

STREET RACING CONFIDENTIAL: N.Y.C. IN THE 1960s



Hemmings

# MUSCLE MACHINES

THE ULTIMATE ALL-AMERICAN PERFORMANCE CAR MAGAZINE

## YENKO

THE STORY BEHIND THE ORIGINAL  
**SUPER CAMARO!**



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11,000-MILE BOSS 429

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1970 COUGAR ELIMINATOR

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# THE BOSS OF Bosses

## 1969 Mustang Boss 429

By George Mattar

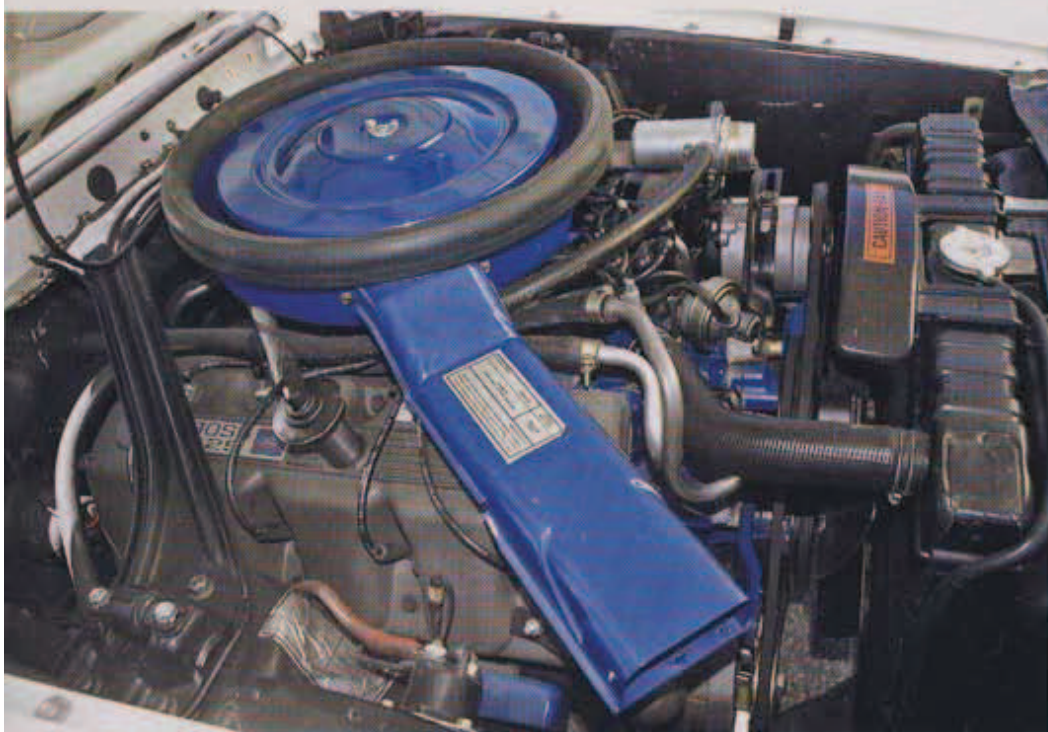
Photography by Roy D. Query

**In 1969, the NASCAR aero wars** were at full throttle. Dodge had the Charger Daytona, Ford fielded the Torino Talladega and the Mercury version blasting around superspeedways was the Cyclone Spoiler II. After all, the manufacturers learned that aerodynamics played a larger part in getting to the finish line first than previously thought. If a car couldn't get through the air without dancing all over the racing surface, it would not be competitive. So, it's odd that Ford chose to put a street version of its NASCAR engine in a Mustang. When talking aerodynamics, the word "brick" comes to mind when describing the front of a 1969 Mustang.

In theory, it would have been more logical to use the Ford Torino body for the Boss 429 engine, but wanting to keep its performance image, Ford chose the Mustang. To achieve this goal, partially completed SportsRoof Mustangs were shipped to Kar Kraft in Brighton, Michigan. These cars were originally destined to receive the 428 SCJ engines, but the massive 429 with its exotic, aluminum cylinder heads would not fit into the Mustang body. Kar Kraft employees modified the engine compartment by hand relocating the shock towers outward. Specifically, the upper A-arms were moved out 0.5 inch and lowered 1.0 inch. The lower A-arms were moved outboard to increase camber and the front spring rates were stiffened, along with using Boss 429-specific spindles and control arms. This alone made the Boss 429 a formidable handler in contrast to other big-block Mustangs. It also cost plenty of money. Ford lost a substantial amount of money on every Boss 429 that left Brighton.







Big Holley fed super premium fuel to the 429 V-8



Engine compartment was modified by hand to shoehorn exotic 429 engine in, but fit was still tight; correct NOS spark plug wires can cost up to \$5,000

As with all muscle cars, the heart of the Boss 429 was the engine. Everything about the 429 was huge. The intake ports and large-diameter valves were large enough to keep these engines spinning up to 8,000 rpm. The intakes measured 2.28 inches and the exhaust valves were 1.90 inches in diameter. The mammoth hemispherical cylinder heads and rocker covers were aluminum (early versions were magnesium). The crankshaft was a forged-steel unit, which was statically and dynamically balanced. This engine was rated at 375 horsepower but that number was not even close to its potential.

Ford used a Holley 735cfm carburetor mounted on an aluminum intake manifold. Engineers designed the cylinder

heads without gaskets. Ford called this the "dry-deck" method. Instead, an individual rubber O-ring was used for each of the 21 oil and water passages inside each cylinder head. Another four stainless steel O-rings sealed the combustion chamber. A forged steel crankshaft spun in a four-bolt main bearing block. Despite the performance potential of these rare engines, Ford had to install the Thermactor pollution-control system. Other than "Boss 429" decals on the front fenders and a huge, manually controlled air scoop that sealed to the top of the air cleaner, there were no other emblems to show this was a special car. The 1969 cars, like our feature car, had dual front pipes leading to two "bullet" type resonators, that led to a

single transverse muffler and into two turn-down tips. The battery was trunk mounted to improve weight distribution. Unlike the 1970 Boss 429s, the '69 version does not have a rev limiter.

The proud owner of this car for 20 years is Rick Parker, an Ohio collector car dealer who specializes in performance Fords. The original owner of this one of 859 Boss 429s built in 1969, was Wayne Gapp—half of the famed drag team, Gapp and Roush, who made NHRA history in 1974, when they made use of a new rule allowing lighter weight breaks for a car that had a wheelbase of 105 inches or more. Gapp and Roush debuted a four-door Ford Maverick *The Taxi* at the 1974 Summer Nationals at Englishtown and their car weighed at least 125 pounds less than the Pintos. The car reached the finals, only to lose to Larry Lombardo in Bill Jenkins' Vega. Gapp, like Roush, was an engineer at Ford back in the day. They left Ford and joined forces.

Parker's white gem is heavily documented and Ford made sure Gapp got what is likely the most heavily-optioned Boss 429 ever built. The current mileage rests at 11,250. Parker, 51, who owns Signature Auto Classics in Columbus, Ohio, has the original invoice from Ford that shows a sticker price pushing \$5,000, quite a healthy sum in those days. The car still has its original paint and has never been restored. "When I bought this car from John Stewart, my original intentions were to take it all apart and restore it completely, even though it had only about 10,000 miles. I had taken off the bumpers



"Boss 429" decals on front fenders are the only exterior badges telling you what lurks under the hood

and was getting more parts off the car when I read a magazine article. A car owner relayed in the article that carpet, bumpers and interior can be replaced, but once you repaint a car you can't go back to original. That did it for me. I was determined to keep the car as original as possible and that is what I have done. I can stare at it all day and know I own one of my favorite Mustangs of all time."

Our feature car is one of 279 equipped with an "S" engine. This meant these cars were built with a hydraulic

camshaft and heavier connecting rods, weighing about three pounds each.

"This was the NASCAR version according to Ford," Parker says. "The later engines were switched to a different connecting rod and in June 1969, Ford Performance Manager D.B. Eames sent Boss 429 owners a letter informing them of a mechanical camshaft upgrade." Parker has a copy of the letter in which Eames claims up to an additional 25 horsepower, as well as one second and 5 miles per hour in Ford quarter-mile tests by replac-

ing the hydraulic unit. In his letter, Eames wrote: "Rather than produce an all-out fire breather for street use, however, Ford engineers put together the best combination of smooth action, inclement weather drivability, quiet operation and performance possible for normal operation." Parker has installed the mechanical cam in his car.

Parker found some evidence this car was street driven—a hospital-parking permit on the right front of the windshield. Gapp's wife reportedly drove this car to work daily in Michigan, but not for long. There were



Hood scoop was body color and let the cool air in



Woodgrain appliques surround full gauge package; high-back buckets are comfortable even if your knees get pushed in due to design; cramped rear seating



Clock is part of the deluxe interior package



Trunk-mounted battery was raised in rear to avoid spills; flexible tube allowed gases to escape; car looks like a regular 'Stang without exhaust extensions



## Owner's View

### Rick Parker has

owned plenty of high-performance Fords in his life. He loves them so much, he sells them for a living. "I've owned other Boss 429s and back in the late 1970s, we'd put headers on them and run the heck out of them. I took one of these cars up to 7,500 rpm. It is certainly a thrill

to drive one and the sounds coming from beneath the hood and out the rear of the car are almost beyond description. These really were hand-built cars. Ford went to plenty of trouble to build each one. The work involved moving the shock towers was done by hand. It is truly one of my favorite Mustangs of all time." —George Mattar



reportedly problems with the engine and it was pulled and returned to Ford. When Gapp left Ford, the company gave him an engine. The original engine is gone. Parker has tried unsuccessfully to contact Gapp. Today, the car has a correct "S" code engine back between the shock towers. The car retains its original tires (although he admits the inner tread is getting dangerously dry rotted) as well as its complete factory installed exhaust. Parker admits there were lower end problems with the Boss engines when they first appeared and some piston issues. "The biggest problem was the Ford dealers had few mechanics who could work on these engines. Can you imagine the aggravation just pulling off one of those massive cylinder heads? There is no gasket, so when you reinstalled all those O rings, you had to be extra careful not to lose any putting it back on

the block, then deal with all those head bolts," Parker said. "I know the original owner of a Boss 429. He told me he was making payments when the car was new, had trouble with the engine and the dealer could not or would not fix it. He pulled the engine, put in a 351 and drove the car. He has the original engine on a stand today."

One feature of Boss 429s not normally seen even in the muscle car era is the trunk-mounted battery. The unique tray, which held the 85-amp battery to the floor, positioned the rear of the battery higher than the front to avoid acid spills. A single rubber hose vented the acidic fumes through the trunk floor.

In 1969, the Boss 429 engine set back a buyer \$1,208.35. Parker's Boss also has a functional front spoiler; trunk mounted 85-amp battery; high-back bucket seats; four-speed transmission; Traction-Lok dif-



1969 Mustang has one of the most aggressive and identifiable front ends on a Ford performance car

## Club Scene

### Mustang Club of America

4051 Barrancas Ave. PMB 102  
Pensacola, Florida 32507  
850-438-0626  
www.mustang.org  
Dues: \$30/year • Membership: 10,000

### Shelby American Automobile Club

P.O. Box 788  
Sharon, Connecticut 06069  
Fax: 860-364-0769  
www.saac.com  
Dues: \$47.50/year • Membership: 5,500

### PROS

- + Not many left like this
- + Bringing a half-mil at auction
- + You own The Boss

### CONS

- NOS parts extremely costly
- Too valuable to drive in traffic
- Finding quality gasoline

ferential; visibility group; F60-15 raised white letter tires; console; power steering; power front disc brakes; deluxe interior; AM radio; deluxe seat belts with warning light; color-keyed racing mirrors and competition suspension. Oh, Ford also included four gallons of fuel and charged the customer \$1.33. What we wouldn't give for that today! In '69, the Boss 429 was available in the following colors only: Wimbledon White, Raven Black, Royal Maroon, Candyapple Red and Black Jade, which is actually dark green. There was one interior choice: black "Comfortweave" knitted vinyl on high-back bucket seats.

Parker readily admits he does not drive the Boss much, but he used to. "The original tires are not safe any more and I am not risking my family's safety or running into something. I take it out and run it up and down the road by my business. After 1,800 rpm, it certainly is a thrill. Once you get in second gear and get on it, the engine really comes alive. There are confirmed reports these engines were capable of 8,000 rpm. I have had other Boss 429s I have owned to 7,500 rpm and the sound is just incredible. They tend to drive fairly well, but the front is very heavy due to the huge engine. I think the car handles quite well, but it's not a car to parking lot race on weekends. It seems a little heavy, but that is due to the engine. This is one of those cars that if you are out for a drive and break down, about all you can buy are filters, oil and anti-freeze. Everything else is pretty tough to find. A set of NOS Boss 429 spark plug wires will set you back between \$4,000 and \$5,000." 🍀

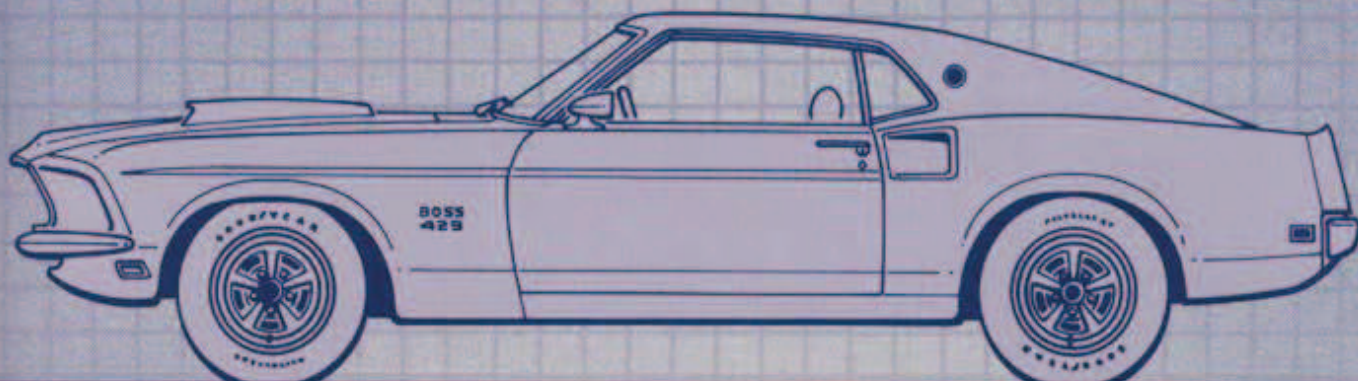
# 1969 Ford Mustang Boss 429

# 375

**HORSEPOWER @ 5,600 RPM**

**410-lbs.ft. torque @ 3,400 rpm**

**1/4 mile: 14.09 seconds @ 103 mph**



## SPECIFICATIONS

### Price

Base price	\$2,740.00
Price as profiled	\$4,891.76
Options on car profiled	429-cu.in. Z-code Cobra Jet, \$1,208.35; functional front air spoiler, \$13.05; trunk-mounted 85 amp battery, \$32.44; high back bucket seats, \$84.25; four-speed manual transmission, \$253.92; Traction-Lok differential, \$63.51; visibility group, \$11.16; F60-15 wide oval belted raised white letter tires, N/C; console, \$53.82; power steering, \$94.95; power front disc brakes, \$64.77; interior décor group-deluxe, \$120.48; AM radio, \$61.40; deluxe belts/warning lamp, \$15.59; color-keyed racing mirrors, \$19.48; competition suspension, \$30.64.

### Engine

Type	OHV V-8, cast iron block, aluminum cylinder heads
Displacement	429 cubic inches
Bore x stroke	4.36 x 3.59 inches
Compression ratio	11.7:1
Horsepower @ rpm	375 @ 5,600
Torque @ rpm	410-ft.lbs. @ 3,400
Valvetrain	Solid
Main bearings	5
Fuel system	Single Holley R-4647 735cfm four-barrel carburetor
Lubrication system	Full pressure
Electrical system	12-volt
Exhaust system	Dual with dual reverse-flow 2.25-inch mufflers, dual outlets

### Transmission

Type	Toploader four-speed manual, single 11-inch dry clutch
Ratios	1st 2.32:1 2nd 1.69:1 3rd 1.29:1 4th 1.00:1 Reverse 2.32:1

### Differential

Type	Hypoid, straddled-mounted pinion, Traction-Lok
Ratio	3.91:1

### Steering

Type	Recirculating ball with linkage assist
Turns, lock-to-lock	4
Turning circle	38 feet
Ratio	16.1:1

### Brakes

Type	Hydraulic, power assisted
Front	11.3-inch rotors
Rear	10 x 2.5-inch drums

### Chassis & Body

Construction	Unibody, welded steel panels
Body style	Two-door hardtop
Layout	Front engine, rear-wheel drive

### Suspension

Front	Competition type with ultra-heavy-duty front coil springs, independent short and long A-arms, drag strut, hydraulic shock absorbers, 0.95-inch anti-roll bar
Rear	Live axle, multi-leaf springs, staggered hydraulic shocks, 5/8-inch anti-roll bar

### Wheels & Tires

Wheels	Chrome Magnum 500 Front 15 x 7 inches Rear 15 x 7 inches
Tires	Goodyear Polyglas GT, bias-belted Front F60-15 Rear F60-15

### Weights & Measures

Wheelbase	108 inches
Overall length	187.14 inches
Overall width	71.9 inches
Overall height	51 inches
Front track	59.3 inches
Rear track	58.5 inches
Curb weight	3,716 pounds

### Capacities

Crankcase	8 quarts
Cooling system	22.5 quarts
Fuel tank	20 gallons (18 gallons for California cars)
Transmission	4 pints
Rear axle	2 pints

### Calculated Data

Bhp per c.i.d.	0.874
Weight per bhp	9.90 pounds
Weight per c.i.d.	8.66 pounds

### Production

Ford produced 859 Boss 429 Mustangs for the 1969 model year

### Performance

Acceleration	
0-60 mph	7.1 seconds
0-100 mph	13.6 seconds
1/4-mile ET	14.09 seconds @ 103 mph
Top speed	118 mph

Source: Car Life July 1969