includes cupholders with a push/flip cover and lockable storage bin with "SHELBY" embossed on the release button

### Ambient Lighting

- Programmable via the message center, the driver can program up to 125 ambient interior lighting colors from the MyColor palette in addition to the seven factory preset colors
- Aluminum "SVT" door sill plates illuminate only in red

## SVT Performance Package

### Design/Styling Features

- 19" x 9.5" (front) and 20" x 9.5" (rear) "Tarnish" painted forged aluminum wheels
- Unique gear shift knob

### Performance/Handling Features



- 3.31:1 TORSEN® limited-slip rear axle differential
- Bilstein™ electronically selectable dampers (ESD)
- SVT-tuned front and rear suspension
  - Unique front and rear springs
  - Larger front and rear stabilizer bar diameters

2013

# Shelby GT500

## Wheels/Color and Trim

### Wheels

Wheel		Coupe	Convertible
19" Front/20" Rear Premium Painted Forged Aluminum Wheel		Standard	Standard
19" Front/20" Rear "Tarnish" Painted Forged Aluminum Wheel		Included in SVT Performance Package	Included in SVT Performance Package

### Color and Trim Availability

Paint Name		Shelby GT500 Coupe/Convertible			
	Color	Charcoal Black Environment			
	Material	Leather-trimmed Seats with Coordinated Racing Stripe Inserts			
	Stripe Accent	Black	White	Blue	Red
	Order Code	6X (Std.) QX (RECARO®)	62 (Std.) Q2 (RECARO)	6B (Std.) QB (RECARO)	6D (Std.) QD (RECARO)
New Deep Impact Blue Metallic	J4	■	■		
New Red Candy Metallic Tinted Clearcoat <sup>(1)</sup>	RZ	■	■		
New Sterling Gray Metallic	UJ	■	■	■	■
Black	UA	■	■		■
Grabber Blue	CI	■	■		■
Ingot Silver Metallic	UX	■		■	■
Performance White	HP	■		■	■
Race Red	PQ	■	■	■	

**NOTE:** See the Shelby Dealer Ordering Guide for seating availability.

(1) Extra-cost option.

# Shelby GT500

## Color and Trim, Stripe Choices

# 2013

Shelby GT500

### Interior Trim

Model	Style/Material	Description
Coupe/Convertible	Leather	Leather-trimmed Sport front bucket seats with rolled-and-pleated perforated inserts, side bolsters with Alcantara® suede inserts and contrast color thread stitching and vinyl-trimmed 50/50 split bucket rear seats (folding in Coupe)
SVT Performance Package	Cloth	RECARO® Sport front cloth bucket seats trimmed with Miko® suede and rear vinyl-trimmed 50/50 split bucket rear seats (folding in Coupe)

**NOTE:** See the Shelby Dealer Ordering Guide for available seating choices.

### Stripe Choices

Exterior Color	Exterior Tape Stripe Color(s)	Interior Environment
New Deep Impact Blue Metallic	Black, White	Charcoal Black
New Red Candy Metallic Tinted Clearcoat	Black, White	Charcoal Black
New Sterling Gray Metallic	Black, White, Blue, Red	Charcoal Black
Black	White, Red, Black	Charcoal Black
Grabber Blue	Black, White	Charcoal Black
Ingot Silver Metallic	Black, Blue, Red	Charcoal Black
Performance White	Black, Blue, Red	Charcoal Black
Race Red	Black, White, Blue	Charcoal Black

### Instrument Cluster

Please refer to the Owner Guide for instrument cluster information.



2013

## Shelby GT500

Key Product Specifications<sup>(1)</sup>

Model	Coupe	Convertible
Wheelbase	107.1	107.1
Length	188.2	188.2
Height	55.4	55.9
Width (with/without mirrors)	80.1/73.9	80.1/73.9
Track (front/rear)	61.9/62.5	61.9/62.5
Curb Weight (approx. lbs.)	3845	3982
Weight Distribution (front/rear, %)	57/43	56/44

**Front/Rear Seating**

Seating Capacity	4	4
Head Room (front/rear)	38.5/34.7	38.8/36.5
Shoulder Room (front/rear)	55.3/51.6	55.3/45.0
Hip Room (front/rear)	53.4/46.8	53.4/45.2
Leg Room (front/rear)	42.4/29.8	42.4/29.8

**Passenger/Luggage/Fuel Capacity**

Passenger Volume (cu. ft.)	83.3	81.0
Luggage Capacity (cu. ft.)	13.4	9.6
EPA Interior Volume (cu. ft.)	96.7	90.6
Fuel Tank Capacity (gal.)	16.0	16.0

**Engine**

Driveline Layout	Front engine, rear drive
Engine Type	5.8L DOHC supercharged V8
Displacement (liters/cu. in.)	5.8/355
Horsepower @ rpm	650 @ 6500 <sup>(2)</sup>
Torque (lb.-ft.) @ rpm	600 @ 4000 <sup>(2)</sup>
Compression Ratio	9.0:1
Bore and Stroke	3.68 x 4.16
Construction	Aluminum block with aluminum heads
Intake Manifold	Cast aluminum
Supercharger	Roots-type with air-to-water intercooler
Boost	15 psi
Exhaust Manifold	Cast iron
Crankshaft	Forged steel
Throttle Body	Dual bore 60mm, electronic
Valvetrain	DOHC, 4 valves per cylinder
Valve Diameter	Intake: 37.0mm Exhaust: 32.0mm
Pistons	Forged aluminum
Connecting Rods	Forged steel I-beams
Ignition	Coil-on-plug
Oil Capacity	8.5 quarts, 5W-50 full synthetic
Coolant Capacity	21 quarts, engine <sup>(3)</sup>
Fuel System	Sequential multi-port fuel injection
Fuel Requirement	91 octane (minimum)
Exhaust System	Dual with catalytic converters and "H" crossover pipe

**EPA-estimated Fuel Economy<sup>(4)</sup>**City/hwy. mpg **15/24****Transmission**

Type	TREMEC® 6-speed manual
Final Drive Ratio	3.31:1

**Gear Ratios**

	1st	2nd	3rd	4th	5th
6-speed Manual	2.66:1	1.82:1	1.30:1	1.00:1	0.77:1
	6th	Rev.			
	0.50:1	2.90:1			

**Front Suspension**

Type	Independent MacPherson struts with reverse-L lower control arm
Springs	Coil
Stabilizer Bar	33.2mm
Diameter	34.6mm with Performance Package

**Rear Suspension**

Type	Solid-axle 3-link with panhard rod
Springs	Coil
Shock Absorbers	Twin-tube, gas-pressurized hydraulic
Stabilizer Bar (dia.)	23mm 25mm with Performance Package

**Steering**

Type	Rack-and-pinion
Assist	Electric power-assisted (EPAS) with selectable effort (Comfort, Normal and Sport)
Overall Ratio	15.7:1
Turning Diameter, Curb-to-Curb (ft.)	37.0

**Brakes**

Standard	Power 4-wheel disc with Anti-lock Braking System (ABS) and Electronic Brakeforce Distribution (EBD)
Front	Brembo™ 6-piston aluminum calipers and 15-inch vented rotors
Rear	Single piston calipers with integral parking brake and 13.8-inch vented rotors

**Trailer Towing**

Towing Class	Not recommended
--------------	-----------------

**Flat/Neutral Towing**

Emergency Towing	It is recommended that Shelby GT500 be towed with a wheel lift or with flatbed equipment. However, if towing in an emergency only, Shelby GT500 may be neutral-towed behind another vehicle, but only at a maximum speed of 35 mph and for a distance of no greater than 50 miles.
Recreational Towing	When towing Shelby GT500 behind another vehicle such as an RV, a wheel lift or a flatbed trailer must be used.

(1) All dimensions in inches unless otherwise noted.

(2) Pending SAE approval.

(3) Engine-fill only. Does not include four extra quarts of coolant for supercharger intercooler.