

**SAFETY LEGISLATION: BOON OR BOONDOGGLE?**

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# CAR LIFE

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JANUARY 1967

**BEARCAT TO  
BARRACUDA**

Development of the  
High Performance Car



**ROAD TESTING**

**THE 390 CU. IN. MUSTANG**



# 390 MUSTANG

No one shouted: "Hold the Onions!"



CAR LIFE  
ROAD TEST

CHAN BUSH PHOTOS



**M**USTANGS, LIKE hamburgers, have become an American institution. Mustangs, like hamburgers, share basic ingredients, but are served up in a wide variety of seasonings to suit a vast spectrum of taste. The basic 6-cyl. Mustang compares with the mustard-only burger, just as the all-options Mustang has its counterpart in the "Super Deluxe Doubleburger With Everything." One man may order his burger and his Mustang in the plain-

est form, but the gourmand likes his hamburger and his Mustang highly spiced.

Certainly, no one shouted, "Hold the onions!" when *CAR LIFE's* first Ford test car of the 1967 model year started down the assembly line. The car that emerged after assiduous addition of automotive mayonnaise, lettuce, tomato, relish, pickle, catsup, horseradish, mustard, onion—of course—and seeded bun was the absolute, the Super Double Deluxeburger Mustang.

The meat in the middle of this Mustang was the 390-cu. in. engine, rated at 335 bhp, newly appended to the Mustang line for 1967. The 390 represents a substantial horsepower boost over that previously available for Mustangs; top-rated for the past two model years was the high-performance version of Ford's 289-cu. in. engine. The latter, with one 4-barrel carburetor, was rated at 271 bhp at 6000 rpm, whereas the 390 for 1967 produces its bhp peak at a more tractable 4800 rpm.

When the Mustang was delivered to *CL*, its engine demonstrated a sticky valve lifter. The noisy, tapping condition tended to worsen as engine temperature increased.

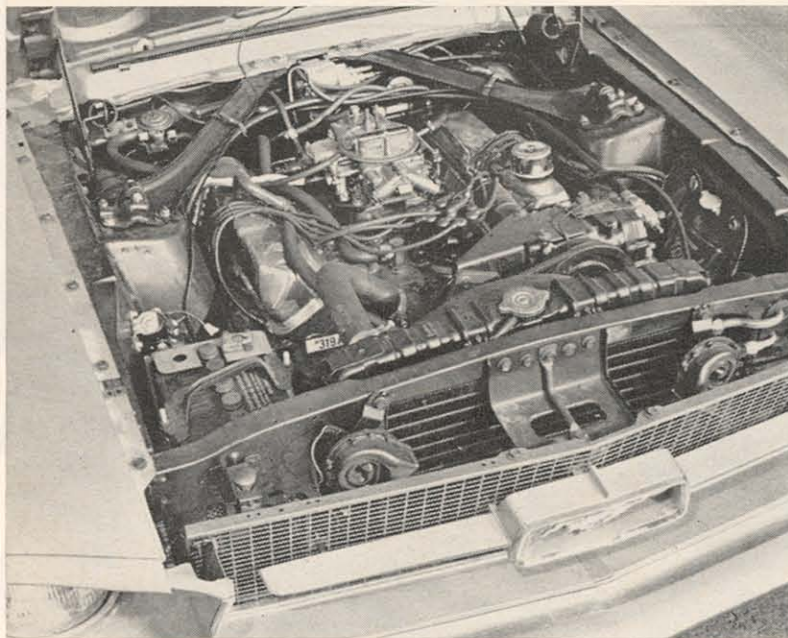
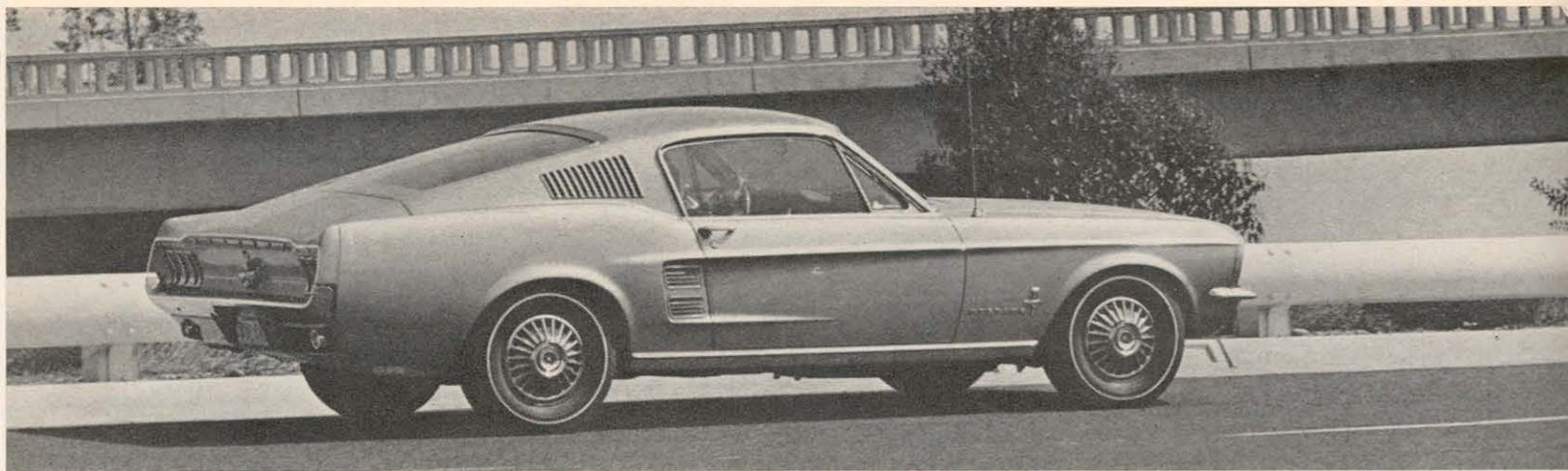
The 390 V-8, which started life with 352 cu. in., has powered a goodly number of Ford Motor Company products, including Thunderbirds, larger Mercurys and Ford trucks, for almost a decade and is the parent of Ford's current 427 engine series. Once regarded as a high performance engine, the 390 must now be thought of

as a mid-range powerplant. It is, nowadays, a relatively slow-turning engine, limited at the top end by breathing restrictions, but reliable. It makes an admirable power source for the demands of sustained, power-assisted travel in an air-conditioned atmosphere tinctured by the outpourings of the stereotaped Ford Family of Fine Music—for such is the forte of the superburger Mustang.

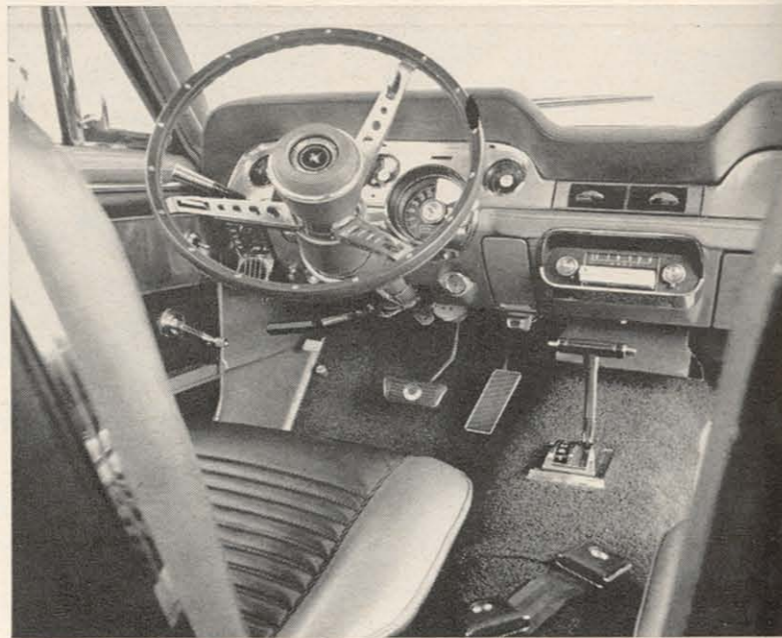
If the increased piston displacement for 1967 provides additional power for creature comfort for the Mustang,

it adds little to the straight-on acceleration so prized by many enthusiasts. In past years, *CL* has tested a number of V-8 Mustangs, all 289s, in various states of seasoning. Quarter-mile elapsed times were 16.8 sec. for the 225-bhp version, 15.9 for the 271-bhp model, 14.7 for the Shelby GT-350 and 14.0 for the GT-350 with a Paxton centrifugal supercharger. The best quarter-mile e. t. tallied by *CL's* doubledecker delight Mustang was 15.4 sec. All times were clocked with cars carrying a full fuel load, two test





FORD'S PREMIER Ponycar is fitted with everything, up to and including the 390-cu. in./335-bhp engine.



TAPE DECK, metal-trimmed pedals, air conditioning and burnished aluminum panels are superburger seasoning.

# MUSTANG

crewmembers and equipment. Thus the single 4-barrel 390 is somewhat quicker than the single 4-barrel 289, but, in the view of test drivers, not 101 cu. in. quicker. Perhaps the superburger, if it is to be a superburger, needs a little more mustard.

What proclivities toward acceleration were displayed by the 390 Mustang were in part due to the 3.25:1 rear axle ratio, which is supplied only in the optional limited-slip differential. A 3.00:1 axle is standard with the 390 V-8. The Cruise-O-Matic transmission, refined, docile, effortless and well-suited to the 390, was remarkable only in that it performed its job with-

out fuss. The driver may allow the transmission to do all the gear changing, or select and hold a lower gear until he wishes to change up manually, a feature available on Ford high performance cars in 1966, but now standard on all automatic transmission-equipped Fords. Just enough sweet pickle.

This meaty engine and drive-train were enclosed in the restyled-for-1967 Mustang fastback body. All new sheet metal below the belt-line, a new swept-back roof and larger rear window are characteristics of the new model. The overall styling is a sleek, harmonious improvement over the 1966 Mustang.

A lowered nose and enlarged air intake scoop/snout give the impression that Mustangs have become more sturdy, huskier. The sweeping new header-to-tail roofline provides additional headroom for rear seat passengers and gives the 1967 Mustang a more sporting appearance.

Though the Mustang wheelbase remains at 108 in., wheel track width has been increased from 56 in. to 58 in. front and rear. Overall length has increased from 181.6 to 183.6 in.; overall height of the fastback model has risen from 51.6 to 51.8 in. Despite dimensional alterations and subtle changes in shape, the overall appearance of the fastback still is totally Mustang.

THE MUSTANG'S short-and-long-arm independent front suspension system, though geometrically similar to that for 1966, employs rubber bushing

material at all attachment points to minimize transmission of road shocks to the passenger compartment. A new lower A-arm is 2.5 in. longer than its 1966 counterpart and the upper A-arm pivot point has been lowered. The two changes provide for more uniform wheel attitude through the jounce/rebound cycle. Separate cam-type adjustments, in place of shims, for front wheel camber and caster have been incorporated into the 1967 design.

The 390 Mustang is delivered with front coil springs and a 0.72-in. anti-roll stabilizer which produce a ride rate at the wheel of 125 lb./in., very stiff in comparison to the 103 lb./in. for the 289-cu. in. versions of the car. The stiffer springing is aimed at compensation for the 200 lb. additional weight of the 390 over the 289-cu. in. engine. However, the rear ride rate for the 390 Mustang is 110 lb./in., identical to that for 6-cyl. and 289

V-8 Mustangs. The results are something of a jolt-squish ride over roadway irregularities and a tendency for the rear end of the automobile to hop about unduly.

THE STEERING system for 1967 also follows the 1966 layout, but employs polyethylene-filled sockets at all ball joints. This method replaces previously used metal bearings, reduces friction, which in turn eases steering effort and provides better damping action to minimize road shock feedback through the steering system.

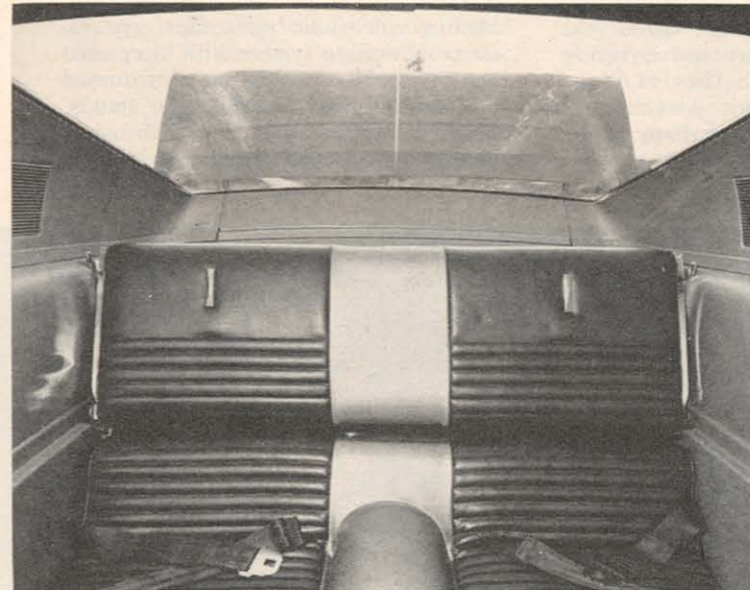
Usually, a hamburger palace offers a specialty of the house—charcoal broiling, coarse-ground pepper or the like. The special relish for the 1967 Mustang tested by *CAR LIFE* was the remarkable ability of the car to stop quickly, surely and without loss of directional stability. In two all-on stops from 80 mph, the Mustang delivered

deceleration rates of 29 and 27 ft./sec./sec. In the second stop, the test driver, with both feet hard down on the brake pedal, experienced only slight vacuum runout as heat buildup resulted in minor fade. Nevertheless, the deceleration rate in the Mustang's second stop was far superior to that recorded during the first deceleration runs for the majority of cars tested by *CAR LIFE*.

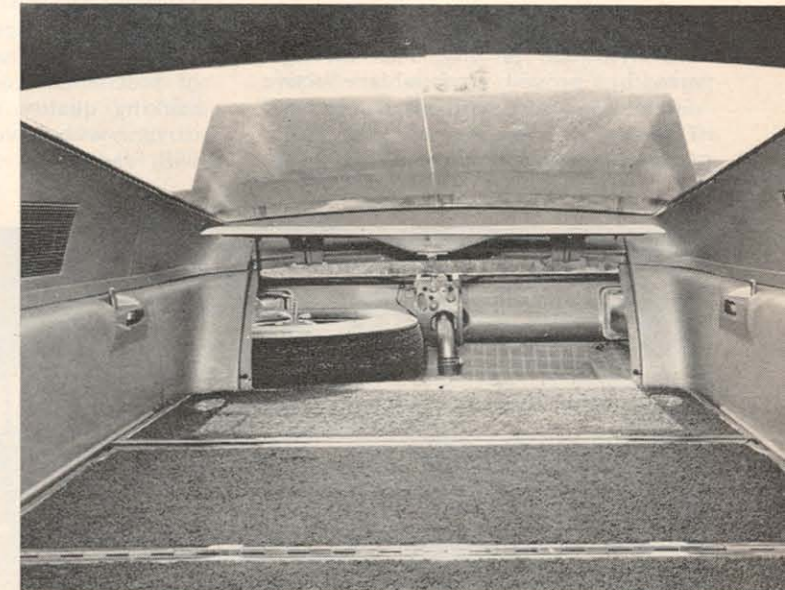
Contributors to this phenomenal decelerative prowess were the front-disc, rear-drum and proportioning-valve braking system and a set of fat foot-printed Firestone Super Sports Wide Oval tires, both optional on the Mustang. A superburger with truffles and *pate de foi gras*? Definitely!

At the heart of this super/stopping system are vacuum-boosted Kelsey-Hayes front disc brakes, with ventilated rotors of 11.38-in. diameter. Each rotor is snubbed by two pads of

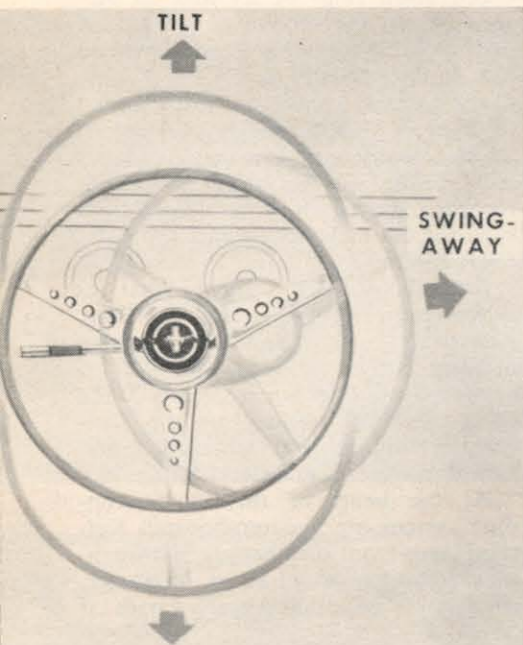
RAISED, THE upholstered underside of the rear deck panel provides a minimum of 2 plus 2 passenger accommodation.



LOWERED, THE carpeted deck panel and trunk offer the long-distance tourist a sufficiency of space for luggage.







TILT/SWING column pops up and right for entry/exit ease, and has nine driving positions.

8.5 sq. in. forced against the rotor by two hydraulic pistons. This arrangement has proved formidably effective on the Lincoln Continental and Ford Thunderbird. At the rear are 10-in. drums with duo-servo shoes of 1.75-

in. width. Separate front and rear hydraulic circuits receive pressure from a double-chambered master cylinder. The rear brake circuit, however, is fitted with a proportioning valve that limits pressure to the rear wheel cylinders to prevent rear wheel lockup as the forward mass transfer occurs during deceleration.

The sheer toothy bite provided by the Firestone Wide Ovals obviously was a major factor in the Mustang's outstanding ability to stop. The tires, introduced by Firestone early in 1966, are passenger car kissin' cousins to the extremely wide tires now in universal use on road and oval track competition vehicles. In cross-section, the Wide Oval tire is approximately 2 in. wider than the broadest of earlier low-profile tires.

The Super Sports Wide Ovals, in addition to their contribution to deceleration, gave the Mustang a greater than anticipated measure of roadability and handling character. Curving roadway provided the best test ground for the Mustang/Wide Oval combination. Bends were taken at high speed, but with a sense of security and a feeling of precise control that tires of lesser sticking quality do not provide. *CL* drivers, who have logged many hours with radial ply tires, said they pre-

ferred Wide Ovals to several brands of radials for reasons of riding comfort. The Wide Ovals demonstrated cornering capabilities equal to the majority of radials without the characteristic low speed ride harshness of radial ply tires. And, aside from functional considerations, in the realm of styling, the Wide Ovals gave the 390 Mustang a squat, stocky look that was eagerly businesslike.

THAT THE SUPERBURGER Mustang was too highly seasoned in some respects was evident on inspection of the car's interior. The *CAR LIFE* consensus was that Ford stylists had prepared this burger for a glutton, rather than a gourmet. The interior was overly decorated—as has been the case since Thunderbirds became 4- instead of 2-seaters. Too many textures, too many surfaces, too many bits of glittering brightness overworked the eyes of the beholders.

Part of the problem, of course, was that the test Mustang was fitted with a full array of optional equipment, including an am radio/stereotape system, air conditioning system with integrated heater, speed control, metal trimmed foot pedals, overhead map lamps, parking brake signal lamp, brushed aluminum on panel and doors, cour-

tesy lamps, automatic transmission quadrant lamps, tilt/swing-away steering column, low fuel warning lamp, seat belt warning lamp, and more.

THE TAPE PLAYBACK equipment filled the clean, conditioned air with sweet song as the speed control maintained an unvarying rate of progress over hill and dale, with only the driver's limp fingers directing the power assisted steering. Thus was the Mustang driver, in his nest of glitter, knobs, shiny buttons, glint and levers, separated from the reality of the road. The 390 Mustang became simply a comfort capsule bearing its occupant to his destination in an electromechanical environment, robbed of many of the stimulating pleasures of driving. Addition of a few condiments to the hamburger make for good taste; an over-abundance proves cloying.

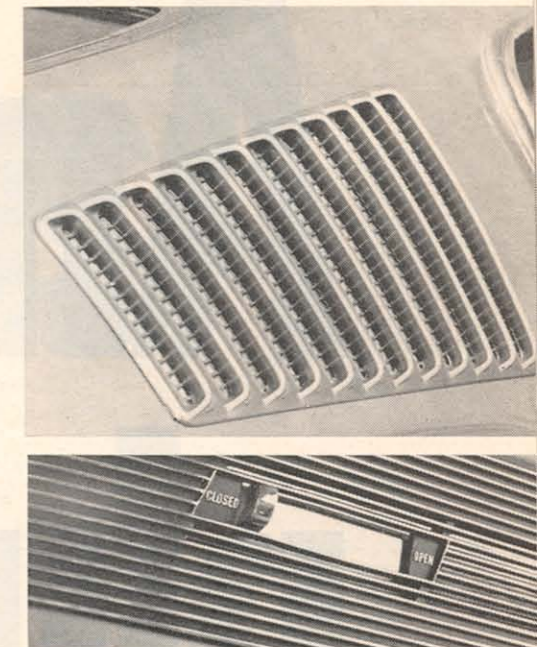
Included in the filling of the superburger Mustang is a generous spread of so-called safety items. Padding, impact-absorbing materials, the split brake circuitry, washers, flashers, lamps, latches and so forth are added this year as standard equipment under the banner of safety. However, the pieces of equipment on the test Mustang that really appeared safe and gave occupants the feeling of being safe,

other than those brakes and tires, were the standard lap type seat belts used in conjunction with optional cross-chest restraining straps. Unfortunately, these were not what they should have been. More than 30 sec. were required to sort out, adjust and buckle both lap and chest belts, a time expenditure the majority of in-a-hurry American motorists will not tolerate. Once buckled and fitted into the belts, the driver was unable to reach important controls—the parking brake lever and windshield wiper switch, for example. Human engineering, rather than styling, must one day dictate matters of body restraint and placement of automobile controls.

At the corner drive-in, the base price of the hamburger is 19¢. At the swank restaurant in the heart of the city, it is disguised as "Salisbury steak on toasted French roll," at \$2.25, but it is, nevertheless, a hamburger.

Such is the Mustang menu for 1967. The base price of the 6-cyl. model is approximately \$2600. However, to add the spice for the super deluxe double-burger delight 390 Mustang—with everything—the prospective buyer must be prepared to pay well over \$4500.

Shortly after *CL*'s meeting with the cool, cushy, factory fancy 390 Mustang, staffers were introduced to the Shelby Mustangs for 1967—the GT-



VENTS in rear roof pillar are operated from inside to provide straight-through ventilation.

350 and the GT-500, with a modified 428-cu. in. engine: While the vast majority may wish to dine on hamburger—from mustard only to Super Deluxe—there are forthright individuals who choose steak sandwiches. ■

## 1967 MUSTANG 390 FASTBACK



### DIMENSIONS

Wheelbase, in.	108.0
Track, f/r, in.	58.1/58.1
Overall length, in.	183.6
width	70.9
height	51.8
Front seat hip room, in.	2 x 21.1
shoulder room	53.4
head room	37.3
pedal-seatback, max.	41.6
Rear seat hip room, in.	40.0
shoulder room	n.a.
leg room	n.a.
head room	n.a.
Door opening width, in.	42.2
Floor to ground height, in.	9.7
Ground clearance, in.	6.5

### PRICES

List, fob factory	\$2592
Equipped as tested	4427
Options included: 390-cu. in. engine, automatic trans., limited-slip dif., Wide Oval tires, tilt-away steering wheel, power steering and brakes, speed control, air cond., stereo tape system, radio, tinted glass, courtesy-decor trim, styled steel wheels.	
<b>CAPACITIES</b>	
No. of passengers	4
Luggage space, cu. ft.	5.1
Fuel tank, gal.	17.0
Crankcase, qt.	4.0
Transmission/diff., pt.	26.0
Radiator coolant, qt.	20.5

### CHASSIS/SUSPENSION

Frame type	platform unitized
Front suspension type: Independent by s.l.a., ball joints, coil springs, telescopic shock absorbers.	
ride rate at wheel, lb./in.	125
anti-roll bar dia., in.	0.72
Rear suspension type: Hotchkiss drive with parallel, longitudinal, semi-elliptic leaf springs, telescopic shock absorbers.	
ride rate at wheel, lb./in.	110
Steering system: Recirculating ball and nut, linkage assisted parallelogram with cross link, 2 tie rods, ball joint knuckles.	
gear ratio	16.0
overall ratio	20.3
turns, lock to lock	3.6
turning circle, ft. curb- curb	37.2
Curb weight, lb.	3400
Test weight	3810
Weight distribution, % f/r	58/42

### BRAKES

Type: Two-circuit hydraulic with proportioning valve; vented cast iron rotors with caliper front; duo servo shoes in cast iron drums, rear.	
Front rotor, dia., in.	11.38
Rear drum, dia. x width, 10.00 x 1.75	
total swept area, sq. in.	330.0
Power assist: Integral, vacuum booster line psi @ 100 lb. pedal	1050

### WHEELS/TIRES

Wheel size	14 x 6JK
optional size available	14 x 5.5JK
bolt no./circle dia., in.	5/4.5
Tires: Firestone Wide Oval size F70-14 recommended inflation, psi	28/28
capacity rating, total lb.	4950

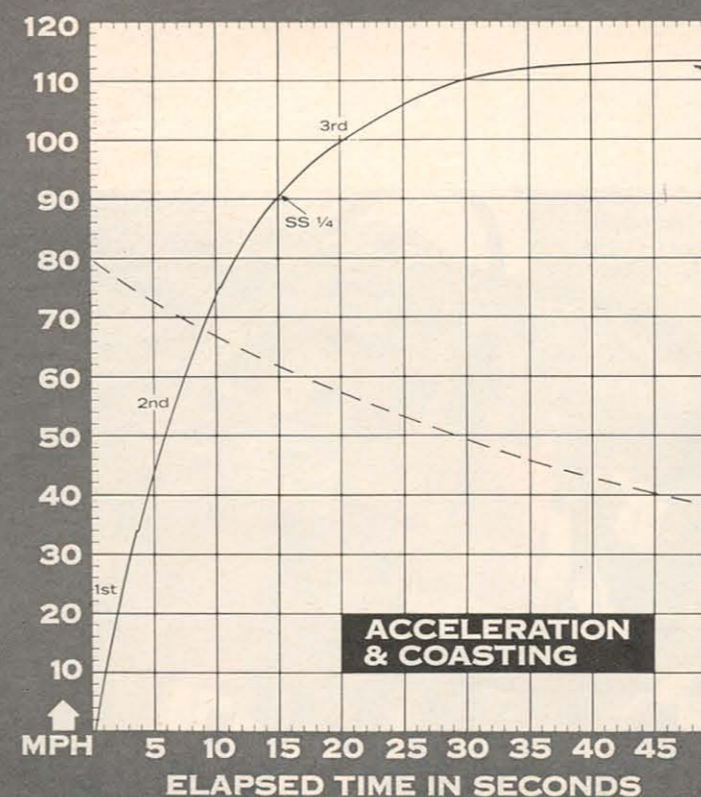
### ENGINE

Type, no. cyl.	ohv, V-8
Bore x stroke, in.	4.05 x 3.78
Displacement, cu. in.	389.369
Compression ratio	10.5
Rated bhp @ rpm	335 @ 4800
equivalent mph	108
Rated torque @ rpm	427 @ 3200
equivalent mph	72
Carburetion	1x4
barrel dia., pri./sec.	1.562/1.562
Valve operation: Hydraulic lifters, pushrods and rocker arms.	
valve dia., int./exh.	2.029/1.558
lift, int./exh.	0.4809/0.4809
timing, deg.	20-70, 66-24
duration, int./exh.	270/270
opening overlap	44
Exhaust system: Dual, two 2-passage reverse-flow mufflers, resonators.	
pipe dia., exh./tail	2.0/2.0
Lubrication pump type	rotor normal press. @ rpm. 57-67 @ 2000
Electrical supply	alternator
ampere rating	55
Battery, plates/amp. rating	54/45

### DRIVE-TRAIN

Transmission type: Torque converter with 3-speed planetary gearbox.	
Gear ratio 4th ( ) overall	
3rd (1.00)	3.25
2nd (1.46)	4.65
1st (2.46)	8.00
1st x t.c. stall (2.10)	16.80
synchronous meshing?	planetary
Shift lever location	console
Differential type: Limited slip, hypoid, straddle-mounted pinion.	
axle ratio	3.25

## CAR LIFE ROAD TEST



### CALCULATED DATA

Lb./bhp (test weight)	11.4
Cu. ft./ton mile	157
Mph/1000 rpm (high gear)	22.5
Engine revs./mile (60 mph)	2660
Piston travel, ft./mile	1675
Car Life wear index	44.6
Frontal area, sq. ft.	20.4
Box volume, cu. ft.	391.0

### SPEEDOMETER ERROR

30 mph, actual	28.3
40 mph	38.6
50 mph	48.7
60 mph	58.5
70 mph	68.4
80 mph	78.5
90 mph	87.7

### MAINTENANCE INTERVALS

Oil change, engine, miles	6000
trans./diff.	none
Oil filter change	6000
Air cleaner service, mi.	6000
Chassis lubrication	36,000
Wheelbearing re-packing	30,000
Universal joint service	36,000
Coolant change, mi.	36,000

### TUNE-UP DATA

Spark plugs	Autolite BF-32
gap, in.	0.032-0.036
Spark setting, deg./idle rpm	12/950
cent. max. adv. deg./rpm	20/4000
vac. max. adv., deg./in. Hg.	22/17
Breaker gap, in.	0.014-0.016
cam dwell angle	26-28.5
arm tension, oz.	27-32
Tappet clearance, int./exh.	0/0
Fuel pump pressure, psi	4.5-5.5
Radiator cap relief press., psi	12-15

### PERFORMANCE

Top speed (5000), mph	113
Shifts (rpm) @ mph	
3rd to 4th ( )	
2nd to 3rd (4800)	75
1st to 2nd (4800)	44

### ACCELERATION

0-30 mph, sec.	3.4
0-40 mph	4.5
0-50 mph	5.8
0-60 mph	7.8
0-70 mph	9.3
0-80 mph	11.5
0-90 mph	14.7
0-100 mph	20.5
Standing 1/4-mile, sec.	15.5
speed at end, mph	91.4
Passing, 30-70 mph, sec.	5.9

### BRAKING

(Maximum deceleration rate achieved from 80 mph)	
1st stop, ft./sec./sec.	29
fade evident?	no
Chassis lubrication	36,000
2nd stop, ft./sec./sec.	27
fade evident?	no

### FUEL CONSUMPTION

Test conditions, mpg	11.7
Est. normal range, mpg	11-13
Cruising range, miles	187-211

### GRADABILITY

4th, % grade @ mph	
3rd	17 @ 68
2nd	29 @ 47
1st	38 @ 39

### DRAG FACTOR

Total drag @ 60 mph, lb.	130
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