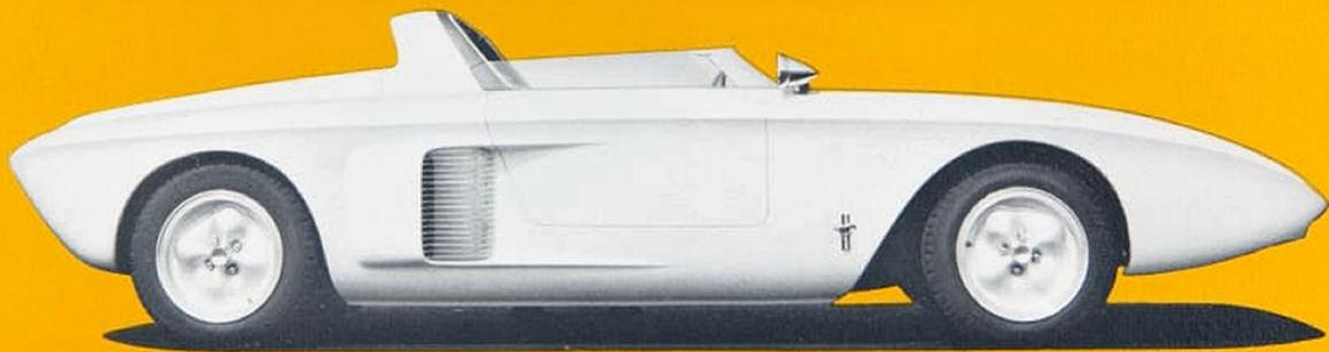




PRESENTING THE  
by Ford Engineers and Stylists

Mustang



PRODUCT OF

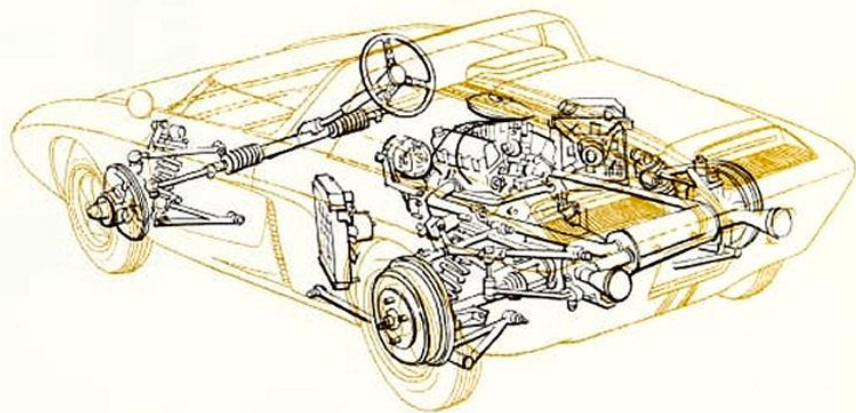


MOTOR COMPANY



# Mustang

**ENGINEERING  
FEATURES**



The MUSTANG is the development of Ford Motor Company engineers and stylists—men who have a genuine fondness for motor cars—men who experience each day the excitement and satisfaction of creating, in much of their variety, the cars on the American road. And the particular team which designed this car has a professional interest in sports cars.

In the MUSTANG are represented their best talents—their ideas of what the American sports car should be—the spirit of the wild MUSTANG bred into a fine machine, a car with manners, a superb performer on road or track, a proud possession.

All these, yes, but a great deal more . . .

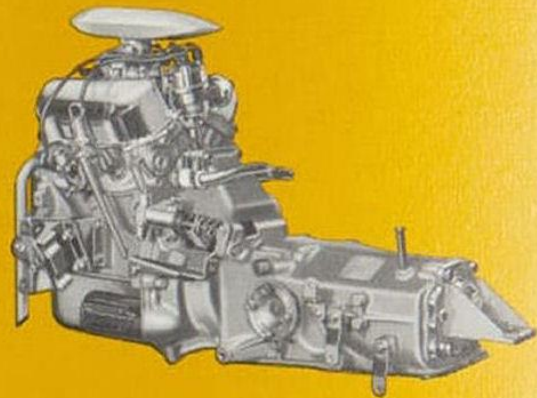
The frame is basically a tubular steel space frame that is reinforced by the aluminum sheet metal body skin.

Basic frame tubes are 1.00-inch outside diameter with 0.064-inch wall thickness.

Reinforcing gussets provide greater strength in critical areas.

Sheet metal brackets provide pick-up points for all chassis items.

Unit skin and frame provide great strength with minimum weight.



## 1 BODY AND STYLING

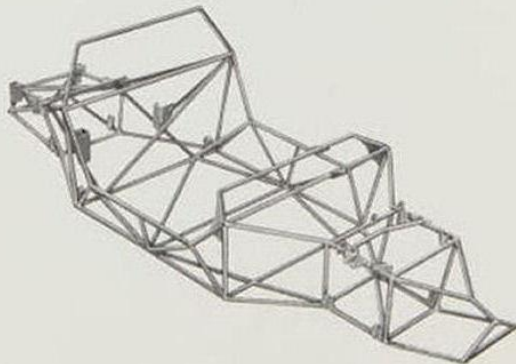
The MUSTANG body is aerodynamically styled and clean in function. The shape was determined by styling characteristics and wind tunnel tests. The shape design gives the best handling and driving conditions under wind pressures at high speeds with a minimum drag effect.

The windshield has been taken from competition running design. Its aerodynamic shape gives smooth wind flow over the passengers' heads.

The roll bar is a regulation bar that is styled to blend in with the body shape and provides an added safety feature. It is incorporated as part of the frame and body structure.

The interior has been styled to locate the controls, switches and instruments in the most advantageous positions for the driver. There is a forward arm rest console that incorporates easy-to-reach choke and turn signal controls, the horn, the gear shift lever, and the fly-off hand brake.

## 2 FRAME FEATURES



## 3 ENGINE

The 60° V-4 Mustang engine, produced by Ford of Germany, is located forward of the rear axle. The three-mount system that supports the engine also supports the transmission and clutch. The engine transaxle unit can be easily removed through the bottom of the space frame by removing one bolt-on crossmember.

A single-venturi carburetor is installed for road driving and is replaced with two double-venturi carburetors for competition driving.

### SPECIFICATIONS

Displacement . . . . .	91.4 cu. in.
Bore and Stroke . . . . .	3.54 x 2.32
Brake Horsepower	
Road Version . . . . .	89 at 6600 rpm
Track Version . . . . .	109 at 6400 rpm
Torque (lbs.-ft.)	
Road Version . . . . .	89 at 3600 rpm
Track Version . . . . .	99 at 5200 rpm
Compression Ratio . . . . .	11.0 to 1.0

The S.L.A.-type front suspension is constructed with tubular arms and all parts are fully stressed to minimize weight.

The adjustable pivot axes provide tailoring of the steering geometry to assure best handling conditions on road or track.

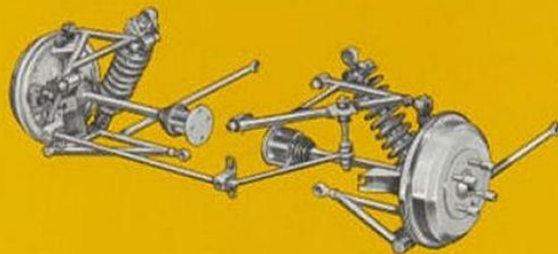
Camber and caster is adjustable within a range of  $\pm 2^\circ$ .

The combined unit coil springs and shock absorbers can be adjusted to vary the riding height up to 1.25 inches.

Take-apart-type shock absorbers permit valving changes.

#### SPECIFICATIONS

Tread	48.0	King Pin Inclination	5.0°
Wheel Travel		Scrub Radius	2.5 in.
Jounce	3.0 in.	Caster Angle	4.5°-6.5°
Rebound	3.0 in.		(2-pass.)
Roll Center Height	4.0 in.	Toe Setting (2-pass.)	1/16 in.



The tubular rear suspension has an "A" frame upper arm and an inverted lower arm "A" frame with a trailing strut.

Suspension arm adjustable pivot points permit varying the geometry.

Stress on the space frame is minimized by the wide spacing of the suspension attachment points.

## 5

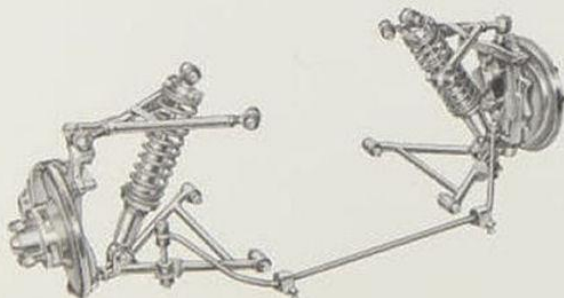
### REAR SUSPENSION

The independent rear suspension eliminates torque steer effect.

The 0.88-inch diameter axle shafts have single cardan joints at the out-board end and pot joints at the in-board end.

#### SPECIFICATIONS

Tread	49.0 in.
Wheel Travel	
Jounce	4.0 in.
Rebound	3.0 in.
Roll Center Height	5.0 in.
Camber Setting (2-pass.)	2° neg.
Toe Setting	0 in.
Inner Joint Angle (2-pass.)	1°20'
Outer Joint Angle (2-pass.)	0°40'
Spring Ratio (Wheel vs. Spring Travel)	137:1
Spring Rate	142-208 lb./in.
Wheel Rate (less tires)	75-110 lb./in.
Hub Bearing	Double Row Ball Bearing



The unit is a transaxle type and is attached directly to the engine. The four-speed, fully synchronized transmission has the following ratios:

(1) Gear 4.02:1 (2) Gear 2.33:1 (3) Gear 1.48:1 (4) Gear 1.00:1

The overall ratios are as follows:

Std. (3.30:1 Ring and Pinion) Opt. (3.56:1 Ring and Pinion)  
 (1) Gear 13.30:1 (4) Gear 3.30:1 (1) Gear 14.30:1 (4) Gear 3.56:1  
 (2) Gear 7.70:1 Reverse 13.10:1 (2) Gear 8.30:1 Reverse 14.10:1  
 (3) Gear 4.90:1 (3) Gear 5.30:1

The following table shows MPH per 1000 engine rpm in each gear:

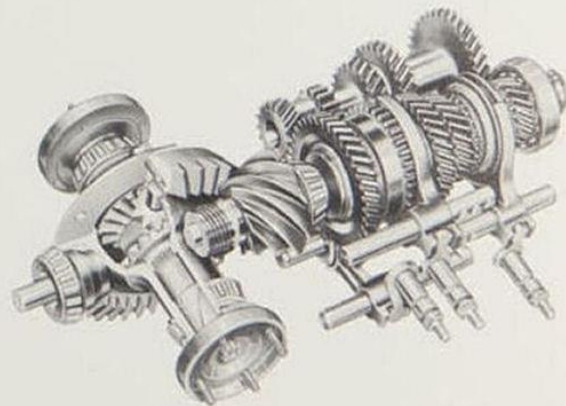
Standard		Optional	
(1) Gear 4.85	(3) Gear 13.1	(1) Gear 4.48	(3) Gear 12.1
(2) Gear 8.3	(4) Gear 19.6	(2) Gear 7.8	(4) Gear 18.0

The transmission is shifted by a short shift lever, located in the console, and operated by push-pull cables.

The clutch is a hydraulically actuated 7.5-inch diameter, single dry-plate unit.

## 6

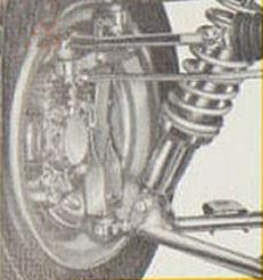
### TRANSMISSION & AXLE



## 4

### FRONT SUSPENSION

Camber Setting (2-pass.)	1° pos.
Spring Ratio (Wheel vs. Spring Travel)	1.54/1
Spring Rate	118-177 lb./in.
Wheel Rate (less tires)	50-75 lb./in.
Roll Stiffness (less tires)	88-132 ft. lb. per degree
Outer and Inner Hub Bearings	Tapered Roller Bearings



#### BRAKES

In the front, Mustang has 9.50-inch disc brakes; in the rear, 9.00-inch leading-trailing drum-type brakes with 1.75 inches of shoe width and a lining area of 46.0 square inches.

Dual master cylinders, one for the front and one for the rear, provide a safety factor.

The fly-off-type hand brake, located in the console, actuates the rear brakes through cables.

**WHEELS**—Cast magnesium wheels minimize unsprung weight.

Wheel size is 5.0-J x 13 with a 3.75-inch diameter, 4-hole bolt pattern.

**TIRES**—Super premium 5.30 or 5.50 x 13 tires are used for sustained high-speed driving.

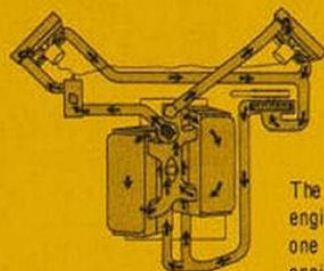


The accelerator, brake and clutch pedals are adjustable fore and aft to a distance of four inches.

This permits the seat structure,

for both driver and passenger, to become a fixed and integral part of the body, providing an improved design with increased structural strength.

The accelerator, brake and clutch pedal are suspended as a unit from a steel hanger which is actuated in a fore-and-aft adjustment by a handle located in the instrument panel. Turning the handle clockwise disengages a pawl which permits the complete unit to be moved forward or rearward to any position suitable to the driver.



The Mustang utilizes two engine coolant radiators, one at each side of the engine.

Each radiator has an area of 144.0 square inches and is a vertical-flow type.

The coolant capacity is 8.3 quarts, including the 1.7-quart surge tank.

Cooling is normally ram air effect but thermostatically controlled electric fans draw air through the radiators, when necessary.

### 7 ↑ BRAKES, WHEELS & TIRES

### 8 ↓ EXHAUST SYSTEM

### 9 ↑ ADJUSTABLE CONTROLS

### 10 ↓ STEERING SYSTEM

### 11 ↑ COOLING SYSTEM

### 12 ↓ HEADLAMPS

For simplicity and isolation, the complete exhaust system is mounted on the engine transaxle unit.

The exhaust system features dual 1.50" O. D. stainless steel pipes and a transverse muffler.

For competitive driving, straight-through megaphone pipes can be used.



The steering column features a 3.00-inch fore-and-aft adjustment for individual driving comfort.

The rack and pinion steering gear has a cast aluminum rack housing.

The straight tie rods have inner joints that are integral with the rack.

#### SPECIFICATIONS

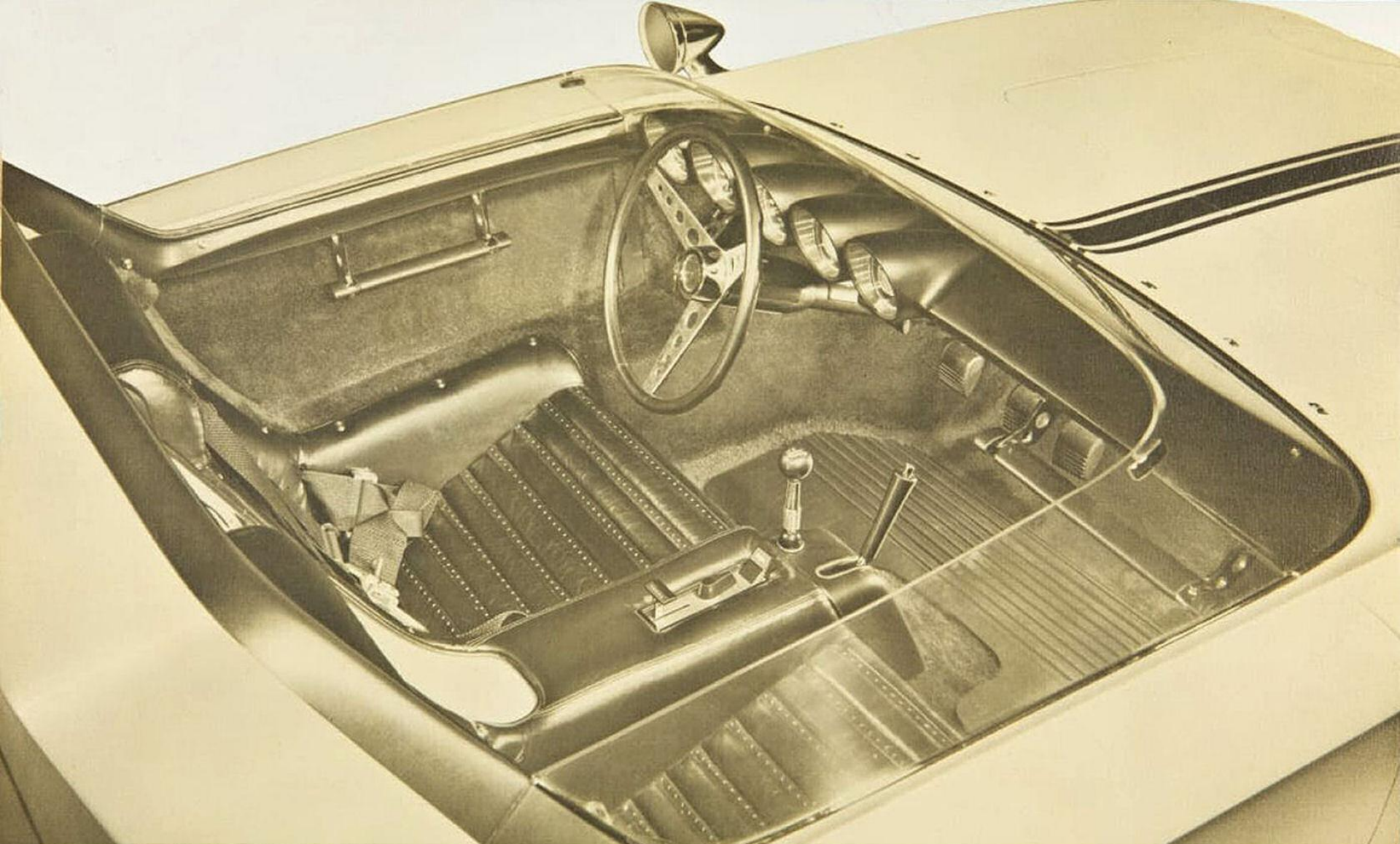
Steering Wheel Diameter . . . . .	14.5 in.
Steering Ratio . . . . .	15.0 to 1
Lock-To-Lock Turns . . . . .	2.9
Turning Diameter (Curb-To-Curb) . . . . .	30.0 ft.
Inner and Outer Wheel Turn . . . . .	35*



Unique concealed headlamps are another innovation in the Mustang.

The headlamps are concealed in the front body panels for aerodynamic smoothness of body line. A simple, manually operated release under the forward deck lid permits each headlamp to be swung into either hidden or operating position.

For track operation, the license plate holder folds into the lower front body panel.



## MUSTANG SPECIFICATIONS

### OVERALL DIMENSIONS

Wheelbase	90 in.
Length	154.3 in.
Height (at cowl)	28.8 in.
(at roll bar)	39.4 in.
Width	61.0 in.
Tread (Front)	48 in.
(Rear)	49 in.
Curb Weight	1544 lbs. (46.87% Front) with 13 Gals. Fuel

### ENGINE

Position	Midship
Type	60° V-4
Displacement	91.4 cu. in. 1500.0 cu. in.
Bore	3.54 in.
Stroke	2.32 in.
Horsepower (Road Version)	89 at 6600 rpm
(Track Version)	109 at 6400 rpm
Torque (Road Version)	89 at 3600 rpm
(Track Version)	99 at 5200 rpm
Compression Ratio	11.0 to 1
Axle Ratio (Std.)	3.30 to 1



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