MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

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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 (based in part on SAE J1100 "Motor Vehicle Dimensions") may be available from the manufacturer.

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Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Car Models

Model Description & Drive (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)
REAR WHEEL DRIVE (RWD)				
THUNDERBIRD				
2-Door	10/03/85	63D	2/3	45.0 (100)
ELAN				
2-Door	10/03/85	63D	2/3	45.0 (100)
TURBO COUPE				
2-Door	10/03/85	63D	2/3	45.0 (100)

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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	AXLE RATIO (std. first)
	Displ. Liters (in^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 (Excl. Turbo Coupe)	3.8 (232)	CFI 2V@	8.7	90 (120) 3600	278 (205) 1600	S	AT3	2.73
							AOD¢	3.27*, 3.45#
All (Excl. Turbo Coupe)	5.0 (302)	EFI	8.9	112 (150) 3400	366 (270) 2000	S	AOD	2.73$
Turbo Coupe	2.3 (140) Turbo	EFI	8.0	116 (155) 4600	258 (190) 2800	S	M5OD	3.45T%
				108 (145) 4400	244 (180) 3000		AT3	3.45T%

AT3 - 3-Speed SelectShift Automatic
AOD - 4-Speed Automatic Overdrive
M5OD - 5-Speed Manual Overdrive
$ - Traction-Lok Available
% - Traction-Lok Standard
* - 50 States
# - Altitude
@ - Canada
¢ - Canada Not Available
T - Traction-Lok

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Engine Description/Carb. Engine Code	3.8L

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
Manufacturer		Ford Motor Company
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 & mass kg (lbs.)		Cast Iron
Cylinder block deck height		234.5 (9.2)
Deck clearance (minimum) (above or below block)		0.255 (0.010) Above
Cylinder head material & mass kg (lbs.)		Aluminum
Cylinder head volume (cm^3)		61.5 - 64.5
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
Intake manifold material & mass [kg (weight, lbs.)]		Aluminum, 5.0 (11.0)
Exhaust manifold material & mass [kg (weight, lbs.)]		Cast Iron, 7.1 (15.6)
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index (R + M) / 2		87 Minimum Octane
Total dressed engine mass (wt) dry**		189.1 (416.9) AT3, 188.4 (415.3) 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 (0.79-0.74)/9.53 (0.37)

* 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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Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V-Front, Longitudinal Overhead Valve Engine with Modified Wedge Combustion Chamber
Manufacturer		Ford Motor Company
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 & mass kg (lbs.)		Cast Iron, 56.7 (125)
Cylinder block deck height		208.4 (8.20)
Deck clearance (minimum) (above or below block)		0.343 (0.0135) Above
Cylinder head material & mass kg (lbs.)		Cast Iron, 20.9 (46.0)
Cylinder head volume (cm^3)		62.0-65.0
Head gasket thickness (compressed)		1.04-1.19 (0.041-0.047)
Minimum combustion chamber total volume (cm^3)		73.4
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
Intake manifold material & mass [kg (weight, lbs.)]		Aluminum, 16.8 (37.0)
Exhaust manifold material & mass [kg (weight, lbs.)]		Cast Iron, 14.3 (31.6)
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index $\frac{(R+M)}{2}$		87 Minimum Octane
Total dressed engine mass (wt) dry**		252.8 (557.3)

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	18.8 (0.74)/9.5 (0.37)

* 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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Car Line THUNDERBIRD
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Engine Description/Carb. Engine Code	2.3L

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
Manufacturer		Ford Motor Company
No. of cylinders		Four
Bore		96.04 (3.78)
Stroke		79.40 (3.12)
Bore spacing (C/L to C/L)		105.99 (4.17)
Cylinder block material & mass kg (lbs.)		Cast Iron, 39.5 (87.0)
Cylinder block deck height		212.55 (8.36)
Deck clearance (minimum) (above or below block)		0.178 (0.007) Above
Cylinder head material & mass kg (lbs.)		Cast Iron, 24.5 (54.0)
Cylinder head volume (cm^3)		61.3
Head gasket thickness (compressed)		1.09 (0.043)
Minimum combustion chamber total volume (cm^3)		74.6
Cyl. no. system (front to rear)*	L. Bank	--
	R. Bank	--
Firing order		1, 3, 4, 2
Intake manifold material & mass [kg (weight, lbs.)]		Aluminum (Cast), 5.5 (12.1)
Exhaust manifold material & mass [kg (weight, lbs.)]		Nodular Iron, 5.4 (11.9)
Recommended fuel (leaded, unleaded, diesel)		Unleaded
Fuel antiknock index (R + M) 2		87 Minimum Octane
Total dressed engine mass (wt) dry**		186.2 (410.6) M5OD; 187.6 (413.6) 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.)		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.

** 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	3.8L

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
Seal (material, one, two piece design, etc.)	Front	One Piece, Poly Acrylic or Flourocarbon
	Rear	One Piece, Flourocarbon

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

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
Seal (material, one, two piece design, etc.)	Front	Viton, One Piece
	Rear	Viton, One Piece

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

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
Seal (material, one, two piece design, etc.)	Front	Polyacrylic, One Piece Design
	Rear	Silicon, One Piece Design

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	379 (55) @ 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

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	
	Impeller material	Steel	
	Housing material	Aluminum	
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.)]	N/A	
Water jackets full length of cyl. (yes, no)		No	
Water all around cylinder (yes, no)		Yes	
Water jackets open at head face (yes, no)		No	
Radiator core	Std., A/C, HD	Standard	A/C
	Type (cross-flow, etc.)	Crossflow	
	Construction (fin & tube mechanical, braze, etc.)	Tube and Slit Fin, Copper and Brass, 2 Rows	
	Material, mass [kg (wgt. lbs.)]	Copper Core, 4.9 (10.9)	
	Width	622.3 (24.5)	
	Height	452.1 (17.8)	
	Thickness	16.5 (0.7)	29.0 (1.1)
	Fins per inch	12 C-5, 11 AOD (Automatic)	10 C-5, 9 AOD (Auto.)
Radiator end tank material		Brass	
Fan	Std., elec., opt.	Standard	
	Number of blades & type (flex, solid, material)	5 Blade Solid, Steel	
	Diameter & projected width	457 (18.0); 68.5 (2.7)	
	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

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	12
	Number of pumps	One
	Drive (V-belt, other)	Poly-V-Belt
	Bearing type	Ball
	Impeller material	Stamped Steel
	Housing material	Cast Iron
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
Water jackets open at head face (yes, no)		No
Radiator core	Std., A/C, HD	Standard A/C
	Type (cross-flow, etc.)	Crossflow
	Construction (fin & tube mechanical, braze, etc.)	Tube and Slit Fin, Copper and Brass, 2 Rows
	Material, mass [kg (wgt. lbs.)]	Aluminum
	Width	622.3 (24.5)
	Height	452.1 (17.8)
	Thickness	28.8 (1.14)
	Fins per inch	10 11
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Standard
	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, Direct
	RPM at idle (elec.)	N/A
	Motor rating (wattage) (elec.)	N/A
	Motor switch (type & location) (elec.)	N/A
	Switch point (temp., pressure) (elec.)	N/A
	Fan shroud (material)	Filled Polymer

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Engine Description/Carb. Engine Code	2.3L

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) w/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	
	GPM 1000 pump rpm	13.1	
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
	Bearing type	Double Row, Sealed, Ball and Roller	
	Impeller material	Steel	
	Housing material	Cast Iron	
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	
Water jackets open at head face (yes, no)		Yes	
Radiator core	Std., A/C, HD	Standard	A/C
	Type (cross-flow, etc.)	Crossflow	
	Construction (fin & tube mechanical, braze, etc.)	Tube and Slit Fin, Copper and Brass, 2 Rows	
	Material, mass [kg (wgt, lbs.)]	Copper/Brass, 5.9 (12.9)	
	Width	623.3 (24.5)	
	Height	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)
Radiator end tank material		Brass	
Fan	Std., elec., opt.	Electric	
	Number of blades & type (flex, solid, material)	Four, Solid, Plastic	
	Diameter & projected width	355.8/40.1	
	Ratio (fan to crankshaft rev.)	Electrodrive	
	Fan cutout type	N/A	
	Drive type (direct, remote)	Remote	
	RPM at idle (elec.)	1500 RPM	
	Motor rating (wattage) (elec.)	150 Watts (180 Watts w/Auto Trans)	
	Motor switch (type & location) (elec.)	Two Terminal, Bi-Metallic Snap Disc LWR Intake Manif.	
	Switch point (temp., pressure) (elec.)	Approx. 221°	
	Fan shroud (material)	Wire Legs with Polypropylene Ring	

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Engine Description/Carb. Engine Code	3.8L CFI	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	Ford Motor Company
	Choke (type)		N/A	Automatic, Electrically Oper.
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N/A	
		Automatic	550-625-DR (b)	700-DR (b)
Idle A/F mix.			13.9:1 Open Loop	
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.)		Electric	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)]		83.7 (22.1 Gal)
Location (describe)		Behind Rear Axle
Attachment		Two Straps with Pin and Loop at Rear, Bolt at Front
Material & Mass [kg (weight lbs)]		Steel (Nickel Flash/Tempered Roll)
Filler pipe	Location & material	Right Hand Quarter Panel
	Connection to tank	Rubber Seal
Fuel line (material)		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 on A/C Clutch De-Energized
(c) In-Tank Pump Only, 275-310 (40-45)

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L

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

Induction type: carburetor, fuel injection system, etc.			Fuel Injection System
Carburetor	Mfgr.		N/A
	Choke (type)		N/A
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N/A
		Automatic	N/A
Idle A/F mix.			14.6:1
Fuel injection	Point of injection (no.)		Intake Port, Eight (8)
	Constant, pulse, flow		Timed
	Control (electronic, mech.)		Electronic
	System pressure [kPa (psi)]		270.3 (39.2)
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
	Location (eng., tank)		One Pump System in Fuel Tank
	Pressure range [kPa (psi)]		N/A

Fuel Tank

Capacity [refill L (gallons)]		83.7 (22.1 Gal)
Location (describe)		Behind Rear Axle
Attachment		Two Straps with Pin and Loop at Rear, Bolt at Front
Material & Mass [kg (weight lbs)]		Steel (Nickel Flash/Tempered Roll)
Filler pipe	Location & material	Right Rear Quarter Panel; Steel
	Connection to tank	Rubber Seal
Fuel line (material)		Nylon and Steel
Fuel hose (material)		Nylon
Return line (material)		Nylon and Steel
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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code: 2.3L

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
		Automatic	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 (1)
	Location (eng., tank)		Intank (High Pressure)
	Pressure range [kPa (psi)]		37.9-44.8 (5.5-6.5)

Fuel Tank

Capacity [refill L (gallons)]			68.9 (18.2 Gal.)
Location (describe)			Behind Rear Axle
Attachment			Two Straps Pin and Loop at Rear, Bolt at Front
Material & Mass [kg (weight lbs)]			Steel (Nickel Flash/Tempered Roll)
Filler pipe	Location & material		Right Hand 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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle and Engine Modifications Plus Exhaust Gas Recirculation and Air Injection (a)
	Air Injection	Pump or pulse	Pump
		Driven by	Poly-V-Belt
		Air distribution (head, manifold, etc.)	Cylinder Head and 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 & Toeboard (L.O.)
		Volume [L (in³)]	Toeboard (2) x .62 (38); Underbody 1.3 (78)
		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) Material & Mass [kg (weight lbs)]		One, Reverse Flow (b)
Resonator no. & type		--
Exhaust pipe	Branch o.d., wall thickness	--
	Main o.d., wall thickness	--
	Material & Mass [kg (weight lbs)]	--
Intermediate pipe	o.d. & wall thickness	50.8 x 1.75 (2.00 x .069)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (b)
Tail pipe	o.d. & wall thickness	50.8 x 1.37 (2.00 x .054)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (b)

(a) Components May Vary According to Engine Calibration
(b) Purchased in Assembly (PIA) Muffler and Pipe Assembly 11.0 (24.5)

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Vehicle and Engine Modifications Plus Exhaust Gas Recirculation and Air Injection (a)
	Air Injection	Pump or pulse	Pump
		Driven by	Belt
		Air distribution (head, manifold, etc.)	Cylinder Heads and Catalyst
		Point of entry	Multiple
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Electronic
		Exhaust source	Intake Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake Port
	Catalytic Converter	Type	TWC Toeboard + COC Single Brick-In-Line
		Number of	Two
		Location(s)	Underbody and Toeboard (L.O.)
		Volume [L (in³)]	Toeboard (2) x .69 (42); Underbody 1.3 (78)
		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	N/A
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		Yes

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Single with "Y" Catalyst System
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]		One, Reverse Flow (b)
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	--
	Main o.d., wall thickness	--
	Material & Mass [kg (weight lbs)]	--
Intermediate pipe	o.d. & wall thickness	50.8 x 1.75 (2.00 x .069)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (b)
Tail pipe	o.d. & wall thickness	50.8 x 1.37 (2.00 x .054)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (b)

(a) Components Vary According to Engine Calibration
(b) Purchased in Assembly (PIA) Muffler and Pipe Assembly 10.8 (23.7)

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	2.3L

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 (in³)]	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) Material & Mass [kg (weight lbs)]		One, Reverse Flow (a)
Resonator no. & type		N/A
Exhaust pipe	Branch o.d., wall thickness	--
	Main o.d., wall thickness	--
	Material & Mass [kg (weight lbs)]	--
Intermediate pipe	o.d. & wall thickness	57.2 x 1.75 (2.25 x .069)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (a)
Tail pipe	o.d. & wall thickness	57.2 x 1.37 (2.25 x .054)
	Material & Mass [kg (weight lbs)]	Aluminized Steel (a)

(a) Purchased in Assembly (PIA) Muffler and Pipe Assembly 11.8 (26.0)

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued _____ Revised (•) _____

Engine Description/Carb. Engine Code	2.3L	3.8L	5.0L

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	N/A		
Manual 4-speed (std., opt., n.a.) (mfr.)	N/A		
Manual 5-speed (std., opt., n.a.) (mfr.)	Std.(5-Spd) Warner Gear	N/A	
Manual overdrive (std., opt., n.a.) (mfr.)	N/A		
Automatic (std., opt., n.a.) (mfr.)	Optional-Ford	Standard-Ford	N/A
Automatic overdrive (std., opt., n.a.) (mfr.)	N/A	Optional-Ford	Standard-Ford

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		0.81:1
	In overdrive		0.81:1
	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		Dexron II
	SAE viscosity number	Summer	--
		Winter	--
		Extreme cold	--

Clutch (Manual Transmission)

Make, type, engagement (describe) - (hydraulic, cable, rod)		Single Disc, Dry Plate Cable with Self Adjustment
Assist (yes, no / percent)		No
Type pressure plate springs		Belleville Spring
Total spring load [N (lb.)]		5449 (1225)
No. of clutch driven discs		One
Clutch facing	Material	Woven Non-Asbestos, Valeo F-202
	Manufacturer	Valeo
	Part number	E5SR-7550-AA
	Rivets/plate	16
	Rivet size	4.1 x 5.4 (0.16 x 0.21)
	Outside & inside dia.	228.6 x 155 (9.00 x 6.10)
	Total eff. area [cm^2($in.^2$)]	443.5 (68.7)
	Thickness	3.2 (0.13)
	Engagement cushion method	Torbend Disc
Release bearing	Type & method of lubrication	Self-Centering, Angular Contact, Constant Running, Prepacked
Torsional damping	Method: springs, friction material	Steel Coil Springs/Dry Friction

(a) 3.45 Axle Ratio

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•)

Engine Description/Carb. Engine Code	3.8L CFI	3.8L CFI 3.8L 2V (CANADA)

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		P R N D 2 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)]		102.3(63.6)(a)	97.0(60.3)(a)	126.0(78.0)(b)
Max. kickdown speed - drive range [km/h (mph)]		86.5(53.7)(a)	82.0(50.9)(a)	105.0(65.0)(b)
Min. overdrive speed [km/h (mph)]		68.5(42.6)(a)	65.0(40.4)(a)	--
Torque converter	Number of elements	Three		
	Max. ratio at stall	2.53		2.30
	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-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)			Friction Plate
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)
	Type recommended		ESP-M2C154-A
	SAE viscosity number	Summer	SAE 85W90
		Winter	SAE 85W90
		Extreme cold	SAE 85W90

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

Axle ratio (or overall top gear ratio)		2.73:1 (b) See Above	3.27:1 (a) See Above	3.45:1 (a) See Above
No. of teeth	Pinion	15	11	11
	Ring gear or gear	41	36	38
Ring gear o.d.		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 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	5.0L	2.3L

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	--
	L_3		1.00:1	
	L_2		1.47:1	
	L_1		2.40:1	2.47:1
Max. upshift speed - drive range [km/h (mph)]			114.9(71.4)(c) 101.8(63.3)(c)	116.0(72.0)@13 PSI Boost(d)
Max. kickdown speed - drive range [km/h (mph)]			97.2(60.4)(c) 86.2(53.6)(c)	103.0(64.0)@ 8 PSI Boost(d)
Min. overdrive speed [km/h (mph)]			65.5(40.7)(c) 58.0(36.1)(c)	--
Torque converter	Number of elements		Three	
	Max. ratio at stall		2.30	2.50
	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-M2C166-H	ESP-M2C138-CJ(Dexron II For Service)
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)			Friction Plate
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)
	Type recommended		ESP-M2C154-A
	SAE viscosity number	Summer	SAE 85W90
		Winter	SAE 85W90
		Extreme cold	SAE 85W90

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

Axle ratio (or overall top gear ratio)		2.73:1 (c) See Above	3.45:1 (d) See Above
No. of teeth	Pinion		
	Ring gear or gear		
Ring gear o.d.		See Page 9	
Transaxle	Transfer gear ratio		
	Final drive ratio		

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	3.8L	5.0L

Propeller Shaft – Rear Wheel 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 thick-ness	Manual 3-speed trans.		N/A	
	Manual 4-speed trans.		N/A	
	Manual 5-speed trans.		N/A	
	Overdrive - Automatic		69.9x1272x1.65 (2.75x50.10x.065)	76.20x1247.1x1.65 (3.0x49.1x0.065)
	Automatic transmission		69.9 x 1254.7 x 1.65 (2.75 x 49.40 x .065)	N/A
Inter-mediate 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.		30.99 (1.22) 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.)		12 (0.47) 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 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb. Engine Code	2.3L

Propeller Shaft – Rear Wheel 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.		30.99 (1.22) 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.)		12 (0.47) 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.

(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 1986 Issued 9/85 Revised (•)

Body Type And/Or Engine Displacement	ALL MODELS (EXCL. TURBO COUPE)	TURBO COUPE

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) See Page 11A (b) See Page 11A
	Make	Motorcraft
	Piston diameter	34.8 (1.37) Front; 25.4 (1.0) Rear
	Rod diameter	22 (0.90) Front; 12.5 (0.50) Rear

Suspension – Front

Type and description		Hybrid MacPherson Strut with Spring Mounted on Lower Control Arm
Drive and torque taken through		N/A
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)	Top-Steel Bonded in Rubber; Bottom Rubber
	Size (coil design height & i.d., bar length x dia.)	254.0 x 89.0 (10.0 x 3.50), 256x89(10.07x3.50) 3158x15.55(124.3 x 0.61) 3095x16.4(121.9x0.65) 5.0L - 63.0 (360)
	Spring rate [N/mm (lb./in.)]	6 Cyl 59.5(340);8 Cyl 63.0(360) 74.5 (425)
	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 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 / Quadra-Shock, Four Bar Link
Drive and torque taken through			Upper and Lower Control Arms
Travel	Full jounce		112.3 (4.41) 102.8 (4.05)
	Full rebound		104.4 (4.12) 112.5 (4.43)
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 0.56)
	Spring rate [N/mm (lb./in.)]		35 (200)
	Rate at wheel [N/mm (lb./in.)]		18.8 (107.5)
	Insulators (type & material)		Rubber
	If leaf	No. of leaves	None
		Shackle (comp. or tens.)	None
Stabilizer	Type (link, linkless, frameless)		Linkless
	Material & bar diameter		(c) See Page 11A SAE-5160 Steel 20.0(0.79)
Track bar (type)			None

Suspension (Cont'd):

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

(b) Direct, double acting nitrogen gas pressurized hydraulic front struts and rear shocks with two additional freon cell hydraulic axle dampers mounted horizontally between the axle and body to control axle rotation and improve handling.

(c) 3.8L base none; 3.8L handling SAE-5160-20 (0.79); 5.0L base SAE 1090 (0.55); 5.0L handling SAE 5160-21 (0.82).

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 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, Vented, Standard
	Rear (disc or drum)		Drum, Finned, Standard
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.)			N/A
Vacuum reservoir (volume in.^{3})			N/A
Vacuum pump-type (elec, gear driven, belt driven, if other so state)			N/A
Anti-skid device type (std., opt., n.a..) (F/R)			N/A
Effective area [cm^2(in.^{2})]*			Front: 212 (32.0), 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)
Brake lining — Rear wheel	Bonded or riveted (rivets/seg.)		Riveted PRI. 8 SEC. 10
	Manufacturer		Bendix FMD: Primary 3198, Secondary 3199
	Lining Code*****		BX-RY-FE, BX-PM-FE
	Material		Molded Organic
	**** 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.
*****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

(a) Used with 2.3L TC Engines and All Vehicles with AGVW of Over 4312.

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type And/Or Engine Displacement	ALL MODELS

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P215/70R14
	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)		801/807 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
	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)	Polycast
Rim (size, flange type and offset)	14 x 5.5, 28.4 (1.12) Offset
Size (load range, ply)	P215/70HR14
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Polycast Cast Aluminum
Rim (size, flange type and offset)	14 x 5.5, 28.4 (1.12) Offset
Size (load range, ply)	P225/60VR15 (a)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Cast Aluminum - Ten Hole
Rim (size, flange type and offset)	15 x 7.0, 22.4 (0.88) Offset
Size (load range, ply)	
Type (bias, radial, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
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)

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 1986 Issued 9/85 Revised (•) _____

Body Type And/Or Engine Displacement	ALL MODELS (EXCL. TURBO COUPE)	TURBO COUPE

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 (W9) SAE J1100		Manual			N/A
		Power			368 (14.5)
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)			
		Curb to curb (l. & r.)			12.01 (39.4) (a)
	Inside rear	Wall to wall (l. & r.)			
		Curb to curb (l. & r.)			
Scrub Radius*					2.85 (0.11)
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 and Pump, Ford; Fluid ESP-M2C138-CJ
	Gear	Type			Rack and Pinion, Variable Ratio Non-Variable Ratio
		Ratios	(*)		8.58°/mm of Rack Travel on Center, 7.91°/mm At stops (b)
			Overall		20.00:1 on Center, 15.99:1 (c)
	Pump (drive)				Belt off Crankshaft Pulley
	No. wheel turns (stop to stop)				3.05 2.34
Linkage	Type				Rack and Pinion (Rod and Ball Joint Directly Attached to Gear)
	Location (front or rear of wheels, other)				Front of Wheels
	Tie rods (one or two)				Two (Integral with Gear)
Steering axis	Inclination at camber (deg.)				15.7°
	Bearings (type)	Upper			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 (1.50)
		Outer bearing			22.10 (0.87)
	Thread (size)				13/16-20 UNEF 2A R. H. Thread
	Bearing (type)				Tapered Roller

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

(*) Rack Speed

(a) With Larger Tire Size and Steering Gear Rack Travel Restrictors Curb to Curb is 12.59 (41.3)

(b) Turbo Coupe - 6.44°/mm

(c) Turbo Coupe - 15.00:1 on Center, 13.00:1 at Stops

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type And/Or Engine Displacement

ALL MODELS

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+ 0.75° ± .075° (a)(b)
		Camber (deg.)	+ 0.25° ± 0.75° (a)
		Toe-in [outside track-mm (in.)]	4.8 ± 3.2 (0.18 ± 0.12) (c)
	Service reset*	Caster	+ 0.75° ± .075°
		Camber	+ 0.25° ± 0.75°
		Toe-in	4.8 ± 3.2 (0.18 ± 0.12)
	Periodic M.V. inspection	Caster	+ 0.75° ± .075°
		Camber	+ 0.25° ± 0.75°
		Toe-in	4.8 ± 3.2 (0.18 ± 0.12)
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	N/A
		Toe-in [outside track-mm (in.)]	N/A
	Service reset*	Camber	N/A
		Toe-in	N/A
	Periodic M.V. inspection	Camber	N/A
		Toe-in	N/A

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

Electrical – Instruments and Equipment

Speedometer	Type	Electronic Digital Std.; Pointer Type Std. w/2.3L TC
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		N/A
Charge indicator	Type	45° Pointer Type Ammeter Std. w/2.3L TC
	Warning device	N/A
Temperature indicator	Type	45° Pointer Type Std.; Electronic Analog Optional
	Warning device	N/A
Oil pressure indicator	Type	45° Pointer Type Standard w/2.3L TC
	Warning device	N/A
Fuel indicator	Type	45° Pointer Type Gauge Std.; Electronic Analog Opt.
	Warning device	N/A
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 Optional
Horn	Type	Air Electric
	Number used	Two - 1 Lo-Pitch, 1 Hi-Pitch
Other	See Page 15A	

(a) Maximum side-to-side difference between wheels (left minus right) to be within ± 0.75 with caster and camber set to specification
(b) Caster is factory-set and cannot be adjusted
(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
- Automatic Lamp System
- Illuminated Entry System
- Cornering Lamps
- Lamp Outage Module
- Turbo Boost Gauge w/2.3L TC Engine
- Overboost Light w/2.3L TC Engine

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•)

Engine Description/Carb. Engine Code	3.8L	5.0L

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	E5SF-AA (60 Amp)	E6SF-AA (60 Amp)
	Ratio (alt. crank/rev.)		3.36:1	3.35:1
	Optional (type & rating)		N/A	
Regulator	Type	10316	Electronic-Non-Integral w/Alternator	Electronic-Integral w/Alternator

Electrical – Starting System

Start. motor	Current drain at 0°F		260-285 Amps	290-315 Amps
Motor drive	Engagement type	11001	Positive (E4DF-BA)	Positive (E4AF-AA)
	Pinion engages from (front, rear)		Front	

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		Standard	
	Other (specify)		N/A	
Coil	Make		Motorcraft	
	Model	12029	E3EF-AA(CFI), D5AE-AB(2V)	E4SF-AC
	Current – Engine stopped – A		6.5	5.0
	Current – Engine idling – A		3.2	2.5
Spark plug	Make		Motorcraft	
	Model		AWSF-54C	ASF-52
	Thread (mm)		14	
	Tightening torque [N-m (lb, ft)]		7-15 (5-11)	5-10 (3-7)
	Gap		1.3-1.4 (0.05-0.06)	1.3 (0.05)
	Number per cylinder		One	
Distributor	Make		Motorcraft	
	Model		Universal (CFI), Dura Spark (2V)	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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Engine Description/Carb.
Engine Code

2.3L

Electrical – Supply System

Battery	Make	Motorcraft
	Model, std., (opt.)	Standard
	Voltage	12 Volt
	Amps at 0°F cold crank	450 M/T, 535 A/T
	Minutes-reserve capacity	90 M/T, 120 A/T
	Amp/hrs. - 20 hr. rate	54 M/T, 71 A/T
	Location	Left 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 Non-Integral with Alternator

Electrical – Starting System

Start. motor	Current drain at 0°F	260-285 Amps
Motor drive	Engagement type 11001	Positive (E4SF-AA)
	Pinion engages from (front, rear)	Front

Electrical – Ignition System

Type	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		TFI (Thick Film Ignition)

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

M/T - Manual Transmission
A/T - Automatic Transmission

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METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type	ALL MODELS

Body

Structure	Unitized Body Construction and Energy-Absorbing Front and Rear Structures with Anchors for Engine, Suspension, Steering and Driveline Components
Bumper system front - rear	Rim Urethane Fascia Over Steel Reinforcing Beam. PGM Energy Absorbers (Five (5) Mile Per Hour Bumper Front/ Rear)
Anti-corrosion treatment	Selected critical body parts are protected by the use of galvanized steel or through application of zinc-rich primer. During body assembly, vinyl sealers and aluminized wax are used, each for selected body parts.

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)		Prop Rod
	Release control (internal, external)		Primary-Internal Remote Cable; Secondary-External
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
Vent window control (crank, friction, pivot, power)		Front	Latch Operating Pivoting, Optional
		Rear	N/A
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front (b)	Deep Polyurethane Foam on Flat Wire Grid Susp.by Coil Sprgs
		Rear	Integral Frame & Polyurethane Foam Pad-Sprg. Elements
		3rd seat	N/A
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front (b)	Full Polyurethane Foam Pad & Steel Stamped Frame
		Rear	Integral Steel Frame & Polyurethane Foam Pad
		3rd seat	N/A

(a) Polyester Base Coat/Acrylic Clear Coat for Metallic Colors
(b) 60/40 Standard, 40/40 with Floor Console

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

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type	ALL MODELS

Restraint System

Active restraint system	Standard/optional	Deluxe Color-Keyed Seat Belts are Provided at Five (5) Seating Positions, Standard
	Type and description	(a)
	Location	2 Seat Belts - Front 3 - Rear
Passive seat belts	Standard/optional	N/A
	Power/manual	N/A
	2 or 3 point	N/A
	Knee bar/lap belt	N/A

Frame

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

Glass	SAE Ref. No.	
Windshield glass exposed surface area [cm^2($in.^2$)]	S1	7398 (1147)
Side glass exposed surface area [cm^2($in.^2$)] - total 2-sides	S2	7940 (1231)
Backlight glass exposed surface area [cm^2($in.^2$)]	S3	7745 (1200)
Total glass exposed surface area [cm^2($in.^2$)]	S4	23083 (3578)
Windshield glass (type)		Laminated - Safety
Side glass (type)		Tempered
Backlight glass (type)		Tempered

(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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METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

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)		Optional, Floor (Standard on Turbo Coupe)
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
	Cornering	Optional
	Courtesy (map, reading)	Optional
	Door lock, ignition	Optional, Illuminated Door Locks
	Engine compartment	Optional
	Fog	Standard, Turbo Coupe
	Glove compartment	Standard
	Trunk	Standard
	Other	High Mount Stop Lamp, Standard
Mirrors	Day/night (auto. man.)	Optional, Automatic; Standard Day/Night Manual
	L.H. (remote, power, heated)	Std., Manual Remote; Optional, Power Remote Control
	R. H. (convex, remote, power, heated)	Optional, Power Remote Control, Convex
	Visor vanity (RH / LH, illuminated)	Optional, L.H. and R.H. Illuminated
Parking brake-auto release (warning light)		Opt., Base; Std., Elan; N/A Turbo
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, 6W/6W Power Seat, Power Lumbar, Heated Seat and Power Recliner
	Side windows	Opt. Base; Std. on elan and Luxury Group Turbo CP
	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	Opt. Door Speakers & Upgraded Frt. & Rear Speakers
Roof open air/fixed (flip-up, sliding, "T")		Optional, Power Sliding
Speed control device		Optional
Speed warning device (light, buzzer,etc.)		N/A
Tachometer (rpm)		N/A
Theft protection-type		Optional, When Vehicle is Entered without Key or Keyless Entry Code, the Vehicle is Automatically Disabled, Lights Flash and Horn Blows

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

MVMA Specifications Form
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Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•)

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 J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	2-DOOR SEDAN
Width		
Tread (front)	W101	1477 (58.1)
Trear (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	--
Front fender overall width	W106	1726 (68.0)
Rear fender overall width	W107	1807 (71.1)
Tumble-home (deg.)	W122	24.8°
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	4284 (89.9)
Cowl point "X" coordinate	L125	2192 (7.6)
Front end length at centerline	L126	1556 (61.3)
Rear end length at centerline	L129	653 (25.7)
Height*		
Passenger distribution (front/rear)	PD1,2,3	2/2
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	--
Windshield slope angle	H122	59.8°
Backlight slope angle	H121	63.1°
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°
Axle differential to ground (front / rear)	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.

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

See Key Sheets for definitions

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type	SAE Ref. No.	
		2-DOOR SEDAN

Front Compartment

Sg RP front, "X" coordinate	L31	3040 (119.7)
Effective head room	H61	958 (37.7)
Max. eff. leg room (accelerator)	L34	1066 (42.0)
SgRP to heel point	H30	221 (8.7)
SgRP to heel point	L53	868 (34.2)
Back angle	L40	25.0°
Hip angle	L42	94.6°
Knee angle	L44	125.1°
Foot angle	L46	87°
Design H-point front travel	L17	179 (7.0)
Normal driving & riding seat track trvl.	L23	157 (6.2)
Shoulder room	W3	1429 (56.3)
Hip room	W5	1417 (55.8)
Upper body opening to ground	H50	1220 (48.0)
Steering wheel maximum diameter	W9	368 (14.5)
Steering wheel angle	H18	22.9°
Accel. heel pt. to steer. whl. cntr	L11	516 (20.3)
Accel. heel pt. to steer. whl. cntr	H17	600 (23.6)
Steering wheel to C / L of thigh	H13	91 (3.6)
Steering wheel torso clearance	L7	351 (13.8)
Headlining to roof panel (front)	H37	13 (0.5)
Undepressed floor covering thickness	H67	32.5 (1.3)

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	NA
Back angle	L41	24.0°
Hip angle	L43	80.2°
Knee angle	L45	85.0°
Foot angle	L47	118.5°
Headlining to roof panel (second)	H38	13 (0.5)
Depressed floor covering thickness	H73	20 (0.8)

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 (subcompact, compact, etc.)		COMPACT
Interior volume index (cu. ft.)		106.1
Trunk/cargo index (cu. ft.)		14.6

MVMA Specifications Form
Passenger Car

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

METRIC (U.S. Customary)
Car and Body Dimensions See Key Sheets for definitions

Body Type	SAE Ref. No.	

Station Wagon – Third Seat (NOT APPLICABLE)

Sg RP couple distance	L85	
Shoulder room	W85	
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
Sg RP to heel point	H87	
Knee clearance	L87	
Seat facing direction	SD1	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

Station Wagon – Cargo Space (NOT APPLICABLE)

Cargo length (open front)	L200	
Cargo length (open second)	L201	
Cargo length (closed front)	L202	
Cargo length (closed second)	L203	
Cargo length at belt (front)	L204	
Cargo length at belt (second)	L205	
Cargo width (wheelhouse)	W201	
Rear opening width at floor	W203	
Opening width at belt	W204	
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)

Cargo length at front seatback height	L208	
Cargo length at floor (front)	L209	
Cargo length at second seatback height	L210	
Cargo length at floor (second)	L211	
Front seatback to load floor height	H197	
Second seatback to load floor height	H198	
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* 2-DOOR SEDAN

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)		0.35

* EPA Loaded Vehicle Weight, Loading Conditions

(a) Includes Two (2) Outside Mirrors

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

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

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 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, J182, Motor Vehicle Fiducial Marks.
All linear dimensions are in millimeters (inches).

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

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Body Type | ALL MODELS

Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (SAE - H127)	Highest**	676.7 (26.6)
		Lowest	--
	Taillamp (SAE - H128)	Highest**	695.9 (27.4)
		Lowest	695.9 (27.4)
	Sidemarker	Front	646.3 (25.4)
		Rear	695.9 (27.4)
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)
Halogen headlamp (std., opt., n.a.)	Lo beam		Standard
	Hi beam		Standard
	Replaceable bulb		None (Part of Lamp Assy.)
	Shape		Quad Rectangular, Standard
Headlamp other than above	Lo beam		N/A
	Hi beam		N/A
	Replaceable		N/A
	Shape		N/A
	Type		N/A

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 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/AT3								
Automatic Transmission								
2-Door 63D	771	631	1402	47	53	18	82	1328
	(1699)	(1390)	(3089)					(2924)
2-Door elan 63D	785	643	1428	47	53	18	82	1352
	(1729)	(1416)	(3145)					(2978)
2.3L EFI Turbo w/M5OD								
5-Speed Manual								
Transmission								
2-Door Turbo Coupe 63D	788	652	1440	47	53	18	82	1376
	(1735)	(1437)	(3172)					(3031)

* Reference – SAE J1100 Motor vehicle dimensions, curb weight definition.
** Shipping mass (weight) definition – Less Fuel and Engine Coolant

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
Powertrains:				
2.3L Turbo w/C3 Auto.	-30.0	25.0	-5.0	
Trans.	(-66)	(55)	(-11)	
3.8L w/Auto. Overdrive	10.4	2.7	13.1	
Trans. (AOD)	(23)	(6)	(29)	
5.0L w/Auto. Overdrive	84.9	-0.5	84.4	
Trans. (AOD)	(187)	(-1)	(186)	
Axles:				
2.3L-T M50D 3.45 Locker	0	4.1	4.1	
	(0)	(9)	(9)	
2.3L-T C3 3.45 Locker	0	4.1	4.1	
	(0)	(9)	(9)	
3.8L AOD 3.27 Ratio	0	-0.5	-0.5	
	(0)	(-1)	(-1)	
3.8L AOD 3.45 Locker	0	2.7	2.7	
	(0)	(6)	(6)	
3.8L C512 & 5.0L AOD	0	0.5	0.5	
3.08 Ratio	(0)	(1)	(1)	
3.8L C512 & 5.0L AOD	0	2.7	2.7	
3.08 Locker	(0)	(6)	(6)	
Tires:				
Spare Tire-Std-Delete				
P215/70R14	-0.5	5.9	5.4	
	(-1)	(13)	(12)	
P220/55R-390 BSW TRX	0	0.5	0.5	
(Includes Wheels)	0	(1)	(1)	
Miscellaneous Options:				
Audio Equipment:				
Radio - Delete	-2.3	-1.8	-4.1	
	(-5)	(-4)	(-9)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (weight, lb.) Front	Rear	Total	Remarks
Misc. Options (cont'd)				
Audio Equipment (cont'd)				
Radio-AM/FM/MPX-Cassette	0.9	0.5	1.4	
	(2)	(1)	(3)	
Radio-Electronic Am/FM/MPX/	0.9	0.5	1.4	
Search-Cassette	(2)	(1)	(3)	
Premium Sound System	1.8	3.2	5.0	
	(4)	(7)	(11)	
Radio Antenna-Power	1.4	0.5	1.9	
	(3)	(1)	(4)	
Graphic Equalizer	0.5	0.5	1.0	
	(1)	(1)	(2)	
Batteries:				
36 AMP Range	-2.7	0	-2.7	
	(-6)	(0)	(-6)	
54 AMP Range (Heavy Duty)	2.3	0	2.3	
	(5)	(0)	(5)	
Air Conditioning:				
Auto Temp Control				
3.8L	24.5	0.0	24.5	
	(54)	(0)	(54)	
5.0L	25.0	0	25.0	
	(55)	(0)	(55)	
Manual Temp Control				
2.3L	19.5	0.0	19.5	
	(43)	(0)	(43)	
3.8L	23.0	0.0	23.0	
	(51)	(0)	(51)	
5.0L	23.0	0.0	23.0	
	(51)	(0)	(51)	
Anti-Theft System	0.5	0	0.5	
	(1)	(0)	(1)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (weight, lb.) Front	Rear	Total	Remarks
Miscellaneous Options (cont'd)				
License Plate Bracket - Front	0.5 (1)	0 (0)	0.5 (1)	
Vanity Mirror- Visor - Illuminated - LH & RH	0.9 (2)	0 (0)	0.9 (2)	
Parking Brake Release - Auto	0.5 (1)	0 (0)	0.5 (1)	
Coach Lamps	0.9 (2)	0.9 (2)	1.8 (4)	
Exterior Molding-Rocker Panel	0.5 (1)	0.5 (1)	1.0 (2)	
Floor Mats - Front	1.0 (2)	0.5 (1)	1.5 (3)	
Keyless Entry System	1.4 (3)	.5 (1)	1.8 (4)	
Diagnostic/Warning Light Module	0.9 (2)	0.9 (2)	1.8 (4)	
Emission Systems:				
Canada Emissions				
3.8L C512	-2.3 (-5)	-1.8 (-4)	-4.1 (-9)	
Vent Window-Manual	1.3 (3)	0.5 (1)	1.8 (4)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
Misc. Options: (cont'd)				
Seats:				
Spl. Funct-6W Dual Adj.	7.3	4.5	11.8	
Passenger/Driver	(16)	(10)	(26)	
Special Functional -	3.6	1.8	5.4	
Adj D/P (Manual)	(8)	(4)	(12)	
Individual-Manual	-1.3	-1.0	-2.3	
Recl. Pass/Driver	(-3)	(-2)	(-5)	
Individual-6W Dual Recl.	2.3	1.8	4.1	
Passenger/Driver	(5)	(4)	(9)	
Sunroof-Glass Power	4.1	15.4	19.5	
	(9)	(34)	(43)	
Suspension-Heavy Duty				
5.0L	0.5	2.3	2.8	
	(1)	(5)	(6)	
3.8L	3.6	2.7	6.3	
	(8)	(6)	(14)	
Wheels:				
Steel Polycast	4.1	4.1	8.2	
	(9)	(9)	(18)	
Wheel Covers:				
Wire - Locking	1.8	1.8	3.6	
	(4)	(4)	(8)	
Illuminated Entry System	1.3	0.5	1.8	
	(3)	(1)	(4)	
Steering Column - Tilt	0.9	0	0.9	
	(2)	(0)	(2)	
Steering Wheel-Leather	0.5	0	0.5	
Wrapped	(1)	(0)	(1)	
Speed Control	2.2	0.5	2.7	
	(5)	(1)	(6)	
Tripminder	0.5	0	0.5	
	(1)	(0)	(1)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

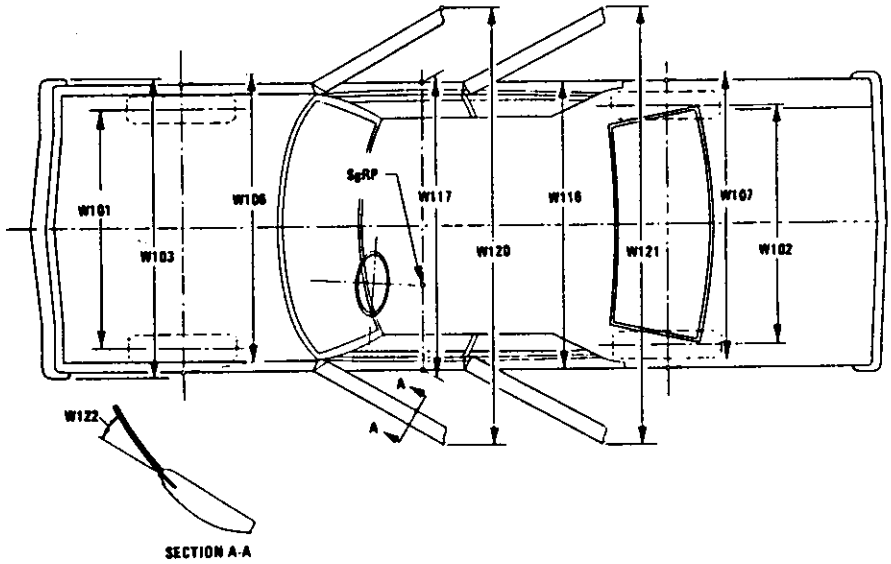
Car Line THUNDERBIRD
Model Year 1986 Issued 9/85 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
Misc. Options: (cont'd)				
Instrumentation Group -	0.9	0	0.9	
Electronic	(2)	(0)	(2)	
Visibility/Light Group	0.5	0	0.5	
	(1)	(0)	(1)	
Mirror-Left Hand-Power	0.5	0	0.5	
	(1)	(0)	(1)	
Mirror-Right Hand-Power	0.9	0	0.9	
	(2)	(0)	(2)	
Power Equipment Group	1.8	1.4	3.2	
	(4)	(3)	(7)	
Headlight Turn Off/Delay-	0.5	0	0.5	
Auto	(1)	(0)	(1)	
Side Lights-Cornering	1.0	0	1.0	
	(2)	(0)	(2)	
Electronic Day/Nite	0.5	0	0.5	
Inside Mirror	(1)	(0)	(1)	
Defroster-Rear Window-	0.5	0	0.5	
Electric	(1)	(0)	(1)	
Side Windows - Power	2.2	1.8	4.0	
	(5)	(4)	(9)	

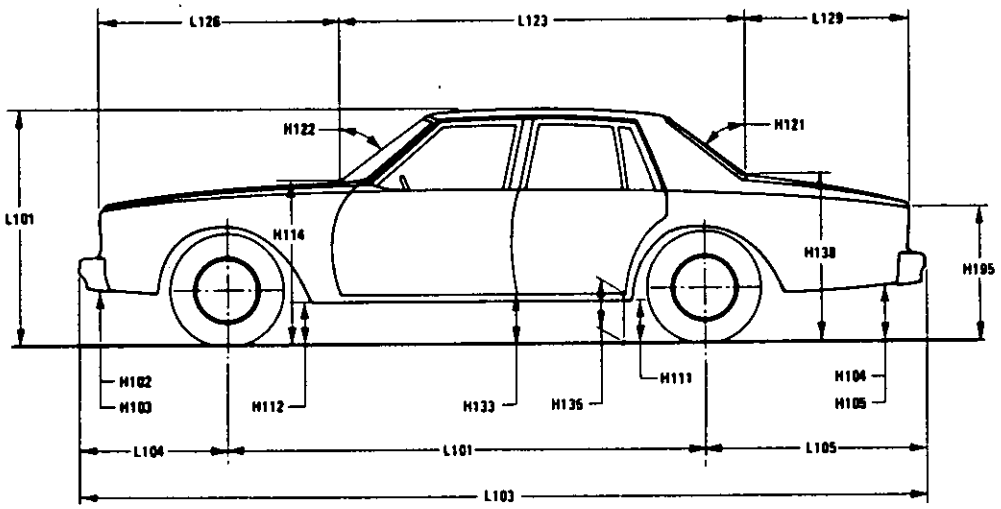
*Also see Engine - General Section for dressed engine mass (weight).

Exterior Car And Body Dimensions – Key Sheet

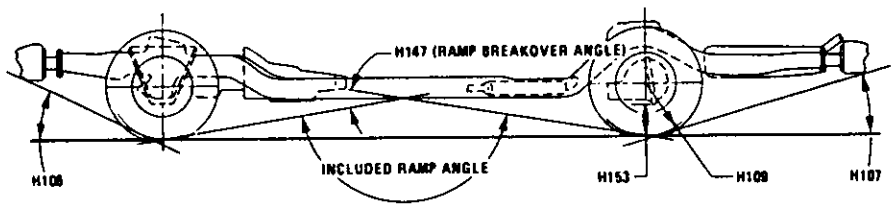
Exterior Width



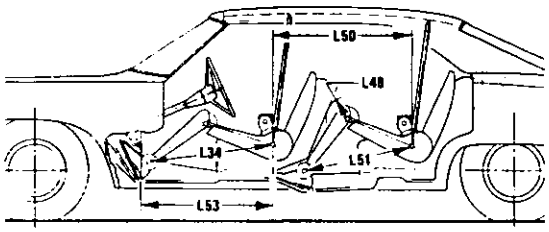
Exterior Length & Height

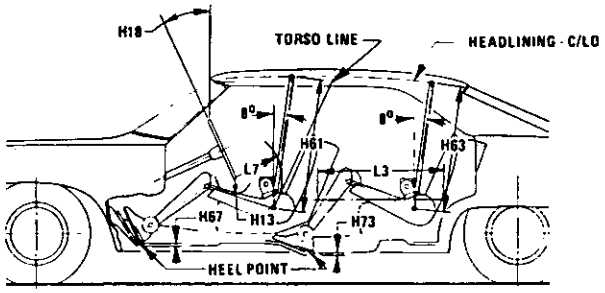


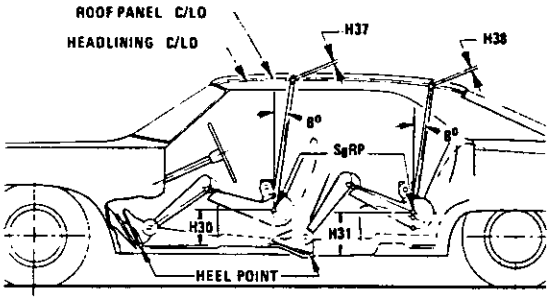
Exterior Ground Clearance

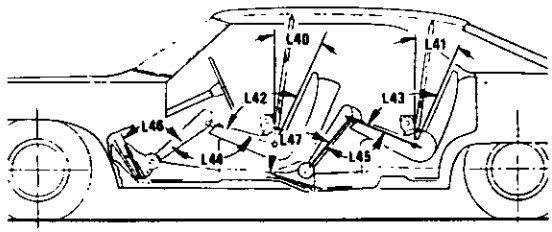


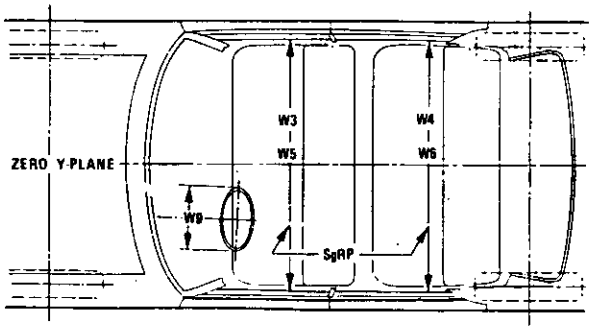
Interior Car And Body Dimensions – Key Sheet

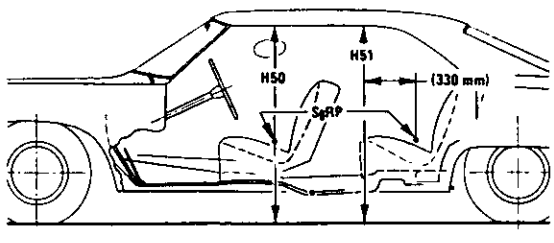






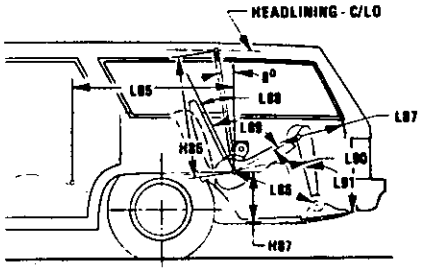


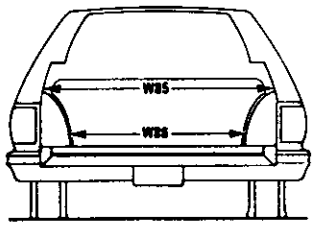




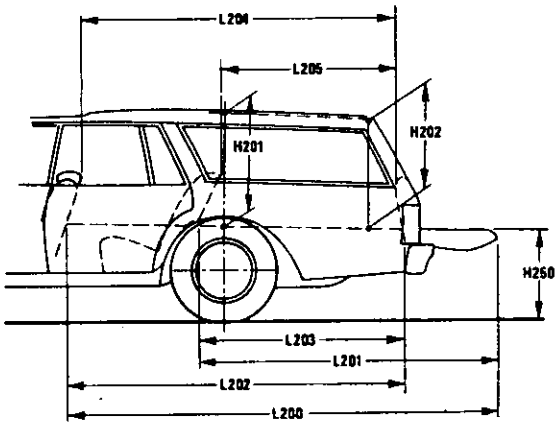
Interior Car And Body Dimensions – Key Sheet

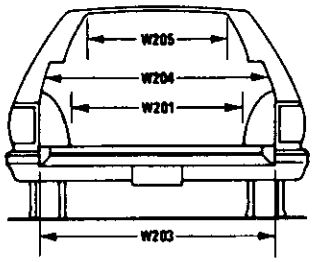
Third Seat



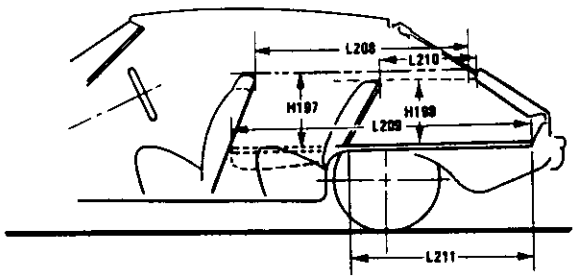


Cargo Space





Station Wagon



Hatchback

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

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, "Devices for Use in Defining and Measuring Vehicle Seating Accommodations,"

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.

W106 FRONT FENDER WIDTH. The dimension measured between the widest points at the front wheel centerline, excluding moldings.

W107 REAR FENDER WIDTH. The dimension measured between the widest points at the rear wheel centerline, excluding moldings.

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 position. 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

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.

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.

L125 COWL POINT "X" COORDINATE.

L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and/or grills are integrated with the profile, measurement is made at the foremost point of front end contour.

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

L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point of the body sheet metal at the zero "Y" plane, excluding ornamentation or bumpers.

Height Dimensions

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

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.

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

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 arc 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.

H133 BOTTOM OF DOOR CLOSED–FRONT 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.

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.

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

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 H102.

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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.

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

H147 RAMP 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.

Glass Areas

S1 Windshield area.

S2 Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.

S3 Backlight areas.

S4 Total area. Total of all areas (S1 + S2 + S3).

Fiducial Mark Dimensions

Fiducial Mark – Number 1

L54 "X" coordinate.

W21 "Y" coordinate.

H81 "Z" coordinate.

H161 Height "Z" coordinate to ground at curb weight.

H163 Height "Z" coordinate to ground.

Fiducial Mark – Number 2

L55 "X" coordinate.

W22 "Y" coordinate.

W82 "Z" coordinate.

H162 Height "Z" coordinate to ground at curb weight.

H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

L7 STEERING WHEEL TORSO CLEARANCE. The minimum dimension measured in the side view from the rearmost edge of the steering wheel, with front wheels in the straight ahead position, to the torso line.

L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.

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

L23 NORMAL DRIVING AND RIDING SEAT TRACK LEVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions.

L31 SgRP–FRONT. "X" COORDINATED.

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.

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.

L42 HIP ANGLE–FRONT. The angle measured between torso line and thigh centerline.

L44 KNEE ANGLE–FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.

L46 FOOT ANGLE–FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.

L53 SgRP–FRONT TO HEEL. The dimension measured horizontally from the SgRP–front to the accelerator heel point.

W3 SHOULDER ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front at height between the belt line and 254 mm (10.0 in.) above the SgRP–front, excluding the door assist strap and attaching parts.

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 of the SgRP–front.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

H13 STEERING WHEEL TO CENTERLINE OF THIGH. The minimum dimension measured from the bottom of steering wheel, with front wheels in the straight position, to the thigh centerline.

H17 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP–front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.

H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.

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

H37 HEADLINING TO ROOF PANEL–FRONT. The dimension measured from the intersection of the headlining and the extended effective head room line normal to the sheet metal.

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.

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.).

H67 FLOOR COVERING THICKNESS–UNDEPRESSED–FRONT. The dimension measured vertically from the surface of the undepressed floor covering to the underbody sheet metal at the accelerator heel point.

PD1 PASSENGER DISTRIBUTION–FRONT.

Rear Compartment Dimensions

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.

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L41 BACK ANGLE–SECOND. The angle measured between a vertical line through the SgRP – second and the torso line.

L43 HIP ANGLE–SECOND. The angle measured between torso line and thigh cenerline.

L45 KNEE ANGLE–SECOND. The angle measured between thigh centerline and lower leg centerline.

L47 FOOT ANGLE–SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).

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

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

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

W4 SHOULDER ROOM–SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP–second at height between 254-406 mm (10.0-16.0 in.) above the SgRP–second, excluding the door assist straps and attaching parts.

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

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.

H38 HEADLINING TO ROOF PANEL–SECOND. The dimension measured from the intersection of the headlining and the extended effective head room line normally to the roof sheet metal.

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.

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).

H73 FLOOR COVERING–DEPRESSED–SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.

PD2 PASSENGER DISTRIBUTION–SECOND.

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-J1100.

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

L85 SgRP COUPLE DISTANCE–THIRD. The dimension measured horizontally from the SgRP–second the the SgRP-third.

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).

L87 KNEE CLEARANCE–THIRD. The minimum dimension from the knee pivot center to the back of second seatback minus a constant of 51mm (2.0 in). With rear-facing third seat, dimension is measured to closure.

L88 BACK ANGLE–THIRD. Mesured in the same manner as L41.

L89 HIP ANGLE–THIRD. Measured in the same manner as L43.

L90 KNEE ANGLE–THIRD. Measured in the same manner as L45.

L91 FOOT ANGLE–THIRD. Measured in the same manner as L47.

W85 SHOULDER ROOM–THIRD. Measured in the same manner as W4.

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

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

PD3 PASSENGER DISTRIBUTION–THIRD.

SD1 SEAT FACING DIRECTION–THIRD.

Station Wagon – Cargo Space Dimensions

L200 CARGO LENGTH–OPEN–FRONT. The minimum dimension measured longitudinally from the back of the front 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 to the rearmost point on 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 backpanel 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 he 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 to the sheet metal.

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W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear 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.

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

H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinate 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 LUGGAGE CAPACITY–REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V5 TRUCKS AND MPV'S WITH OPEN AREA.

Measured in inches:

$$\frac{L506 \times W500 \times H503}{1728} = ft^3$$

Measured in mm:

$$\frac{L506 \times W500 \times H503}{10^9} = m^3 \text{ (cubic meter)}$$

V6 TRUCKS AND MPV'S WITH CLOSED AREA.

Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = ft^3$$

Measured in mm:

$$\frac{L204 \times W500 \times H505}{10^9} = m^3 \text{ (cubic meter)}$$

V8 HIDDEN LUGGAGE CAPACITY–REAR OF SECOND SEAT. The total volume of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the second seat.

V10 STATION WAGON CARGO VOLUME INDEX.

Measured in inches:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = ft^3$$

Measured in mm:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{10^9} = m^3 \text{ (cubic meter)}$$

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).

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 minimum dimension measured from the "X" plane tangent to the 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–SECOND HATCHBACK. The minimum horizontal dimension measured 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.

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 dimension measured vertically from the second seat back to the undepressed floor covering.

V3 HATCHBACK.

Measured in inches:

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

Measured in mm:

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

V4 HIDDEN LUGGAGE CAPACITY–REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V11 HATCHBACK CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:

Measured in inches:

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

Measured in mm:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{10^9} = m^3 \text{ (cubic meter)}$$

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