



MOVE OVER WORLD— HERE'S THE BOSS

**NASCAR said Ford had to build
500 of its racing 429s. Ford did.
And what a package to put them in**



PHOTOS BY DAVID GOOLEY

A 428 MACH I was called the "First Great Mustang" by CAR LIFE's testers in March. It was the first Mustang to show it could live up to Mustang's original promise. It did this only through stopgap measures, though, such as an exceedingly powerful engine and a very good set of tires. Lurking beneath this mascara still was generally poor chassis configuration that left the Mach I slightly short of a true sporting machine.

But now, the engineers really have done it. The Boss 429. There is even more power and more tire on the ground, but this time the engineers didn't stop at the surface. They attacked the chassis and added every heavy-duty item they could find in Ford's stock, plus a few that weren't.

It is, quite frankly, the best enthusiast car Ford has ever produced. It ranks as one of the more impressive performance cars we've tested. Why? Because it does all the things such a car is supposed to do. In the quarter-mile, though not up to the promise on paper, it did a very creditable 14.09 sec., and 102.85 mph. Not quite as good as the Mach I, the Boss works

better with open exhaust and carb. It stops. The power disc brakes produced deceleration rates repeatedly above one G (32.2 ft./sec./sec.). Our decelerometer only goes to 1 G. Thanks to the F60-15 Polyglas Goodyears, cornering power feels equal to the stock-tire Corvettes in this issue. Suspension changes have brought the handling up to a level approaching an honest race car; and while not exactly in the Corvette's league, predictability is well within the acceptable range. It's comfortable. It's stylish. It comes standard with detail items that enthusiasts usually have to order special, or add later: Oil cooler, battery in the back, suspension modifications, honest spoilers. It's all there.

Whom do we thank for such a nice package? Well, one has to start with the engineers (or is it that they just won the battle with the production cost cutters for once?). Then some credit has to go to Bill France of NASCAR, who says manufacturers have to sell what they race; and to Ford's Bunkie Knudsen, who says Ford will race what they sell. Before Ford could race the new "Blue Crescent 429" engine in stock car racing, it had to manufacture 500 for general sale. What better way to sell them than to put them in an upgraded Mustang? Putting it in the larger Torino would cause a weight penalty, and besides a super Mustang would produce Corvette competition—both on the track and in the showroom.

Here's how the Boss is built: Ford's new stocker engine, an aluminum quasi-hemi conversion on the 429 Thunderbird thin-wall block, is detuned slightly for the street. An aluminum six-quart pan is substituted for the racing dry sump system; a smaller, 735-cfm Holley carburetor and low-rise manifold is fitted; and a 285° duration hydraulic cam, and special, al-

most-header cast iron exhaust manifolds replace the racing parts. Left in are such racing pieces as the dry-deck heads (no head gasket, all passages are O-ringed, leaving an air space between head and block), saucer-size valves (2.3-in. intakes and 1.9 exhaust), and the dual point distributor. Even the neatly numbered plug wires remain. The rating is dropped to 375 bhp. (We know about that silly game, and you know about it and Ford knows you know, but we all play it anyway). A good estimate based on trap speed: 400.

But they're just getting started. The quasi-hemi engine is too wide to fit into a standard Mustang, so they had to move the entire front suspension outboard an inch so the A-arm pivot and spring tower would clear the valve covers. As long as they are moving the inner pivot points around anyway, why not lower the upper inside attachment point an inch to improve the front geometry? This gave some camber gain, or better tire angle during body lean. The full heavy-duty spring and shock kit was incorporated (same as on the Mach I) and then they added an anti-roll bar to the back. The heav-



RACE CAR HERITAGE is reflected in the Boss' speed, handling and braking. Its cornering capabilities exhibit race car finesse that is an exciting challenge to a good driver, braking rate was above 1 G, 32.2 ft./sec./sec.

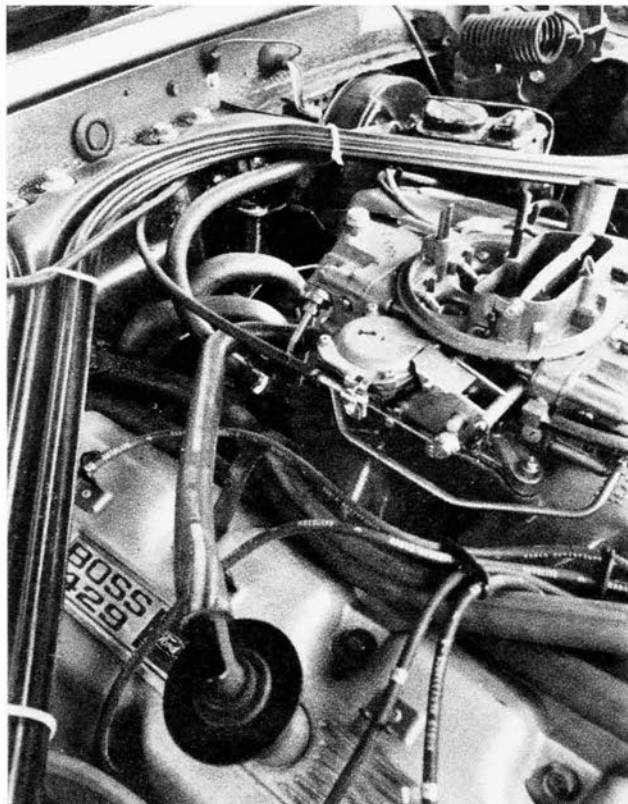
iest duty rear axle and limited-slip that Ford has goes underneath all this and the close ratio four-speed, only, is supplied.

Ford left very little undone. And the results live up to its expectations.

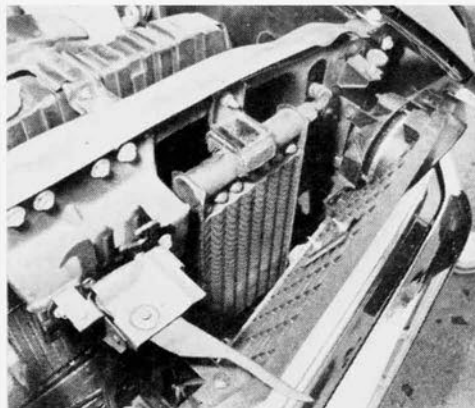
Street manners are, if anything, better than the Mach I. The engine is neither overly fussy, excessively torquey (a condition that was annoying about the 428 Cobra Jet), nor terribly noisy. The firm ride is not jarring, but it's



**CAR LIFE
ROAD TEST**

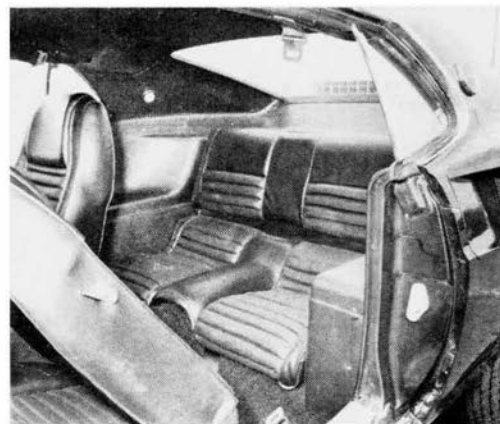


FORD'S STOCKER racing engine, a 429 with quasi-hemi aluminum heads supplies the phenomenal punch of the Boss. It's docile, yet retains many racing innovations.



OIL cooler comes standard and is just one of the many detail racing items included in Boss 429 package.

INTERIOR is standard Mach 1. Good front seats, hard and nearly unusable jump seats. Who cares?



1969 BOSS 429 MUSTANG



DIMENSIONS

Wheelbase, in.	108
Track, f/r, in.	59.3/58.5
Overall length, in.	187
width	72
height	51
Front seat hip room, in.	2 x 23
shoulder room	56
head room	56
pedal-seatback, max.	41
Rear seat hip room, in.	40
shoulder room	55
leg room	30
head room	36
Door opening width, in.	42
Trunk liftover height, in.	33

PRICES

List, FOB factory	\$2740
Equipped as tested	\$4868
Options included: Boss 429 V-8, \$1208;	
4-speed, \$254; limited slip, \$64;	
power discs, \$65; special suspension,	
\$31; front spoiler, \$13; trunk	
mounted 85-amp bat., \$32; F60-15	
Polyglas tires on 7-in. rims, N.C.	

CAPACITIES

No. of passengers	2+2
Luggage space, cu. ft.	5
Fuel tank, gal.	18
Crankcase, qt.	8
Transmission/dif., pt.	4/5
Radiator coolant, qt.	22.5

CHASSIS/SUSPENSION

Frame type:	Unitized.
Front suspension type:	Independent by short and long arms, drag strut, coil springs.
ride rate at wheel, lb./in.	123
antiroll bar dia., in.	0.95
Rear suspension type:	Live axle, multi-leaf springs, staggered shock absorbers, antiroll bar.
ride rate at wheel, lb./in.	140
Steering system:	Recirculating ball with linkage assist.
overall ratio	20.3:1
turns, lock to lock	4
turning circle, ft. curb-curb	38
Curb weight, lb.	3560
Test weight	3870
Distribution (driver)	
%f/r	58.5/41.5

BRAKES

Type:	Power assisted front disc, drum rear.
Front rotor, dia. in.	11.3
Rear drum, dia. x width	10 x 2.5
total swept area, sq. in.	232
Power assist	
line psi at 100 lb. pedal	795

WHEELS/TIRES

Wheel rim size	15 x 7
optional size	none
bolt no./circle dia. in.	5/4.5
Tires: Goodyear Polyglas GT.	
size	F60-15

ENGINE

Type, no. of cyl.	V-8
Bore x stroke, in.	4.36 x 3.59
Displacement, cu. in.	429
Compression ratio	10.5:1
Fuel required	super premium
Rated bhp @ rpm	375 @ 5200
equivalent mph	99
Rated torque @ rpm	410 @ 3400
equivalent mph	73
Carburetion:	Holley 1x4 735 cfm.
throttle dia., in./sec.	1.68/1.68
Valve train:	Hydraulic lifters, push-rods, overhead rocker arms and "twisted" hemispherical combustion chamber.
cam timing	
deg., int./exh.	n.a.
duration, int./exh.	285/285
Exhaust system:	Dual with reverse-flow mufflers.
pipe dia., exh./tail	2.25/2.25
Normal oil press. @ rpm	50 @ 2000
Electrical supply, V./amp.	12/55
Battery, plates/amp. hr.	78/85

DRIVE TRAIN

Clutch type:	Single dry disc.
dia., in.	11
Transmission type:	4-speed manual.
Gear ratio 4th (1.00:1) overall	3.91:1
3rd (1.29:1)	5.49:1
2nd (1.69:1)	6.61:1
1st (2.32:1)	9.08:1
Shift lever location:	Console.
Differential type:	Hypoid with limited slip.
axle ratio	3.91:1

BOSS 429 MUSTANG

continued

solid maneuvering through traffic. It's hard to be in the wrong gear; but in case you ever are, the smooth four-speed makes things easy.

On the strip, the second impression becomes evident. That is its gluttonous thirst for speed. Initial thrust is very impressive, as you might expect, but the belt in the back doesn't subside as speed increases as in most cars. It just keeps going, and going, and going, all the way up to 118 mph (6200 rpm). That hemi chamber and big valves. The faster it goes, the better it breathes. Strip starts were not the problem one might expect. Thanks to the large tires and the high revving engine, getting out of the hole cleanly took less than the usual practice. Biggest job on the strip runs was shifting, simply because shift points came so rapidly. Our test car was a little short

on break-in miles so we went through the gears shifting at 5400 rpm. It felt ready to keep winding—just like the Chrysler Hemi. What would a high-revving, speed-shifted banzai run bring? We didn't have any inclination to try it. Remember, this is a \$3000 racing engine, and there are only 500 of them. And even Holman and Moody/Stroppe can't get parts.

On the road course, performance was every bit as impressive as on the strip, and is a giant step ahead of any other Mustang. The Mach I had too much understeer. That limited its cornering power and its maneuverability. The improved front geometry, wider front track and rear anti-roll bar combine to take all the plowing out of the chassis. The large-section tires, now being held flat on the pavement, stick like real racing tires. We spent several laps getting used to the extra lateral adhesion. We'd go charging into a corner thinking *this* time she'll break loose. Each time we'd come out feeling silly because we had tracked around with zero slip angle. Then we'd charge harder, still not close to the limit. When we finally did get out on the limit, another surprise was waiting for us. Race car behavior.

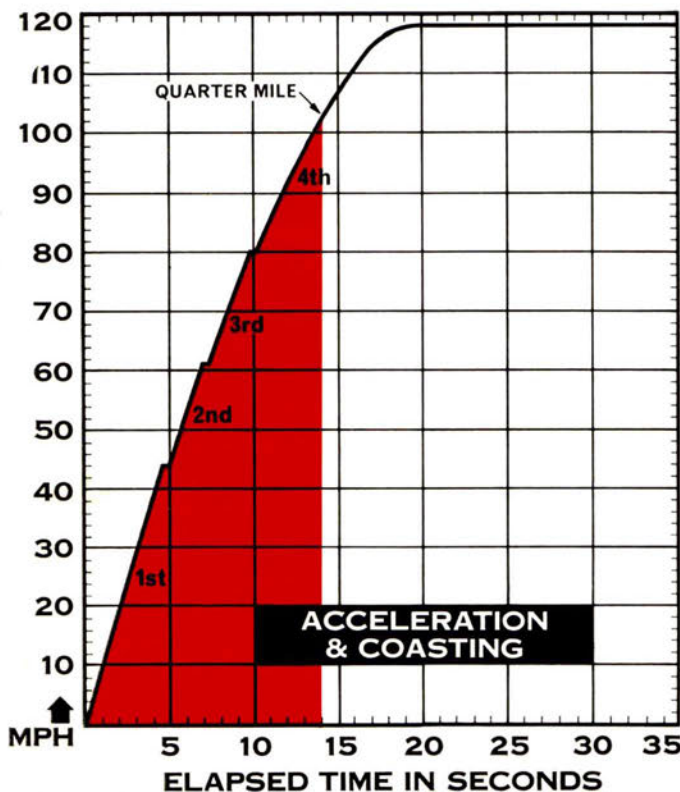
Good handling street cars like the

Corvette and various Dodge Supercars have a broad spectrum in which they can be driven, and bags of predictability. A driver can sail into a corner over his head knowing he'll have plenty of time to save it. With a race car, things are much quicker, more precise, and super responsive. (Not necessarily any less predictable, but the driver has to keep things a little more tidied up.) The Boss 429 is this way. There is plenty of warning. You know how close you are to the limit, but the final edge is narrower. The tires have more adhesion, the car is more taut.

Because weight distribution is still far from ideal, and Ford hasn't gotten all the understeer out, initial turning of the steering wheel still produces an uncertain lag in response until the momentum of the heavy nose is overcome.

There are cars around that have some of these qualities we like about the Boss 429, and maybe some of their qualities are even superior. But none of the cars have them all and none we have seen come off the showroom floor with quite as impressive a set of credentials. The Boss 429, seemingly, has everything, and everything in this case goes for \$5000. *That* has to be the bargain of the year. ■

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	8/7
Cu. ft./ton mile	201.8
Mph/1000 rpm (high gear)	19.1
Engine revs./mile (60 mph)	3140
Piston travel, ft./mile	1880
CAR LIFE wear index	59.0

SPEEDOMETER ERROR

Indicated	Actual
30 mph	27.1
40 mph	37.1
50 mph	47.0
60 mph	57.0
70 mph	66.9
80 mph	76.8
90 mph	86.8

MAINTENANCE

Engine oil, miles/days	6000/180
oil filter, miles/days	6000/180
Chassis lubrication, miles	36,000
Antismog servicing, type/miles	clean PCV valve/6000, tune engine/12,000
Air cleaner, miles	replace/24,000
Spark plugs: Autolite AF-32	
gap, (in.)	0.035
Basic timing, deg./rpm. 10 BTDC/700	
max. cent. adv., deg./rpm. 38/3000	
max. vac. adv., deg./in. Hg.	n.a.
Ignition point gap, in.	0.020
cam dwell angle, deg.	30
arm tension, oz.	20
Tappet clearance, int./exh.	0/0
Fuel pressure at idle, psi	5.0
Radiator cap relief press., psi	14

PERFORMANCE

Top speed (6200), mph	118
Test shift points (rpm) @ mph	
3rd to 4th (5400)	80
2nd to 3rd (5400)	61
1st to 2nd (5400)	44

ACCELERATION

0-30 mph, sec.	3.2
0-40 mph	4.3
0-50 mph	5.8
0-60 mph	7.1
0-70 mph	8.6
0-80 mph	10.0
0-90 mph	11.8
0-100 mph	13.6
Standing 1/4-mile, sec.	14.09
speed at end, mph	102.85
Passing, 30-70 mph, sec.	4.0

BRAKING

Max. deceleration rate from 80 mph	ft./sec./sec. 35 (est.)
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate	4
Control loss? None.	
Overall brake performance	excellent

FUEL CONSUMPTION

Test conditions, mpg	8.9
Normal cond. mpg	9-12
Cruising range, miles	170-220