

2003 SVT Mustang Cobra Chassis

CHASSIS SYSTEMS: It's A Lot More Than Straight-Line Performance

"This is the rare performance car — one that provides awesome muscle-car acceleration, *and* outstanding handling."

— *Tom Bochenek, SVT Mustang Cobra program manager*

To complement the 2003 SVT Mustang Cobra's significant increase in power output, Ford Special Vehicle Team engineers went to work on changes in suspension tuning that were required to give the car well-balanced driveability.



"One-dimensional cars don't fit the SVT philosophy," said John Coletti, chief engineer for Ford SVT, "and this is a very, very nicely balanced car. This car isn't just about straight-line performance. That's the key. You can go touring in this Cobra and it's very comfortable and easy going. It has the finesse to drive and handle well in the twists and turns, as well as on straight roads." The SVT Cobra independent rear suspension system has been re-tuned for the 2003 engine's higher torque output.

Changes to the independent rear suspension system include revised bushing, mount and spring rates. A new tubular cross-brace has been added, which attaches to the differential and is designed to stabilize the differential assembly under hard acceleration. Revised rear suspension geometry helps improve roll steer.

For the first time, SVT Cobra coupe and convertible models have their own individual suspension tuning, with spring rates suited to the individual needs of each vehicle. The 2003 coupe's spring rates are 600 lb./in. front and rear, while spring rates on the convertible are 500 lb./in. in front and 470 lb./in. at the rear.

SVT engineers specified gas-charged, monotube Bilstein dampers, front and rear, for optimum suspension control. They impose less compromise in the suspension engineer's ongoing dilemma — the trade-off between ride and handling.

GOODYEAR EAGLE F1 TIRES



Features	Benefits
■ Exclusive Goodyear AATRAX tread compound	■ Outstanding tread wear without sacrificing traction or noise reduction
■ Dual Aquachannels	■ Unparalleled stability and traction in the wettest of conditions while helping to reduce hydroplaning
■ Unique pitch sequence	■ Smooth, quiet ride
■ Angled ply construction, multi-radius profile	■ Precise steering and uniform wear
■ Spirally wound nylon overlays	■ Smooth, disturbance-free operation, even at high speeds

Information provided by The Goodyear Tire & Rubber Company

The rear anti-roll bar is a 26mm tubular unit. The front tubular anti-roll bar is one millimeter larger than on the previous model, now 29mm.



New cast-aluminum 17 x 9-inch wheels are fitted with 275/40ZR-17 Goodyear Eagle F1 tires. The braking system includes 13-inch Brembo™ front rotors with PBR™ dual-piston calipers, and 11.65-inch rear rotors with single-piston calipers. The pad material on the rear brakes has been upgraded for enhanced durability and brake performance.

The five-spoke, cast-aluminum wheels are a new design, and now measure 17 x 9 inches, up from 17 x 8 in 2001. They are fitted with 275/40ZR-17 Goodyear Eagle F1 tires.

The SVT Cobra's rack-and-pinion steering system gets a new, low-lash intermediate shaft in 2003, and a higher rate steering gear bushing. These changes improve steering feel by helping reduce play in the system.

"Tom Chapman (chassis supervisor for Ford SVT) and his team really outdid themselves tuning the suspension of this car," said Tom Scarpello, marketing and sales manager for Ford SVT. "They have created a car you can drive every day. It's beautifully controlled over smooth surfaces, and won't knock your fillings loose over rough ones. People will be surprised that a car with this kind of power drives so nicely."

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