MOTOR VEHICLE

Specifications

METRIC (U.S. Customary)

Passenger Car

1985

Manufacturer	Car Line	
FORD MOTOR COMPANY	THUNDERBIRD	
Mailing Address		
P.O. BOX 2053 DEARBORN, MICHIGAN 48121	Issued SEPTEMBER, 1984	Revised

Questions concerning these specifications should be directed to the manufacturer whose address is shown above.

The information contained herein is prepared, distributed by, and is solely the responsibility of the automobile manufacturing company to whose products it relates. This specification form was developed by the automobile manufacturing companies under the auspices of the Motor Vehicle Manufacturers Association of the United States, Inc.

The General Specifications herein are those in effect at date of compilation and are subject to change without notice by the manufacturer.

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NOTE:

1. This form uses both SI metric units and U.S. Customary units. The metric unit of measure is presented first, and the U.S. Customary unit follows in parentheses.
2. UNLESS OTHERWISE INDICATED:
   a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
   b. Nominal design dimensions are used throughout these specifications.
   c. All linear dimensions are in millimeters (inches), and all mass (weight) specifications are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of completion and are subject to change without notice by the manufacturer.
4. Additional Car and Body Dimensions and/or drawings (based in part on SAE J1100a "Motor Vehicle Dimensions") may be available from the manufacturer.

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Car Models

Model Description FWD/RWD	Introduction Date	Make, Car Line, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load–Kilograms (Pounds)
% THUNDERBIRD				
2-Door		63D	2/3	45.0 (100)
% ELAN				
2-Door		63D	2/3	45.0 (100)
% FILA				
2-Door		63D	2/3	45.0 (100)
% TURBO COUPE				
2-Door		63D	2/3	45.0 (100)

% Rear Wheel Drive (RWD)

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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						TRANSMISSION TRANSAXLE	AXLE RATIO (std. first)
	Displ. Liters (ln^3)	Carb. (Barrels, FI, etc.)	Compr. Ratio	SAE Net at RPM		Exhaust S/D		
				kW (bhp)	Torque N - m (lb. ft.)			
		50 STATES/CANADA/ALTITUDE						
All	3.8 (232)	CFI$ 2V@	8.7	90 (120) 3600	278 (205) 1600	S	AT3 AOD$	2.73T, 3.08T@ 3.27*$, 3.45T#
All	5.0 (302)	CFI	8.4	104 (140) 3200	339 (250) 1600	S	AOD	2.73T, 3.08T
Turbo Coupe	2.3 Turbo (140)	EFI	8.0	116 (155) 4600	258 (190) 2800	S	M5OD	3.45T
				108 (145) 4400	244 (180) 3000	S	AT3	3.45T

AT3 - 3-Speed Selectshift Automatic Transmission
AOD - 4-Speed Automatic Overdrive Transmission
M5OD - 5-Speed Manual Overdrive Transmission
T - Traction-Lok
$ - Canada Not Available
@ - Canada Only
* - Altitude Not Available
# - Altitude Only

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Engine Description/Carb. Engine Code	3.8L (232 CID)

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V, Front, Longitudinal Overhead Valve Engine With Modified Wedge Combustion Chamber
No. of cylinders		Six
Bore		96.8 (3.8)
Stroke		86.0 (3.4)
Bore spacing (c / l to c / l)		106.5
Cylinder block material		Cast Iron
Cylinder block deck height		234.5
Deck clearance (minimum) (above or below block)		0.255 (0.010) Above
Cylinder head material		Aluminum
Cylinder head volume (cm^3)		62.9
Head gasket thickness (compressed)		1.04-1.19 (0.041-0.047)
Minimum combustion chamber total volume (cm^3)		76.8
Cyl. no. system (front to rear)*	L. Bank	4, 5, 6
	R. Bank	1, 2, 3
Firing order		1, 4, 2, 5, 3, 6
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index $\frac{(R+M)}{2}$		87 Minimum Octane
Total dressed engine mass (wt) dry**		186.5 (411.1) AT3; 185.3 (408.6) AOD

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy 521 (18.4)

Engine – Camshaft

Location		In Block
Material & mass kg (weight, lbs.)		Special Alloy Iron, Green Sand Molded, Induction Hardened, Phosphate Coated 4.04 (8.9)
Drive type	Chain / belt	Chain (Silent)
	Width / pitch	19.99 - 18.72 (.79 - .74)/9.53 (.37)

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

** 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 Description/Carb. Engine Code	5.0L (302 CID)

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V - Front, Longitudinal Overhead Valve Engine With Modified Wedge Combustion Chamber
No. of cylinders		Eight
Bore		101.6 (4.00)
Stroke		76.2 (3.00)
Bore spacing (c / l to c / l)		111.3 (4.38)
Cylinder block material		Cast Iron
Cylinder block deck height		208.4 (8.20)
Deck clearance (minimum) (above or below block)		0.013 (0.0005) Below
Cylinder head material		Cast Iron
Cylinder head volume (cm^3)		67.5 - 70.5
Head gasket thickness (compressed)		1.04 - 1.19 (0.041 - 0.047)
Minimum combustion chamber total volume (cm^3)		78.9
Cyl. no. system (front to rear)*	L. Bank	5, 6, 7, 8
	R. Bank	1, 2, 3, 4
Firing order		1, 5, 4, 2, 6, 3, 7, 8
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index $\frac{(R+M)}{2}$		87 Minimum Octane
Total dressed engine mass (wt) dry**		259.6 (572.4)

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy 583 (20.6)

Engine – Camshaft

Location		In Block
Material & mass kg (weight, lbs.)		Special Alloy Iron, Green Sand Molded, Induction Hardened, Phosphate Coated 4.08 (9.0)
Drive type	Chain / belt	Chain (Silent)
	Width / pitch	18.4-19.1 (0.73-0.75) / 9.53 (0.37)

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

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Engine Description/Carb. Engine Code	2.3L/EFI TC (140 CID)

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		Inline, Front, Longitudinal Single Overhead Camshaft Engine With Modified Wedge Combustion Chamber
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		Cast Iron
Cylinder block deck height		212.55 (8.36)
Deck clearance (minimum) (above or below block)		0.178 (0.007) Above
Cylinder head material		Cast Iron
Cylinder head volume (cm^3)		56.6
Head gasket thickness (compressed)		1.09 (0.043)
Minimum combustion chamber total volume (cm^3)		76.9
Cyl. no. system (front to rear)*	L. Bank	- -
	R. Bank	- -
Firing order		1, 3, 4, 2
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index $\frac{(R+M)}{2}$		87 Minimum Octane
Total dressed engine mass (wt) dry**		186.1 (410.2) M5OD; 187.4 (413.1) AT3

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	480 (16.9) Forged Aluminum Alloy

Engine – Camshaft

Location		Cylinder Head
Material & mass kg (weight, lbs.)		ESE-MIA-117-B Hardenable Cast Iron 2.93 (6.45)
Drive type	Chain / belt	Belt
	Width / pitch	21.8-22.7 (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.

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Engine Description/Carb. Engine Code	3.8L (232 CID)

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	6/6
	Head O.D. intake / exhaust	45/37

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]	Forged Steel (SAE-1151-M) .665-.667 (1.46-1.47)

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]	Nodular Cast Iron Alloy 14.06 (31)
End thrust taken by bearing (no.)	#3
Number of main bearings	4

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	276-414 (40-60) @ 2000 RPM
Type oil intake (floating, stationary)	Stationary Shrouded Screen in Sump
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	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	
Charge cooler	

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Engine Description/Carb. Engine Code	5.0L (302 CID)

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	8/8
	Head O.D. intake / exhaust	45.2 (1.78)/36.8 (1.45)

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]	Forged Steel 0.55 (1.23)

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]	Nodular Cast Iron Alloy 17.3 (38.2)
End thrust taken by bearing (no.)	#3
Number of main bearings	5

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	276-414 (40-60) @ 2000 RPM
Type oil intake (floating, stationary)	Stationary Shrouded Screen in Sump
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	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	
Charge cooler	

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Engine Description/Carb. Engine Code	2.3L/EFI TC (140 CID)

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	4/4
	Head O.D. intake / exhaust	44/38

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]	Forged Steel (SAE-1041-H or SAE-1541-H) 0.626-0.642 (1.38-1.41)

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]	Nodular Cast Iron Alloy 15.48 (34.13)
End thrust taken by bearing (no.)	#3
Number of main bearings	5

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	379 (55) PSI @ 2000 RPM
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	4.3 (4.5) Plus 0.45 (0.5) 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

Turbo charger - manufacturer	Garrett Corporation
Super charger - manufacturer	N.A.
Charge cooler	N.A.

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Engine Description/Carb. Engine Code	3.8L (232 CID)

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard	
Coolant fill location (rad., bottle)		Radiator Coolant Fill; Bottle Coolant Add	
Radiator cap relief valve pressure [kPa (psi)]		97-127 (14-18)	
Circulation thermostat	Type (choke, bypass)	Reverse Poppet	
	Starts to open at °C (°F)	89.5-127 (193-200)	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	9	
	Number of pumps	One	
	Drive (V-belt, other)	Six Rib Poly-V	
	Bearing type	Double Row, Sealed, Ball and Roller	
By-pass recirculation [type (inter,. ext.)]		External	
Cooling system capacity	With heater–L(qt.)	10.1 (10.7), Plus 1.5 Quart in Overflow Bottle	
	With air cond.–L(qt.)	10.2 (10.8), Plus 1.5 Quart in Overflow Bottle	
	Opt. equipment [specify–L(qt.)]	- -	
Water jackets full length of cyl. (yes, no)		No	
Water all around cylinder (yes, no)		Yes	
Radiator core	Describe (type, material, no. of rows)	Crossflow, Tube and Slit Fin , Copper and Brass, 2 Rows	
	Std., A/C, HD	Standard	A/C
	Width	622.3 (24.5)	
	Height	452.1 (17.8)	
	Thickness	16.5 (0.65	29.0 (1.14)
	Fins per inch	12 C-5 11 AOD	10 C-5 9 AOD
Fan	Std., elec., opt.	Standard	
	Number of blades & type (flex, solid, material)	5 Blade Solid , Steel	
	Diameter & projected width	457 (18.0), 68.5 (2.69)	
	Ratio (fan to crankshaft rev.)	1.25:1	
	Fan cutout type	Clutch	
	Drive [type (direct, remote)]	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)	Plastic	

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Engine Description/Carb.
Engine Code

5.0L
(302 CID)

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Radiator Coolant Fill; Bottle Coolant Add
Radiator cap relief valve pressure [kPa (psi)]		97-127 (14-18)
Circulation thermostat	Type (choke, bypass)	Choke
	Starts to open at °C (°F)	90-93 (193-200)
Water pump	Type (centrifugal, other)	Centrifugal
	GPM 1000 pump rpm	10
	Number of pumps	One
	Drive (V-belt, other)	Six Rib Poly-V
	Bearing type	Double Row, Sealed, Ball and Roller
By-pass recirculation [type (inter,. ext.)]		External
Cooling system capacity	With heater–L(qt.)	12.6 (13.3)
	With air cond.–L(qt.)	12.7 (13.4)
	Opt. equipment [specify–L(qt.)]	N.A.
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Radiator core	Describe (type, material, no. of rows)	Crossflow, Tube and Slit Fin, Copper and Brass, 2 Rows
	Std., A/C, HD	Std. / A/C / H.D.
	Width	622.3 (24.5) / 622.3 (24.5) / 622.3 (24.5)
	Height	452.1 (17.8) / 452.1 (17.8) / 452.1 (17.8)
	Thickness	28.8 (1.14) / 28.8 (1.14) / 28.8 (1.14)
	Fins per inch	9 / 11 / 14
Fan	Std., elec., opt.	Std.
	Number of blades & type (flex, solid, material)	5 Uneven, Steel
	Diameter & projected width	17.5 x 2.4
	Ratio (fan to crankshaft rev.)	1.30:1
	Fan cutout type	Clutch
	Drive [type (direct, remote)]	Belt
	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 Polymer

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Engine Description/Carb. Engine Code	2.3L/EFI TC (140 CID)

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Radiator Coolant Fill; Bottle Coolant Add
Radiator cap relief valve pressure [kPa (psi)]		82.7-110.3 (12-16) Non A/C; 96.5-124.1 (14-18) With A/C
Circulation thermostat	Type (choke, bypass)	By Pass
	Starts to open at °C (°F)	87.9 (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 and Roller
By-pass recirculation [type (inter,. ext.)]		Internal
Cooling system capacity	With heater–L(qt.)	8.4 (8.9)
	With air cond.–L(qt.)	8.4 (8.9)
	Opt. equipment [specify–L(qt.)]	N.A.
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Radiator core	Describe (type, material, no. of rows)	Crossflow, Tube and Slit Fin, Copper and Brass, 2 Rows
	Std., A/C, HD	Std. A/C
	Width	623.3 (24.5) 623.3 (24.5)
	Height	453.1 (17.8) 453.1 (17.8)
	Thickness	16.5 (0.65) 35.6 (1.1)
	Fins per inch	14 (10 w/Auto. Trans.) 13 (14 w/Auto. Trans.)
Fan	Std., elec., opt.	Electric
	Number of blades & type (flex, solid, material)	Four,Solid,Plastic
	Diameter & projected width	355.8 Nom. Dia. 40.1 Nom. PW
	Ratio (fan to crankshaft rev.)	- -
	Fan cutout type	- -
	Drive [type (direct, remote)]	- -
	RPM at idle (elec.)	1500 RPM
	Motor rating (wattage) (elec.)	150 Watts Max. (180 Watts Automatic Transmission)
	Motor switch (type & location) (elec.)	Two Terminal, Bi-Metallic Snap Disc Lower Intake Manifold
	Switch point (temp., pressure) (elec.)	Approx. 221°
	Fan shroud (material)	Wire Legs w/Plastic Ring

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L/CFI (232 CID)	3.8L/2V (a)

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

Induction type: carburetor, fuel injection system, etc.			Central Fuel Injection	Carburetor (Down Draft) (a)
Carburetor	Mfgr.		N.A.	
	Choke (type)		N.A.	Automatic, Electrically Oper.
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N.A.	
		Automatic	N.A.	700-DR (b)
Idle A/F mix.				
Fuel injection	Point of injection (no.)		Throttle Body (Two Injectors)	N.A.
	Constant, pulse, flow		Pulse	N.A.
	Control (electronic, mech.)		Electronic	N.A.
	System pressure [kPa (psi)]		300 (30.5)	N.A.
Intake manifold heat control (exhaust or water thermostatic or fixed)			Exhaust	
Air cleaner type	Standard		Dry, Remote Paper Element	
	Optional		N.A.	
Fuel pump	Type (elec. or mech.)		Electrical	Mechanical
	Location (eng., tank)		Frame Rail/in Tank (c)	Engine Mounted
	Pressure range [kPa (psi)]		21-34 (3.1-4.9) (c)	41.4-55.2 (6.0-8.0)

Fuel Tank

Capacity [refill L (gallons)]		78.0 (20.6 Gal)	79.5 (21.0 Gal)
Location (describe)		Behind Rear Axle	
Attachment		Two Straps with Pin and Loop at Rear; Bolt at Front	
Material		Steel (Terne Plate)	
Filler pipe	Location & material	Right Hand Quarter Panel	
	Connection to tank	Rubber Seal	
Fuel line (material)		N.A.	Nylon
Fuel hose (material)		Nylon	Rubber Reinforced
Return line (material)		Nylon	
Vapor line (material)		Nylon	
Extended range tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]	N.A.	
	Location & material	N.A.	
	Attachment	N.A.	
Auxiliary tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]	N.A.	
	Location & material	N.A.	
	Attachment	N.A.	
	Selector switch or valve	N.A.	
	Separate fill	N.A.	

(a) Canada Only
(b) A/C and A/C Clutch De-Energized
(c) In-Tank Pump Only, 275-310 (40-45)

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Engine Description/Carb. Engine Code

5.0L
(302 CID)

Engine – Fuel System

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

Induction type: carburetor, fuel injection system, etc.			Central Fuel Injection (a)
Carburetor	Mfgr.		Ford (Non CFI Application)
	Choke (type)		Automatic (Non CFI Application)
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N.A.
		Automatic	550 (Drive) (Non CFI Application)
Idle A/F mix.			14.6:1
Fuel injection	Point of injection (no.)		Two Injectors, Throttle Body Mounted (a)
	Constant, pulse, flow		Pulse (a)
	Control (electronic, mech.)		Electronic (a)
	System pressure [kPa (psi)]		270.3 (39.2)
Intake manifold heat control (exhaust or water thermostatic or fixed)			Exhaust
Air cleaner type	Standard		Dry, Remote Paper Element
	Optional		N.A.
Fuel pump	Type (elec. or mech.)		Electric (b)
	Location (eng., tank)		One Pump System in the Fuel Tank (b)
	Pressure range [kPa (psi)]		41.4 (6), 268.9 (39) (b)

Fuel Tank

Capacity [refill L (gallons)]		78.0 (20.6 Gal) (a)
Location (describe)		Behind Rear Axle
Attachment		Two Straps With Pin and Loop at Rear, Bolt at Front
Material		Steel (Terne Plate)
Filler pipe	Location & material	Right Rear Quarter Panel; Steel
	Connection to tank	Rubber Seal
Fuel line (material)		Nylon
Fuel hose (material)		Nylon
Return line (material)		Nylon
Vapor line (material)		Nylon
Extended range tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	N.A.
	Location & material	N.A.
	Attachment	N.A.
Auxiliary tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	N.A.
	Location & material	N.A.
	Attachment	N.A.
	Selector switch or valve	N.A.
	Separate fill	N.A.

(a) Canada - Uses Conventional 2V Carburetor System (79.5 21.0 Gal.)
(b) Canada - Mechanical, Left Side of Engine 44.8-55.2 (6.5-8.0)

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code

2.3L/EFI TC
(140 CID)

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
Carburetor	Mfgr.		N.A.
	Choke (type)		N.A.
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N.A.
			N.A.
		Automatic	N.A.
			N.A.
Idle A/F mix.			N.A.
Fuel injection	Point of injection (no.)		Port Injection (Four)
	Constant, pulse, flow		Simultaneous Double Fire
	Control (electronic, mech.)		Electronic
	System pressure [kPa (psi)]		268.9 (39.0 PSI) Above Intake Manifold Pressure
Intake manifold heat control (exhaust or water thermostatic or fixed)			N.A.
Air cleaner type	Standard		Dry, Remote Paper Element
	Optional		N.A.
Fuel pump	Type (elec. or mech.)		Electric (2)
	Location (eng., tank)		Intank & Out of Tank (a)
	Pressure range [kPa (psi)]		37.9-44.8 (5.5-6.5)

Fuel Tank

Capacity [refill L (gallons)]		78.0 (20.6 Gal.)
Location (describe)		Behind Rear Axle
Attachment		Two Straps Pin and Loop at Rear, Bolt at Front
Material		Steel (Terne Plate)
Filler pipe	Location & material	R.H. Quarter Panel
	Connection to tank	Rubber Seal
Fuel line (material)		Nylon
Fuel hose (material)		N.A.
Return line (material)		Nylon
Vapor line (material)		Nylon
Extended range tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	N.A.
	Location & material	N.A.
	Attachment	N.A.
Auxiliary tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	N.A.
	Location & material	N.A.
	Attachment	N.A.
	Selector switch or valve	N.A.
	Separate fill	N.A.

(a) Low Pressure in Tank and High Pressure Forward of Tank

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L (232 CID)

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle & Engine Modifications, Exhaust Gas Recirculation, Air Injection
	Air Injection	Pump or pulse	Vane
		Driven by	Poly-V-Belt
		Air distribution (head, manifold, etc.)	Intake Manifold, Cylinder Head Catalyst
		Point of entry	Cylinder Head Exhaust Ports, Catalyst Mid-Bed
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled Flow
		Exhaust source	Internal from Exhaust X-Over (Intake Manifold)
		Point of exhaust injection (spacer, carburetor, manifold, other)	Spacer
	Catalytic Converter	Type	TWC Toeboard + COC Single Brick In-Line
		Number of	Two
		Location(s)	Underbody & Toe-Board (L.O.)
		Volume [L (in³)]	Toe Board (2) x .69 (42); Underbody 1.3 (7.8)
		Substrate type	Coated Ceramic Monolith
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)		Carburetor
	Air inlet (breather cap, other)		Carburetor Air Cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Externally Vented to Carbon Canister
		Carburetor	Internally Vented to Air Cleaner
	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 with "Y" System
Muffler no. & type (reverse flow, straight thru, separate resonator)		One, Reverse Flow
Resonator no. & type		- -
Exhaust pipe	Branch o.d., wall thickness	- -
	Main o.d., wall thickness	- -
	Material	- -
Intermediate pipe	o.d. & wall thickness	50.8 x 1.75 (2.00 x .069)
	Material	Aluminized Steel
Tail pipe	o.d. & wall thickness	50.8 x 1.37 (2.00 x .054)
	Material	Aluminized Steel

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L (302 CID)

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle and Engine Modification, Exhaust Gas Recirculation, Air Injection (a)
	Air Injection	Pump or pulse	Vane
		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	Internal Through Exhaust X-Over (Intake Manifold)
		Point of exhaust injection (spacer, carburetor, manifold, other)	Carburetor Spacer
	Catalytic Converter	Type	Monolithic TWC and COC
		Number of	Two
		Location(s)	Underbody
		Volume [L (in^3)]	160 $in.^3$ Two Cans
		Substrate type	Coated Ceramic Monolith
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)		Air Cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Carbon Canister
		Carburetor	Carbon Canister
	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 with "Y" Catalyst System
Muffler no. & type (reverse flow, straight thru, separate resonator)		One, Reverse Flow
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	
	Main o.d., wall thickness	
	Material	
Intermediate pipe	o.d. & wall thickness	50.8 x 1.75 (2.00 x .069)
	Material	Aluminized Steel
Tail pipe	o.d. & wall thickness	50.8 x 1.37 (2.00 x .054)
	Material	Aluminized Steel

(a) Components May Vary According to Engine Calibration

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb.
Engine Code

2.3L/EFI TC
(140 CID)

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Electronic Fuel and Spark Control Plus Exhaust Gas Recirculation
	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 Tapered Stem
		Exhaust source	Exhaust Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake Manifold
	Catalytic Converter	Type	TWC + TWC Dual Brick Transverse
		Number of	One
		Location(s)	Underbody
		Volume [L (in^3)]	1.1 (66) + 1.1 (66)
		Substrate type	Coated Ceramic Monolith
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)		Compressor Inlet Adaptor
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Carbon Canister
		Carburetor	
	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)		One, Reverse Flow
Resonator no. & type		N.A.
Exhaust pipe	Branch o.d., wall thickness	- -
	Main o.d., wall thickness	- -
	Material	- -
Intermediate pipe	o.d. & wall thickness	57.2 x 1.75 (2.25 x .069)
	Material	Aluminized Steel
Tail pipe	o.d. & wall thickness	57.2 x 1.37 (2.25 x .054)
	Material	Aluminized Steel

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L (232 CID)	5.0L (302 CID)

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.)	N.A.
Manual 4-speed (std., opt., n.a.)	N.A.
Manual 5-speed (std., opt., n.a.)	N.A.
Manual overdrive (std., opt., n.a.)	N.A.
Automatic (std., opt., n.a.)	Standard
Automatic overdrive (std., opt., n.a.)	Optional Standard

Manual Transmission/Transaxle (Not Available)

Number of forward speeds			
Transmission ratios	In first		
	In second		
	In third		
	In fourth		
	In fifth		
	In overdrive		
	In reverse		
Synchronous meshing (specify gears)			
Shift lever location			
Lubricant	Capacity [L (pt.)]		
	Type recommended		
	SAE viscosity number	Summer	
		Winter	
		Extreme cold	

Clutch (Manual Transmission) (Not Available)

Make, type, engagement (describe)		
Type pressure plate springs		
Total spring load [N (lb.)]		
No. of clutch driven discs		
Clutch facing	Material	
	Manufacturer	
	Part number	
	Rivets/plate	
	Rivet size	
	Outside & inside dia.	
	Total eff. area [cm^2($in.^2$)]	
	Thickness	
	Engagement cushion method	
Release bearing	Type & method of lubrication	
Torsional damping	Method: springs, friction material	

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	2.3L/EFI TC (140 CID)

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.)	N.A.
Manual 4-speed (std., opt., n.a.)	N.A.
Manual 5-speed (std., opt., n.a.)	N.A.
Manual overdrive (std., opt., n.a.)	Standard (5-Speed)
Automatic (std., opt., n.a.)	Optional
Automatic overdrive (std., opt., n.a.)	N.A.

Manual Transmission/Transaxle (a)

Number of forward speeds			Five
Transmission ratios	In first		4.03:1
	In second		2.37:1
	In third		1.49:1
	In fourth		1.00:1
	In fifth		.81:1
	In overdrive		.81:1
	In reverse		3.76
Synchronous meshing (specify gears)			All Forward Gears
Shift lever location			Floor
Lubricant	Capacity [L (pt.)]		2.6 (5.6)
	Type recommended		ESP-M2C138-CJ ATF (DEXRON II FOR SERVICE)
	SAE viscosity number	Summer	--
		Winter	--
		Extreme cold	--

Clutch (Manual Transmission)

Make, type, engagement (describe)		Single Disc, Dry Plate
Type pressure plate springs		Belleville Spring
Total spring load [N (lb.)]		6875 (1546)
No. of clutch driven discs		One
Clutch facing	Material	Woven Non-Asbestos
	Manufacturer	Valeo
	Part number	F-201
	Rivets/plate	16
	Rivet size	4.1 x 4.9 (.161 x .193)
	Outside & inside dia.	228.6 x 155 (9.00 x 6.10)
	Total eff. area [cm^2($in.^2$)]	443.8 (68.8)
	Thickness	3.2 (.13)
	Engagement cushion method	One Piece Riveted Hybrid
Release bearing	Type & method of lubrication	Self-Centering, Angular Contact, Constant Running, Prepacked
Torsional damping	Method: springs, friction material	Steel Coil Springs

(a) 3.45 Axle Ratio

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L/CFI (232 CID)	3.8L/2V (a)

Automatic Transmission/Transaxle

Trade name		Automatic Overdrive (AOD)	Select Shift (C-5 LTC)
Type and special features (describe)		Torque Converter, Planetary Gear Set	Lock-Up Torque Converter, Planetary Gear Set
Selector	Location	Column	Column (Floor Opt.)
	Ltr./No. designation	P R N (D) D 1	
Gear ratios	R	2.00:1	2.19:1
	D	0.67:1	
	L_3	1.00:1	
	L_2	1.47:1	1.46:1
	L_1	2.40:1	2.46:1
Max. upshift speed - drive range [km/h (mph)]		126 (78)	
Max. kickdown speed - drive range [km/h (mph)]		86.5 (53.7)	109 (68)
Min. overdrive speed [km/h (mph)]		68.5 (42.6)	
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.53	2.3:1
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	305 (12)	
Lubricant	Capacity [refill L (pt.)]	11.7 (24.6)	10.4 (22)
	Type Recommended	ESP-M2C 138-CJ(DEXRON II For Ser)	ESP-M2C166-H
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, External, Air	

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear	
Description		Semi-Floating Type With Cast Center and Overhung Pinion	
Limited slip differential (type)		Plate Clutch Type	
Drive pinion offset		25.4 (1.0)	
Drive pinion (type)		Hypoid	
No. of differential pinions		2 Pinion	
Pinion / differential adjustment (shim, other)		Shim	
Pinion / differential bearing adjustment (shim, other)		Collapsible Spacer	
Driving wheel bearing (type)		Straight Roller	
Lubricant	Capacity [L (pt.)]	1.5 (3.25); 1.6 (3.50) Traction-Lok	
	Type recommended	ESP-M2C154-A	
	SAE viscosity number — Summer	SAE 90	
	SAE viscosity number — Winter	SAE 90	
	SAE viscosity number — Extreme cold	SAE 90	

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

Axle ratio (or overall top gear ratio)		3.08:1	2.73:1	3.45:1	3.27:1
No. of teeth	Pinion	12	15	11	11
	Ring gear or gear	37	41	38	36
Ring gear o.d.		190.5(7.5)	190.5(7.5)	190.5(7.5)	190.5(7.5)
Transaxle	Transfer gear ratio	--			
	Final drive ratio	--			

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L (302 CID)	2.3L/EFI TC (140 CID)

Automatic Transmission/Transaxle

Trade name		Automatic Overdrive (AOD)	Select Shift (C3)
Type and special features (describe)		Torque Converter, Planetary Gear Set	
Selector	Location	Column	Floor Shift
	Ltr./No. designation	P R N (D) D 1	P R N D 2 1
Gear ratios	R	2.00:1	2.11:1
	D	0.67:1	1.00:1
	L_3	1.00:1	--
	L_2	1.47:1	1.47:1
	L_1	2.40:1	2.47:1
Max. upshift speed - drive range [km/h (mph)]		103.1 (64.1)	122 (75)
Max. kickdown speed - drive range [km/h (mph)]		88.2 (54.8)	113 (70)
Min. overdrive speed [km/h (mph)]		62.3 (38.7)	--
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.30	2.5:1
	Type of cooling (air, liquid)	Liquid Passed Through a Heat Exchanger in Radiator	
	Nominal diameter	305 (12)	260.4 (10.3)
Lubricant	Capacity [refill L (pt.)]	11.7 (24.6)	7.6 (16) Approx.
	Type Recommended	ESP-M2C 138-CJ (DEXRON II For Service)	
Oil cooler (std., opt., NA, internal, external, air, liquid)			

Axle or Front Wheel Drive Unit

Type (front, rear)			Rear
Description			Semi-Floating Type with Cast Center and Overhung Pinion
Limited slip differential (type)			Plate Clutch Type
Drive pinion offset			25.4 (1.0)
Drive pinion (type)			Hypoid
No. of differential pinions			2 Pinion
Pinion / differential adjustment (shim, other)			Shim
Pinion / differential bearing adjustment (shim, other)			Collapsible Spacer
Driving wheel bearing (type)			Straight Roller
Lubricant	Capacity [L (pt.)]		1.5 (3.25); 1.6 (3.50) Traction-Lok
	Type recommended		ESP-M2C154-A
	SAE viscosity number	Summer	SAE 90
		Winter	SAE 90
		Extreme cold	SAE 90

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

Axle ratio (or overall top gear ratio)		
No. of teeth	Pinion	
	Ring gear or gear	
Ring gear o.d.		
Transaxle	Transfer gear ratio	See Page 9
	Final drive ratio	

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L (232 CID)	5.0L (302 CID)

Propeller Shaft – Conventional Drive

Type (straight tube, tube-in-tube, internal-external damper, etc.)			Straight Tube Internal Tuned Damper	Swaged 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.		N.A.	
	Overdrive		69.9 X 1273.6 X 1.65 (2.75 X 50.14 X .065)	N.A.
	Automatic transmission		69.9 X 1256.5 X 1.65 (2.75 X 49.47 X .065)	76.20 X 1248.2 X 1.65 (3.0 X 49.14 X 0.065)
Intermediate bearing	Type (plain, anti-friction)		N.A.	
	Lubrication (fitting, prepack)		N.A.	
Slip yoke	Type		Tuned Damper w/Overdrive Plain Slip Yoke w/Automatic	Tuned Damper
	Number of teeth		28	
	Spline o.d.		30.988 (1.220) Maximum	
Universal joints	Make and mfg. no.	Front	Ford 1310	
		Rear	Ford 1310	
	Number used		Two	
	Type (ball and trunnion, cross)		Cross	
	Rear attach (u-bolt, clamp, etc.)		12mm Bolts With Loctite	
	Bearing	Type (plain, anti-friction)	Needle Roller	
		Lubrication (fitting, prepack)	Prepack	
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
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	2.3L EFI TC (140 CID)

Propeller Shaft – Conventional Drive

Type (straight tube, tube-in-tube, internal-external damper, etc.)			Swaged 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.		88.9 X 1231.6 X 1.65 (3.5 X 48.49 X .065)
	Overdrive		N.A.
	Automatic transmission		88.9 X 1297.7 X 1.65 (3.5 X 51.09 X .065) (a)
Intermediate bearing	Type (plain, anti-friction)		N.A.
	Lubrication (fitting, prepack)		N.A.
Slip yoke	Type		Tuned Damper
	Number of teeth		28
	Spline o.d.		30.988 (1.220) Maximum
Universal joints	Make and mfg. no.	Front	Ford 1310
		Rear	Ford 1310
	Number used		Two
	Type (ball and trunnion, cross)		Cross
	Rear attach (u-bolt, clamp, etc.)		12mm Bolts With Loctite
	Bearing – Type (plain, anti-friction)		Needle Roller
	Bearing – Lubrication (fitting, prepack)		Prepack
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.

(a) 25 Tooth S/Y, Spline O.D. 27.87 (1.097) Maximum

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Body Type And/Or Engine Displacement	ALL MODELS

Suspension – General

Car leveling	Std./opt./n.a.	N.A.
	Type (air, hyd., etc.)	- -
	Manual/auto. controlled	- -
Provision for brake dip control		Front Springs Mounted on Lower Control Arms
Provision for accl. squat control		Rear Suspension Control Arm Geometry
Provisions for car jacking		Notched Rocker Panel Positions, Front and Rear
Shock absorber (front & rear)	Type	(a) & (b) See Page 11A
	Make	Motorcraft
	Piston diameter	34.8 (1.37) Front; 25.4 (1.0) Rear
	Rod diameter	22 (.90) Front, 12.5 (.50) Rear

Suspension – Front

Type and description		Hybrid McPherson Strut with Spring Mounted on Lower Control Arm
Drive and torque taken through		
Travel	Full jounce	93.5 (3.68)
	Full rebound	84.5 (3.33)
Spring	Type (coil, leaf, other) & material	Coil, SAE-5160-H Steel
	Insulators (type & material)	
	Size (coil design height & i.d., bar length x dia.)	254.0 x 89.0 (10.0 x 3.50), 3158 x 15.55 (124.3 x .612) 5.0L - 63.0 (360)
	Spring rate [N/mm (lb./in.)]	Std 6-Cyl 59.5 (340);Hvy Duty 74.5(425);8-Cyl Std 63.0 (360)
	Rate at wheel [N/mm (lb./in.)]	18.95 (108.2)
Stabilizer	Type (link, linkless, frameless)	Link, Teflon Lined Rubber Side Rail Insulator
	Material & bar diameter	SAE 1090 Std. - 27.7 (1.09); Other Bars Available: 28.5 (1.12), 33.0 (1.30)

Suspension – Rear

Type and description			Four Bar Link with Coil Spring on Lower Arm
Drive and torque taken through			Upper and Lower Control Arms
Travel	Full jounce		112.3 (4.41)
	Full rebound		104.4 (4.12)
Spring	Type (coil, leaf, other) & material		Coil, SAE-5160-H
	Size (length x width, coil design height & i.d., bar length & dia.)		229 x 102 (9.01 x 4.02), 3202 x 14.3 (126 x 0.563)
	Spring rate [N/mm (lb./in.)]		35 (200) Std. and Handling; 45 (257) Hvy. Duty
	Rate at wheel [N/mm (lb./in.)]		18.8 (107.5) Std. and Handling
	Insulators (type & material)		Rubber
	If leaf	No. of leaves	None
		Shackle (comp. or tens.)	None
Stabilizer	Type (link, linkless, frameless)		Linkless - (Handling Options) (b) See Page 11A
	Material & bar diameter		Steel SAE 5160-21 (0.82) Handling; 14 mm SAE 1090 Base
Track bar (type)			None

SEE PAGE 11A FOR FOOTNOTES

Suspension (Cont'd.):

(a) Direct, double acting nitrogen gas pressurized hydraulic front struts and rear shocks.

(b) Quadra-Shock Suspension (Turbo Coupe): Two additional freon cell hydraulic axle absorbers are mounted horizontally between the axle and frame to control axle rotation and improve handling.

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Body Type And/Or Engine Displacement

ALL MODELS

Brakes - Service

Description			Four Wheel Hydraulic Actuated System
Brake type (std., opt., n.a.)	Front (disc or drum)		Disc
	Rear (disc or drum)		Drum
Self-adjusting (std., opt., n.a.)			Standard
Special valving	Type (proportion, delay, metering, other)		Pressure Differential and Proportioning (Rear)
Power brake (std., opt., n.a.)			Standard
Booster type (remote, integral, vac., hyd., etc.)			Integral Single Diaphragm Vacuum
Vacuum source (inline, pump, etc.)			--
Vacuum reservoir (volume in.^{3})			--
Vacuum pump-type (elec, gear driven, belt driven, if other so state)			--
Anti-skid device type (std., opt., n.a..) (F/R)			N.A.
Effective area [cm^2(in.^{2})]*			Front: 212 (32.9), Rear: 302 (46.9)
Gross lining area [cm^2(in.^{2})]**(F/R)			Front: 231 (35.8), Rear: 332 (51.4)
Swept area [cm^2(in.^{2})]***(F/R)			Front: 1140(176.6), Rear: 638 (99.0)/647 (110.0) (a)
Rotor	Outerworking diameter	F/R	255.5 (10.06)
	Inner working diameter	F/R	158 (6.22)
	Thickness	F/R	22.1 (0.87)
	Material & type (vented/solid)	F/R	Cast Iron Vented
Drum	Diameter & width	F/R	228.6 (9.0)/255.0 (10.0) (a)
	Type and material	F/R	Cast Iron Composite
Wheel cylinder bore			19.05
Master cylinder	Bore/stroke	F/R	21 (0.83) Bore x 37.34 (1.47) Stroke
Pedal arc ratio			3.5:1
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]			
Lining clearance		(F/R)	0.25 (.010) Front; 0.38 (.015) Rear
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)	Riveted
		Rivet size	Inboard 4.6x10.2 (.18x0.4); Outboard 4.6x7.5 (.18x.295
		Manufacturer	Bendix
		Lining code	BX-XO-EE
		Material	Semi-Metallic
		**** Primary or out-board	155 x 44 x 10.2 (6.12 x 1.75 x 0.4)
		Size Secondary or in-board	119 x 44 x 11.2 (4.7 x 1.75 x 0.4)
		Shoe thickness (no lining)	5.1 (0.20)
	Rear wheel	Bonded or riveted (rivets/seg.)	Riveted PRI. 8 SEC. 10
		Manufacturer	Bendix FMD: 3198/3199
		Lining code	BX-RY-FE, BX-PM-FE
		Material	Molded Asbestos
		**** Primary or out-board	155 x 44 x 4.7 (6.12 x 1.75 x .187)
		Size Secondary or in-board	219 x 44 x 6.2 (8.63 x 1.75 x .245)
		Shoe thickness (no lining)	1.709 (.0673)

*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.

(a) With Optional 5.0L Engine-Effective Approximately February, 1985

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Body Type And/Or Engine Displacement	ALL MODELS

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P205/70R14
	Type (bias, radial, 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)		815/827 Average
Wheels	Type & material		Stamped Steel Disc
	Rim (size & flange type)		14 x 5.5 JJ
	Wheel offset		28.4 (1.12)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	107.9 (4.25)
		Number & size	Four - ½ - 20
Spare	Tire and wheel (same, if other describe)		T125/70D15 BSW 413.7 kPa 60 PSI with 15 x 4 Wheel (Steel) High Pressure Mini-Spare Temporal Spare
	Storage position & location (describe)		Flat Position, Deep Well in Trunk

Tires And Wheels (Optional)

Size (load range, ply)	P215/70R14
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Stamped Steel Disc
Rim (size, flange type and offset)	14 x 5.5 with 28.4 (1.12) Offset
Size (load range, ply)	P205/70R14 or P215/70HR14(N.A. Turbo Coupe)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Polycast
Rim (size, flange type and offset)	14 x 5.5 28.4 (1.12) Offset
Size (load range, ply)	P215/70R14
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	"Swiss Cheese" Alloy
Rim (size, flange type and offset)	14 x 5.5 with 2.84 (1.12) Offset
Size (load range, ply)	P225/60VR15 (a)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Cast Aluminum
Rim (size, flange type and offset)	15 x 7.0
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position	Tire Matching Other Four Tires with 14 x 5.5 Steel Wheel (Conventional Spare) Flat Position, Deep Well in Trunk

Brakes – Parking

Type of control		Foot Operated - Automatic Release (ELAN Model)
Location of control		LH Side Under Inst. Panel
Operates on		Rear Service Brakes
If separate from service brakes	Type (internal or external)	- -
	Drum diameter	- -
	Lining size (length x width x thickness)	- -

(a) Turbo Coupe

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Body Type And/Or Engine Displacement	ALL MODELS

Steering

Manual (std., opt., n.a.)				N.A.
Power (std., opt., n.a.)				Standard
Adjustable steering wheel (tilt, swing, other)		Type and description		Tilt - 5 Positions
		(Std., opt., n.a.)		Optional
Wheel diameter		Manual		N.A.
		Power		368(14.5)W/6.4(.25)Offset Std;381(15.0)W/6.4(.25)Off.Opt.
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		
		Curb to curb (l. & r.)		12.01 (39.4)
	Inside rear	Wall to wall (l. & r.)		
		Curb to curb (l. & r.)		
Scrub Radius				2.85 (0.112)
Manual	Gear	Type		N.A.
		Make		--
		Ratios	Gear	--
			Overall	--
	No. wheel turns (stop to stop)			
Power	Type (coaxial, linkage, etc.)			Integral Rack and Pinion
	Make			Gear-(Ford), Pump-(Ford); Fluid ESP-M2C138-CJ
	Gear	Type		Rack and Pinion (Variable Ratio) (a)
		Ratios	*	8.58°/mm of Rack Travel on Center, 7.91°/mm at Stops (a)
			Overall	20.00:1 on Center; 15.99:1 at Stops (a)
	Pump (drive)			Belt Off Crankshaft Pulley
	No. wheel turns (stop to stop)			3.05 (a)
Linkage	Type			Rack & Pinion (Rod & Ball Joint Directly Attached to Gear)
	Location (front or rear of wheels, other)			Front of Wheels
	Drag links (trans. or longit.)			None
	Tie rods (one or two)			Two (Integral With Gear)
Steering axis	Inclination at camber (deg.)			15.7
	Bearings (type)	Upper		Prelubricated Ball Joint Spring Loaded
		Lower		Prelubricated Ball Joint
		Thrust		Teflon Coated Fabric Wash in Lower Ball Joint
Steering spindle & joint type				Internal With Wheel Spindle Ball Socket Joints
Wheel spindle	Diameter	Inner bearing		37.98 (1.4954) I.D.
		Outer bearing		22.1 (0.87) I.D.
	Thread (size)			13/16-20 UNEF 2A R.H. Thread
	Bearing (type)			Tapered Roller

(a) Handling Suspension:
Gear Type - Constant Ratio
Rack Speed - 6.44 deg/mm
Overall Ratio - 15.00:1 on Center, 13.00:1 at Stops
No. Wheel Turns - 2.46 (Stop to Stop)

* Rack Speed

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Body Type And/Or Engine Displacement

ALL MODELS

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+ 1.0° ± 0.75° (a)
		Camber (deg.)	+ 0.25° ± 0.75° (b)
		Toe-in [outside track-mm (in.)]	5.0 ± 3.0 (0.18 ± 0.12) (c)
	Service reset*	Caster	+ 1.0 ± 0.75 (a)
		Camber	+ 0.25 ± 0.75 (b)
		Toe-in	5.0 ± 3.0 (0.18 ± 0.12)
	Periodic M.V. inspection	Caster	+ 1.0° ± 2.0°
		Camber	+ 0.25° ± 2.0°
		Toe-in	5.0 ± 6 (0.18 ± 0.25)
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	Pointer Type (Std.); Electronic Digital (Opt.)
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		
Charge indicator	Type	Warning Light - (Std.)
	Warning device	
Temperature indicator	Type	Warning Light - (Std.)
	Warning device	Combined Engine Indicator Lamp
Oil pressure indicator	Type	Warning Light - (Std.)
	Warning device	Combined Engine Indicator Lamp
Fuel indicator	Type	45° Pointer Type Gauge (Std.); Electronic Analog (Opt.)
	Warning device	
Windshield wiper	Type (standard)	Two Speed Electric Wipe (Column Mounted)
	Type (optional)	Interval Wipe (Column Mounted)
	Blade length	45.72 (18.0)
	Swept area [cm^2 ($in.^2$)]	5314.3 (823.7)
Windshield washer	Type (standard)	Electric Pump (Impeller Type) Fluidic Spray
	Type (optional)	None
	Fluid level indicator	Warning Light - Opt.
Horn	Type	Air Electric
	Number used	Two - 1 Lo-Pitch, 1 Hi-Pitch
Other	See Page 15A	

(a) Max. side to side difference not to exceed ± 0.75°
(b) Max. camber side to side difference (left/right) must be within ± 0.75°
(c) Steering wheel must be within ± 10° of straight ahead position after toe setting

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
- Low Oil Level Indicator Light
- Illuminated Entry System
- Cornering Lamps
- Lamp Outage Module
- Turbo Light (Standard) w/2.3L TC Engine
- Overboost Light (Standard) w/2.3L TC Engine

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METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•)

Engine Description/Carb. Engine Code	3.8L (232 CID)	5.0L (302 CID)

Electrical – Supply System

Battery	Make		Motorcraft	
	Model, std., (opt.)		Standard	
	Voltage		12 Volt	
	Amps at 0°F cold crank		380	450
	Minutes-reserve capacity		75	90
	Amp/hrs. - 20 hr. rate		45	54
	Location		Right Front Engine Compartment	
Generator or alternator	Type and rating	10300	E2SF-BA (60 Amp)	E1ZF-FA (60 Amp)
	Ratio (alt. crank/rev.)		3.36:1	3.55:1
	Optional (type & rating)		E2BF-AA (65 Amp w/AC)	N.A.
Regulator	Type	10316	Electronic Integral with Generator	

Electrical – Starting System

Start, motor	Current drain at 0°F	260-285 Amps	290-315 Amps
Motor drive	Engagement type	Positive	
	Pinion engages from (front, rear)	Front	

Electrical – Ignition System

Type	Conventional (std., opt., n.a.)		N.A.	
	Electronic (std., opt., n.a.)		Standard	
	Other (specify)		N.A.	
Coil	Make		Motorcraft	
	Model	12029	E3EF-AA	E4SF-AC
	Current – Engine stopped – A		6.5	5.0
	Current – Engine idling – A		3.2	2.5
Spark plug	Make		Motorcraft	
	Model		AWSF-54	ASF-52
	Thread (mm)		14	
	Tightening torque [N-m (lb., ft.)]		9-16 (7-12)	5-10
	Gap		1.12 (0.044)	1.27 (0.050)
	Number per cylinder		One	
Distributor	Make		Motorcraft	
	Model		Universal	

Electrical – Suppression

Locations & type	Capacitor in Alternator, Resistor Spark Plugs, Resistance Ignition Wire, Ground Cable - Engine to Dash, Ground Strap on EEC Equipped Vehicles. Hood Bond, Ground Strap - Premium Sound Amp to Radio.

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Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Engine Description/Carb. Engine Code	2.3L/EFI TC (140 CID)

Electrical – Supply System

Battery	Make	Motorcraft
	Model, std., (opt.)	Standard
	Voltage	12 Volt
	Amps at 0°F cold crank	450 M/T, 475 A/T
	Minutes-reserve capacity	90 M/T, 120 A/T
	Amp/hrs. - 20 hr. rate	54 M/T, 71 A/T
	Location	Right Front Engine Compartment
Generator or alternator	Type and rating 10300	E1ZF-BA (60 Amp)
	Ratio (alt. crank/rev.)	2.42:1
	Optional (type & rating)	E2BF-AA (65 Amp w/AC)
Regulator	Type 10316	Electronic Integral with Generator

Electrical – Starting System

Start. motor	Current drain at 0°F	260-285 Amps
Motor drive	Engagement type	Positive
	Pinion engages from (front, rear)	Front

Electrical – Ignition System

Type	Conventional (std., opt., n.a.)		N.A.
	Electronic (std., opt., n.a.)		Standard
	Other (specify)		N.A.
Coil	Make		Motorcraft
	Model 12029		E3EF-AA
	Current	Engine stopped – A	6.5
		Engine idling – A	3.2
Spark plug	Make		Motorcraft
	Model		AWSF-32C
	Thread (mm)		14
	Tightening torque [N-m (lb., ft.)]		7-14 (5-10)
	Gap		0.86 (0.034)
	Number per cylinder		One
Distributor	Make		Motorcraft
	Model		Universal

Electrical – Suppression

Locations & type	Capacitor in Alternator, Resistor Spark Plugs, Resistance Ignition Wire, Ground Cable - Engine to Dash, Ground Strap on EEC Equipped Vehicles.

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METRIC (U.S. Customary)

Car Line THUNDERBIRD
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Body Type	ALL MODELS

Body – Miscellaneous Information

Type of finish (lacquer, enamel, other)			Acrylic Enamel for Non-Metallic Colors (a)
Hood	Hinge location (front, rear)		Rear
	Type (counterbalance, prop)		Counterbalance
	Release control (internal, external)		Internal,Secondary External - Remote Cable
Trunk lid	Type (counterbalance, other)		Counterbalance
	Internal release control (elec., mech., n.a.)		Electric (Optional)
Hatch-back lid	Type (counterbalance, other)		N.A.
	Internal release control (elec., mech., n.a.)		N.A.
Bumper front	Bar material & mass, kg (weight, lbs.)		Polyurethane Fascia - 7.2 Lb
	Reinforcement material & mass, kg (lbs.)		Reinforced Behind Fascia - HSLA 950 Steel, 25.9 Lb
Bumper rear	Bar material & mass, kg (weight, lbs.)		Polyurethane Fascia - 8.0 Lb
	Reinforcement material & mass, kg. (lbs.)		Reinforced Behind Fascia - HSLA 950 Steel, 27.02 Lb
Vent window control (crank, friction, pivot, power)		Front	Latch Operating Pivoting - Option
		Rear	None
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front	Deep Polyurethane Foam on Flat Wire Grid Susp.by Coil Sprgs.
		Rear	Integral Frame & Polyurethane Foam Pad-Sprg. Elements
		3rd seat	None
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front	Full Polyurethane Foam Pad & Steel Stamped Frame
		Rear	Integral Steel Frame & Polyurethane Foam Pad
		3rd seat	None
Vehicle identification no. location			Attached to Cowl Outer Near the Windshield - L.H.

(a) Polyester Base Coat/Acrylic Clear Coat for Metallic Colors

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Unitized Construction (Bolt-On #2 Crossmember)

Glass

Backlight slope angle (deg.)	H121	63.1°
Windshield slope angle (deg.)	H122	59.8°
Tumble-Home (deg.)	W122	24.8°
Windshield glass exposed surface area [cm^2($in.^2$)]	S1	7397.8 (1146.6)
Side glass exposed surface area [cm^2($in.^2$)] - total 2-sides	S2	7940.4 (1231.0)
Backlight glass exposed surface area [cm^2($in.^2$)]	S3	7744.8 (1200.4)
Total glass exposed surface area [cm^2($in.^2$)]	S4	23083.0 (3578.0)
Windshield glass (type)		Laminated
Side glass (type)		Tempered
Backlight glass (type)		Tempered

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Body Type	ALL MODELS

Restraint System

Active restraint system	Standard/optional	Deluxe Color-Keyed Seat Belts are Provided at Five Seating Positions
	Type and description	(a)
	Location	2 Seat Belts - Front 2 - Rear
Passive seat belts	Standard/optional	N.A.
	Power/manual	N.A.
	2 or 3 point	N.A.
	Knee bar/lap belt	N.A.

(a) Front outboard restraints feature a 3-point continuous loop design with a tension reliever, finished edge webbing and buckle assemblies that move fore and aft with seat travel. Rear outboard restraints consist of a lap belt with a retractor. A lap belt is provided at the center rear position.

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Body Type	ALL MODELS

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

Air conditioning (manual, auto. temp control)		Optional, Manual or Automatic Temperature Control
Clock (digital, analog)		Optional Electronic Digital; Std. on Turbo Coupe
Compass / thermometer		N.A.
Console (floor, overhead)		N.A.
Defroster, elec. backlight		Optional (Mandatory in New York State)
Electronic	Diagnostic warning (integrated, individual)	Optional, Integrated
	Instrument cluster (list instruments)	Std: LCD Speedo., Trip Odometer, Fuel & Temp. Gauges
	Keyless entry	Optional
	Tripminder (avg. spd., fuel)	Optional
	Voice alert (list items)	N.A.
	Other	Optional, Interval Windshield Wipers
Fuel door lock (remote, key, electric)		Optional, Electric
Lamps	Auto head on / off delay, dimming	Optional All Models Except ELAN and FILA
	Cornering	Optional All Models Except ELAN and FILA
	Courtesy (map, reading)	Optional
	Door lock, ignition	Optional Illuminated Door Locks
	Engine compartment	Optional
	Fog	Standard, Turbo Coupe
	Glove compartment	
	Trunk	Standard
	Other	
Mirrors	Day/night (auto. man.)	Optional, Automatic; Standard Day/Night Manual
	L.H. (remote, power, heated)	Optional, Power Remote Ctl.,All Models Except ELAN & FILA
	R. H. (convex, remote, power, heated)	Optional, Power Remote Ctl.,All Models Except ELAN & FILA
	Visor vanity (RH / LH, illuminated)	Optional, L.H. and R.H. Illuminated
Parking brake-auto release (warning light)		
Power equipment	Door locks / deck lid - specify	Optional, Electric Door Locks and Decklid Release
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hip, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)	Optional 6-Way Bucket Seat, All Models Except FILA. Optional Articulated Seat,All Models Except FILA & Turbo Coupe. Optional D/P Pwr. Recliner; Optional Heated Seat; Optional Programmable Driver Seat
	Side windows	Opt. All Models Exc.ELAN & FILA;Std. on Lux.Grp.Turbo Coupe
	Vent windows	N.A.
	Rear window	N.A.
Radio systems	Antenna (location, whip, w/shield, power)	Optional, Power Antenna
	AM, FM, stero, tape, CB	(a)
	Speaker (number, location) Premium sound	Amp. W/Door Speakers & Upgraded Frt. & Rear Speakers
Roof open air/fixed (flip-up, sliding, "T")		Flip-Up/Open Air, Optional
Speed control device		Optional, All Models Except FILA
Speed warning device (light, buzzer,etc.)		Standard
Tachometer (rpm)		N.A.
Theft protection-type		When Vehicle is Entered Without Key or Keyless Entry Code, the Vehicle is Automatically Disabled, Lights Flash and Horn Blows, Optional

(a) Standard: AM/FM Stereo
Optional: AM/FM Stereo w/Cassette, Electronic AM/FM Stereo Search w/Cassette, Graphic Equalizer

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METRIC (U.S. Customary)
Car and Body 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 car line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100a "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	2-DOOR (63D) SEDAN
Width		
Tread (front)	W101	1477 (58.1)
Tread (rear)	W102	1487 (58.5)
Vehicle width	W103	1807 (71.1)
Body width at Sg RP (front)	W117	1782 (70.2)
Vehicle width (front doors open)	W120	4038 (159.0)
Vehicle width (rear doors open)	W121	--
Length		
Wheelbase	L101	2642 (104.0)
Vehicle length	L103	5019 (197.6)
Overhang (front)	L104	1107 (43.6)
Overhang (rear)	L105	1270 (50.0)
Upper structure length	L123	2644 (104.1)
Rear wheel C/L "X" coordinate	L127	4282 (89.8)
Cowl point "X" coordinate	L125	192 (7.6)
Height*		
Passenger distribution (frt./rear)	PD1,2,3	2/1
Trunk/cargo load		0
Vehicle height	H101	1352 (53.2)
Cowl point to ground	H114	975 (38.4)
Deck point to ground	H138	955 (37.6)
Rocker panel-front to ground	H112	203 (8.0)
Bottom of door closed-front to grd.	H133	264 (10.4)
Rocker panel-rear to ground	H111	191 (7.5)
Bottom of door closed-rear to grd.	H135	- -
Ground Clearance*		
Front bumper to ground	H102	352 (13.9)
Rear bumper to ground	H104	294 (11.6)
Bumper to ground [front at curb mass (wt.)]	H103	353 (13.9)
Bumper to ground [rear at curb mass (wt.)]	H105	337 (13.3)
Angle of approach (degrees)	H106	19°
Angle of departure (degrees)	H107	11°
Ramp breakover angle (degrees)	H147	11.8°
Rear axle differential to ground	H153	165 (6.5)
Min. running ground clearance	H156	122 (4.8)
Location of min. run. grd. clear.		Converter Grass Shield

* All vehicle height and ground clearances are made at the Manufacturer's Design Load Weight, unless otherwise specified.
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load.

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Passenger Car
METRIC (U.S. Customary)
Car and Body Dimensions

See Key Sheets for definitions

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•)

Body Type	SAE Ref. No.	
		2-DOOR (63D) SEDAN

Front Compartment

Sg RP front, "X" coordinate	L31	
Effective head room	H61	958 (37.7)
Max. eff. leg room (accelerator)	L34	1066 (42.0)
Sg RP (front to heel)	H30	221 (8.7)
Design H-point front travel	L17	179 (7.0)
Shoulder room	W3	1429 (56.3)
Hip room	W5	1417 (55.8)
Upper body opening to ground	H50	1220 (48.0)
Steering wheel angle	H18	22.9°
Back angle	L40	25.0°

Rear Compartment

Sg RP Point couple distance	L50	788 (31.0)
Effective head room	H63	934 (36.8)
Min. effective leg room	L51	872 (34.3)
Sg RP (second to heel)	H31	265 (10.4)
Knee clearance	L48	31 (1.2)
Compartment room	L3	688 (27.1)
Shoulder room	W4	1401 (55.2)
Hip room	W6	1257 (49.5)
Upper body opening to ground	H51	
Back angle	L41	

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	413.5 (14.6)
Liftover height	H195	739 (29.1)

Interior Volumes (EPA Classification)

Vehicle class		COMPACT
Interior volume index (cu. ft.)	(*)	120.8
Trunk/cargo index (cu. ft.)		14.6

(*) Includes Trunk Cargo Index

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Car and Body Dimensions

See Key Sheets for definitions

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•)

Body Type	SAE Ref. No.	
		2-DOOR (63D) SEDAN/COUPE

Station Wagon – Third Seat (NOT APPLICABLE)

Shoulder room	W85	
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
Effective T-point head room	H89	
Seat facing direction	SD1	
Back angle	L88	

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	
Max. rear opening width above belt	W205	
Cargo height	H201	
Rear opening height	H202	
Tailgate to ground height	H250	
Front seat back to load floor height	H197	
Cargo volume index [m^3($ft.^3$)]	V2	
Hidden cargo volume [m^3($ft.^3$)]	V4	
Cargo volume, index-rear of 2-seat	V10	

Hatchback – Cargo Space (NOT APPLICABLE)

Front seat back to load floor height	H197	
Cargo length at front seat back height	L208	
Cargo length at floor (front)	L209	
Cargo volume index [m^3($ft.^3$)]	V3	
Hidden cargo volume [m^3($ft.^3$)]	V4	
Cargo volume index-rear of 2-seat	V11	

Aerodynamics*

Wheel lip to ground, front	680.7 (26.8)
Wheel lip to ground, rear	678.2 (26.7)
Frontal area [m^2(ft^2)]	21.8 $ft.^2$(a)
Drag coefficient (Cd)	.35

* Describe measurement method.

(a) Includes Two Outside Mirrors

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Car Line THUNDERBIRD
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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 under side of the front door rocker panels located the "X" coordinate relative to body grid. X = 2495.4 Y = N.A. Z = N.A.
3 & 4 Rear 5 & 6	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	787 (30.9)
	L54	2434 (98.2)
	H81	456 (17.9)
	H161	-- --
	H163	-- --
Rear	W22	796 (31.3)
	L55	3300 (129.9)
	H82	448 (17.6)
	H162	-- --
	H164	-- --

* Reference – SAE Recommended Practice, J182a, Motor Vehicle Fiducial Marks – September, 1973.
All linear dimensions are in millimeters (inches).

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Car Line THUNDERBIRD
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Body Type	SAE Ref. No.	
		ALL MODELS

Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (H127)	Highest**	676.7 (26.6)
		Lowest	- -
	Taillamp (H128)	Highest**	674.1 (26.5)
		Lowest	674.1 (26.5)
	Sidemarker	Front	646.3 (25.4)
		Rear	674.1 (26.5)
Distance from C/L of car to center of bulb	Headlamp	Inside	435.5 (17.1)
		Outside**	621.0 (24.4)
	Taillamp	Inside	440.0 (17.3)
		Outside**	642.0 (25.3)
	Directional	Front	659.3 (26.0)
		Rear	642.0 (25.3)
Headlamp shape			Rectangular Halogen, Dual

* Measured at curb mass (weight).
** If single lamps are used enter here.

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Model	Vehicle Mass (weight)							
	CURB MASS, kg. (weight, lb.)*			% PASS. MASS DISTRIBUTION				SHIPPING MASS, kg (weight, lb.)**
				Pass In Front		Pass In Rear		
	Front	Rear	Total	Front	Rear	Front	Rear	
3.8L V-6 Engine w/ Automatic Overdrive Transmission (AOD)								
2-Door 63D	780 (1720)	621 (1370)	1401 (3090)	47	53	18	82	1332 (2937)
2-Door Elan 63D	798 (1758)	630 (1388)	1428 (3146)	47	53	18	82	1358 (2993)
2.3L EFI Turbo w/ 5-Speed Manual Transmission								
2-Door Turbo Coupe 63D	784 (1729)	623 (1374)	1407 (3103)	47	53	18	82	1338 (2950)

* Reference – SAE J1100a, Motor vehicle dimensions, curb weight definition.
** Shipping mass (weight) definition – Less Fuel Engine Coolant

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
POWERTRAINS:				
2.3L Turbo w/5 Speed Manual Trans.	-19.1 (-42)	-10.9 (-24)	-30.0 (-66)	Requires Appearance Group - Special
2.3L Turbo w/C3 Auto Trans.	-20 (-44)	-11.8 (-26)	-31.8 (-70)	Requires Appearance Group
5.0L w/AOD Auto Trans.	80.8 (178)	-4.5 (-10)	76.3 (168)	
3.8L w/C5 Auto Trans.	-13.6 (-30)	-2.3 (-5)	15.9 (-35)	
AXLES:				
3.8L C512 2.73 Ratio	0 (0)	0.9 (2)	0.9 (2)	
5.0L AOD & 3.8L C512 3.08 Ratio	0 (0)	1.4 (3)	1.4 (3)	
5.0L AOD & 3.8L C512 3.08 Locker	0 (0)	4.1 (9)	4.1 (9)	
3.8L AOD 3.45 Locker	0 (0)	4.1 (9)	4.1 (9)	
2.3L-T C3 3.45 Locker	0 (0)	4.1 (9)	4.1 (9)	
2.3L-T M50D 3.45 Locker	0 (0)	4.1 (9)	4.1 (9)	
TIRES:				
P220/55R-390 BSW TRX (Includes Wheels)	-1.4 (-3)	-1.4 (-3)	-2.7 (-6)	
P205/70R-14 Radial WSW	0.9 (2)	0.9 (2)	1.8 (4)	
Audio Equipment:				
Radio - AM - Delete	-2.3 (-5)	-1.8 (-4)	-4.1 (-9)	
Radio - AM/FM/MPX - Cassette	0.9 (2)	0.5 (1)	1.4 (3)	
Radio - Electronic AM/FM/MPX/Search	0.9 (2)	0.5 (1)	1.4 (3)	

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

MVMA Specifications Form
Passenger Car

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Optional Equipment Differential Mass (weight)*				
Equipment	MASS, kg. (weight, lb.)			Remarks
	Front	Rear	Total	
MISCELLANEOUS OPTIONS:				
(cont'd.)				
Audio Equipment: (cont'd)				
Radio-Electronic AM/FM/	0.9	0.5	1.4	
MPX/Search-Cassette	(2)	(1)	(3)	
Premium Sound System	1.8	0.5	2.3	
	(4)	(1)	(5)	
Radio Antenna-Power	1.4	0	1.4	
	(3)	(0)	(3)	
Graphic Equalizer	0.5	0	0.5	
	(1)	(0)	(1)	
Batteries:				
Heavy Duty - 54 Amp	2.3	0	2.3	
Range	(5)	(0)	(5)	
36 Amp Range	-2.7	0	-2.7	
	(-6)	(0)	(-6)	
Air Conditioning:				
Auto Temp Control				
5.0L	25.8	-2.3	23.5	
	(57)	(-5)	(52)	
3.8L	24.9	-2.3	22.6	
	(55)	(-5)	(50)	
Manual Temp Control				
2.3L-T	22.7	-1.8	20.9	
	(50)	(-4)	(46)	
5.0L	23.6	-1.4	22.2	
	(52)	(-3)	(49)	
3.8L	22.7	-1.8	20.9	
	(50)	(-4)	(46)	
Illuminated Entry System	1.3	0.5	1.8	
	(3)	(1)	(4)	
Steering Column - Tilt	0.9	0	0.9	
	(2)	(0)	(2)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
MISCELLANEOUS OPTIONS: (cont'd.)				
Steering Wheel - Leather Wrapped	0.5 (1)	0 (0)	0.5 (1)	
Speed Control	2.3 (5)	0.5 (1)	2.7 (6)	
Tripminder	0.5 (1)	0 (0)	0.5 (1)	
Instrumentation Group - Electronic	0.9 (2)	0 (0)	0.9 (2)	
Visibility/Light Group	0.5 (1)	0 (0)	0.5 (1)	
Mirror - Left Hand - Power	0.5 (1)	0 (0)	0.5 (1)	
Mirror - Right Hand - Power	0.9 (2)	0 (0)	0.9 (2)	
Power Equipment Group	1.4 (3)	0.9 (2)	2.3 (5)	
Headlight Turn Off/ Delay - Auto	0.5 (1)	0 (0)	0.5 (1)	
Side Lights - Cornering	0.5 (1)	0 (0)	0.5 (1)	
Electronic Day/Nite Inside Mirror	0.5 (1)	0 (0)	0.5 (1)	
Defroster - Rear Window- Electronic	0.5 (1)	0 (0)	0.5 (1)	
Side Windows - Power	1.8 (4)	1.4 (3)	3.2 (7)	
Vent Window - Manual	0.9 (2)	0.5 (1)	1.4 (3)	
Seats:				
Special Funct-6W Do- Adj. Pass/Driver	11.8 (26)	8.6 (19)	20.4 (45)	

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

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Passenger Car

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (weight, lb.) Front	Rear	Total	Remarks
MISCELLANEOUS OPTIONS:				
(cont'd.)				
Seats: (cont'd.)				
Special Functional -	8.2	5.4	13.6	
Adj D/P (Man)	(18)	(12)	(30)	
Individual-6W/6W-Man.	5.4	3.6	9.0	
Recl. Pass/Driver	(12)	(8)	(20)	
Individual-6W Do-Recl.	0.5	0.5	1.0	With Special Appearance Group (B8B)
Pass/Driver	(1)	(1)	(2)	
Sunroof - Removable	3.6	5.0	8.6	
Glass	(8)	(11)	(19)	
Suspension - Heavy Duty				
5.0L	0.9	2.7	3.6	
	(2)	(6)	(8)	
3.8L	1.4	2.3	3.7	
	(3)	(5)	(8)	
Wheels:				
Steel Polycast	3.6	3.6	7.2	
	(8)	(8)	(16)	
Steel-(4) 14 x 5.5	0.5	0.9	1.4	
	(1)	(2)	(3)	
Wheel Covers:				
Luxury	0.5	0.9	1.4	
	(1)	(2)	(3)	
Wire Locking	3.6	3.2	6.8	
	(8)	(7)	(15)	
Spare Tire - Standard -				
Delete:				
P205/70R14 WSW	-0.5	5.9	5.4	
	(-1)	(13)	(12)	
Protection - Road	0.9	0.9	1.8	
Abrasion	(2)	(2)	(4)	
Exterior Moulding -	0.5	0.5	1.0	
Rocker Panel	(1)	(1)	(2)	

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

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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
MISCELLANEOUS OPTIONS: (cont'd.)				
Warning System - Audio - French	0.5 (1)	0 (0)	0.5 (1)	
Warning System - Audio - English	0.5 (1)	0 (0)	0.5 (1)	
Kit - Tool Emergency/ First Aid	0 (0)	4.6 (10)	4.6 (10)	
Parking Brake Release - Automatic	0.9 (2)	0 (0)	0.9 (2)	
Floor Mats - Front	1.8 (4)	-0.5 (-1)	1.3 (3)	
Luggage Compartment - Dress Up	-0.5 (-1)	1.4 (3)	0.9 (2)	
Keyless Entry System	2.7 (6)	1.4 (3)	4.1 (9)	
Diagnostic/Warning Light Module	0.9 (2)	0.9 (2)	1.8 (4)	
Trailer Towing Package Class II (5.0L w/AOD)	0.5 (1)	6.3 (14)	6.8 (15)	
Emission Systems:				
Canada	-5.4	-0.9	-6.3	
3.8L C512	(-12)	(-2)	(-14)	
3.8L AOD	0.9 (2)	0 (0)	0.9 (2)	
2.3L-T T50D	0 (0)	0 (0)	0 (0)	
2.3L-T C3	0 (0)	0 (0)	0 (0)	
5.0L AOD	0 (0)	0 (0)	0 (0)	
Coach Lamps	0.9 (2)	0.9 (2)	1.8 (4)	

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

MVMA Specifications Form
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Car Line THUNDERBIRD
Model Year 1985 Issued 9/84 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
MISCELLANEOUS OPTIONS:				
(cont'd.)				
Anti-Theft System	0.5	0	0.5	
	(1)	(0)	(1)	
License Plate Bracket - Front	0.5	0	0.5	
	(1)	(0)	(1)	
Vanity Mirror - Visor - Illuminated LH & RH	0.9	0	0.9	
	(2)	(0)	(2)	

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

MVMA Specifications Form
Passenger Car
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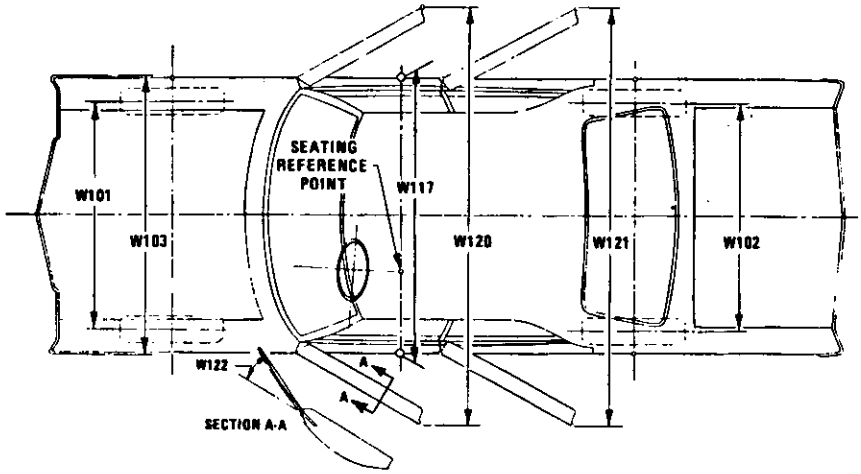
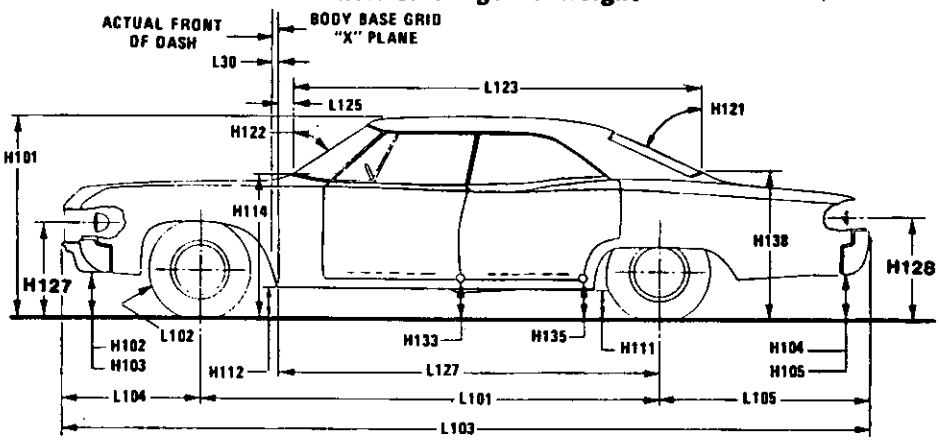
Exterior Car And Body Dimensions – Key Sheet

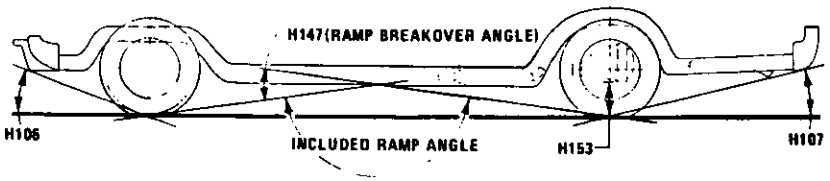
Exterior Width



Exterior Length & Height



Exterior Ground Clearance



MVMA Specifications Form
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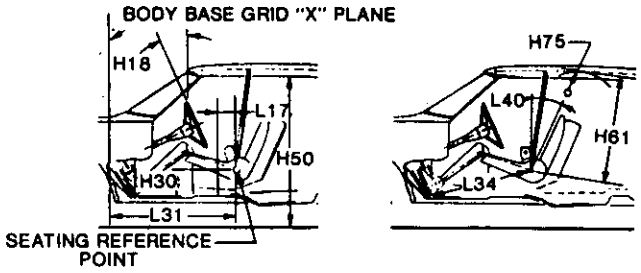
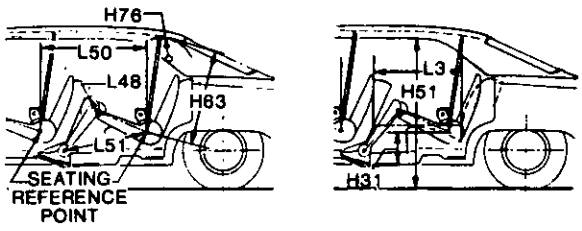
Interior Car And Body Dimensions – Key Sheet

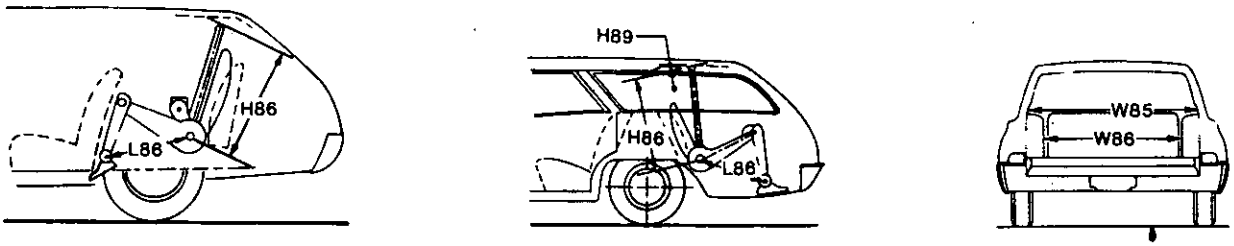
Front Compartment



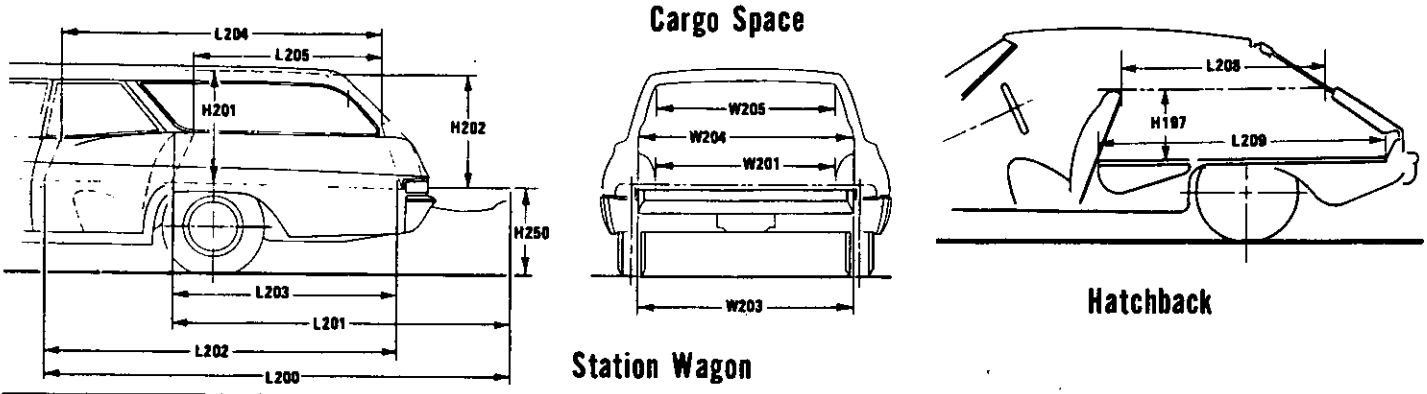
Rear Compartment



Third Seat



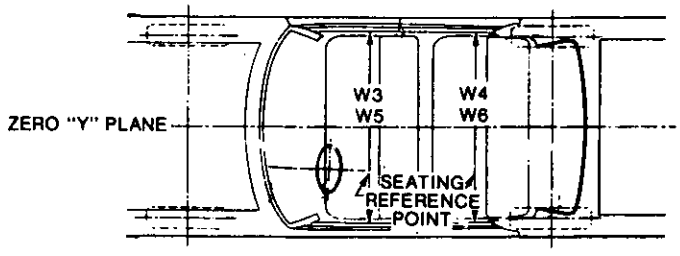
Cargo Space



Station Wagon

Hatchback

Interior Width



MVMA Specifications Form
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Exterior Car And Body Dimensions – Key Sheet
Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –

(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle;

(b) Has coordinates established relative to the design vehicle structure;

(c) Simulates the position of the pivot center of the human torso and thigh; and

(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

Width Dimensions

W101 TREAD–FRONT. The dimension measured between the tire centerlines at the ground.

W102 TREAD–REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.

W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.

W117 BODY WIDTH AT SgRP–FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.

W120 VEHICLE WIDTH–FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.

W121 VEHICLE WIDTH–REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open positions. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.

W122 TUMBLE HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.

Length Dimensions

L30 FRONT OF DASH "X" COORDINATE. A minus (-) dimension indicates actual front of dash in forward of the zero "X" plane.

L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.

L102 TIRE SIZE. As specified by the manufacturer.

L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L104 OVERHANG–FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L105 OVERHANG–REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle, including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.

L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be in the midpoint of the distance between the rear axle centerlines.

L125 COWL POINT "X" COORDINATE.

Height Dimensions

H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.

H114 COWL POINT TO GROUND. Measured at zero "Y" plane.

H138 DECK POINT TO GROUND. Measured at zero "Y" plane.

H112 ROCKER PANEL–FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.

H132 BOTTOM OF DOOR OPEN–FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, to ground.

H111 ROCKER PANEL–REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.

H134 BOTTOM OF DOOR OPEN–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, to ground.

H135 BOTTOM OF DOOR CLOSED–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.

H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.

H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield are running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.

H127 HEADLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the lowest headlamp lens to ground.

H128 TAILLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.

Ground Clearance Dimensions

H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.

H103 FRONT BUMPER TO GROUND CURB MASS (WT.). Measured in the same manner as H104.

H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.

H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.

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METRIC (U.S. Customary)

Interior Car And Body Dimensions – Key Sheet
Dimensions Definitions

H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius are the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.

H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius are the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.

H147 REAR BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.

H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.

H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

Front Compartment Dimensions

PD1 PASSENGER DISTRIBUTION–FRONT.

L31 SgRP–FRONT "X" COORDINATED.

H61 EFFECTIVE HEAD ROOM–FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP–front to the headlining plus 102 mm (4.0 in.).

H75 EFFECTIVE T-POINT HEAD ROOM–FRONT. The minimum radius from the T-point to the headlining plus 762 mm (30 in.).

L34 MAXIMUM EFFECTIVE LEG ROOM–ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP–front plus 254 mm (10.0 in.) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.

H30 SgRP–FRONT TO HEEL. The dimension measured vertically from the SgRP–front to the accelerator heel point.

L17 DESIGN H-POINT–FRONT TRAVEL. The dimension measured horizontally between the design H-point–front in the foremost and rearmost seat trace positions.

W3 SHOULDER ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front within the belt line and 254 mm (10.0 in.) above the SgRP–front.

W5 HIP ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP–front and 76 mm (3.0 in.) fore and aft the SgRP–front.

H50 UPPER BODY OPENING TO GROUND–FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP–front "X" plane.

H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
BACK ANGLE–FRONT. The angle measured between a vertical line through the SgRP–front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufactuer.

L40 BACK ANGLE–FRONT. The angle measured between a vertical line through the SgRP–front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

Rear Compartment Dimensions

PD2 PASSENGER DISTRIBUTION–SECOND.

L50 SgRP COUBLE DISTANCE. The dimension measured horizontally from the driver SgRP–front to the SgRP–second.

H63 EFFECTIVE HEAD ROOM–SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).

H76 EFFECTIVE T-POINT HEAD ROOM–SECOND. Measured in the same manner as H75.

L51 MINIMUM EFFECTIVE LEG ROOM–SECOND. The dimension measured along a line from the ankle pivot center to the SgRP–second plus 254 mm (10.0 in.).

H31 SgRP–SECOND TO HEEL. The dimension measured vertically from the SgRP–second to the two dimensional device heel point on the depressed floor covering.

L48 KNEE CLEARANCE–SECOND. The minimum dimension measured from the knee pivot to the back of front seatback minus 51 mm (2.0 in.).

L3 COMPARTMENT ROOM–SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.

W4 SHOULDER ROOM–SECOND. The minimum dimension measured laterally between trimmed surfaces on the "X" plane through the SgRP–second within 254-406 mm (10.0-16.0 in.) above the SgRP–second.

W6 HIP ROOM–SECOND. Measured in the same manner as W5.

H51 UPPER BODY OPENING TO GROUND–SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP–second.

L-41 Same as L-40.

Luggage Compartment Dimensions

V1 USABLE LUGGAGE CAPACITY–Total of volumes of individual pieces of standard luggage set plus H-boxes stowed in the luggage compartment in accordance with the procedure described in paragraph 8.2 of SAE-J1100a.

H195 LIFTOVER HEIGHT. The dimension measured vertically from the luggage compartment lower opening at the zero "Y" plane to ground.

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The interior volume index estimates the space in a car. It is based on four measurements – head room, shoulder room, hip room, and leg room – for the front and rear seats, plus trunk capacity. The interior volume index is an estimate of the size of the passenger compartment.

The Trunk/Cargo Index is an estimate of the size of the trunk/cargo space. In station wagons and hatchbacks, it is an estimate of the space behind the second seat.

Station Wagon – Third Seat Dimensions

PD3 PASSENGER DIRECTION–THIRD.

W85 SHOULDER ROOM–THIRD. Measured in the same manner as W5.

W86 HIP ROOM–THIRD. Measured in the same manner as W5.

L86 EFFECTIVE LEG ROOM–THIRD. The dimension measured along a line from the ankle pivot center to the SgRP–third plus 254 mm (10.0 in.).

H86 EFFECTIVE HEAD ROOM–THIRD. The dimension, measured along a line 8 deg. from the SgRP–third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).

H89 EFFECTIVE T-POINT HEAD ROOM–THIRD. Measured in the same manner as H75.

L-88 Same as L-40.

Station Wagon – Cargo Space Dimensions

L200 CARGO LENGTH–OPEN–FRONT. The minimum dimension measured longitudinally from the back of the front

Station wagon – Cargo Space Dimensions (con't.)

seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

L201 CARGO LENGTH–OPEN–SECOND. The dimension measured longitudinally from the back of the second seatback at the height of the undepressed floor covering on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

L202 CARGO LENGTH–CLOSED–FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L203 CARGO LENGTH–CLOSED–SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L204 CARGO LENGTH AT BELT–FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab back panel at the height of the belt, on the zero "Y" plane.

L205 CARGO LENGTH AT BELT–SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.

W201 CARGO WIDTH–WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measure the sheet metal.

W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear door opening at floor level.

W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.

W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.

H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinated on the zero "Y" plane.

H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.

H250 TAILGATE TO GROUND (CURB MASS WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.

V2 STATION WAGON
Measured in inches:

$$\frac{W4 \times H201 \times L204}{1728} = ft.^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L204}{10^9} = m^3 \text{ (cubic meter)}$$

V4 HIDDEN CARGO VOLUME. As specified by the manufacturer.

V10 STATION WAGON (REAR OF SECOND SEAT)
Measured in inches:

$$\frac{W4 \times H201 \times L205}{1728} = ft.^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L205}{10^9} = \text{liters}$$

Hatchback – Cargo Space Dimensions

All hatchback cargo dimensions are to be taken with the front seat in full down and rear position, and the rear seat folded down. The hatchback door is in the closed position. (For electrically adjusted seats, see the manufacturer's specifications for Design "H" Point).

H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT: The vertical dimension from the horizontal tangent to top of seatback to undepressed floor covering at zero "Y" plane.

L208 CARGO LENGTH AT FRONT SEATBACK HEIGHT. The minimum horizontal dimension from the "X" plane tangent to the rearmost surface of the driver's seatback to the inside limiting interference of the hatchback door on the vehicle zero "Y" plane.

L209 CARGO LENGTH AT FLOOR–FRONT–HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the front seatback to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

L210 CARGO LENGTH AT SECOND SEATBACK HEIGHT–HATCHBACK. The horizontal dimension from the "X" plane tangent to rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "Y" plane.

L211 CARGO LENGTH AT FLOOR–HATCHBACK–SECOND. The horizontal dimension at floor level from the rear of the second seatback or load floor panel to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

V3 HATCHBACK.
Measured in inches:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728} = ft.^3$$

Measured in mm:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{10^9} = m^3 \text{ (cubic meter)}$$

V11 HATCHBACK (REAR OF SECOND SEAT)
Measured in inches:

$$\frac{W4 \times H198 \times \frac{L210 + L211}{2}}{1728} = ft.^3$$

Measured in mm:

$$\frac{W4 \times H198 \times \frac{L210 + L211}{2}}{10^9} = \text{litres}$$

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

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