

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1989

Manufacturer FORD MOTOR COMPANY	Vehicle Line MUSTANG	
Mailing Address P.O. BOX 2053 DEARBORN, MICHIGAN 48121	Issued FEBRUARY, 1988	Revised NOV. 18, 1988

Direct questions concerning these specifications to the manufacturer listed above.

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Motor Vehicle Manufacturers Association
of the United States, Inc.

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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG
 Model Year 1989 Issued 2/88 Revised (e) 10/14/88

Vehicle Origin

Design & development (company)	Ford Motor Company
Where built (country)	U.S.A.
Authorized U.S. sales marketing representative	Ford Motor Company

Vehicle Models

Model Description & Drive (FWD/RWD/4WD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load—Kilograms (Pounds)
LX MODEL (RWD)	10/6/88			
2-Door Sedan		66B/HVS	2/2	45.4 (100)
2-Door Convertible		66B/HVS (B2L)	2/2	45.4 (100)
2-Door Hatchback		61B/HVS	2/2	45.4 (100)
(e) LX 5.0L SPORT MODEL (RWD)	10/6/88			
2-Door Sedan		66B/HVS	2/2	45.4 (100)
2-Door Convertible		66B/HVS (B2L)	2/2	45.4 (100)
2-Door Hatchback		61B/HVB	2/2	45.4 (100)
GT MODEL (RWD)	10/6/88			
2-Door Convertible		66B/HVB (B2L)	2/2	45.4 (100)
2-Door Hatchback		61B/HVB	2/2	45.4 (100)

* FWD-Front Wheel Drive RWD-Rear Wheel Drive
 AWD-All Wheel Drive 4WD-Four Wheel Drive

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Power Teams (Indicate whether standard or optional)

SAE J1349 Net bhp (brake horsepower) and net torque corrected to 77°F/25°C and 29.61 in. Hg/100 kPa atmospheric pressure.

SERIES AVAILABILITY	ENGINE						E x h a u s t S/D*	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Code	Displ. Liters (in³)	Induction (FI, CARB/ BBL, etc.)	Compr. Ratio	SAE Net at RPM				
					Power kW (bhp)	Torque N-m (lb. ft.)			
					50 STATES/CANADA/ALTITUDE				
LX Models Only	99A	2.3 (140)	EFI	9.5	68 (88) 4000	179 (132) 2600	S	T50D	3.45
								A4LD	3.73
5.0L Sport and GT Models	99E	5.0 HO (302)	EFI	9.0	168 (225) 4200	407 (300) 3200	D	T50D	2.73T, 3.08T
								AOD	2.73T, 3.27T
T50D — 5-Speed Manual Overdrive A4LD — 4-Speed Automatic Overdrive AOD — 4-Speed Automatic Overdrive T — Traction-Lok Included									

*Single/Dual

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Engine Description/Carb.
Engine Code

2.3L

ENGINE — GENERAL

(SEE PAGE 3A FOR 5.0L)

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)

Inline, Front, Longitudinal, (SOHC) Single Overhead Cam, with Modified Wedge Combustion Chambers

Manufacturer

Ford Motor Company

No. of cylinders

Four

Bore

96.04 (3.78)

Stroke

79.40 (3.12)

Bore spacing (C/L to C/L)

105.99 (4.17)

Cylinder block material & mass kg (lbs.) (machined)

Cast Iron & 45.4 (100)

Cylinder block deck height

212.55 (8.38)

Cylinder block length

473.8 (18.6)

Deck clearance (minimum) (above or below block)

0.178 (0.007) Above

Cylinder head material & mass kg (lbs.)

Cast Iron & 24.5 (54)

Cylinder head volume (cm³)

56.6

Cylinder liner material

N/A

Head gasket thickness (compressed)

1.09 (0.043)

Minimum combustion chamber total volume (cm³)

78.9

Cyl. no. system (front to rear)*

L. Bank

1, 2, 3, 4

R. Bank

—

Firing order

1, 3, 4, 2

Intake manifold material & mass [kg (lbs.)]**

Aluminum & 2.8 (6.3)

Exhaust manifold material & mass [kg (lbs.)]**

Cast Iron & 4.2 (9.3)

Fuel required unleaded, diesel, etc.

Unleaded

Fuel antiknock index (R + M) + 2

87 Minimum Octane

Engine mounts

Number

Three

Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)

Elastomeric

Added isolation (sub-frame, crossmember, etc.)

None

Total dressed engine mass (wt) dry***

174.3 (384.3)

Engine — Pistons

Material & mass, g (weight, oz.)-piston only

Aluminum Alloy — SAE 332
500 (17.6)

Engine — Camshaft

Location

In Cylinder Head

Material & mass kg (weight, lbs.)

Hardenable Cast Iron

Drive type

Chain/belt

Belt

Width/pitch

21.8-22.8 (0.86-0.90)/9.52 (0.37)

*Rear of engine — drive takeoff. View from drive takeoff end to determine left & right side of engine.

**Finished state.

***Dressed engine mass (weight) includes the following: Front End Dress, All Engine-Mounted Components and Flex Plate; Excludes Starter and Alternator

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METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

5.0L

ENGINE — GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	90°V, Front, Longitudinal, (OHV) Overhead Valve, Modified Wedge Combustion Chambers	
Manufacturer	Ford Motor Company	
No. of cylinders	Eight	
Bore	101.8 (4.00)	
Stroke	76.2 (3.00)	
Bore spacing (C/L to C/L)	111.3 (4.38)	
Cylinder block material & mass kg (lbs.) (machined)	Cast Iron	
Cylinder block deck height	208.4 (8.21)	
Cylinder block length	529.3 (20.84)	
Deck clearance (minimum) (above or below block)	.343 (.0135) Above	
Cylinder head material & mass kg (lbs.)	Cast Iron & 20.9 (46.0)	
Cylinder head volume (cm ³)	60.6-63.6	
Cylinder liner material	N/A	
Head gasket thickness (compressed)	1.04-1.19 (0.041-0.047)	
Minimum combustion chamber total volume (cm ³)	71.8	
Cyl. no. system (front to rear)*	L. Bank	5, 6, 7, 8
	R. Bank	1, 2, 3, 4
Firing order	1, 3, 7, 2, 6, 5, 4, 8	
Intake manifold material & mass [kg (lbs.)]**	Aluminum & 18.8 (37.0)	
Exhaust manifold material & mass [kg (lbs.)]**	Stainless Steel Headers & 5.4 (12.0)	
Fuel required unleaded, diesel, etc.	Unleaded	
Fuel antiknock index (R + M) + 2	87 Minimum Octane	
Engine mounts	Number	Three
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Elastomeric
	Added isolation (sub-frame, crossmember, etc.)	None
Total dressed engine mass (wt) dry***	244 (536.9)	

Engine — Pistons

Material & mass, g (weight, oz.)-piston only	Forged Aluminum Alloy, 588 (20.74)
--	------------------------------------

Engine — Camshaft

Location	In Block	
Material & mass kg (weight, lbs.)	SAE 1050 or 1053 Steel, Induction Hardened & 4.54 (10)	
Drive type	Chain/belt	Chain, Double Roller
	Width/pitch	22.1 (0.87)/9.52 (0.37)

*Rear of engine — drive takeoff. View from drive takeoff end to determine left & right side of engine.

**Finished state.

***Dressed engine mass (weight) includes the following: Front End Dress, All Engine-Mounted Components and Flex Plate;
Excludes Starter and Alternator

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Engine Code

2.3L

5.0L

Engine — Valve System

Hydraulic lifters (std., opt., NA)		Standard	Standard with Roller Tappets
Valves	Number intake/exhaust	4/4	8/8
	Head O.D. intake/exhaust	44 (1.73)/38 (1.50)	45.2 (1.78)/36.8 (1.45)

Engine — Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Forged Steel, 0.63-0.64 (1.38-1.41)	Forged Steel, 0.55 (1.23)
Length (axes ϵ to ϵ) mm	132.2 (5.2)	129.3 (5.09)

Engine — Crankshaft

Material & mass [kg., (weight, lbs.)]*	Nodular Cast Iron & 15.48 (34.1)	Nodular Cast Iron Alloy, 17.3 (38.2)
End thrust taken by bearing (no.)	#3	#3
Length & number of main bearings	5	5
Seal (material, one, two piece design, etc.)	Front	Fluorocarbon or Poly Acrylic
	Rear	Viton, One Piece
		Viton, One Piece

Engine — Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	345 (50) @ 2000 RPM	276-414 (40-60) @ 2000 RPM
Type oil intake (floating, stationary)	Stationary	Stationary Shrouded Screen in Sump
Oil filter system (full flow, part, other)	Full Flow	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	4.73 (5.0), Less 0.95 (1.0)	3.8 (4.0) Plus 0.9 (1.0) for Filter

Engine — Diesel Information (NOT OFFERED)

Diesel engine manufacturer		
Glow plug, current drain at 0°F		
Injector nozzle	Type	
	Opening pressure [kPa (psi)]	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel injection pump drive (belt, chain, gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler-type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine — Intake System (NOT OFFERED)

Turbo charger - manufacturer		
Super charger - manufacturer		
Intercooler		

*Finished State

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Engine Description/Carb.
Engine Code

2.3L

Engine — Cooling System

(SEE PAGE 5A FOR 5.0L)

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Radiator Fill
Radiator cap relief valve pressure [kPa (psi)]		82.7-110.3 (12-16) W/O A.C.; 96.5-124.1 (14-18) W/A.C.
Circulation thermostat	Type (choke, bypass)	By-Pass
	Starts to open at °C(°F)	87.91 (188-195)
Water Pump	Type (centrifugal, other)	Centrifugal — Vane
	GPM 1000 pump rpm	13.1
	Number of pumps	One
	Drive (V-belt, other)	V-Belt
	Bearing type	Double Row, Sealed, Ball & Roller
	Impeller material	Low Carbon Steel
	Housing material	Cast Iron
By-pass recirculation [type (inter., ext.)]		Internal
Cooling system capacity	With heater-L(qt.)	8.2 (8.6)
	With air cond.-L(qt.)	8.7 (9.2)
	Opt. equipment [specify-L(qt.)]	N/A
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Water jackets open at head face (yes, no)		No
Radiator core	Std., A/C, HD	Standard HD & A.C.
	Type (cross-flow, etc.)	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Tube & Slit Fin
	Material, mass [kg (wgt. lbs.)]	Copper, 5.9 (12.9)
	Width	623.3 (24.5)
	Height	453.1 (17.8)
	Thickness	18.5 (0.65) 28.9 (1.14)
Fins per inch		10 (A/T); 9 (M/T) 12
Radiator end tank material		Brass
Fan	Std., elec., opt.	Electric
	Number of blades & type (flex, solid, material)	Four Uneven (Plastic)
	Diameter & projected width	356 (14) & 39 (1.53)
	Ratio (fan to crankshaft rev.)	N/A
	Fan cutout type	N/A
	Drive type (direct, remote)	Direct
	RPM at idle (elec.)	1750
	Motor rating (wattage) (elec.)	180 Watts
	Motor switch (type & location) (elec.)	Two Terminal, Bi-Metallic Snap Disc Lower Intake Manif.
	Switch point (temp., pressure) (elec.)	96.2° (205°)
	Fan shroud (material)	Plastic

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5.0L

Engine — Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Radiator
Radiator cap relief valve pressure [kPa (psi)]		97-124 (14-18)
Circulation thermostat	Type (choke, bypass)	Choke
	Starts to open at °C(°F)	89-92 (192-197)
Water Pump	Type (centrifugal, other)	Centrifugal
	GPM 1000 pump rpm	10
	Number of pumps	One
	Drive (V-belt, other)	Poly-V-Belt
	Bearing type	Ball
	Impeller material	Low Carbon Steel
	Housing material	Aluminum
By-pass recirculation [type (inter., ext.)]		External
Cooling system capacity	With heater-L(qt.)	13.3 (14.1)
	With air cond.-L(qt.)	13.3 (14.1)
	Opt. equipment [specify-L(qt.)]	N/A
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Water jackets open at head face (yes, no)		No
Radiator core	Std., A/C, HD	Standard
	Type (cross-flow, etc.)	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Tube & Silt Fin
	Material, mass [kg (wgt. lbs.)]	Brass/Copper, 5.9 (12.9)
	Width	622.3 (24.5)
	Height	452.1 (17.8)
	Thickness	29 (1.14)
Fins per inch		10
Radiator end tank material		Brass/Copper
Fan	Std., elec., opt.	Standard
	Number of blades & type (flex, solid, material)	9, Even, Plastic/Steel
	Diameter & projected width	481 (18.2) & 55.9 (2.2)
	Ratio (fan to crankshaft rev.)	1.25:1
	Fan cutout type	Clutch
	Drive type (direct, remote)	Belt, Direct
	RPM at idle (elec.)	N/A
	Motor rating (wattage) (elec.)	N/A
	Motor switch (type & location) (elec.)	N/A
	Switch point (temp., pressure) (elec.)	N/A
	Fan shroud (material)	Filled Polypropylene

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Engine Description/Carb.
Engine Code

2.3L

5.0L

Engine — Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Electronic Fuel Injection System	
Manufacturer			
Carburetor no. of barrels		N.A.	
Idle A/F mix.		14.6:1	
Fuel injection	Point of injection (no.)	Intake Ports (4)	Intake Ports (8)
	Constant, pulse, flow	Pulse Flow	Timed
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	269 (39)	206.9-275.8 (30-40)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual		
	Automatic		
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water	N.A.
Air cleaner type		Dry, Paper Element	
Fuel filter (type/location)		N.A.	
Fuel pump	Type (elec. or mech.)	Electric	
	Location (eng., tank)	Fuel Tank	
	Pressure range [kPa (psi)]	250-270 (36-39)	206.9-275.8 (30-40)
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))		

Fuel Tank

Capacity [refill L (gallons)]		58.3 (15.4)
Location (describe)		Behind Rear Axle
Attachment		Two Straps with Pin and Loop at Rear, Bolt at Front
Material & Mass [kg (weight lbs.)]		Steel (Terne Plate) & 9.1 (20.0)
Filler pipe	Location & material	Right Rear Quarter Panel & Steel
	Connection to tank	Rubber Seal
Fuel line (material)		Steel/Nylon
Fuel hose (material)		Covered Nylon
Return line (material)		Nylon/Steel
Vapor line (material)		Nylon/Steel
Extended range tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

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Model Year 1989

Issued 2/88

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Engine Description/Carb.
Engine Code

2.3L

Vehicle Emission Control

(SEE PAGE 7A FOR 5.0L)

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle & Engine Modifications, Exhaust Gas Recirculation; Air Injection
	Air Injection	Pump or pulse	N/A
		Driven by	N/A
		Air distribution (head, manifold, etc.)	N/A
		Point of entry	N/A
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled Flow
		Exhaust source	External Tube
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake Manifold
	Catalytic Converter	Type	TWC + TWC Brick Inline
		Number of	Two
		Location(s)	Underbody
		Volume [L (in³)]	1.4 (42) + 1.1 (66)
		Substrate type	Coated Ceramic Monolith
		Noble metal type	Platinum/Rhodium
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Closed Induction System
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum
	Discharges (to intake manifold, other)		Intake Manifold
	Air inlet (breather cap, other)		VRA Cover
(e) Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Carbon Canister
		Carburetor	N/A
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		Yes

Engine — Exhaust System

Type (single, single with cross-over, dual, other)		Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs.)]		One, Reverse Flow, Aluminized Low Carbon Steel & 9.5 (20.9)
Resonator no. & type		N/A
Exhaust pipe	Branch o.d., wall thickness	—
	Main o.d., wall thickness	—
	Material & Mass [kg (weight lbs.)]	—
Intermediate pipe	o.d. & wall thickness	50.8 x 1.75 (2.0 x .069)
	Material & Mass [kg (weight lbs.)]	Aluminized Low Carbon Steel
Tail pipe	o.d. & wall thickness	44.5 x 1.37 (1.75 x .054)
	Material & Mass [kg (weight lbs.)]	Aluminized Low Carbon Steel

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Engine Code

5.0L

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle and Engine Modifications, Exhaust Gas Recirculation and Air Injection
	Air Injection	Pump or pulse	Pump
		Driven by	Belt
		Air distribution (head, manifold, etc.)	Cylinder Head, Catalyst
		Point of entry	Cylinder Head Exhaust Ports, Catalyst Mid-Bed
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Electronic
		Exhaust source	Intake Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	EGR Spacer
	Catalytic Converter	Type	TWC + COC
		Number of	Two — TWC + Two — COC
		Location(s)	TWC — Toeboard and COC — Underbody
		Volume [L (in ³)]	Toeboard — (2) x 0.69 (42); Underbody — (2) x 0.69 (42)
		Substrate type	Coated Ceramic Monolith
		Noble metal type	TWC — Platinum/Rhodium; COC — Platinum/Palladium
		Noble metal Concentration (g/cm ₂)	TWC — 8.64/1.64 + 10,000; COC — 4.24/2.83 + 10,000
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Closed Induction System
	Energy source (manifold vacuum, carburetor, other)		Intake Manifold Vacuum
	Discharges (to intake manifold, other)		Intake Manifold
	Air inlet (breather cap, other)		Throttle Body Inlet Air
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Carbon Canister
		Carburetor	N/A
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes (Stabilized)
	Open loop (yes/no)		Yes (Cold Start & Heavy Load)

Engine — Exhaust System

Type (single, single with cross-over, dual, other)		Dual with Tubular Exhaust Manifolds
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs.)]		Two, Reverse Flow, Aluminized Low Carbon Steel
Resonator no. & type		N/A
Exhaust pipe	Branch o.d., wall thickness	—
	Main o.d., wall thickness	—
	Material & Mass [kg (weight lbs.)]	—
Intermediate pipe	o.d. & wall thickness	57.2 x 1.75 (2.25 x .055)
	Material & Mass [kg (weight lbs.)]	Aluminized Low Carbon Steel
Tail pipe	o.d. & wall thickness	57.2 x 1.39 (2.25 x .055); Optional — 57.2 x 1.17 (2.25 x 0.046)
	Material & Mass [kg (weight lbs.)]	Aluminized Low Carbon Steel; Optional — SAE 51304 Stainless Steel

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2.3L

Transmissions/Transaxle (Std., Opt., N.A.)

(See Page 8A For 5.0L)

Manual 3-speed (manufacturer/country)	N/A
Manual 4-speed (manufacturer/country)	N/A
Manual 5-speed (manufacturer/country)	Standard 5-Speed (Borg Warner)
Automatic (manufacturer/country)	N/A
Automatic overdrive (manufacturer/country)	Optional 4-Speed (Ford/France)

Manual Transmission/Transaxle

Number of forward speeds		Five
Gear ratios	1st	3.97
	2nd	2.34
	3rd	1.46
	4th	1.00
	5th	0.79
	Reverse	3.71
Synchronous meshing (specify gears)		All Forward Gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum & 35 (77)
Lubricant	Capacity [L (pt.)]	2.6 (5.6)
	Type recommended	Dexron II

Clutch (Manual Transmission)

Clutch manufacturer		Luk
Clutch type (dry, wet; single, multiple disc)		Dry Plate, Single Disc
Linkage (hydraulic, cable, rod, lever, other)		Cable with Self-Adjustment
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	142 (32)
	Released	71 (16)
Assist (spring, power/percent, nominal)		No
Type pressure plate springs		Belleville Springs
Total spring load (nominal, new) N (lbs)		4261 (958)
Clutch facing	Facing mfr. & material coding	Valeo F-202
	Facing material & construction	Woven Non-Asbestos
	Rivets per facing	16
	Outside x inside dia. (nominal)	215 x 147 (8.47 x 5.79)
	Total eff. area [cm ² (in. ²)]	386.7 (60.0)
	Thickness (pressure plate side/fly wheel side)	3.45 (0.136)/3.45 (0.136)
	Rivet depth (pressure plate side/fly wheel side)	1.15 (.045)/1.15 (.045) Minimum
	Engagement cushion method	Segmented
Release bearing type & method lub.		Self-Centering, Angular Contact, Constant Running, Prepacked
Torsional damping method, springs, hysteresis		Multi-Stage, Springs and Friction Material

*Includes shift linkage, lubricant, and clutch housing. If other specify.

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Engine Description/Carb.
Engine Code

5.0L

Transmissions/Transaxle (Std., Opt., N.A.)

Manual 3-speed (manufacturer/country)	N/A
Manual 4-speed (manufacturer/country)	N/A
Manual 5-speed (manufacturer/country)	Standard 5-Speed (Borg Warner)
Automatic (manufacturer/country)	N/A
Automatic overdrive (manufacturer/country)	Optional 4-Speed (Ford/USA)

Manual Transmission/Transaxle

Number of forward speeds		Five
Gear ratios	1st	3.35
	2nd	1.93
	3rd	1.29
	4th	1.00
	5th	0.88
	Reverse	3.15
Synchronous meshing (specify gears)		All Forward Gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum & 35 (77)
Lubricant	Capacity [L (pt.)]	2.6 (5.6)
	Type recommended	Dexron II

Clutch (Manual Transmission)

Clutch manufacturer	Valeo	
Clutch type (dry, wet; single, multiple disc)	Dry Plate, Single Disc	
Linkage (hydraulic, cable, rod, lever, other)	Cable with Self-Adjustment	
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	173 (39)
	Released	111 (25)
Assist (spring, power/percent, nominal)	No	
Type pressure plate springs	Belleville Springs	
Total spring load (nominal, new) N (lbs)	7875 (1770)	
Clutch facing	Facing mfr. & material coding	Valeo F-202
	Facing material & construction	Woven Non-Asbestos
	Rivets per facing	18
	Outside x inside dia. (nominal)	267 x 171 (10.51 x 6.73)
	Total eff. area [cm ² (in. ²)]	660 (102.4)
	Thickness (pressure plate side/fly wheel side)	3.6 (0.14)/3.6 (0.14)
	Rivet depth (pressure plate side/fly wheel side)	1.40 (.055)/1.40 (.055) Minimum
	Engagement cushion method	Torbend Disc
Release bearing type & method lub.	Self-Centering, Angular Contact, Constant Running, Prepacked	
Torsional damping method, springs, hysteresis	Single-Stage, Spring and Friction Material	

*Includes shift linkage, lubricant, and clutch housing. If other specify.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

Engine Description/Carb.
Engine Code

2.3L

Automatic Transmission/Transaxle (See Page 9A For 5.0L)

Trade name		Automatic Overdrive (A4LD)
Type and special features (describe)		4-Speed with Lock-Up Torque Converter w/Override Lock-Up Solenoid, Planetary Gear Set
Selector	Location	Floor
	Ltr./No. designation	P R N(D) D 2 1
Gear ratios	1st	2.47
	2nd	1.47
	3rd	1.00
	4th	0.75
	Reverse	2.11
Max. upshift speed - drive range [km/h (mph)]		105 (65.2)
Max. kickdown speed - drive range [km/h (mph)]		97 (60.3)
Min. overdrive speed [km/h (mph)]		46 (28.6)
Torque converter	Number of elements	Three
	Max. ratio at stall	2.6
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	260 (10.2)
	Capacity factor "K"	235
Lubricant	Capacity [refill L (pt.)]	9.0 (19.0)
	Type Recommended	ESP-M2C138-CJ (Mercon® WSP-M2C185-A for Service)
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, External Oil to Engine Coolant
Transmission case material & mass kg (lbs)**		Aluminum & 68 (150)

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Semi-Floating Type with Cast Center and Overhung Pinion
Limited slip differential (type)		N/A
Drive pinion offset		25.4 (1.0)
Drive pinion (type)		Hypoid
No. of differential pinions		Two
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Collapsible Spacer
Driving wheel bearing (type)		Straight Roller
(e) Lubricant	Capacity [L (pt.)]	1.5 (3.17) to 1.6 (3.38)
	Type recommended	ESP-M2C154-A, SAE 85W90

Axle or Transaxle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage.)

Axle ratio (or overall top gear ratio)		3.45:1	3.73:1
No. of teeth	Pinion	11	11
	Ring gear or gear	38	41
Ring gear o.d.		198.1 (7.8)	
Transaxle	Transfer gear ratio	N/A	
	Final drive ratio	N/A	

*Input speed + $\sqrt{\text{Torque}}$

**Includes shift linkage, lubricant, & clutch housing. If other, specify.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

Engine Description/Carb.
Engine Code

5.0L

Automatic Transmission/Transaxle

Trade name		Automatic Overdrive (AOD)
Type and special features (describe)		4-Speed with Lock-Up Torque Converter, Planetary Gear Set
Selector	Location	Floor
	Ltr./No. designation	P R N <u>(D)</u> D 1
Gear ratios	1st	2.40
	2nd	1.47
	3rd	1.00
	4th	0.67
	Reverse	2.00
Max. upshift speed - drive range [km/h (mph)]		124 (77.1) (a) 107 (66.5) (b)
Max. kickdown speed - drive range [km/h (mph)]		106 (65.9) (a) 92 (57.2) (b)
Min. overdrive speed [km/h (mph)]		68 (42.3) (a) 64 (39.8) (b)
Torque converter	Number of elements	Three
	Max. ratio at stall	2.30
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	305 (12)
	Capacity factor "K"	140
Lubricant	Capacity [refill L (pt.)]	10.4 (22.4)
	Type Recommended	ESP-M2C138-CJ (Mercon® for Service)
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, External Oil to Engine Coolant
Transmission case material & mass kg (lbs)**		Aluminum & 88 (194)

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Semi-Floating Type with Cast Center and Overhung Pinion
Limited slip differential (type)		Friction Plate
Drive pinion offset		38.1 (1.5)
Drive pinion (type)		Hypoid
No. of differential pinions		Two
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Collapsible Spacer, Shim
Driving wheel bearing (type)		Straight Roller
(e) Lubricant	Capacity [L (pt.)]	1.8 (3.8)
	Type recommended	ESP-M2C154-A Plus Add 4 Oz. M2C118-A Friction Modifier, SAE 85W90

Axle or Transaxle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage.)

Axle ratio (or overall top gear ratio)		2.73:1(a)	3.08	3.27:1 (b)
No. of teeth	Pinion	15	13	11
	Ring gear or gear	41	40	36
Ring gear o.d.		221 (8.7)	223.5 (8.8)	223.5 (8.8)
Transaxle	Transfer gear ratio	N/A		
	Final drive ratio	N/A		

*Input speed + $\sqrt{\text{Torque}}$

**Includes shift linkage, lubricant, & clutch housing. If other, specify.

MVMA Specifications Form

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) _____

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

2.3L

5.0L

Propeller Shaft — Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)		Straight Tube with Internal Tuned Damper	
Outer diam. x length* x wall thickness	Manual 3-speed trans.	N/A	
	Manual 4-speed trans.	N/A	
	Manual 5-speed trans.	69.85 x 1155.7 x 1.65 (2.75 x 45.5 x .065)	76.2 x 1150.62 x 1.65 (3.00 x 45.3 x .065)
	Overdrive	N/A	
	(A4LD w/2.3L) Automatic transmission (AOD w/5.0L)	69.85 x 1089.66 x 1.65 (2.75 x 42.90 x .065)	76.2 x 1160.78 x 1.65 (3.00 x 45.70 x .065)
Inter- mediate bearing	Type (plain, anti-friction)	N/A	
	Lubrication (fitting, prepack)	N/A	
Slip yoke	Type	Tuned Damper w/Manual Plain w/Auto.	Plain w/Manual Tuned Damper w/Auto.
	Number of teeth	25 w/A4LD; 28 w/T50D	28
	Spline o.d.	28.19 (1.11) w/A4LD 30.73 (1.21) w/T50D	30.73 (1.21)
Universal joints	Make and mfg. no.	Front	Ford 1330 w/Manual, 1310 w/Auto.
		Rear	Ford 1330 w/Manual, 1310 w/Auto.
	Number used	Two	
	Type (ball and trunnion, cross)	Cross	
	Rear attach (u-bolt, clamp, etc.)	Circular Flange	
	Bearing	Type (plain, anti-friction)	Needle Roller
		Lubrication (fitting, prepack)	Pre-Pack
Drive taken through (torque tube, arms or springs)		Control Arms	
Torque taken through (torque tube, arms or springs)		Control Arms	

*Centerline to centerline of universal joints, or to centerline of rear attachment.

MVMA Specifications Form

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 11/18/88

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

ALL MODELS WITH 2.3L ENGINE

⑦ Suspension — General Including Electronic Controls (SEE PAGE 11A FOR MODELS w/5.0L)

Car leveling	Standard/optional/not avail.	N/A
	Manual/automatic control	
	Type (air/hydraulic)	
	Primary/assist spring	
	Rear only/4 wheel leveling	
	Single/dual rate spring	
	Single/dual ride heights	
	Provision for jacking	
Shock absorber damping controls	Standard/option/not avail.	N/A
	Manual/automatic control	
	Number of damping rates	
	Type of actuation (manual/electric motor/air, etc.)	
	s e n s o r s	
	Lateral acceleration	
	Deceleration	
Shock absorber (front & rear)	Acceleration	
	Road surface	
	Type	Strut — Front/Shock — Rear, Nitrogen Gas-Pressurized Hydraulic
	Make	Tokico/Monroe
Shock absorber (front & rear)	Piston diameter	Front 32 (1.26)/Rear 25.4 (1.0)
	Rod diameter	Front 22 (0.87)/Rear 12.5 (0.50)

⑦ Suspension — Front

Type and description		Hybrid MacPherson Strut w/Spring Mounted on Lower Control Arm
Travel*	Full jounce	89.08 (3.50)
	Full rebound	88.72 (3.49)
Spring	Type (coil, leaf, other) & material	Coil, SAE 5160 Steel
	Insulators (type & material)	Upper-Ring, Lower-Sleeve and Rubber
	Size (coil design height & i.d., bar length x dia.)	(Coil) 243.4 (9.6) & 89.0 (3.50), 2956 (116.4) x 15.6 (0.61)
	Spring rate [N/mm (lb./in.)]	65.0 (370)
	Rate at wheel [N/mm (lb./in.)]	28.9 (165)
(e) Stabilizer	Type (link, linkless, frameless)	Link; Teflon Lined Rubber Side Rail Insulator
	Material & bar diameter	SAE 1090; Base 23.9 (0.94)

⑦ Suspension — Rear

Type and description		Four Bar Link with Coil Spring on Lower Arm
Travel*	Full jounce	74.04 (2.91)
	Full rebound	126.11 (4.96)
Spring	Type (coil, leaf, other) & material	Coil, SAE 5160-H Steel
	Size (length x width, coil design height & i.d., bar length & dia.)	(Coil) 196 (7.7) & 102 (4.02), 2984 (117.5) & 13.0 (0.51)
	Spring rate [N/mm (lb./in.)]	28 (160)
	Rate at wheel [N/mm (lb./in.)]	20 (114)
	Insulators (type & material)	Upper Disc (Rubber); Lower Disc (Rubber)
	If leaf	No. of leaves
		Shackle (comp. or tens.)
Stabilizer	Type (link, linkless, frameless)	N/A
	Material & bar diameter	N/A
Track bar (type)		None

*Define load condition:

MVMA Specifications Form

Vehicle Line **MUSTANG**

Model Year **1989**

Issued **2/88**

Revised (e) **11/18/88**

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

ALL MODELS WITH 5.0L ENGINE
(QUADRA SHOCK REAR SUSPENSION)

⑦ Suspension — General Including Electronic Controls

Car leveling	Standard/optional/not avail.	N/A
	Manual/automatic control	
	Type (air/hydraulic)	
	Primary/assist spring	
	Rear only/4 wheel leveling	
	Single/dual rate spring	
	Single/dual ride heights	
Shock absorber damping controls	Provision for jacking	
	Standard/option/not avail.	N/A
	Manual/automatic control	
	Number of damping rates	
	Type of actuation (manual/electric motor/air, etc.)	
	s e n s i t i v e	Lateral acceleration
		Deceleration
Shock absorber (front & rear)		Acceleration
		Road surface
	Type	Frt. Struts/Vert. Rr. Shocks, Nitro. Gas-Press Hyd.; Horiz. Rr. Dmprs. (a)
	Make	Frt. Struts/Rr. Shocks — Tokico; Rr. Dampers — Maremont
	Piston diameter	Front 32 (1.26)/Rear 25.4 (1.00); Damper 25.4 (1.00)
	Rod diameter	Front 22 (0.87)/Rear 12.5 (0.50); Damper 12.5 (0.50)

⑦ Suspension — Front

Type and description		Hybrid MacPherson Strut w/Springs Mounted on Lower Control Arms
Travel*	Full jounce	90.88 (3.58)
	Full rebound	86.92 (3.42)
Spring	Type (coil, leaf, other) & material	Coil, SAE 5160 Steel
	Insulators (type & material)	Upper — Ring, Lower — Sleeve and Rubber
	Size (coil design height & i.d., bar length x dia.)	Variable Rate Coil: 241.54 (9.5) & 89.0 (3.50), 3251 (128) x 16.69 (.66) to 14.75 (.58)
	Spring rate [N/mm (lb./in.)]	Variable 74.5 (425) to 92.8 (530)
	Rate at wheel [N/mm (lb./in.)]	Variable 32.3 (184) to 40.1 (229)
(e) Stabilizer	Type (link, linkless, frameless)	Link; Teflon Lined Rubber Side Rail Insulator
	Material & bar diameter	SAE 1090 Steel & 33.0 (1.30)

⑦ Suspension — Rear

Type and description		Four Bar Link with Coil Spring on Lower Arm; Also Includes both Vertical Shock Absorbers and Horizontal Axle Dampers
Travel*	Full jounce	82.38 (3.24)
	Full rebound	117.77 (4.64)
Spring	Type (coil, leaf, other) & material	Variable Rate Coil & SAE 5160H Steel
	Size (length x width, coil design height & i.d., bar length & dia.)	Variable Coil: 196 (7.7) & 102 (4.02), 2832 (111.5) & 14.36 (.56) to 11.27 (.44)
	Spring rate [N/mm (lb./in.)]	Variable 35 (200) to 52.5 (300)
	Rate at wheel [N/mm (lb./in.)]	Variable 25 (143) to 37.5 (214)
	Insulators (type & material)	Lower Disc (Rubber) & Upper Disc (Rubber)
	If leaf	No. of leaves
		Shackle (comp. or tens.)
Stabilizer	Type (link, linkless, frameless)	Linkless (N/A Standard Duty Suspension)
	Material & bar diameter	SAE 5160 Steel for 20 (0.79) and 21 (0.83) & SAE 1090 for 17 (.67)
Track bar (type)		None

*Define load condition: (a) Horizontal Rear Dampers Hydraulic w/Gas Cell

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e)

Body Type And/Or
Engine Displacement

2.3L (ALL MODELS EXCEPT CONVERTIBLE)

Brakes — Service

(SEE PAGE 12A FOR CONVERTIBLE AND MODELS W/5.0L)

Description		Four Wheel Hydraulic Actuated System		
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Disc		
	Rear (disc or drum)	Drum		
Valving type (proportion, delay, metering, other)		Proportioning		
Power brake (std., opt., n.a.)		Standard		
Booster type (remote, integral, vac., hyd., etc.)		200 (8.66) Single Diaphragm, Integral, Vacuum		
Vacuum	Source (inline, pump, etc.)	Inline		
	Reservoir (volume in. ³) and source	N/A		
	Pump-type (elec., gear driven, belt driven)	N/A		
Traction control	Operational speed range	N/A		
	Type engine intervention (electronic, mech.)			
Anti-lock device	Front/rear (std., opt., n.a.)	N/A		
	Manufacturer			
	Type (electronic, mech.)			
	Number sensors or circuits			
	Number anti-lock hydraulic circuits			
	Integral or add-on system			
	Yaw control (yes, no)			
Hydraulic power source (elect., vac. mtr., pwr. strg.)				
Effective area [cm ² (in. ²)]*		208 (32.2)/332 (51.4)		
Gross lining area [cm ² (in. ²)]**(F/R)		231 (35.8)/332 (51.4)		
Swept area [cm ² (in. ²)]*** (F/R)		1140 (176.6)/638.7 (99)		
Rotor	Outerworking diameter	F/R	256 (10.1)/N/A	
	Inner working diameter	F/R	158 (6.22)/N/A	
	Thickness	F/R	22.1 (0.87)/N/A	
	Material & type (vented/solid)	F/R	Cast Iron, Vented/N/A	
Drum	Diameter & width	F/R	N/A/228.6 (9.0) & 44 (1.73)	
	Type and material	F/R	N/A/Composite Cast Iron	
Wheel cylinder bore		60 (2.36) — Front/19.1 (.75) — Rear		
Master cylinder	Bore/stroke	F/R	Main Bore 21 (0.83), Fast Fill Bore 30.2 (1.19)/40 (1.57)	
Pedal arc ratio		3.5:1		
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]		10,480 (1520) Exc. Conv. (11,100 (1610) w/Convertible Only)		
Lining clearance		F/R	0.13 (.005)/0.25 (.010)	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Riveted 8/Seg.
		Rivet size		4.7 (0.18)
		Manufacturer		Thiokol, In-Board/Bendix, Out-Board
		Lining code*****		TP-1353MFDF, In-Board/7161A, Out-Board
		Material		Molded Organic, In-Board/Molded Semi-Metallic, Out-Board
		****	Primary or out-board	154 x 44 x 9.18 (6.06 x 1.73 x 0.36)
		Size	Secondary or in-board	120 x 43.5 x 11.08 (4.74 x 1.71 x 0.43)
		Shoe thickness (no lining)		5.1 (0.20)
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded
		Manufacturer		Bendix FMD-Primary 3198; Secondary 3199
		Lining Code*****		BX-BY-FE-Primary; BX-PM-FE-Secondary
		Material		Molded Organic
		****	Primary or out-board	155 x 44 x 4.7 (6.1 x 1.73 x 0.185)
		Size	Secondary or in-board	219 x 44 x 6.2 (8.6 x 1.73 x 0.244)
		Shoe thickness (no lining)		1.71 (.067)

*Excludes rivet holes, grooves, chamfers, etc.

**Includes rivet holes, grooves, chamfers, etc.

***Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)

(Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)

****Size for drum brakes includes length x width x thickness.

*****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) _____

Body Type And/Or
Engine Displacement

ALL MODELS W/5.0L AND ALL CONVERTIBLE MODELS

Brakes — Service

Description		Four Wheel Hydraulic Actuated System	
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Disc	
	Rear (disc or drum)	Drum	
Valving type (proportion, delay, metering, other)		Proportioning	
Power brake (std., opt., n.a.)		Standard	
Booster type (remote, integral, vac., hyd., etc.)		152 (6.0) Tandem Diaphragm, Integral, Vacuum	
Vacuum	Source (inline, pump, etc.)	Inline	
	Reservoir (volume in. ³) and source	N/A	
	Pump-type (elec., gear driven, belt driven)	N/A	
Traction control	Operational speed range	N/A	
	Type engine intervention (electronic, mech.)	N/A	
Anti-lock device	Front/rear (std., opt., n.a.)	N/A	
	Manufacturer	N/A	
	Type (electronic, mech.)	N/A	
	Number sensors or circuits	N/A	
	Number anti-lock hydraulic circuits	N/A	
	Integral or add-on system	N/A	
	Yaw control (yes, no)	N/A	
Hydraulic power source (elect., vac. mtr., pwr. strg.)		N/A	
Effective area [cm ² (in. ²)]*		241 (37.4)/332 (51.4)	
Gross lining area [cm ² (in. ²)]**(F/R)		258 (39.5)/332 (51.4)	
Swept area [cm ² (in. ²)]*** (F/R)		1400 (217)/638.7 (99)	
Rotor	Outerworking diameter	F/R	275.4 (10.84)/N/A
	Inner working diameter	F/R	182.0 (7.16)/N/A
	Thickness	F/R	26.2 (1.03)/N/A
	Material & type (vented/solid)	F/R	Cast Iron, Vented/N/A
Drum	Diameter & width	F/R	N/A/228.6 (9.0) & 44 (1.73)
	Type and material	F/R	N/A/Composite Cast Iron
Wheel cylinder bore		60 (2.36) — Front/19.1 (.75) — Rear	
Master cylinder	Bore/stroke	F/R	Main Bore 21 (0.83), Fast Fill Bore 30.2 (1.19)/40 (1.57)
Pedal arc ratio		3.5:1	
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]		11,100 (1610)	
Lining clearance		F/R	0.13 (.005)/0.25 (.010)
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)	Riveted 6/Seg.
		Rivet size	4.9 (0.19)
		Manufacturer	Bendix: Abex
		Lining code*****	916-460ZB
		Material	Molded Semi-Metallic
		**** Primary or out-board	162 x 43.4 x 8.1 (6.38 x 1.37 x 0.30)
		Size Secondary or in-board	136.9 x 44.9 x 9.3 (5.39 x 1.77 x 0.37)
		Shoe thickness (no lining)	5.3 (0.20)
	Rear wheel	Bonded or riveted (rivets/seg.)	Bonded
		Manufacturer	Bendix FMD-Primary 3198; Secondary 3199
		Lining Code*****	BX-BY-FE-Primary; BX-PM-FE-Secondary
		Material	Molded Organic
		**** Primary or out-board	155 x 44 x 4.7 (6.1 x 1.73 x 0.185)
		Size Secondary or in-board	219 x 44 x 6.2 (8.6 x 1.73 x 0.244)
Shoe thickness (no lining)		1.71 (.067)	

*Excludes rivet holes, grooves, chamfers, etc.

**Includes rivet holes, grooves, chamfers, etc.

***Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)

(Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)

****Size for drum brakes includes length x width x thickness.

*****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

MVMA Specifications Form

Vehicle Line **MUSTANG**

Model Year **1989**

Issued **2/88**

Revised (e)

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

2.3L

Tires And Wheels (Standard)

(See Page 13A For 5.0L Engine)

Tires	Size (load range, ply)		P195/75R14
	Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	240 (35)
		Rear [kPa (psi)]	240 (35)
	Rev./mile — at 70 km/h (45 mph)		1295.5 (805)
Wheels	Type & material		Stamped Steel
	Rim (size & flange type)		(14 x 5) JJ
	Wheel offset		28.4 (1.12)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	(4.25)
		Number & size	Four — 12.7 (.50) — 20 Thd
Spare	Tire and wheel		B78-14, kPa (36 PSI), Steel Wheel 356 x 127 (14 x 5.0), Economy Spare
	Storage position & location (describe)		Flat Position, Deep Well in Trunk

Tires And Wheels (Optional)

Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	Polycast/Steel
Rim (size, flange type and offset)	(14 x 5.5) JJ, Offset 28.4 (1.12)
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Spare tire and wheel (size)	
(if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	

Brakes — Parking

Type of control		Pull Lever — Push Button Release
Location of control		Tunnel Mounted
Operates on		Rear Service Brake
If separate from service brakes	Type (internal or external)	N/A
	Drum diameter	N/A
	Lining size (length x width x thickness)	N/A

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e)

Body Type And/Or
Engine Displacement

5.0L

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P225/60VR15 BSW
	Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	207 (30)
		Rear [kPa (psi)]	207 (30)
	Rev./mile — at 70 km/h (45 mph)		
Wheels	Type & material		Aluminum (16-Spoke Style — GT Only; 10-Hole Style — All Exc. GT)
	Rim (size & flange type)		15x7
	Wheel offset		22.4 (0.88)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	4.25
		Number & size	Four — 12.7 (.50) — 20 Thd
Spare	Tire and wheel		T135/70D16, 415 kPa (60 PSI), Std. Whl. 406x102 (16x4), Mini; T125/90R15 415 kPa (60 PSI), Alum. Whl. 381x102 (15x4), Mini on GT Conv. w/A/C
	Storage position & location (describe)		Flat Position, Deep Well in Trunk

Tires And Wheels (Optional)

Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Spare tire and wheel (size) (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	Mini Spare w/ 15 x 4 Aluminum Wheel on Select Models

Brakes — Parking

(SEE PAGE 13)

Type of control		
Location of control		
Operates on		
If separate from service brakes	Type (internal or external)	
	Drum diameter	
	Lining size (length x width x thickness)	

MVMA Specifications Form

Vehicle Line **MUSTANG**

Model Year **1989**

Issued **2/88**

Revised (e) **5/9/88**

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

MODELS w/2.3L

MODELS w/5.0L

Steering

Manual (std., opt., n.a.)			N/A		
Power (std., opt., n.a.)			Standard		
(e) Adjustable steering wheel/column (tilt, telescope, other)	Type	Tilt — 5 Position			
	Manufacturer	Adj. Steering Wheel — Various; Column — Ford			
	(Std., opt., n.a.)	Optional (Standard w/GT)			
Wheel diameter** (W9) SAE J1100	Manual	N/A			
	Power	Std. 368 (14.5)			
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)			
		Curb to curb (l. & r.)	11.39 (37.36)	12.6 (41.2)	
	Inside rear	Wall to wall (l. & r.)			
		Curb to curb (l. & r.)			
Scrub Radius*					
Manual	Gear	Type	N/A		
		Manufacturer	—		
		Ratios	...	—	
			Overall	—	
	No. wheel turns (stop to stop)		—		
Power	Type (coaxial, elec., hyd., etc.)		Integral Rack and Pinion		
	Manufacturer		Gear (Ford), Pump (Ford); Fluid ESP-M2C138CJ		
	Gear	Type	Rack and Pinion, Variable Ratio	Rack and Pinion, Constant Ratio	
		Ratios	...	8.58°/mm on Ctr.; 7.91°/mm at Stops	6.44°/mm Constant Ratio
			Overall	18.7:1 on Ctr.; 16.2:1 at Stops	14.7:1 on Center; 13.2:1 at Stops
	Pump (drive)		Multi-Rib Belt Off Crankshaft Pulley		
	No. wheel turns (stop to stop)		3.05	2.22	
Linkage	Type		Rack and Pinion (Rod and Ball Joint Directly Attached to Gear)		
	Location (front or rear of wheels, other)		Front of Wheels		
	Tie rods (one or two)		Two (Integral with Gear)		
Steering axis	Inclination at camber (deg.)		15.7		
	Bearings (type)	Upper	Strut Mount		
		Lower	Ball Joint		
		Thrust			
Steering spindle & joint type			Forged Spindle, with Ball Joint		
Wheel spindle/hub	Diameter	Inner bearing	34.8 (1.37)		
		Outer bearing	21.8 (0.86)		
	Thread (size)		13/16-20 UNEF 2A R.H. Thread		
	Bearing (type)		Tapered Roller		

*The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.

**See Page 22.

***Rack Speed

MVMA Specifications Form

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

ALL MODELS

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+ 0.8° Exc. GT (1.3° w/GT), ± 0.75° (a)
		Camber (deg.)	+ 0.2° ± 0.75° Exc. GT (0.1° w/GT) (a)
		Toe-in [outside track-mm (in.)]	+ 4.8 ± 3.0 (+ 0.19 ± 0.12)
	Service reset*	Caster	Factory Set and Cannot be Adjusted
		Camber	0.0° ± 0.75 (a)
		Toe-in	+ 4.8 ± 3.0 (+ 0.19 ± 0.12)
	Periodic M.V. inspection	Caster	+ 0.8° Exc. GT (1.3° w/GT), ± 0.75° (a)
		Camber	0.2° ± 0.75 Exc. GT (0.1° w/GT) (a)
		Toe-in	+ 4.8 ± 3.0 (+ 0.19 ± 0.12)
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	N/A
		Toe-in [outside track-mm (in.)]	N/A
	Service reset*	Camber	N/A
		Toe-in	N/A
	Periodic M.V. inspection	Camber	N/A
		Toe-in	N/A

*Indicates pre-set, adjustable, trend set or other.

Electrical — Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Analog, Standard
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		N/A
Charge indicator	Type	90° Magnetic Voltmeter Gauge, Standard
	Warning device (light, audible)	Warning Light, Standard
Temperature indicator	Type	90° Magnetic Gauge, Standard
	Warning device (light, audible)	N/A
Oil pressure indicator	Type	90° Magnetic Gauge, Standard
	Warning device (light, audible)	N/A
(e) Fuel indicator	Type	90° Magnetic Gauge, Standard
	Warning device (light, audible)	Low Fuel Alert Light in Instr. Panel (Std. GT Only)
Windshield wiper	Type (standard)	Two-Speed Electric Column-Mtd. Control, Interval Wipe, Standard
	Type (optional)	N/A
	Blade length	408.4 (16.0)
	Swept area [cm ² (in. ²)]	4637 (718.7)
Windshield washer	Type (standard)	Electric Pump (Impeller Type), Standard
	Type (optional)	N/A
	Fluid level indicator (light, audible)	Warning Light (Opt. w./2-Dr. Sedan) (b)
Rear window wiper, wiper/washer (std., opt., n.a.)		N/A
Horn	Type	Air Electric
	Number used	Two Std. — One Hi-Pitch, One Lo-Pitch
Other		SEE PAGE 15A

(a) Max. Side-to-Side Difference Not to Exceed ± 0.75°

(b) Electronic Graphic Display Indicator System in Console. Also Includes Lamp-Out Indicator for Headlamps, Tail Lamps or Brake Lights, and Low Fuel Warning Light (Opt. w./2-Dr. Sedan)

MVMA Specifications Form

METRIC (U.S. Customary)

SUPPLEMENTAL PAGE

Vehicle Line MUSTANG
Model Year 1989 Issued 2/88 Revised (e) 10/14/88

Electrical — Instruments and Equipment: (Cont'd)

- Brake System Warning Light
- Emergency Flashers
- Directional Turn Signal Lights
- Hi-Beam Indicator Light
- Fasten Seat Belts Warning Light
- (e) ● Headlamps "ON" Reminder Chime, Safety Belt Warning Chime, Ignition Key Reminder Chime
- Check Engine Warning Light (Emissions Warning)
- Check Oil — Low Engine Oil Warning Light (For 5.0L Engine Only)
- (e) ● Diagnostic Alert Light Module — Standard w/GT Only
 - Low Washer Fluid
 - Low Engine Coolant
 - Low Fuel
 - Low Oil Level (Check Oil)

MVMA Specifications Form

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (●) 10/14/88

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

2.3L

(MANUAL TRANS.)

(AUTOMATIC TRANS.)

Electrical — Supply System

(SEE PAGE 16A FOR 5.0L)

Battery	Manufacturer	Johnson Controls Inc. or GNB		
	Model, std., (opt.)	Standard	Option	Incl. w/Opt. Auto. Trans.
	Voltage	12		
	Amps at 0°F cold crank	480	540	540
	Minutes-reserve capacity	82	100	100
	Amp/hrs. - 20 hr. rate	48	58	58
	Location	Left-Hand Front of Engine Compartment		
Alternator	Manufacturer	Ford		
	Rating (idle/max. rpm)	75 Amp./Max. (E7SF-MA)		
	Ratio (alt. crank/rev.)	2.68:1		
	Output at idle (rpm, park)			
Regulator	Optional (type & rating)	N/A		
	Type	Electronic — Integral with Alternator		

Electrical — Starting System

Start, motor	Manufacturer	
	Current drain at 0°F	275-300 Amps.
	Power rating [kw (hp)]	
Motor drive	Engagement type	Positive (E7ZF-AA)
	Pinion engages from (front, rear)	Front

Electrical — Ignition System

Type	Electronic (std., opt., n.a.)	Standard
	Other (specify)	N/A
Coil	Manufacturer	Motorcraft
	Model	E3EF-AA
	Current	Engine stopped — A 6.5
		Engine idling — A
Spark plug	Manufacturer	Motorcraft
	Model	AWSF-44C
	Thread (mm)	14
	Tightening torque [N-m (lb. ft.)]	7.0-14.0 (5-10)
	Gap	1.12 (0.044)
	Number per cylinder	One
Distributor	Manufacturer	Motorcraft
	Model	Universal

Electrical — Suppression

(●) Locations & type

Capacitor in Alternator, Resistor Spark Plugs and Resistance Core Ignition Wire. Ground Cable — Engine to Dash Ground Cable, Hood Bond, RF Shielding Material.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

Engine Description/Carb.
Engine Code

5.0L

Electrical — Supply System

Battery	Manufacturer	Johnson Controls Inc. or GNB
	Model, std., (opt.)	Standard
	Voltage	12
	Amps at 0°F cold crank	540
	Minutes-reserve capacity	100
	Amp/hrs. - 20 hr. rate	58
	Location	Left-Hand Front of Engine Compartment
Alternator	Manufacturer	Ford (EED Rawsonville)
	Rating (idle/max. rpm)	75 Amp./Max. (E7ZF-FA)
	Ratio (alt. crank/rev.)	3.00:1
	Output at idle (rpm, park)	
	Optional (type & rating)	N/A
Regulator	Type	Electronic w/Integral Regulator

Electrical — Starting System

Start, motor	Manufacturer	Ford
	Current drain at 0°F	290-315 Amps.
	Power rating [kw (hp)]	
Motor drive	Engagement type	Positive (E4AF-AA)
	Pinion engages from (front, rear)	Front

Electrical — Ignition System

Type	Electronic (std., opt., n.e.)	Standard
	Other (specify)	N/A
Coil	Manufacturer	Motorcraft
	Model	(E) — Core
	Current	Engine stopped — A
		Engine idling — A 2.5-6.5
Spark plug	Manufacturer	Motorcraft
	Model	ASF-42C
	Thread (mm)	14
	Tightening torque [N-m (lb. ft)]	7-14 (5-10)
	Gap	1.37 (0.054)
	Number per cylinder	One
Distributor	Manufacturer	Motorcraft
	Model	Universal-Hall Effect

Electrical — Suppression

(e) Locations & type

Capacitor in Alternator, Resistor Spark Plugs, Resistance Ignition Wire, Ground Cable — Engine to Dash, Hood Bond.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 5/9/88

Body Type

ALL MODELS

Body

Structure

Unitized All-Steel Welded Body with One-Piece Side Stampings and Energy-Absorbing Front and Rear Structures

⑦ Bumper system front-rear

Impact-Resistant Polyurethane Fascias with HSLASO Steel Understructure at Rear and Reinforced Polypropylene Understructure at the Front
Front/Rear — 5 MPH — Ford Requirements

Anti-corrosion treatment

- Major Exterior & Underbody Sheet Metal Components and Panels Pre-Coated (Galvanized) Steel
- Body Cathodically Electrocoat Primed
- Urethane Chip-Resistant Primer or Plastic Cladding on Lower Body Sides
- Grille: Integral with Polyurethane Fascia

⑦ Body — Miscellaneous Information

Type of finish (lacquer, enamel, other)	Enamel (Acrylic)	
Hood	Material & mass	
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Primary — Internal; Secondary — External
Trunk lid	Material & mass	
	Type (counterbalance, other)	Counterbalance (2-Door Sedan & Convertible)
	Internal release control (elec., mech., n.a.)	Electric (with Power Lock-Group)
Hatch-back lid	Material & mass	
	Type (counterbalance, other)	Gas Cylinders
	Internal release control (elec., mech., n.a.)	Electric
Tailgate	Material & mass	N/A
	Type (drop, lift, door)	
	Internal release control (elec., mech., n.a.)	
Vent window control (crank, friction, pivot, power)	Front	N/A
	Rear	N/A
Window regulator type (cable, tape, flex, drive, etc.)	Front	
	Rear	
⑨ Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket, Stamped Frame — Coil Spring & Flexoflator — Foam Pad (a)
	Rear	Bench, Integral Frame & Foam Pad Assembly
	3rd seat	None
⑨ Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket, Stamped Frame — Foam Pad (a)
	Rear	Bench, Frame Hardboard w/Foam Pad Assy. (Fold Down, Split 50/50 w/H'backs)
	3rd seat	None

⑨ (a) Articulated Front Sport Seats Standard w/LX 5.0L Models Exc. Sedan and GT.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) _____

Body Type

ALL MODELS

⑦ Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard / optional	First seat	Type 2: 3-Point Lap & Shoulder Belt, Standard	N/A	Type 2: 3-Point Lap & Shoulder Belt, Standard
		Second seat	Type 1: 2-Point Lap, Only w/ Retractor, Standard	N/A	Type 1: 2-Point Lap, Only w/ Retractor, Standard
		Third seat	N/A	N/A	N/A
Passive	Type & description (air bag, motorized-2-point belt, fixed belt, knee bolster, manual-lap belt) Standard / optional	First seat	N/A	N/A	N/A
		Second seat	N/A	N/A	N/A
		Third seat	N/A	N/A	N/A

Glass	SAE Ref. No.	2-Dr. Sedan	Convertible	3-Door Hatchback
Windshield glass exposed surface area [cm ² (in. ²)]	S1	8117 (1258)	7213 (1118)	8117 (1258)
Side glass exposed surface area [cm ² (in. ²)]-total 2-sides	S2	9788 (1517)	7459 (1156)	10517 (1630)
Backlight glass exposed surface area [cm ² (in. ²)]	S3	8581 (1330)	3723 (577)	8568 (1328)
Total glass exposed surface area [cm ² (in. ²)]	S4	26486 (4105)	18395 (2851)	27202 (4216)
Windshield glass (type)		Laminated		
Side glass (type)		Tempered		
Backlight glass (type)		Tempered		

⑦ Lamps and Headlamp Locations

Headlamps	Description-sealed beam, halogen, replaceable bulb, etc.	Aero Halogen, Replaceable Bulb (9004)
	Shape	Single, Rectangular
	Lo-beam type (2A1, 2B1, 2C1, etc.)	N/A
	Quantity	Two (Combined Two Headlamp System)
	Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	N/A
	Quantity	Two (Combined Two Headlamp System)

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Unitized Construction
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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 5/27/88

Body Type

ALL MODELS

Convenience Equipment (standard, optional, n.a.)

⑦	Air conditioning (manual, auto. temp control)	Optional, Manual Temperature Control
	Clock (digital, analog)	Standard, Digital (Integral w/Radio)
	Compass/thermometer	N/A
	Console (floor, overhead)	Standard, with All Models
	Degroster, elec. backlight	Optional (Mandatory New York State)
Electronic	Diagnostic monitor (integrated, individual)	N/A
	Instrument cluster (list instruments)	N/A
	Keyless entry	N/A
	Tripfinder (avg. spd., fuel)	N/A
	Voice alert (list items)	N/A
	Other	
⑨	Fuel door lock (remote, key, electric)	Opt., Remote Elec. (Part of Pwr. Lock Grp.); Std. w/GT & Convertible
	Auto head on/off delay, dimming	N/A
	Cornering	N/A
	Courtesy (map, reading)	Opt. Dome/Map Light (Part of Light Group) (N/A Conv.); Std. w/GT
	Door lock, ignition	N/A
	Engine compartment	Optional (Part of Light Group)
	Fog	Standard on GT Model; Not Available on Other Models
	Glove compartment	Optional (Part of Light Group)
	Trunk	Optional (Part of Light Group)
	Illuminated entry system (list lamps, activation)	
Mirrors	Other	
	Day/night (auto. man.)	Standard, Manual
	L.H. (remote, power, heated)	Std., Man. Remote; Opt., Electric Remote (Std. w/Convertible)
	R.H. (convex, remote, power, heated)	Std., Conv. Man. Remote; Opt., Conv. Elec. Remote (Std. w/Conv.)
	Visor vanity (RH/LH, illuminated)	Optional, RH/LH Illuminated (N/A Convertible)
⑦	Navigation system (describe)	N/A
	Parking brake-auto release (warning light)	N/A

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

Body Type

ALL MODELS

Convenience Equipment (standard, optional, n.a.)

(e)	Deck lid (release, pull down)		Standard, Pull Lever — Push Button Release	
	Door locks (manual, automatic, describe system)		Optional, Power Door Locks (Part of Pwr. Lock Grp.);Standard w/Convertible	
	Power equipment	Seats	2 - 4 - 6 way, etc.	N/A
			Reclining (R.H., L.H.)	N/A
			Memory (R.H., L.H., preset, recline)	N/A
			Lumbar, hip, thigh, support	Standard LX 5.0L Models (Exc. Sedan) & GT Only, Power Lumbar
			Heated (R.H., L.H., other)	N/A
	Side windows		Optional (Standard w/Convertible)	
	Vent windows		N/A	
	Rear windows		N/A	
(e)	Antenna (location, whip, w/shield, power)		R.H. Front Fender Mounted Whip	
	Standard	AM, FM, stereo, tape compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	Electronic AM/FM Stereo	
	Optional		Electronic AM/FM Stereo w/Cassette; Premium Sound	
	Speaker (number, location)		Six Locations — Each Door and Rear Pkg. Shelf on Sedan or Inside Rear Quarters on Hatchback Models, Plus Two Instr. Panel Speakers, Standard	
	(e) Roof open air fixed (flip-up, sliding, "T")		Optional, Flip-Up w/Hatchback Models	
Speed control device		Optional		
Speed warning device (light, buzzer, etc.)		N/A		
Tachometer (rpm)		6000 (Std. w/2.3L); 7000 (Incl. w/5.0L)		
Telephone system (describe)		N/A		
Theft deterrent system		N/A		

MVMA Specifications Form

Vehicle Line MUSTANG
Model Year 1989 Issued 2/88 Revised (e) 10/14/88

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each vehicle line. SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	2-DOOR SEDAN	CONVERTIBLE	2-DR. H'BACK (EXCEPT GT)	GT ONLY 2-DR. H'BACK
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Width

Tread (front)	W101	1438 (56.6)			1472 (57.9)
Tread (rear)	W102	1448 (57.0)			
(e) Vehicle width	W103	1755 (69.1)			
Body width at SgRP (front)	W117	1735 (68.3)			
Vehicle width (front doors open)	W120	3899 (153.5)			
Vehicle width (rear doors open)	W121	N/A			
Front fender overall width	W106	1717 (67.6)			
Rear fender overall width	W107	1755 (69.1)			
Tumble-home (deg.)	W122	25.2°	25.3°	25.2°	
Vehicle width including mirrors					

Length

Wheelbase	L101	2553 (100.5)			
Vehicle length	L103	4562 (179.6)			
Overhang (front)	L104	1016 (40.0)			
Overhang (rear)	L105	993 (39.1)			
Upper structure length	L123	2367 (93.2)			2448 (96.4)
Rear wheel C/L "X" coordinate	L127	2195 (86.4)			
Cowl point "X" coordinate	L125	193 (7.6)			
Front end length at centerline	L126	1456 (57.3)			
Rear end length at centerline	L129	527 (20.7)		384 (15.1)	

Height*

Passenger distribution (front/rear)	PD1,2,3	2/1			
Trunk/cargo load		0			
Vehicle height	H101	1322 (52.1)	1323 (52.1)		
Cowl point to ground	H114	959 (37.7)			
Deck point to ground	H138	892 (35.1)	903 (35.6)	907 (35.7)	
Rocker panel-front to ground	H112	193 (7.6)			
Bottom of door closed-front to ground	H133	257 (10.1)			
Rocker panel-rear to ground	H111	170 (6.7)			
Bottom of door closed-rear to ground	H135	N/A			
Windshield slope angle	H122	58°			
Backlight slope angle	H121	57.3°	54.5°	62.0°	

Ground Clearance*

Front bumper to ground	H102	387 (15.2)			
Rear bumper to ground	H104	336 (13.2)			
Bumper to ground [front at curb mass (wt.)]	H103	392 (15.4)			
Bumper to ground [rear at curb mass (wt.)]	H105	396 (15.6)			
Angle of approach (degrees)	H106	16.8°			
Angle of departure (degrees)	H107	12.7°			
Ramp breakover angle (degrees)	H147	12.7°			
Axle differential to ground (front/rear)	H153	155 (6.1)			
Min. running ground clearance	H156	115 (4.5)			
Location of min. run. grd. clear.		Converter Grass Shield			

*All vehicle height and ground clearances are measured at the Manufacturer's Design Load Weight.

Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load, unless otherwise specified. All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Vehicle Line MUSTANG

Model Year 1989 Issued 2/88 Revised (e) 10/14/88

Body Type

2-DOOR SEDAN

CONVERTIBLE

2-DOOR HATCHBACK

SAE
Ref.
No.

Front Compartment

SgRP front, "X" coordinate	L31	3034 (40.7)		
Effective head room	H61	940 (37.0)	955 (37.6)	940 (37.0)
Max. eff. leg room (accelerator)	L34	1059 (41.7)		
SgRP to heel point	H30	223 (8.8)		
SgRP to heel point	L53	859 (33.8)		
Back angle	L40	25°		
Hip angle	L42	93.9°		
Knee angle	L44	123.3°		
Foot angle	L46	87°		
Design H-point front travel	L17	178 (7.0)		
Normal driving & riding seat track trvl.	L23	155 (6.1)		
Shoulder room	W3	1408 (55.5)		
Hip room	W5	1425 (56.1)		
Upper body opening to ground	H50	1204 (47.4)		
Steering wheel maximum diameter*	W9	368 (14.5)		
Steering wheel angle	H18	23.1°		
Accel. heel pt. to steer. whl. cntr	L11	513 (20.2)		
Accel. heel pt. to steer. whl. cntr	H17	599 (23.6)		
Steering wheel to C/L of thigh	H13	86 (3.4)		
Steering wheel torso clearance	L7	343 (13.5)		
Headlining to roof panel (front)	H37	23 (0.9)		
Undepressed floor covering thickness	H67	20 (0.8)		

Rear Compartment

SgRP point couple distance	L50	701 (27.6)		
Effective head room	H63	912 (35.9)	938 (36.9)	906 (35.7)
Min. effective leg room	L51	780 (30.7)		
SgRP (second to heel)	H31	257 (10.1)		
Knee clearance	L48	-43 (-1.7)		
Compartment room	L3	574 (22.6)	561 (22.1)	607 (23.9)
Shoulder room	W4	1379 (54.3)	1242 (48.9)	1379 (54.3)
Hip room	W6	1196 (47.1)	978 (38.5)	1196 (47.1)
Upper body opening to ground	H51	N/A		
Back angle	L41	21°	19°	24°
Hip angle	L43	71.8°	70°	75°
Knee angle	L45	70°		
Foot angle	L47	113°		
Headlining to roof panel (second)	H38	33 (1.3)	N/A	33 (1.3)
Depressed floor covering thickness	H73	20 (0.8)		

Luggage Compartment

(e) Usable luggage capacity [L (cu. ft.)]	V1	283 (10.0)	181 (6.4)	345 (12.2)
Liftover height	H195	759 (29.9)		

Interior Volumes (EPA Classification)

Vehicle class		Subcompact		
Interior volume index (cu. ft.)		93.4	87.1	95.5
Trunk/cargo index (cu. ft.)		9.9	6.4	12.2

* See page 14.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e)

Body Type

SAE
Ref.
No.

Station Wagon—Third Seat

(NOT APPLICABLE)

Seat facing direction	SD1	
SgRP couple distance	L85	
Shoulder room	W85	
Hip room	W88	
Effective leg room	L86	
Effective head room	H88	
SgRP to heel point	H87	
Knee clearance	L87	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

Station Wagon—Cargo Space

(NOT APPLICABLE)

Cargo length (open front)	L200	
Cargo length (open second)	L201	
Cargo length (closed front)	L202	
Cargo length (closed second)	L203	
Cargo length at belt (front)	L204	
Cargo length at belt (second)	L205	
Cargo width (wheelhouse)	W201	
Rear opening width at floor	W203	
Opening width at belt	W204	
Min. rear opening width above belt	W205	
Cargo height	H201	
Rear opening height	H202	
Tailgate to ground height	H250	
Front seatback to load floor height	H197	
Cargo volume index [m ³ (ft. ³)]	V2	
Hidden cargo volume index [m ³ (ft. ³)]	V4	
Cargo volume index-rear of 2-seat	V10	

Hatchback—Cargo Space

2-DOOR HATCHBACK

Cargo length at front seatback height	L208	968 (38.1)
Cargo length at floor (front)	L209	1666 (65.6)
Cargo length at second seatback height	L210	455 (17.9)
Cargo length at floor (second)	L211	831 (32.7)
Front seatback to load floor height	H197	467 (18.4)
Second seatback to load floor height	H198	389 (15.3)
Cargo volume index [m ³ (ft. ³)]	V3	.85 (30)
Hidden cargo volume index [m ³ (ft. ³)]	V4	N/A
Cargo volume index-rear of 2-seat	V11	.35 (12.2)

Aerodynamics*

Wheel lip to ground, front	
Wheel lip to ground, rear	
Frontal area [m ² (ft. ²)]	
Drag coefficient (Cd)	

*EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG
 Model Year 1989 Issued 2/88 Revised (e) _____

Body Type

ALL MODELS

Vehicle Fiducial Marks

Fiducial Mark Number*		Define Coordinate Location	
1 & 2 Front		The rear vertical edge of the master control notch on the underside of the front door rocker panels locates the "X" coordinate relative to body grid and is located at the 444 (17.5) line. (Front Location) (Rear Location) X = 444 (17.5) X = 1295 (51) Y = 737 (29) Y = 737 (29) Z = -27.9 (-1.1) Z = -35.6 (-1.4)	
3 & 4 Rear		The intersection of the horizontal-vertical surfaces on the rocker panel door rabbet locates the "Y" and "Z" coordinates relative to body grid at particular fore-aft inch lines. The fore-aft location can be determined by the reference dimension from Fiducial Mark 1 and 2.	
Fiducial Mark Number			
Front	W21°	737	(29)
	L54°	444	(17.5)
	H81°	-27.9	(-1.1)
	H181°	—	
	H183°	—	
Rear	W22°	737	(29)
	L55°	1295	(51)
	H82°	-35.6	(-1.4)
	H182°	—	
	H184°	—	

*Reference—SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989 Issued 2/88 Revised (e) 10/14/88

		Vehicle Mass (weight)							
Code	Model	CURB MASS, kg. (lb.)*			% PASS. MASS DISTRIBUTION				ETWC**
		Front	Rear	Total	Pass. In Front		Pass. In Rear		
					Front	Rear	Front	Rear	
99A/445	2.3L Engine								
	w/5-Speed Man. Trans.								
99A/445	66B/HVS	711	538	1249	45	55	19	81	3125
	LX Series	(1568)	(1188)	(2754)					
	2-Door Sedan								
99A/445	61B/HVS	711	568	1279	45	55	19	81	3125
	LX Series	(1567)	(1252)	(2819)					
	2-Door Hatchback								
99A/445	66B/HVS (B2L)	748	599	1345	45	55	19	81	3375
	LX Series	(1645)	(1321)	(2966)					
	2-Door Convertible								
99A/44L	2.3L Engine								
	w/Opt. 4-Spd. Auto. Trans.								
99A/44L	66B/HVS	721	542	1263	45	55	19	81	3125
	LX Series	(1590)	(1194)	(2784)					
	2-Door Sedan								
99A/44L	61B/HVS	720	572	1292	45	55	19	81	3250
	LX Series	(1588)	(1261)	(2849)					
	2-Door Hatchback								
99A/44L	66B/HVS (82L)	756	603	1359	45	55	19	81	3375
	LX Series	(1667)	(1329)	(2996)					
	2-Door Convertible								
99E/445	5.0L Engine								
	w/5-Speed Man. Trans.								
99E/445	66B/HVS	821	560	1381	45	55	19	81	3375
	LX Series 5.0L Sport	(1810)	(1235)	(3045)					
	2-Door Sedan								
99E/445	61B/HVS	820	591	1411	45	55	19	81	N/A
	LX Series 5.0L Sport	(1808)	(1302)	(3110)					
	2-Door Hatchback								
99E/445	66B/HVS (82L)	858	619	1477	45	55	19	81	N/A
	LX Series 5.0L Sport	(1892)	(1365)	(3257)					
	2-Door Convertible								

SHIPPING MASS (weight) = Curb Weight Less Kg. (lbs.) 53 (117) w/2.3L; 58 (128) w/5.0L

*Reference — SAE J1100 Motor vehicle dimensions, curb weight definition.

**ETWC — Equivalent Test Weight Class — U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.

NA — Not Applicable — applies to model/series combinations not requiring testing.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG

Model Year 1989

Issued 2/88

Revised (e) 10/14/88

		Vehicle Mass (weight)							
Code	Model	CURB MASS, kg. (lb.)*			% PASS. MASS DISTRIBUTION				ETWC**
		Front	Rear	Total	Pass. In Front		Pass. In Rear		
					Front	Rear	Front	Rear	
99E/44L	5.0L Engine								
	w/Opt. 4-Speed Auto. Trans.								
	99E/44L 66B/HVS	839	570	1409	45	55	19	81	3500
(e)	LX Series 5.0L Sport	(1849)	(1257)	(3106)					
	2-Door Sedan								
	99E/44L 61B/HVS	838	601	1439	45	55	19	81	N/A
(e)	LX Series 5.0L Sport	(1847)	(1324)	(3171)					
	2-Door Hatchback								
	99E/44L 66B/HVS (B2L)	876	629	1505	45	55	19	81	N/A
(e)	LX Series 5.0L Sport	(1931)	(1387)	(3318)					
	2-Door Convertible								
	99E/445 5.0L Engine								
	w/5-Speed Man. Trans.								
	99E/445 61B/HVB	843	606	1449	45	55	19	81	3500
	GT Series	(1858)	(1336)	(3194)					
	2-Door Hatchback								
	99E/445 66B/HVB (B2L)	881	631	1512	45	55	19	81	3625
	GT Series	(1942)	(1391)	(3333)					
	2-Door Convertible								
	99E/44T 5.0L Engine								
	w/Opt. 4-Spd. Auto. Trans.								
	99E/44T 61B/HVB	860	616	1476	45	55	19	81	3625
	GT Series	(1897)	(1358)	(3255)					
	2-Door Hatchback								
	99E/44T 66B/HVB (B2L)	899	641	1540	45	55	19	81	3750
	GT Series	(1981)	(1413)	(3394)					
	2-Door Convertible								
(e)	EXPORT (FEDERALIZED)								
	99A/445 2.3L Engine								
	w/4-Speed Man. Trans.								
(e)	99A/445 61B/HVS	709	561	1270	45	55	19	81	N/A
	LX Series 2-Dr. Hatchback	(1562)	(1237)	(2799)					

SHIPPING MASS (weight) = Curb Weight Less Kg. (lbs.) 53 (117) w/2.3L; 58 (128) w/5.0L

*Reference — SAE J1100 Motor vehicle dimensions, curb weight definition.

**ETWC — Equivalent Test Weight Class — U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.

NA — Not Applicable — applies to model/series combinations not requiring testing.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MUSTANG
 Model Year 1989 Issued 2/88 Revised (●) _____

		Optional Equipment Differential Mass (weight)*			
Code	Equipment	MASS, kg. (lb.)			Remarks Restrictions, Requirements
		Front	Rear	Total	
Wheels:					
65M	Wheel, Steel/Polycast	3.2 (7)	3.6 (8)	6.8 (15)	Avail. LX Models Only
654	Wheel Covers, Wire Type	0.225 (0.5)	0.225 (0.5)	0.45 (1)	Avail. LX Models Only
Miscellaneous Options:					
Air Conditioning					
572	w/Manual Temp. Control & 2.3L Engine w/5-Spd. Man.	19.5 (43)	-1.8 (-4)	17.7 (39)	
572	w/Manual Temp. Control & 2.3L Engine w/4-Spd. Auto.	18.1 (40)	-1.8 (-4)	16.3 (36)	
572	w/Manual Temp. Control & 5.0L Engine	19.9 (44)	-1.8 (-4)	18.1 (40)	
57Q	Defroster, Rear Window	0 (0)	0.45 (1)	0.45 (1)	N.A. on Convertible
Radio Systems:					
589	Radio, Electronic AM/FM Stereo w/Cass. & Clock	0.45 (1)	0.45 (1)	0.9 (2)	
913	Sound System, Premium	-1.4 (-3)	3.6 (8)	2.2 (5)	
58Y	Delete — Std. Radio	-2.7 (-6)	-1.4 (-3)	-4.1 (-9)	
963	Power Lock Group	1.8 (4)	2.3 (5)	4.1 (9)	
64R	Power, Door Side Windows	1.8 (4)	0.9 (2)	2.7 (6)	

*Also see Engine - General Section for dressed engine mass (weight).

METRIC (U.S. Customary)

Model Year 1989 Issued 2/88 Revised (e) _____

*Also see Engine - General Section for dressed engine mass (weight).