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MOTOR TREND

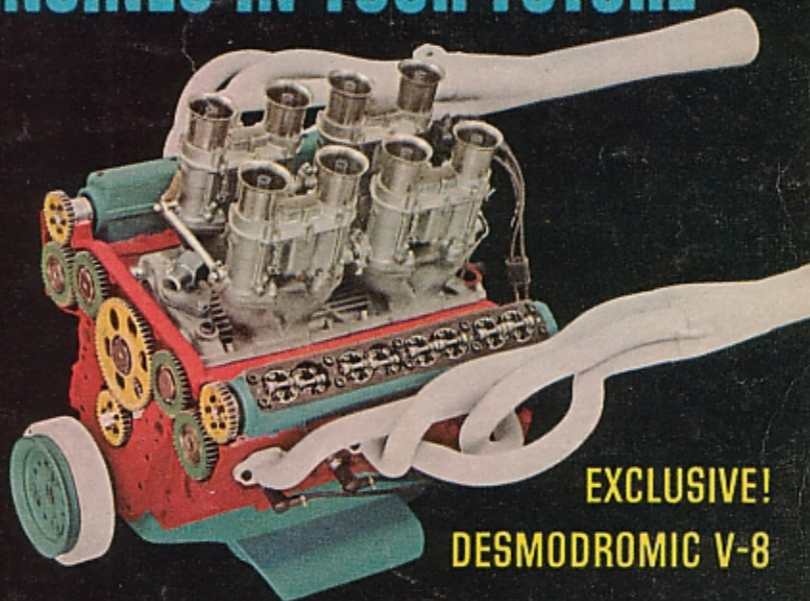
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**CAN ANYONE BUILD
REALLY SAFE CARS?**

ENGINES IN YOUR FUTURE



**EXCLUSIVE!
DESMODROMIC V-8**

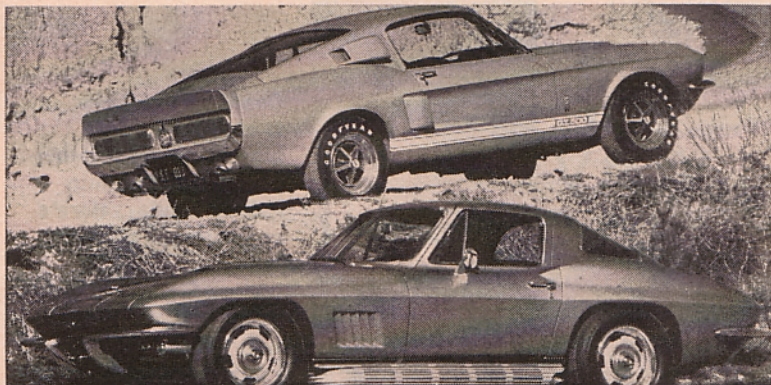


**SHELBY'S GT-500
TAKES ON THE
427 STING RAY**



MOTOR TREND-RIVERSIDE 500 • UNION/PURE OIL PERFORMANCE TRIALS

for April 1967



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A contender for the throne meets the renowned king of speed, and the result is a clash between America's only pair of sports cars.

ROAD TEST: SHELBY GT 500 & 427 STING RAY

BY STEVE KELLY

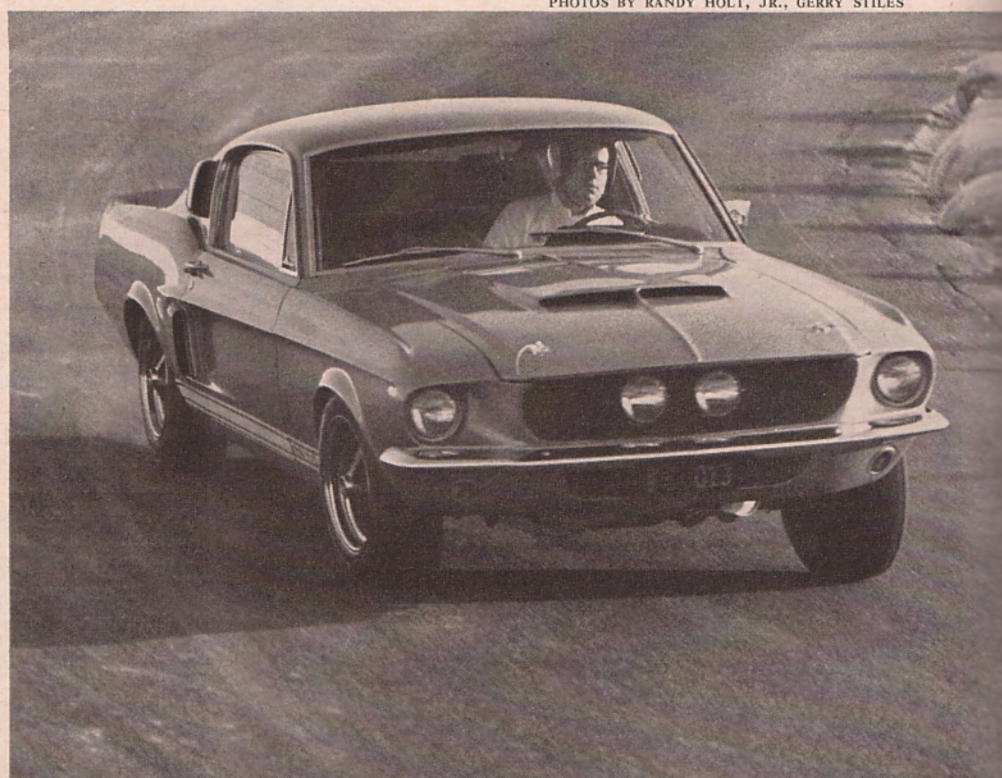
FOR THE FIRST TIME in its decade and a half of production, Chevrolet's Corvette — billed as "America's only true sports car" — is being challenged for the title. Shelby American's GT 500 Mustang-based sports fastback has all the earmarks of a "purist" type sporty-car with a just-right combination of comfort and convenience features.

Following Shelby American's announcement of a 428-cu.-in. V-8 engine GT, we were skeptical if this car would be suited for street duties. We've driven many small cars with huge engine transplants, and somehow they've always seemed to lack tameness during regular operation — unless regular operation was a full-throttle run down a strip. We found out, though, just how wrong we were after depositing ourselves behind the custom wood steering wheel of an air-conditioned GT 500 with Cruise-O-Matic transmission.

We could hardly believe its smoothness in bumper-to-tail-light traffic and had difficulty realizing it was built by the same people who used to peddle a rough-riding, hard-steering Mustang fastback with Bunyanesque brake pedal and an engine which would outshout a John Deere tractor.

In view of this, we arranged for an even hairier GT 500, and also set up an equally equipped Corvette to see if there really was a challenge.

The basic Shelby GT 500 is a true sophisticate compared to earlier cars built by the famous Texan. There was a brief period when the Ford Cobra, also built by Shelby, was thought to be a fair and equal competitor to the 'Vette, but a too-high price and rather impractical design for a street-destined car put it out of contention. Chevy has cause for some worry from the GT 500 though. There's more room inside, and it's easier to drive in traffic. There's a civilized luggage compartment that's accessible from the outside, and there's



PHOTOS BY RANDY HOLT, JR., GERRY STILES

67' GT handling isn't as good as forerunners', but above average "performance" cars'.

at least the same measure of racy styling. The GT 500 runs quieter, and in general is a more practical car for everyday use.

The Corvette can't be sold short though. Even in stock condition, it outruns the GT 500 by a solid 0.7 second in the quarter-mile, stops in less distance from any speed, is easier on gas, and exhibits noticeably better workmanship throughout.

The 'Vette started life back in 1953 — before the world or Ford Motor Co. had ever heard of a car called the Mustang — and was then equipped with an

impotent 6-cylinder engine and fiberglass body. The 'glass body has remained, but the 6s were dropped two years later and the car since then has steadily climbed higher and higher in the esteem of performance addicts. Equipping the Corvette with a 427-cu.-in. engine was a natural move for Chevrolet, and for the past two years this version has been the image-maker of the line. Previous editions of the 'glass-bodied car were offered with as much luxury built in as speed and performance, and we remember a statement concerning Corvette sales cutting into



Stop-off at Irwindale Drags quickly revealed GT 500's popularity with 1/4-mile fans. Most said they preferred it to 'Vette.



'Vette makes tight turns a simple operation; standard tires hinder serious contests.

Cadillac. The luxury is still there, but a hard ride comes with it, so we doubt if Cadillac is still worried.

There's more potential for making the Corvette a hard runner than there is the GT 500. The 428-cu.-in. V-8 in the Shelby car is too heavy for serious work, and it has a rather restricted breathing system compared to the 427-cu.-in. Chevy V-8. Called "porcupine" by Chevy engineers, the valve layout of the 'Vette engine is more ideally suited to getting big charges of fuel/air mixes into the combustion chamber, and the head configuration

above the chamber is a "semi-hemi" type, similar to early Chryslers.

Weight distribution is better on the GT 500, with 56.4% being carried on the front wheels. The two total out almost equally, but so much of the Corvette is the front, that it is distinctly nose-heavy. This characteristic is abruptly apparent when one attempts to leave the line under hard throttle, or when you bring it around a sharp bend while applying power. The rear end becomes frighteningly "light."

Starting with two basic cars, more is standard equipment on the GT 500

than on the 'Vette, but there's some chicanery involved. For the base price of \$4195, a GT 500 buyer gets the 428 engine, front-disc/rear-drum brakes, full instrumentation, a 4-speed transmission, and all the modified body work that goes into making a GT 500 the distinctive looking car it is. He also gets the beefed-up undercarriage which includes stiffer springs, adjustable shocks, and modifications to the front suspension to make it corner more flatly. On top of this though, he *must* buy power brakes, power steering, integral roll bar with inertia-reel shoulder harnesses (the best we've ever seen) and a fold-down rear seat. This comes to a total of \$264.77 before he ever starts ordering a radio, air conditioning or whatever else he may choose. This is sort of like selling a car without seats and a steering wheel, but putting them on the car at the "buyer's request." All GT 500s are built with this batch of options which are called "standard equipment," but which really are not.

For the base convertible price of \$4327.50, a Corvette buyer has all options still in front of him, with nothing mandatory except making the payments. The standard Corvette includes a 300-hp, 327-cu.-in. V-8, either a soft folding top or fiberglass lift-off type, and all instruments and gauges along with a 3-speed all-synchro gearbox. From there the owner can choose any one of four optional engines and two 4-speed manuals or Powerglide transmission. Our price and accessory list on page 29 shows the other options available to outfit the Corvette for street or track duties.

The primary function of an automobile, no matter what type it is, is to carry passengers wherever they may want to go. The GT 500 does this better than the Corvette. It has more room inside for people and packages, and will carry four adults for a short time or

GT 500 vs. STING RAY

continued

two children for a long time without complaints. The fold-down rear seat can become a parcel counter when only two are aboard, and the trunk bulkhead swings up for stowage of skis and the like.

The 500 is much easier to drive in traffic as it's not as low as the Corvette, and it's not as ticklish to keep running at slow speeds. That big 435-hp 'Vette engine likes to work hard and when it's in bumper-to-bumper traffic, it objects.

The ride on city streets is much better in the GT 500. There's very little bumping around, whereas the position of the driver in the Corvette is very close to the rear wheels, and any rebound action from them is strongly noticed by the man at the wheel.

Vision in the two cars is almost equal, but still not excellent. We liked the '66 Shelby GTs for their rear-quarter windows, but construction differences on the '67 Mustang prevented their continuance on Shelby's version. Corvette convertibles have blind rear quarters, too, and the lift-off 'glass top isn't much better. The fastback model allows full vision.

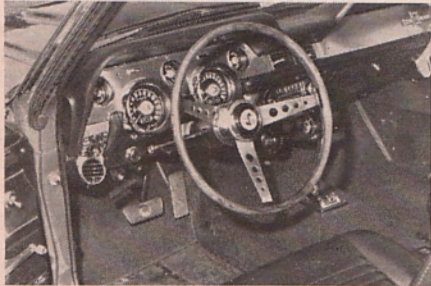
We liked the interior layout of the GT 500, but it doesn't have the Maserati look of the Corvette. The 'Vette has *all* necessary instruments right in front of the driver and all controls within a few inches reach. The Shelby car has the speedometer and tach right in front



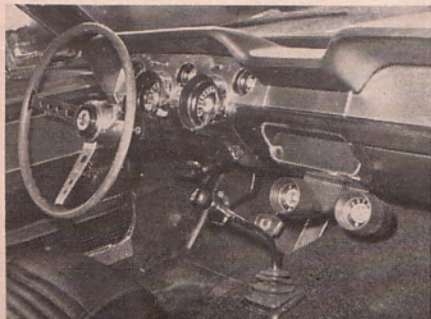
Nose and hood of GT are fiberglass items. Scoops deposit air on top of carburetors.



Spoiler is integral part of 'glass deck lid; à la T-Bird tail lamps really light up rear.



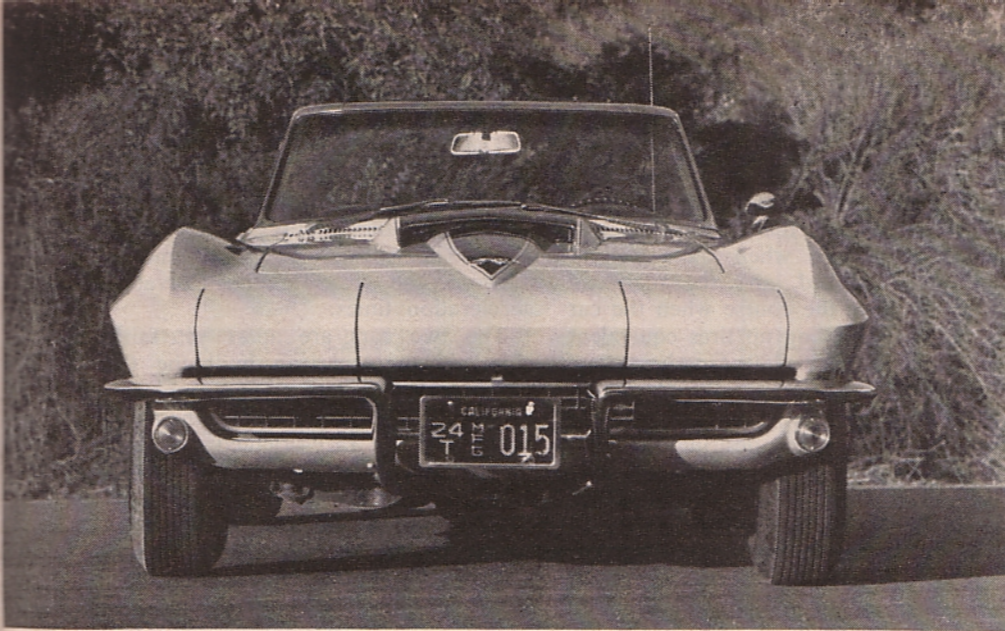
Initial test GT had air conditioning and Cruise-O-Matic, making it "sporty-plush."



Second GT lacked optional comforts but ran faster. Shelby adds center two gauges.



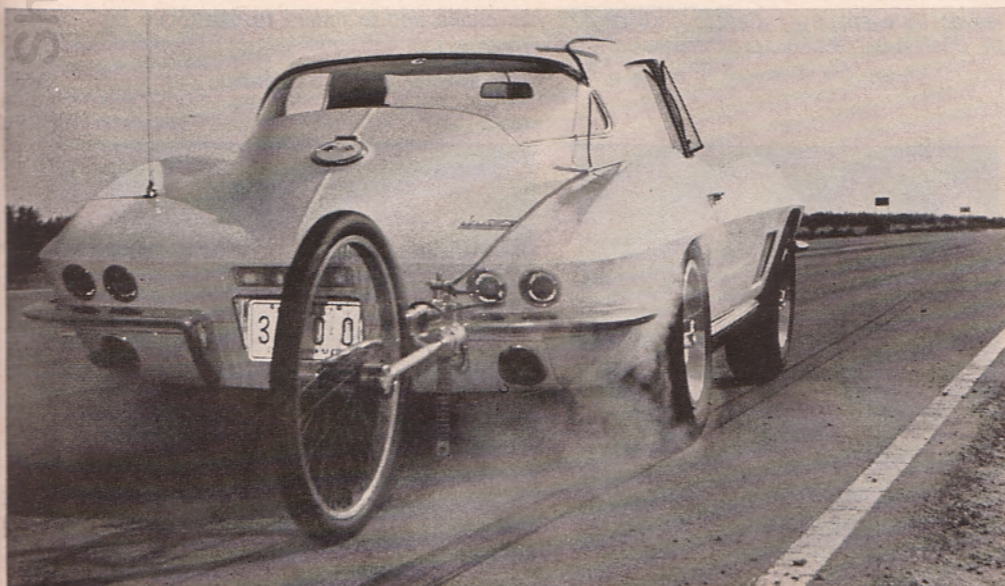
"Speedway 350" tires break loose easily, but need to for the best acceleration times.



Clean 'Vette front end is product of "hiding" lights. Hood scoop can be opened.



Standard, horizontal back-up light throws excellent beam, distinguishes '67 Sting Ray.



Standard tires resist high-rpm starts by producing slow times and plenty of smoke.

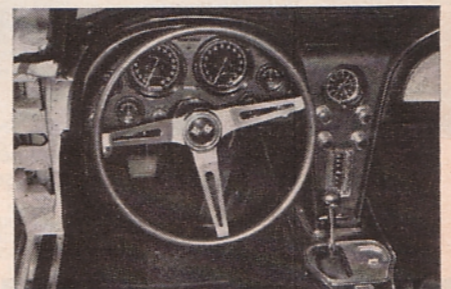
of the pilot, but the amp and oil pressure gauges (Shelby additions) are positioned centrally below the radio. It's not hard to see them, but they're not as readable as in the Corvette, nor are they in a direct line of sight with the road.

The really impressive points of the GT 500's insides are its great-feeling wood steering wheel and the integral roll bar with inertia-reel shoulder harnesses. The wheel is one of the most comfortable we've ever had our paws on, with a smooth lacquered finish and genuine "sporty" look. Shoulder harnesses can be cumbersome to attach, and restrict the normal movements of the driver, but not so in the GT 500. They fit around you like suspenders. The inertia retractor in the roll bar allows slow movement, but quickly holds you against any sudden jerk or action. You learn to be leisurely when reaching for the cigarette lighter.

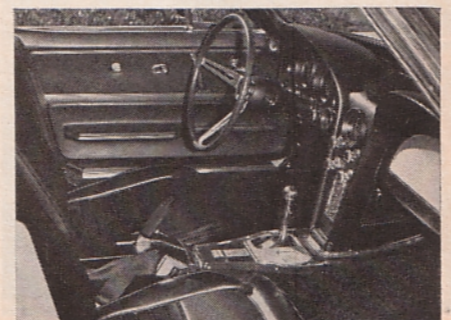
The 'Vette spare is in a panel below the rear underside which, in the rain, may give the Triple A reason to upgrade its rates. There is room for perhaps two suitcases behind the seat.

It takes a while to get used to the stiff-riding Corvette, and the low driver position. Once we became oriented, however, we went along with the "true sports car" claim. The 'Vette is a lot of fun, but discretion must be used in driving around town. It's awful easy to bound past speed limits unknowingly.

Less of an all-out sports car, the GT 500 is more at home on the street than on the track. We received many more comments on the 500's styling than we



Corvette gauge layout is nothing short of great, as is close-gate 4-speed shifter.



Entry to neat interior is easier than exit. Hand|parking brake is between seats.

GT 500 vs. STING RAY

continued

did on the Chevy sportster's, but this can be attributed as much to its being new as anything.

Our forecast of how the cars would compare on the track turned out to be accurate. We were highly impressed with the solid-as-a-rock cornering of the GT 500, and its agility in quick turns. It ran impressively in acceleration tests, staying straight when the tires were spun, and it stopped quick and straight. But even with this good performance record, it fell short of outrunning and outmaneuvering the Corvette.

Unfortunately, Chevrolet couldn't find enough room under the fender wells for a tire comparable to the E70-15 nylons standard on the GT 500, so

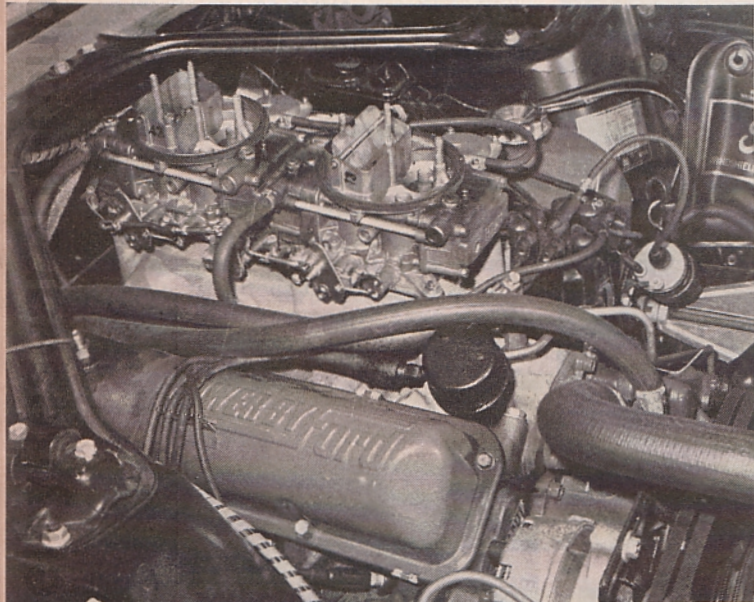
it suffers in this department. Standard 7.75 x 15 rayon tires are fitted, and this makes cornering and starting difficult. Gobs of wheelspin is all that results from a high-rpm start, but proper feathering of the gas pedal will help. The independent rear suspension gets an unfair shake when these regular tires are installed, and the rear end tends to leave the course when the car is pushed. Hooking up tires equivalent to the Speedway 350 Goodyears on the test GT 500 solved the Corvette's problems quickly. The potential is built in, but anyone desiring to put a 'Vette in proper handling form will have to start with a set of tires and the realization that lock-to-lock cornering will be slightly restricted.

It's quite a foe that Shelby's GT 500 has taken on, but not an unconquerable one. The Corvette is designed as a sports car, and that's what it is. It suffers somewhat as a street machine, but

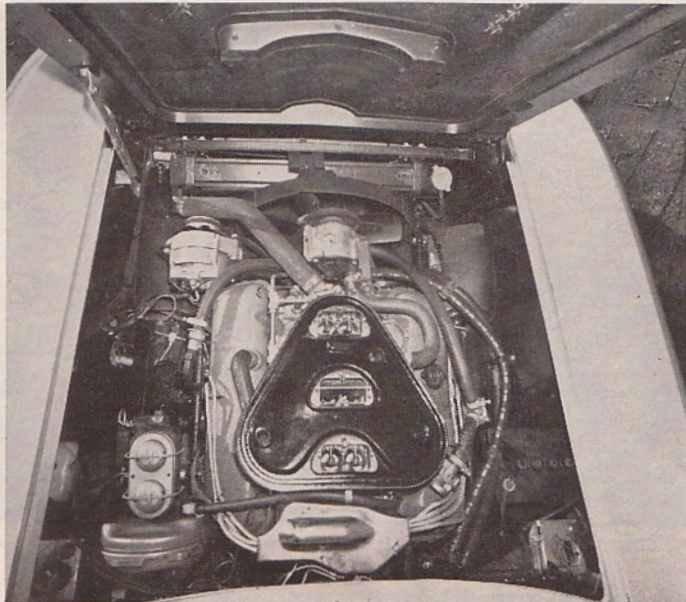
in no way is it reminiscent of early English sports cars with fold-down windshields and side curtains.

The 500 has more passenger car than sports car feel, but this could hardly be helped as the Mustang from which it stems has this quality. With a bigger engine (horsepower, not displacement), it would be close to the Corvette's acceleration times.

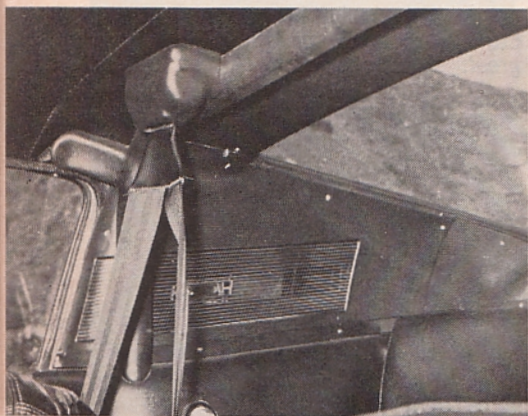
The two cars are apart yet fairly close. Shelby-American built the GT 500 with the idea of getting more customers for street-type vehicles than they could with the race-oriented GT 350s of the past. Oddly enough, this is what Chevrolet's theory has been too. They've been building a "hot" car for the street that would qualify for competitive use. Shelby's just reversed the game and taken a competition-type car and turned it into a street machine. Both gain in some respects and suffer in others from the compromise. /MT



Big 428 engine fills out GT compartment, leaves little space for working. Progressive linkage is used on dual 4-barrels.



Center carb of 427 has choke and is linked to other two by progressive hookup. Working room around V-8 is very good.



GT's shoulder harnesses are mounted to well-padded and fitted integral roll bar.



Inertia retractors stop sudden motion of GT wearer; allow slow, easy movement.



Hood pins are now wired to GT to prevent loss, or scavenger hunters from scoring.

427 STING RAY: REIGNING KING

easily opened-up hood scoop full instrumentation in front of driver center fuel filler

435-hp, 427 V-8 with 4-speed underside-stored spare

hide-away headlights 4-wheel disc brakes independent rear suspension

forward hinged hood luggage compartment accessible from interior



Five-year-old Sting Ray body style still looks good, and all-around quality of fiberglass body is of a very high standard.

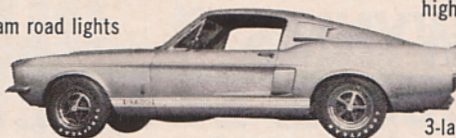
SHELBY GT 500: CANDIDATE FOR TOP BILLING

fiberglass hood, spoiler and scoops full instrumentation interior vent scoop high-speed spoiler

high-beam road lights 3-lamp tail lights

355-hp, 428 V-8 with 4-speed integral roll bar with shoulder harnesses functional rear brake air scoop E70-14 Speedway tires

stiffened suspension



Well executed GT design results from extended nose, rear spoiler and scoops. 'Glass add-ons could stand quality check.



BEST SPEEDS IN GEARS @ SHIFT POINTS:

1st	65 mph @ 6500 rpm
2nd	87 mph @ 6500 rpm
3rd	112 mph @ 6500 rpm
Top Speed	143 mph @ 6500 rpm

MPH PER 1000 RPM: 22.0

Calibrated Speedometer	30	45	50	60	70	80
Car's Speedometer	28	44	49	58	67	77

STOPPING DISTANCES:

From 30 mph, 31 ft.; from 60 mph, 135 ft.

TIRES: 7.75 x 15 rayon, standard.

BRAKES: 4-wheel hydraulic, caliper disc actuated by dual system. Power optional. Dia. of disc front and rear: 11.75 ins. Effective lining area: 78.1 sq. ins.

FUEL CAPACITY: 20 gals.

MILEAGE RANGE: 9.0 - 12.0 mpg

BODY AND FRAME: Separate construction. All-welded, full-length, ladder-constructed frame with 5 cross-members. Fiberglass body.

DIMENSIONS: Wheelbase: 98.0 ins. Track: front 57.6 ins., rear 58.3 ins. Overall length 175.1 ins., width 69.6 ins., height 49.8 ins.

USABLE TRUNK CAPACITY: 8.1 cu. ft.

CURB WEIGHT: 3340 lbs.

sting ray at a glance . . .

Easily the most powerful production car made . . . designed and built as an all-out sports car, yet fairly suitable for everyday use . . . stiff riding suspension makes around-town jaunts and long trips uncomfortable on the torso, but free of handling problems . . . styling exhibits a "going" look even when standing still . . . practiced drivers can feel safe at all speeds and in all conditions, due to 4-wheel disc brakes, quick steering, and good stability.

how the car performed . . .

ACCELERATION (2 aboard)

0-30 mph	2.5 secs.	0-60 mph	5.5 secs.
0-45 mph	3.8 secs.	0-75 mph	7.5 secs.

TIME AND DISTANCE TO ATTAIN PASSING SPEEDS:

40-60 mph	2.1 secs., 151 ft.
50-70 mph	2.0 secs., 172 ft.

STANDING START QUARTER-MILE:

13.8 secs., 104 mph.

specifications . . .

ENGINE: Ohv V-8

Bore and stroke (ins.): 4.251 x 3.76

Displacement (cu. ins.): 427

Max. torque (lbs.-ft.): 460 @ 4000 rpm

Horsepower: 435 @ 5800 rpm

Compression ratio: 11.0:1

Carburetion: 3 2-bbl. Holleys

TRANSMISSION: Optional 4-spd. manual, floor-mounted lever, all forward gears fully synchronous. Ratios of 2.20 in 1st, 1.64 in 2nd, 1.27 in 3rd, and 1.00:1 in 4th gear.

FINAL DRIVE RATIO: 3.55:1

SUSPENSION: Independent front, single lateral arm-type with coil spring, tube shock and spherically jointed steering knuckle at each wheel. Fully independent rear with fixed differential, transverse multi-leaf spring, lateral struts and universally jointed axle shafts. Tube shocks at each rear wheel.

STEERING: Optional linkage-type power assist, with semi-reversible recirculating ball nut, 17.6:1 overall gear ratio. Turning diameter: 39.9 ft., curb-to-curb. Number of turns lock-to-lock: 2.92

WHEELS: Short spoke disc steel, 15-in. dia. x 6-in. wide.

prices and accessories . . .

MANUFACTURER'S SUGGESTED RETAIL: (includes federal excise tax but excludes state and local taxes, license, options, accessories and transportation) Soft top Corvette: \$4327.50 (with 327, 300-hp V8).

OPTIONS & ACCESSORIES:

435-hp, 427-cu.-in. V-8	\$437.10
4-speed transmission	184.35
Positraction axle (limited-slip)	42.15
Red Stripe, special nylon tires	46.65
Special cast aluminum wheels	263.30
Power steering	94.80
Power brakes	42.15
Heavy-duty brakes	342.30
Side-mounted, off-the-road exhausts	131.65
Full-transistor ignition	73.75
Special-purpose suspension	36.90
36-gal. fuel tank (coupe only)	198.05
Shoulder belts	26.35
Power windows	57.95
Removable hardtop (with soft top)	231.75
Air conditioning	412.90
AM-FM radio	172.75

gt 500 at a glance . . .

Eye catching styling is product of good judgment in restyling already good looking Mustang fast-back . . . well suited for street duties, but refinements needed to make it an all-out champ on the track . . . one of the most comfortable cars for touring we've driven, but in-and-out from driver's seat is a tight fit . . . fiberglass additions would benefit from tighter quality control inspection . . . shoulder harness impressed us to the point of dissatisfaction with all others.

how the car performed . . .

ACCELERATION (2 aboard)

0-30 mph	2.9 secs.	0-60 mph	6.2 secs.
0-45 mph	4.4 secs.	0-75 mph	9.5 secs.

TIME AND DISTANCE TO ATTAIN PASSING SPEEDS:

40-60 mph	2.6 secs., 190 ft.
50-70 mph	3.0 secs., 264 ft.

STANDING START QUARTER-MILE:

14.52 secs., 101.35 mph

BEST SPEEDS IN GEARS @ SHIFT POINTS:

1st	51 mph @ 5500 rpm
2nd	68 mph @ 5500 rpm
3rd	93 mph @ 5500 rpm
Top Speed	120 mph @ 5500 rpm

MPH PER 1000 RPM: 21.1

SPEEDOMETER ERROR:

Calibrated Speedometer	30	45	50	60	70	80
Car's Speedometer	27	40	45	55	64	72

STOPPING DISTANCES:

From 30 mph, 40 ft.; from 60 mph, 144 ft.

specifications . . .

ENGINE: Ohv V-8

Bore and stroke (ins.): 4.13 x 3.984

Displacement (cu. ins.): 428

Horsepower: 355 @ 5400 rpm

Max. torque (lbs.-ft.): 420 @ 3200 rpm

Compression ratio: 10.5:1

Carburetion: 2 4-bbl. Holleys

TRANSMISSION: Fully synchronized (forward gears) 4-spd. manual. Floor-mounted lever. Gear ratios: 1st 2.32, 2nd 1.69, 3rd 1.29, 4th 1.00:1.

FINAL DRIVE RATIO: 3.50:1

SUSPENSION: Independent front with coil spring and ball joints, modified for flatter cornering, .94-in.-dia. front stabilizer bar. Straddle-mounted H-D rear axle, single unit, suspended with longitudinal 4-leaf springs with special rebound dampers to control rear spring wind-up. Preset, adjustable shock absorbers at each wheel.

STEERING: Recirculating ball and nut, linkage-type power assist standard. 16-to-1 overall gear ratio. Turning diameter, 37.16 ft. curb-to-curb. Turns lock-to-lock, 3.74.

WHEELS: Shelby steel wheel, 15-in. dia. x 6.5-in. wide.

TIRES: "Speedway 350" Goodyear low-profile 4-ply nylon E70-15 140-mph rated tires, standard.

BRAKES: Dual-system hydraulic. Front disc/rear drum with power assist and high-speed linings on disc caliper, standard. Dia. of front disc: 11.3 ins. Dia. of rear drum: 10 ins. Effective lining area: 191.0 sq. ins.

FUEL CAPACITY: 16 gals.

MILEAGE RANGE: 7.6 - 14.6 mpg

BODY AND FRAME: Platform-type unitized construction with reinforced floor side-members and export front end reinforcement.

DIMENSIONS: Wheelbase: 108.0 ins. Track: front 58.0 ins., rear 58.0 ins. Overall length 186.6 ins., width 70.9 ins., height 51.6 ins.

USABLE TRUNK CAPACITY: 5.1 cu. ft.

CURB WEIGHT: 3360 lbs.

prices and accessories . . .

MANUFACTURER'S SUGGESTED RETAIL: (includes federal excise tax, but excludes state and local taxes, license, options, accessories and transportation) 2-door fastback Shelby GT 500 Mustang - \$4195.00 (f.o.b. St. Louis, Mo.)

OPTIONS & ACCESSORIES:

Mandatory options: power brakes, power steering, shoulder harnesses (2)	\$200.00
Fold-down rear seat (mandatory)	64.77
C-6 Cruise-O-Matic	50.00
Air conditioning	356.09
AM radio	57.51
AM-FM radio	135.00
Styled steel wheels	185.00
Rally stripes (over the top)	24.95
Limited-slip differential	181.00