

by Roland McGonegal

Mach I Mustang CJ428



This is the one that has captured young imaginations everywhere. With original Ford styling, backed up by a potent midrange mill, the Mach I has become the new success car, the leader for Ford Motor Co.

FIRST GEAR IS a rubber burning, smoking, screeching fishtail. Move the console-mounted selector lever one notch forward. Second gear slams in instantly producing more screeching. The car fishtails out to the left and you're crushed back in your seat. Move the lever once more into the Drive slot. Third comes on *right now* with a loud re-tort from the rear tires and still you can't move off the seat back. Then suddenly you're pushing through the traps. You glance at the speedo. It's somewhere over 100 mph. You let off and the exhausts bark and bang. Finally, the disc brakes haul you down to a stop.

That, in a nutshell, is what a quick trip through the quarter is like in one of the most explosive cars we've ever driven—the Mach I Cobra Jet Mustang.

It's a dynamite package and the beautiful part of it is that it looks the part. The Mach I comes off like a tough guy on the block, the longshoreman who would just as soon punch you in the mouth as look at you. Luckily, when powered by the 428 Cobra Jet engine, the Mach I can back up its looks.

Sitting there low on its suspension with its big, fat, white-lettered Goodyear Polyglas tires sticking out of the wheelwells, the hood scoop shaking and the flat black hood held down by NASCAR-type pins, you've got to admit it looks like a racer. Of course, the side stripes, rear spoiler, side scoops and everything else you get with the Mach I doesn't hurt the image either.

The Mustang is all new for '69 so you won't have any trouble recognizing it. The stylists added 3.8 inches of length to the 'Stang this year, all on the front overhang. They also added enough styling touches to just about phase out the Shelby Mustangs. What do you need a Shelby car for when the factory cars look like this?

As you probably know, the Mach I is



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basically just a styling package that is added to the standard Mustang body. It includes a whole raft of things that really turn the troops on. Some of them make the Mach I more luxurious too and add to the driving pleasure.

The standard equipment on every Mach I Mustang—in addition to standard Mustang equipment—includes the 351 cube, 250 horsepower engine, GT handling suspension which is made up of higher rate front and rear springs, larger diameter front stabilizer bar and heavy duty shocks, a special hood with a fake air scoop, exposed locking pins and flat black paint, an extra 55 pounds of sound deadener and insulation, dual racing mirrors and rally stripes along both flanks and around the rear spoiler. You also get a special interior with high backed bucket seats covered in breathable knitted vinyl, carpeting with built in mats, a tach, clock, wood trimmed console, wood trimmed dash, a wood-rim steering wheel, molded door panels and chrome pedals. In addition, you must order, as a mandatory option, the GT Equipment Group package which in-

cludes dual exhausts with chrome extensions, E70-14 fiberglass belted wide tread tires, chrome styled steel wheels and a pop-open gas cap.

Quite a load, isn't it? But we've only begun to fight. Our test car was packed with a whole raft of extra goodies. Our car had the 428 Cobra Jet engine with Ram Air option, C-6 automatic transmission, 3.91 rear axle ratio with Traction Lok limited slip differential, power front disc brakes, AM-FM Stereo radio, power steering and tinted glass.

With this list of options, which is long enough to break the proverbial camel's back, our test car weighed a fat 3610, possibly a new record for a Mustang.

Yet, we could still rack off times in the high 13's and over 100 mph on every run. Out best time slip read 13.94 and 103 mph. And we could only record this time after plenty of experimenting. Why? Because of the lack of traction in the hot 'Stang. But that's getting a little ahead of our story.

Naturally, we wanted to test the hottest Mustang you could buy off the showroom floor. So we asked for a test car

BELOW—The Mach I Cobra Jet Mustang shown here at speed. Estimated speed with the 3.91 cogs is somewhere around 115 mph. BOTTOM—At rest, Mach I reveals sporty Polyglas rubber, hood hold-down pins and lanyards and sneaky hood scoop that really works on the 428 thumpers! Test car weighed a fat 3610 pounds.



SPECIFICATIONS

1969 Mustang Mach I 428 Cobra Jet

ENGINE

Type.....OHV V-8
Displacement.....428 cubic inches
Compression ratio.....10.6 to 1
Carburetion.....Holley 4-barrel, 735 cfm
Camshaft.....Hydraulic, 270/290 degrees duration,
intake/exhaust
Horsepower.....335 at 5200 rpm
Torque.....440 lbs/ft. at 3400 rpm
Exhaust.....Stock cast iron headers, dual pipes
Ignition.....Stock, single point

TRANSMISSION

Type.....SelectShift C-6 automatic
Control.....Console mounted, manually controllable

REAR END

Type.....HD Traction Lok
Ratio.....3.91

BRAKES

Front.....11.3-inch power assisted discs
Rear.....10-inch power assisted drums

SUSPENSION

Front.....Independent, HD coil springs, HD shocks,
HD stabilizer bar
Rear.....HD multi-leaf springs, HD shocks
Steering.....Power, 16 to 1 ratio
Tires.....Goodyear Polyglas, F70-14
Wheels.....Ford styled steel, 6-inch rims

PERFORMANCE

0 to 30.....2.1 seconds
0 to 60.....5.7 seconds
Standing start, ¼ mile.....103 mph
Elapsed time.....13.94 seconds
Top speed (est.).....115 mph
Fuel consumption.....5 to 9 mpg

GENERAL

List price.....N/A
Price as tested.....N/A
Test weight.....3610 pounds
Wheelbase.....108 inches
Overall length.....187.4 inches

with the topline Cobra Jet Ram Air engine. The engine is exactly the same as last year's Cobra Jet except for the cold air hood scoop which has to be the greatest thing since Jane Fonda. On Ram Air Cobras, the hood scoop is permanently attached to the air cleaner. When you open the hood, the scoop stays on the carb and there's a big hole in the hood. Close the hood and the scoop sticks through the hole in the hood right out in the airstream.

And, since it's attached to the engine, it shakes and vibrates with the engine and looks tough as hell. As a matter of fact, it's the closest looking thing to a double A fuel dragster hood scoop we've ever seen.

And it works. When you floor the throttle, a valve automatically opens that lets the cold outside air bypass the air filter and flow directly into the carb. During part throttle operation, the incoming air passes through the filter. Neat.

When you order the Cobra Jet Ram Air engine, you get a whole batch of goodies as part of the deal. Things like larger F70-14 Polyglas tires with raised white lettering, 3.50 non-locking rear and 80 amp battery. On stick shift cars, you also get a special competition rear suspension with staggered shock absorbers. The left shock is located to the rear of the axle. The right shock is ahead of the axle. Just like the arrangement big engine Camaros and Firebirds have been using for about a year. You can order this setup on any Mustang.

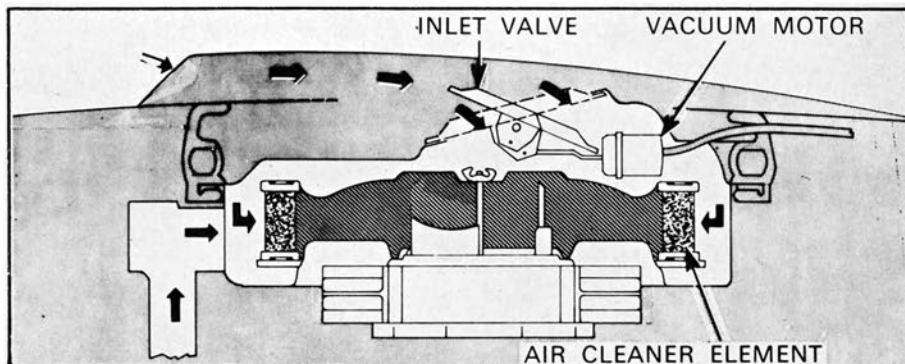
In case any of you guys were sleeping through the class we gave on the 428 Cobra Jet engine last year, let's run through it briefly. It's basically the old standard passenger car 428 with cross-bolted mains. Compression ratio is 10.6 to 1. Heads are the same as the ones from the old 406s and early 427s. They have good combustion chambers and fairly large valves. Intakes are 2.06 inches. Exhausts are 1.625 inches. Ports are big and square. These heads do not have the machined combustion chambers like those found on the late 427s.

Carburetion is by one 4-barrel Holley rated 735 cfm. The carb sits on a low rise cast iron intake manifold pirated from the old Police Interceptor package. What it gives away in weight it makes up for in port size and that means big. Exhaust manifolds are somewhat better than stock 390 plumbing but are far from being as good as even the old 406 and 427 cast iron exhaust manifolds.

The cam is not too wild and not too mild. Intake duration is 270 degrees. The exhaust valves stay open a little longer with 290 degrees exhaust duration. Lift is .480-inch. Valve timing sequence is 18-72/82-28. The cam idles rough like a good performance cam should, yet it's not objectionable in normal driving. Our test car idled at 650 rpm which is certainly different from the wild 1200 rpm idles of some of the other supercars we've tested.

With all this, Ford rates the engine at only 335 horsepower at 5200 rpm. Torque is 440 lbs./ft. at 3400. To give you an idea of what the real rating is, NHRA has

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TOP—That's right fans, the scoop is not part of the hood. Some people might buy the car for this feature alone! Engine compartment is a bit cramped, what with 428 power, smog stuff and various power assists. ABOVE—Schematic illustration should clear up any misunderstandings about how cold air intake works. BELOW—The interior was well finished and comfortable for two. If the occasion arises, refuse to sit in back!



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factored the engine to 360 and still nobody can touch these cars in their class.

Our test car didn't have the staggered shocks and we wished it did when we went to the dragstrip for our acceleration runs. Through past experience with the fiberglass belted Polyglas tires, we've found that you get much better off the line traction by pumping the tires up to maybe 40 pounds to spread out the tread as much as possible. When we tried this with the Mustang, the only thing we got was the worst case of wheelhop we've encountered since we road tested a '49 Ford. Dropping the pressure back to the recommended 28 pounds eliminated the wheelhop problem but probably cut down our et's too.

Our first run was something like the one described in the first paragraph of this story—smoky. We tried torque loading the SelectShift C-6 automatic to about 3000 rpm, then coming out of the hole all on. All we got was lots of screeching and smoking. It looked great for photos but didn't do our et any good. The time slip read 16.50 and 100 mph. We tried a couple of more runs coming out a various rpm. Et's ran 16.20, 16.13, 16.00 and 15.87. This meant that torque loading the automatic to *any* rpm was out.

We tried coming out easy with no wheelspin, then flooring it about 35 feet out. We still broke the tires loose and fishtailed for maybe 75 feet. The et on the run was a better 15.12 but still nowhere near what we thought the car would run. Of course, with 59% of the weight of the car over the front wheels, it wasn't going to be exactly a funny car out of the hole no matter *what* we did.

On the last series of runs, we held the car at an idle until the green. Then we simply floored it. This still produced a lot of wheelspin but we could control it better since the engine was pulling up from a lower rpm. Also we could "feel" the engine better through the pedal so that we could add or subtract throttle as needed to control bite off the line.

As we got better and better with this method, we recorded et's of 14.79, 14.58, 14.50, 14.04 and 13.94. The 13.94 came after a long cool down period, with the front tires pumped up to 40 pounds and with the alternator and power steering belts loosened way up. We also caught our high trap speed for the day on this run—103 flat.

All the runs were made with closed exhausts, everything tuned to factory specs and throwing manual shifts at 5700 rpm. With the quick shifting C-6, each shift was completed at 6000.

Just by way of comparison, we tested a Cobra Jet Mustang last year. That car, however, was a plain jane 'stang. You might even call it stripped. It had no power equipment at all, not even a radio. With all the standard equipment, though, and with a 4-speed, the car cracked through with 13.42 et's and trap speeds of 106-107 mph with closed exhausts and street Polyglas tires. Shows

you what the penalty is or hauling around all that max lux stuff, doesn't it?

We couldn't help but be impressed by the test 'Stang's transmission. As far as we know, Ford hasn't changed it this year. All we know is we've never driven another Ford automatic that shifted as quick and as positively as the one in our Mach I. Even if we just left it in Drive and floored it through the whole quarter, the trans would shift itself at 5500 breaking the tires loose on every shift. We gained fractions of a second when we wound out a little further so we shifted manually. Again, we could break the tires for at least a car length on every shift. It's just as much fun as a stick on the street, too, when you can get rubber in every gear.

The suspension on our test car was its weakest point. Dropping the tire pressure cured the full throttle wheelhop but we still got lots of axle tramp when we cornered hard on rough surfaces. And when we downshifted the automatic to get some engine braking, the



rear axle would dance around for a few feet before it remembered where it was supposed to be.

On smooth surfaces, the car handled very well considering its weight distribution and gigonda engine. The F70-14 Goodyear Polyglas tires generated good cornering force until finally reaching their limit of adhesion. With so much power on tap, we could bring out the rear any time we felt like it and it was easy to set up genuine four wheel drifts on fast, long radius bends as long as they were on smooth surfaces. If we didn't apply power, the understeering Mustang became a huge handful quickly. Sharp bends taken at slow speeds brought out the worst in the Mach I. With this car, you just *had* to drive fast.

The power steering was nice because it made driving with the heavy 428 engine bearable on the street. Also it quickened the ratio down to 16 to 1. When we first climbed into the car, we didn't real-

ize it had power steering. There isn't that much boost, certainly not enough to cause loss of road feel. There's just enough to lighten up the steering to where it's just about perfect.

Unfortunately, we can't say the same about the brakes. Our test car had Ford's power front disc/rear drum optional set-up. But because of the weight distribution of the car, stopping distances were very long, longer than any other Mustang we've driven with discs. The brakes didn't fade or grab or lockup, but they didn't stop fast either.

The interior of the Mach I is a complete gas with the high backed buckets and wood grain all over the place. We liked the dash layout with the big round speedo and tach right in front of the driver. But what we'd like to know is why there is a redline on the speedometer but none on the tach? Also, the only gauges are for fuel level and water temperature. On a car like the Mach I, a full complement of gauges should be standard or at least optional.

Driving position was good with the wheel low and away. We could use the Gurney style of driving—arms straight out. Since we weigh 240 and stand six feet tall, we sometimes have trouble

finding a comfortable driving position. Not in the Mach I. A simple seat adjustment was all it took to make everything fall right into place. We found the seat backs a little too straight up and down but another test driver didn't. It might just be our surplus of gut getting in the way.

If you don't want to order the full bore 428 Cobra Jet Ram Air engine, there's a full line of other engines available for installation in the Mach I. You can order the 351 with a 4-barrel that's called 290 horsepower. Next step up is the 390 cube engine with 320 horses. Then comes the non-Ram Air 428 that's also rated the same 335 horses as our test engine.

There are a couple of other interesting options available for the Mach I. The one that caught our eye was an extra heavy duty 85 amp battery mounted in the trunk over the right rear wheel. That's right, gang, right off the assembly line. Super Stock/E racing, anyone? ■

SUPER STOCK MAGAZINE