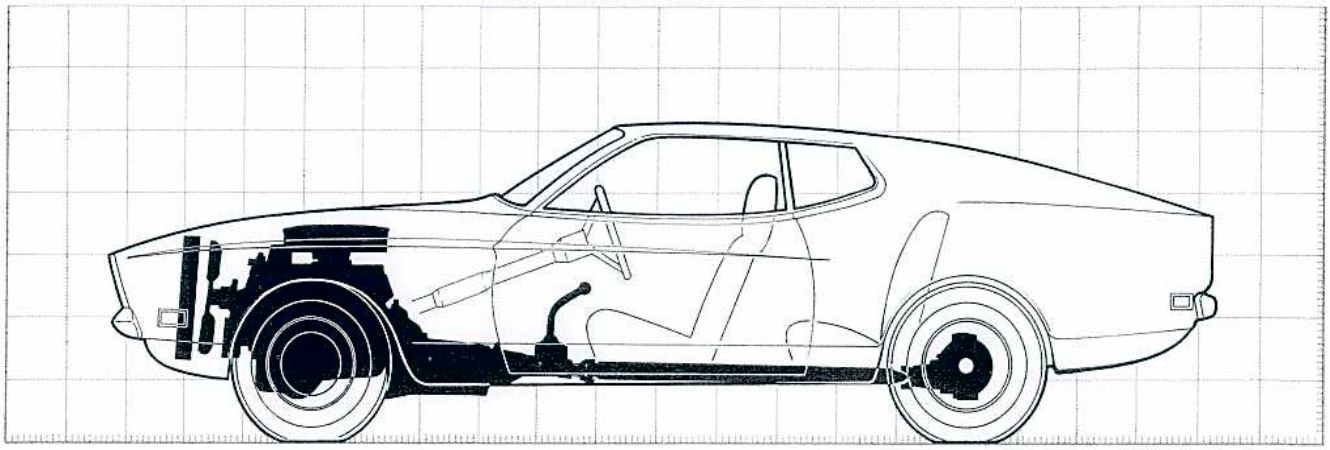
MUSTANG PERFORMANCE



Engineering and product features which provide maximum performance and versatility for ease of handling and driving as well as maximum economy of operation headline Mustang's performance for 1971. There is a choice of seven engines, three transmissions and seven rear axle ratios available in combinations to suit virtually all driving requirements.

ENGINES

Ford's rugged 250-c.i.d. six-cylinder engine replaces the 200-c.i.d. six as the base engine for Mustang. The "250" provides 30 more horsepower for improved performance and is standard in all models except the Boss 351 and Mach I.

The economical 302-2v is the base Mustang V-8 engine and is standard on the Mach I. The 351 V-8 is also available as an option in either a two-barrel or the four-barrel version on all models except the Boss 351.

A new high-performance 351-4v HO engine is standard on (and available only with) the Boss 351.

New 429-4v CJ and 429 4v CJ-R (Ram Air) engines have been added as new top-of-the-line high-performance engines for Mustang. (Refer to Power Teams section for more information.)

A "Drag-Pack" option for the 429-c.i.d. series engines is also available for the all-out performance enthusiast. (See page C-23).

TRANSMISSIONS

Ford's proven three-speed manual transmission is standard on all models except the Boss 351. The fully-synchronized, constant-mesh design of this transmission means dependable performance and easy shifting. The Boss 351 has a four-speed manual transmission with "Hurst Shifter"® as standard equipment.

Optional transmissions include:

The popular SelectShift Cruise-O-Matic transmission which offers a choice of manual shifting or completely automatic operation. The Cruise-O-Matic can be up-shifted or down-shifted at various speeds for excellent driver control under adverse road or weather conditions.

The four-speed manual transmission provides "take-off and go" qualities unsurpassed in the industry. Synchronized in all forward gears, this transmission is well-suited to the performance-oriented driver and is standard with the Boss 351. It provides fast, positive shifting with constant-mesh gears and features a "Hurst Shifter."®

(Refer to Power Teams section for more information.)

MANEUVERABILITY

Mustang's new 109″ wheelbase and new wide track (61.5″ front, 61.0″ rear) and road-hugging suspension are designed to give all models outstanding ride, handling, and maneuverability. Two completely unique suspension systems are used on the 1971 Mustangs. The base suspension and competition suspension, with each calibrated in relation to engine size. In conjunction with the suspension systems, Mustang offers an integral power steering option with a normal ratio for standard suspension equipped vehicles and a variable ratio gear on vehicles equipped with the competition suspension.

(Refer to pages C-12 -13 for more information.)

MUSTANG GENERAL SPECIFICATIONS

STEERING SPECIFICATIONS

Linkage	Parallelogram with cross-link
Gear Type	Recirculating Ball and Nut
Overall Steering Ratio	
—Manual	27.7:1
—Power*	22.1:1
Steering Wheel Turns (lock to lock)	
—Manual	4.46
—Power	3.94
—Power Variable Ratio	3.17
Turning Diameter (curb to curb)	39.8
Steering Wheel Diameter	15.0

*Constant Ratio Power Steering except with competition suspension. Variable Ratio included with competition suspension @ 15.7:1 overall steering ratio.

WHEEL SPECIFICATIONS

Type	Stamped Steel
Number of studs	5 @ .50 dia.
Diameter and Rim Size (Inches)	14″ x 6″*

*14″ x 7″ wheels standard with E70 x 14 or F70 x 14 tires. 15″ x 7″ wheels standard with F60 x 15 tires

MUSTANG GENERAL SPECIFICATIONS

MUSTANG POWER TEAM SELECTIONS

Engine	TRANSMISSION			REAR AXLE RATIOS								
				3-Speed Manual			4-Speed Manual			Cruise-O-Matic		
	3-Speed	4-Speed	Cruise-O-Matic	Std.	Opt.	Traction-Lok	Std.	Opt.	Traction-Lok	Std.	Opt.	Traction-Lok
250-c.i.d. 1v Six Std.	Std.	N/A	Opt.	3.00	N/A	3.00	N/A	N/A	N/A	2.79	3.00*	3.00*
302-c.i.d. 2v V-8 Opt. (1)	Std.	N/A	Opt.	2.79	3.00*	3.00*	N/A	N/A	N/A	2.79	3.00*	3.00*
351-c.i.d. 2v V-8 Opt.	Std.	N/A	Opt.	2.75	3.00* 3.25	3.00* 3.25	N/A	N/A	N/A	2.75	3.00* 3.25	3.00* 3.25
351-c.i.d. 2v w/Ram Air Opt.	Std.	N/A	Opt.	3.00*	3.25	3.00* 3.25	N/A	N/A	N/A	3.00*	3.25	3.00* 3.25
351-c.i.d. 4v V-8 Opt.	N/A	Opt.	Opt.	N/A	N/A	N/A	3.25*	N/A	3.25* 3.50	3.00*	3.25	3.00* 3.25 3.50
351-c.i.d. 4v w/Ram Air Opt.	N/A	Opt.	Opt.	N/A	N/A	N/A	3.25*	N/A	3.25* 3.50	3.25*	N/A	3.25* 3.50
351-c.i.d. 4v HO V-8 (3)†	N/A	Std.	N/A	N/A	N/A	N/A	N/A	N/A	3.91	N/A	N/A	N/A
429-c.i.d. 4v V-8 CJ Opt.	N/A	Opt.	Opt.	N/A	N/A	N/A	3.25*	3.50	3.25* 3.50	3.25*	3.50	3.25* 3.50
429-c.i.d. 4v V-8 CJ-R Opt.	N/A	Opt.	Opt.	N/A	N/A	N/A	3.50 (2)	N/A	3.50 (2)	3.50 (2)	N/A	3.50 (2)
429-c.i.d. 4v V-8 (Drag Pack) Opt.	N/A	Opt.	Opt.	N/A	N/A	N/A	N/A	N/A	3.91 4.11	N/A	N/A	3.91 4.11

(1) Standard on Mach I
(2) 3.25 used when air conditioning ordered
(3) Available on Boss 351 only
(†) Ram Air with 351-4v HO

*Mandatory ratio with air conditioning
N/A Not Available

TIRE AVAILABILITY SPECIFICATIONS

Belted Tire Size	Sidewall Color	ENGINE									
		All Models Except Mach I						Mach I			
		250 Six	302 V8	351 V8	429 CJ	429 CJ-R	351 HO	302 V8	351 V8	429 CJ	429 CJ-R
E78 x 14	BSW	Std.	Std.	Std.	Std. (a)	Std. (a)					
E70 x 14	WSW	Opt.	Opt.	Opt.				Std.	Std.		
F70 x 14	WSW	Opt.	Opt.	Opt.	Opt.	Opt.		Opt.	Opt.	Std.	
F70 x 14	B/WL	Opt.	Opt.	Opt.	Opt.	Opt.		Opt.	Opt.	Opt.	Std.
F60 x 15	B/WL		Opt.	Opt.	Opt.	Opt.	Std. (b)	Opt.	Opt.	Opt.	Opt.

(a) F70 WSW required at extra cost
(b) F60 x 15 B/WL tires with F78 x 14 space saver spare
B/WL—black sidewall tires with raised white letters

EIGHT-CYLINDER ENGINES

302-C.I.D. 2v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	302
Bore and Stroke (inches)	4.00 x 3.00
Compression Ratio	9.0 to 1
Brake Horsepower	210 @ 4600 r.p.m.
Maximum Torque (lbs.-ft.)	296 @ 2600 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 2-Venturi
Fuel	Regular
Exhaust	Single

CAR LINE AVAILABILITY	STD.	OPT.
Ford Custom and Custom 500 Sedans		X
Mustang (All Models Except Mach I and Boss 351)		X
Mustang Mach I	X	
Torino (All Models Except Torino GT, Brougham, Squire and Cobra)		X
Torino GT, Brougham and Squire	X	

351-C.I.D. 2v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	351
Bore and Stroke (inches)	4.00 x 3.50
Compression Ratio	9.0 to 1
Brake Horsepower	240 @ 4600 r.p.m.
Maximum Torque (lbs.-ft.)	350 @ 2600 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 2 Venturi
Fuel	Regular
Exhaust	Single

CAR LINE AVAILABILITY	STD.	OPT.
Ford Custom and Custom 500 Sedans, and Galaxie 500 Sedans and Hardtops		X
Ford LTD, LTD Brougham and All Station Wagon Models	X	
Mustang (All Models Except Boss 351)		X
Torino (All Models Except Torino Cobra)		X

390-C.I.D. 2v EIGHT-CYLINDER ENGINE SPECIFICATIONS*†

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	390
Bore and Stroke (inches)	4.05 x 3.78
Compression Ratio	8.6 to 1
Brake Horsepower	255 @ 4400 r.p.m.
Maximum Torque (lbs.-ft.)	376 @ 2600 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 2-Venturi
Fuel	Regular
Exhaust	Single

CAR LINE AVAILABILITY	STD.	OPT.
Ford (All Models)		X

†The 390-C.I.D. engine will be available through December or until full production capacity is available for the 400-C.I.D. engine.

*N.A. in California

400-C.I.D. 2v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	400
Bore and Stroke (inches)	4.00 x 4.00
Compression Ratio	9.0 to 1
Brake Horsepower	260 @ 4400 r.p.m.
Maximum Torque (lbs.-ft.)	400 @ 2200 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 2-Venturi
Fuel	Regular
Exhaust	Single

CAR LINE AVAILABILITY	STD.	OPT.
Ford (All Models)		X

429-C.I.D. 2v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	429
Bore and Stroke (inches)	4.36 x 3.59
Compression Ratio	10.5 to 1
Brake Horsepower	320 @ 4400 r.p.m.
Maximum Torque (lbs.-ft.)	460 @ 2200 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 2-Venturi
Fuel	Premium
Exhaust	Single

CAR LINE AVAILABILITY	STD.	OPT.
Ford (All Models)		X

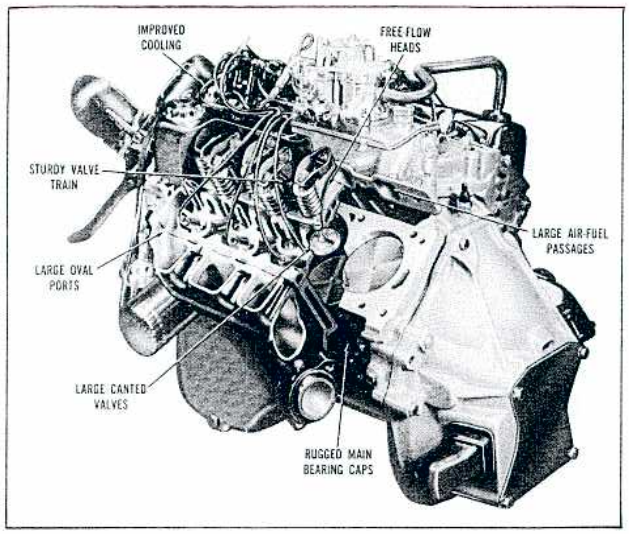
429-C.I.D. 4v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	429
Bore and Stroke (inches)	4.36 x 3.59
Compression Ratio	10.5 to 1
Brake Horsepower	360 @ 4600 r.p.m.
Maximum Torque (lbs.-ft.)	480 @ 2800 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 4-Venturi
Fuel	Premium
Exhaust	Dual*

CAR LINE AVAILABILITY	STD.	OPT.
Ford (All Models)		X
Thunderbird (All Models)	X	

*Single on Station Wagons and All Model Fords

1971 HIGH-PERFORMANCE ENGINES



351-C.I.D. 4V ENGINE

Quick Facts

351-C.I.D. 4v ENGINE

The 351 C.I.D, 4v is a member of Ford's newest series of V-8 engines. This is a deep breathing engine characterized by canted valves, large rounded valve ports and exceptionally sturdy main bearing caps. Cylinder Blocks are of a precision-cast thin wall design and feature an integral timing chain chamber and integral water crossover passage in front of the block. A new induction air temperature control system automatically provides the proper air temperature and maximum air flow for most efficient operation through a range of outside temperatures and operating conditions. The new system consists of a heat sensor located in the bottom of the air cleaner tray, a tube from this sensor to the intake manifold, and another tube from the sensor to a vacuum motor which operates the hot and cold air intake valve. This design aids the ability of the system to recognize the demands of rapid acceleration by providing an increase of air flow regardless of under hood temperature. In this respect it differs from the 1970 heat stove.

Exceptionally wide main bearing caps and ½-inch bolts support a 2¾-inch crankshaft bearing. The deeper block and broader bearing support foretell excellent durability and stability.

Cylinder Heads are broad and are patterned after the 429 C.I.D. canted valve head. The heads have large, more efficient ports and large valves (2.19 diameter intake and 1.71 inch exhaust.) In addition to their large size, the valves are canted in the direction favoring maximum flow capacity. The exhaust valves are positioned toward the outboard side of the cylinder head providing a smoother flow pattern for exhaust gases.

351-C.I.D. 4v HO

For 1971 there is a new engine for the Boss Mustang. The 351 HO is an all out performance version of the well established 351 C.I.D. 4v engine. In addition to the features covered under the regular 351 C.I.D. 4v engine, the Boss engine has:

- **Forged aluminum alloy pistons**
- **Specially balanced crankshaft to run at sustained high rpm.**
- **Four bolt crankshaft bearing caps**
- **Heavy-duty Magnafluxed connecting rods. In addition the rods are shot peened**
- **Improved performance high lift cam**
- **Solid mechanical lifters**
- **Special valve springs**
- **Special intake manifold to accept the 4300D Air-Valve carburetor**
- **16 in. Chrome plated air cleaner cover**
- **Polished Die Cast rocker arm covers**

Note: The 351-C.I.D. 4v, HO engine will not be available until November, 1970.

429-C.I.D. SERIES ENGINES

In addition to the regular 429 C.I.D. 2v and 4v engines used in the Ford car line, there are high performance 429 C.I.D. engines.

The 429 C.I.D. C J and the CJ-R (Ram Air) are the performance engines of this series and are available as options in both the Torino and Mustang. They incorporate larger valves, high-rise cast iron manifold with larger ports, a high-lift cam and header type exhaust manifolds, plus a high-capacity Rochester carburetor. A "Drag Pack" option for Mustang only, is available with 429-C.I.D. CJ or CJ-R engines. This option includes: cap screw connecting rods, mechanical lifters, modified crankshaft, flywheel and vibration damper, a Holley high-capacity carburetor, plus a 3.91 to 1 "Traction-Lok" differential or 4.11 to 1 Detroit "No-Spin" differential.

351-C.I.D. 4v EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type	8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches)	351
Bore and Stroke (inches)	4.00 x 3.50
Compression Ratio	10.7 to 1
Brake Horsepower	285 @ 5400 r.p.m.
Maximum Torque (lbs.-ft.)	370 @ 3400 r.p.m.
Valve Lifters	Hydraulic
Carburetor	Automatic Choke, 4-Venturi
Fuel	Premium
Exhaust	Dual

CAR LINE AVAILABILITY	STD.	OPT.
Mustang (All Models Except Boss)		X
Torino (All Models Except Cobra		X
Torino Cobra	X	

1971 HIGH-PERFORMANCE ENGINES

351-C.I.D. 4v HO EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type.....8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches).....351
Bore and Stroke (inches).....4.00 x 3.50
Compression Ratio.....11.7 to 1
Brake Horsepower.....330 @ 5400 r.p.m.
Maximum Torque (lbs.-ft.).....370 @ 4000 r.p.m.
Valve Lifters.....Mechanical
Carburetor.....4300D, Automatic Choke, 4-Venturi

Fuel.....Premium
Exhaust.....Dual

CAR LINE AVAILABILITY	STD.	OPT.
Mustang Boss 351 ONLY.....	X	

429-C.I.D. 4v C J AND CJ-R (RAM AIR) EIGHT-CYLINDER ENGINE SPECIFICATIONS

Type.....8-Cylinder, 90° V, Overhead Valve
Displacement (cubic inches).....429
Bore and Stroke (inches).....4.36 x 3.59
Compression Ratio.....11.3 to 1
Brake Horsepower.....370 @ 5400 r.p.m.
Maximum Torque (lbs.-ft.).....450 @ 3400 r.p.m.
Valve Lifters.....Hydraulic
Carburetor.....Automatic Choke, 4-Venturi, "Rochester 700"
Fuel.....Premium
Exhaust.....Dual

CAR LINE AVAILABILITY	STD.	OPT.
Mustang (All Models Except Boss 351).....		X
Torino (All Models).....		X

VALVE COMPARISON DATA
STANDARD AND PERFORMANCE V-8 ENGINES

ENGINE	DIAMETER (INCHES)		TIMING					
			INTAKE			EXHAUST		
	INTAKE VALVE	EXHAUST VALVE	OPENS (BTC)	CLOSES (ABC)	DURATION	OPENS (BBC)	CLOSES (ATC)	DURATION
STANDARD V-8'S								
302 c.i.d. 2v.....	1.788	1.457	16°	70°	266°	44°	20°	244°
351 c.i.d. 2v.....	1.849	1.548	11°	65°	256°	68°	22°	270°
390 c.i.d. 2v.....	2.037	1.566	13°	63°	256°	63°	23°	266°
400 c.i.d. 2v.....	2.046	1.659	17°	59°	256°	71°	21°	272°
429 c.i.d. 2v and 4v.....	2.090	1.661	16°	60°	256°	70°	20°	270°
PERFORMANCE V-8'S								
351 c.i.d. 4v.....	2.19	1.710	18°	70°	268°	81°	19°	280°
351 c.i.d. 4v HO*.....	2.19	1.710	40°	80°	300°	84°	36°	300°
429 c.i.d. C J.....	2.245	1.725	32°	70°	282°	90°	26°	296°
429 c.i.d. C J -R (Ram Air)...	2.245	1.725	32°	70°	282°	90°	26°	296°
429 CJ or CJ-R w/Drag Pack	2.245	1.725	40.5°	79.5°	300°	88.5°	31.5°	300°

*Uses Solid Lifters.