

# CAR and DRIVER

## ROAD TEST

# Ford Mustang

*Its slick styling  
hides an advanced  
and responsive  
sports-car chassis*

While production plans for the Mustang are still highly uncertain, Ford agreed to let us test the prototype. It was fitted with the 90-bhp "road" engine rather than the 100-bhp "track" unit we would have preferred, but nevertheless, its performance was impressive and gave an indication of the very high potential of the short-stroke V-4 1½-liter Ford engine.

With a power output fractionally short of one bhp per cubic inch, the engine idled evenly at 1,000 rpm



The combination of lightweight cast magnesium disc wheels from Lotus, braced-tread Pirelli Cinturatos and rack-and-pinion gave truly sporting cornering.

with a throaty sound, and responded instantly to the throttle. We had expected to find it very willing to rev, and it was, going easily to 7,000 rpm and even to 7,500 rpm without protest in the form of valve flutter or any other high-speed phenomena. But the low-speed torque was far above expectations, and top-gear acceleration from 20 mph was unhesitating and outstandingly rapid for a 1½-liter engine, even in a lightweight car.

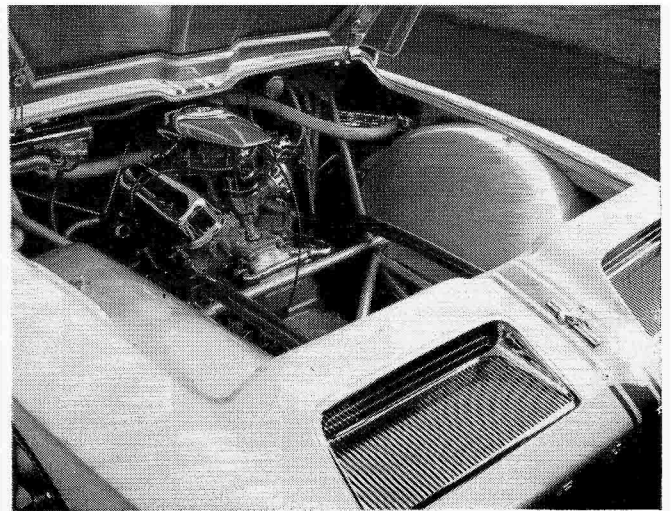
The "track" engine, of course, has completely different torque characteristics, and both could use gearboxes with a lot closer ratios. The transmission was developed for the "Cardinal," and the ratios are not ideal for a sports car. Thanks to the wide rpm range of the engine, it is acceptable for road use, but for competition a five-speed close-ratio box would be almost a necessity.

With a short gear lever pulling cables to each selector lever on the gearbox (located behind the engine) the linkage has high precision. Lever movements are reasonably short, and the synchromesh is faultless.

Control pedals show obvious influence of styling as opposed to engineering. The same rubber pads are used on all three, and they are all the same height from the floorboard. We would have liked some support for the accelerator foot in the form of an old-fashioned footrest or something similar, but we were told by Roy Lunn, the designer, that work was already in progress on a new arrangement of the pendant pedals. Their slight offset to the right is no major inconvenience, but the lack of space to stretch and brace the clutch leg is so bad as to severely reduce driver comfort and consequently the pleasure of driv-



Our testers liked the car but had many criticisms of the driving position and layout of some controls and switches.



Despite its single carburetor and showy chrome-and-blue finish, this little four-cylinder engine is a real performer.

ing this very promising sports car.

Front wheel housings intrude almost halfway to the center line, and the driver's left leg has to be bent for bracing or allowed to rest on the clutch pedal.

The ignition lock and starter, light and wiper switches carried on the left (near the door) are too far forward to be reached easily, and again we were told that a modification was on the drawing board.

Our day with the car was spent mainly on the handling and high-speed tracks of Ford's "miniature" proving grounds at Dearborn. The prototype was fitted with firm springs and hard shock-absorber settings, and the Pirelli Cinturato tires had been inflated to 35 psi. In this form the car was unsuitable for rough surfaces, but just right for track use.

We were, of course, extremely curious about its handling, and we were not disappointed. It reminds us of the first two-seater 1,100-cc Coventry Climax-engined Cooper more than any other car, and the Mustang seemed more forgiving. It can be braked well into a turn, and with power on its stability is striking. When negotiating S-bends we felt a slight shudder in the middle of the S unless we kept a wide-open throttle, but further development could certainly cure this.

It is to be hoped that everyone in a responsible position at Ford gets to drive the Mustang, if only for the feel and response of its rack-and-pinion steering. Perhaps familiarity with a first-class steering system can gradually bring about an improvement in the standard passenger models. The Mustang has a fairly small steering wheel, correctly placed, with a nice, very slim rim. On entering a turn, there is no delay to overcome initial understeer; the nose is immediately pointed in the desired direction, with racing-car-like precision, and the rear wheels follow. Oversteer sets in when you take your foot off the accelerator, but with power on it seems completely neutral. Rear-end breakaway could not be provoked, and occurred only when passing through shallow puddles of water. Then it happens very quickly, but with the quick steering most drivers would have time to correct without deviating far from the planned line. Body roll is negligible, and the seats give generous lateral support. The passenger also has a grab rail.

The windshield is really only a wind deflector, since the driver looks over it. It is extended around on both sides, and the side parts are fastened on the doors in a manner too fragile for a production car but which offers negligible additional

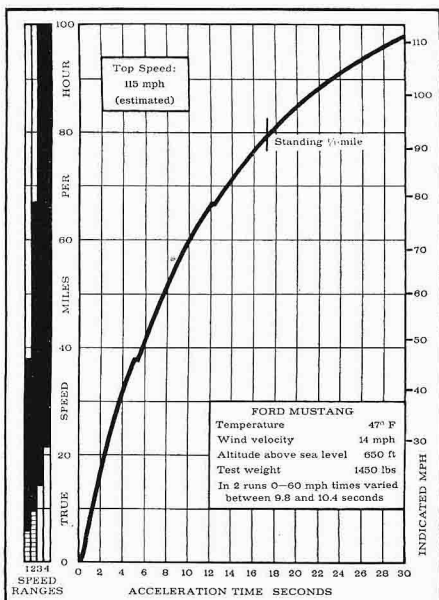
weight on a competition car. Forward view is excellent, with the sloping hood and fenders, but the prototype had no central rear-view mirror—only side mirrors which do not give a complete picture of what's going on behind. The stylized roll-over bar causes no obstruction to the view and is a commendable feature. But there is not much luggage space in the car, since the tail is full of machinery and the front end is taken up by a tank, spare wheel and a large box housing the hydraulic reservoirs for the adjustable support for the pedals.

Turning the headlights on means getting out, opening the "hood" and using one hand to operate a release latch inside while the other turns the hinged bracket holding the lamp, one at a time. This arrangement saves weight, but is rather slow. However, Engineering informs us that a mechanical system will be installed very soon.

As we have already pointed out, the car is still highly experimental, and if Ford decides to produce it there will be basic changes in its structure and design. There can be no doubt however, that this car deserves to be produced. It would in fact be a most welcome addition to the sports-car market and provide less daring manufacturers with valuable inspiration. **cjd**

## FORD MUSTANG

Price as tested: Not for sale  
 Manufacturer: Ford Motor Company  
 20000 Rotunda Drive  
 Dearborn, Michigan



### ENGINE:

Displacement . . . . . 91.4 cu in, 1,497 cc  
 Dimensions . . . . . 4 cyl, 3.54-in bore, 2.32-in stroke  
 Valve gear . . . . . Pushrod-operated overhead valves  
 Compression ratio . . . . . 11.0 to one  
 Power (SAE) . . . . . 90 bhp @ 6,500 rpm  
 Torque . . . . . 89 lb-ft @ 3,900 rpm  
 Usable range of engine speeds . . . . . 1,000-7,000 rpm  
 Carburetion: Single-throat Solex 28 PDSI carburetor  
 Fuel recommended . . . . . Premium  
 Mileage . . . . . 22-30 mpg  
 Range on 13-gallon tank . . . . . 285-390 miles

### CHASSIS:

Wheelbase . . . . . 90 in  
 Tread . . . . . F 48 in, R 49 in  
 Length . . . . . 153.8 in  
 Ground clearance . . . . . 4.75 in  
 Suspension: F: Ind., unequal-length wishbones and coil springs, anti-roll bar.  
 R: Ind., upper wishbone and lower triangulated arms and radius rods, coil springs.  
 Steering . . . . . Rack and pinion  
 Turns, lock to lock . . . . . 2.9  
 Turning circle diameter between curbs . . . . . 30 ft  
 Tire size . . . . . 5.30 x 13  
 Pressures recommended . . . . . F 35, R 35 psi  
 Brakes . . . . . Girling 9-in discs front, 9-in drums rear, 298.5 sq in swept area.  
 Curb weight (full tank) . . . . . 1,148 lbs  
 Percentage on the driving wheels . . . . . 57.6

### DRIVE TRAIN:

Clutch . . . . . 7½-inch single dry plate

Gear	Synchro	Ratio	Step	Overall	Mph per 1,000 rpm
Rev	No	3.96	—	13.10	—5.5
1st	Yes	4.02	76%	13.30	5.4
2nd	Yes	2.33	57%	7.70	9.6
3rd	Yes	1.48	48%	4.90	14.6
4th	Yes	1.00	—	3.30	21.7

Final drive ratio: 3.30 to one

