



MOTOR VEHICLE

Specifications

METRIC (U.S. Customary)

Passenger Car

1984

Manufacturer PONTIAC MOTOR DIVISION GENERAL MOTORS CORPORATION	Car Line FIREBIRD	
Mailing Address ONE PONTIAC PLAZA PONTIAC, MICHIGAN 48053	Issued 7-15-83	Revised

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

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

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

MVMA Specifications Form
Passenger Car

Car Line FIREBIRD
Model Year 1984 Issued 7-15-83 Revised (•) _____

FEATURE HIGHLIGHTS

(Manufacturers selected list of special vehicle features;
indicate if new or model year introduced)

BODY:

- o Added Colors For S/E and Trans Am
- o Padded Applique Added to R.S. I/P For Storage
- o New "Image" Headrests for Uplevel Trim
- o New I/P Map Pocket Graphics on Uplevel Trim.

CHASSIS:

- o All Weather Tires Standard - Improved Performance and Handling
- o Handling Packages Upgraded (Y99 & WS6)

ENGINE: / TRANSMISSION

- o L69 V8 4-BBL Engine Replaces LV5
- o Swirl Port Cylinder Heads on 2.5L L4 Engine (9:1 Comp. Ratio)
- o Hydraulic Clutch W/Manual Transmission - Improved Modulation & Reduced Effort.
- o Manual Transmission Gear Ratios Revised to Improve Drivability and Off-the-Line-up Performance.
- o Sliding Pin Park Lock in Steering Column.
- o Manual Transmission Shift Light

ELECTRICAL:

- o All ETR Radios Have Vacuum Fluorescent Display, Wide Range Control and Higher Output.
- o New Pontiac Distinctive Orange I/P Lighting.
- o Improved W/S Wiper/Washer System (Phase II).

OTHER:

- o New Gear Shift Knobs for Both Manual and Automatic Transmissions.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Table of Contents

1	Car Models
2	Power Teams
3-6	Engine
4	Lubrication System
4	Diesel Information
5	Cooling System
6	Fuel System
7	Vehicle Emission Control
7	Exhaust System
8-10	Transmission, Axles and Shafts
11	Suspension-Front and Rear
12-13	Brakes
13	Tires and Wheels
14-15	Steering
15-16	Electrical
17	Body — Miscellaneous Information
17	Glass
17	Frame
18	Passive Restraint System
19	Convenience Equipment
20-22	Car and Body Dimensions
23	Vehicle Fiducial Marks
24	Lamps and Headlamps
25	Vehicle Mass (Weight)
26	Optional Equipment Mass (Weight)
27-31	Car and Body Dimension Key Sheets
32	Index
	Supplemental Page
	Feature Highlights Page

NOTE:

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

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Car Models

Model Description FWD/RWD	Introduction Date	Make, Car Line, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load—Kilograms (Pounds)
<u>FIREBIRD HATCHBACK COUPE</u>				
FIREBIRD		2FS87	4 (2/2)	45.36 (100.0)
FIREBIRD TRANS AM		2FW87	4 (2/2)	45.36 (100.0)
FIREBIRD S/E		2FX87	4 (2/2)	45.36 (100.0)

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Power Teams (Indicate whether standard or optional)

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

SERIES AVAILABILITY	ENGINE					E x h a u s t S/D	TRANSMISSION TRANSAXLE		AXLE RATIO (std. first)	
	Displ. Liters (in ³)	Carb. (Barrels, Fl. etc.)	Compr Ratio	SAE Net at RPM			BASE	OPT.	BASE	OPT.
				kW (bhp)	Torque N - m (lb. ft.)					
FIREBIRD (STD.)	L4 2.5L (151 CID)	EFI	9.0:1	69@	179@	S	4M		3.42	
				4000	2800			5M	3.73	3.42
				(92@	(132@			4A- 700R4	3.73	(ECON. LDR.)
				4400)	2800)					
S/E (DELETE OPT.)							5M		3.73	
							4A- 700R4	3.73		
FIREBIRD (OPT.)	V6 2.8L (171 CID) LCI	2-bb1	8.5:1	80@	197@	S	5M		3.42	
				4800	2100			4A- 700R4	3.23	
				(107@	(145@					
				4800)	2100)					
S/E (STD. CALIF.)							5M		3.73	
S/E (STD. EXC. CALIF.)	V6 2.8L (171 CID) LL1 HO	2-bb1	8.9:1	93@	197@	S	5M		3.23	3.73
				5400	2400			4A- 700R4	3.23	
				(125@	(145@					
				5400)	2400)					
T/A (STD.)	V8 5.0L (305 CID) LG4	4-bb1	8.6:1	112@	325@	D	5M		3.73	
				4000	2400			4A- 700R4	3.23	(REQ T/W WS6)
				(150@	(240@					
				4000)	2400)					
FIREBIRD (OPT.)										5M
							4A- 700R4	3.08		
S/E (OPT.)							5M		3.23	3.73
								4A- 700R4	3.08	3.23
T/A (OPT.)	V8 5.0L (305 CID)L69 HO	4-bb1	9.5:1	142@	325@	D	5M		3.73	
				4800	3200			4A- 700R4	3.42	
				(190@	(240@					
				4800)	3200)					

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID)
 ELECTRONIC FUEL INJECTION
 RPO L09

2.8L V6 (173 CID)
 2-BBL. CARBURETOR
 RPO LCI RPO L11 (HO)

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sonic, donc, ohv, hemi, wedge, pre-camber, etc.)	In Line Front Longitudinal	60° V
No. of cylinders	4	6
Bore	101.6 (4.0)	89.0 (3.50)
Stroke	76.2 (3.0)	76.0 (2.99)
Bore spacing (c/l to c/l)	111.8 (4.40)	
Cylinder block material	Cast Iron	
Cylinder block deck height	232.2 (9.2)	224 (8.82)
Deck clearance (minimum) (above or below block)	.64 (.025) Below	0.12 (.005) Below
Cylinder head material	Cast Iron	
Cylinder head volume (cm ³)	45.83 (2.8)	107.6 (6.567)
Head gasket thickness (compressed)	.97 (.03819)	.838 (.033)
Minimum combustion chamber total volume (cm ³)	68.85 (4.2)	51.5 (3.14) 51.346 (3.133)
Cyl. no. system (front to rear)*	L. Bank	1-2-3-4
	R. Bank	---
Firing order	1-3-4-2	1-3-5 2-4-6
Recommended fuel (leaded, unleaded, diesel)	Unleaded	
Fuel antiknock index (R + M) / 2	87	
Total dressed engine mass (wt) dry**	173.0 (381.4)	176.5 (389)

Engine - Pistons

Material & mass, g (weight, oz.) piston	Cast Aluminum Alloy 650 (22.93)	Aluminum Alloy 467 (16.47)
---	------------------------------------	-------------------------------

Engine - Camshaft

Location	Right Side of Block	In Block Above Crankshaft
Material (kg., weight, lbs.)	Cast Iron 3.859 (8.51)	3.098 (6.83)
Drive type	Chain/belt	Chain
	Width/pitch	14.48 (.570)-W; 12.7 (.5)-P 19.4 (0.764)/9.53

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

** Dressed engine mass (weight) includes the following: All those items necessary to make the engine a complete ready-to-run unit.

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO LG4

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO L69

ENGINE - GENERAL

Type & description (inline, V, angle, flat location, front, mid, rear, transverse, longitudinal, sonic, donc, ohv, hemi, wedge, pre-camber, etc.)	90° Front Longitudinal
No. of cylinders	8
Bore	94.92 (3.736)
Stroke	88.39 (3.48)
Bore spacing (c/i to c/i)	111.8 (4.40)
Cylinder block material	Cast Iron
Cylinder block deck height	229.2 (9.025)
Deck clearance (minimum) (above or below block)	.635 (.025) Below
Cylinder head material	Cast Iron
Cylinder head volume (cm³)	---
Head gasket thickness (compressed)	.533 (.021)
Minimum combustion chamber total volume (cm³)	58.9 (3.59)
Cyl. no system (front to rear)*	L. Bank 1-3-4-7
	R. Bank 2-4-6-8
Firing order	1-8-4-3-6-5-7-2
Recommended fuel (leaded, unleaded, diesel)	Unleaded
Fuel antiknock index (R + M) 2	87
Total dressed engine mass (wt) dry**	--

Engine - Pistons

Material & mass, g (weight, oz.) piston	Aluminum/502 (17.7)
---	---------------------

Engine - Camshaft

Location	In Block Above Crankshaft
Material (kg, weight, lbs.)	Cast Iron 3.969 (8.75)
Drive type	Chain/belt
	Width/pitch 15.975 (.625)/.5

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

** Dressed engine mass (weight) includes the following:

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID)	2.8L V6 (173 CID)
ELECTRONIC FUEL INJECTION	2-BBL. CARBURETOR
RPO LQ9	RPO LC1 RPO LL1 (HO)

Engine - Valve System

Lifters (std., opt., n.a.)	Hydraulic	Standard
	Solid	--

Engine - Connecting Rods

Material & mass (kg., weight, lbs.)	Cast Arma Steel .621 (1.37)	SAE 1037 or 1038 Steel .602 (1.33)
-------------------------------------	--------------------------------	---------------------------------------

Engine - Crankshaft

Material	Nodular Cast Iron	
Mass (kg., weight, lbs.)	12.4 (27.34)	14.170 (31.24)
End thrust taken by bearing (no.)	5	3

Engine - Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	259 (37.5)	345-448 (50-65) @2000	@1200
Type oil intake (floating, stationary)	Stationary		
Oil filter system (full flow, part, other)	Full Flow		
Capacity of c/case, less filter-refill-L (qt.)	2.84 (3.0)	3.8 (4.0)	

Engine - Diesel Information

Glow plug, current drain at 0°F		
Injector nozzle	Type	Not
	Opening pressure [kPa (psi)]	Applicable
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler		
Oil filter		

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO LG4

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO L69

Engine - Valve System

Lifters (std., opt., n.a.)	Hydraulic	Standard
	Solid	--

Engine - Connecting Rods

Material & mass (kg., weight, lbs.)	SAE 1037 or 1038 Steel .604 (1.33)
-------------------------------------	---------------------------------------

Engine - Crankshaft

Material	Nodular Cast Iron
Mass (kg., weight, lbs.)	23.360 (51.50)
End thrust taken by bearing (no.)	5

Engine - Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	345-448 (50-65) @ 2000
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	4.5 (5.0)

Engine - Diesel Information

Glow plug, current drain at 0°F		
Injector nozzle	Type	Not
	Opening pressure [kPa (psi)]	Applicable
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler		
Oil filter		

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID) ELECTRONIC FUEL INJECTION RPO LQ9	2.8L V6 (173 CID) 2-BBL. CARBURETOR RPO LC1 RPO LL1 (HO)
---	--

Engine — Cooling System

Coolant recovery system (std., opt., n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle	
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)	
Circulation thermostat	Type (choke, bypass)	Bypass	Choke
	Starts to open at °C (°F)	91°C (195°F)	90.6°C (195°F)
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	6	10.2
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
	Bearing (type)	Sealed Double Row Ball	
By-pass recirculation (type (inter., ext.))		External	Internal
Radiator core (type (cross-flow vertical cellular tube and fin, other) and material)		Cross Flow	
Cooling system capacity	With heater—L(qt.)	8.65(9.14)AT; 8.79(9.29)MT	12.09(12.78)AT; 12.32(12.93)MT
	With air cond.—L(qt.)	8.67(9.16)AT; 8.81(9.31)MT	12.02(12.69)AT; 12.15(12.84)MT
	Opt. equipment [specify—L(qt.)]	8.75(9.25)AT; 8.89(9.4)MT-	12.09(12.78)AT; 12.23(12.93)MT-
Water jackets full length of cyl. (yes, no)		H.D. Radiator	Yes H.D. Radiator
Water all around cylinder (yes, no)			Yes
Radiator core	Std., A/C, HD	Standard	A/C
	Width	527.8 (20.8)	667.5 (26.3)
	Height	437.8 (17.2)	527.8 (20.8)
	Thickness	23.5 (.925)	
	Fins per inch	5.08 (MT)	4.23 (AT)
Fan	Std., elec., opt.	Standard	Option
	Number of blades & type (flex, solid, material)	4, Solid; 7 Staggered	5, Staggered
	Diameter & projected width	381.0 (15.0); 406.4 (16.0)	457.2 (18.0)
	Ratio (fan to crankshaft rev.)	1.16:1 ; 1.25:1	1.08:1
	Fan cutout type	None ; Clutch	Clutch
	Drive [type (direct, remote)]	V-Belt, One	V-Belt, One
	RPM at idle (elec.)		
	Motor rating (wattage) (elec.)		
	Motor switch (type & location) (elec.)		
	Switch point (temp., pressure) (elec.)		
	Fan shroud (material)		

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO 1G4	5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO 1G9
---	---

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle	
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at °C (°F)	90.6°C (195°F)	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	14	
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
	Bearing (type)	Sealed Double Row Ball	
By-pass recirculation [type (inter., ext.)]		Internal	
Radiator core [type (cross-flow vertical cellular tube and fin, other) and material]		Cross Flow	
Cooling system capacity	With heater—L(qt.)	14.41 (15.23)	15.21 (16.08)
	With air cond.—L(qt.)	14.88 (15.73)	15.66 (16.55)
	Opt. equipment [specify—L(qt.)]	14.96 (15.81)	15.74 (16.64)
Water jackets full length of cyl. (yes, no)		Yes	Yes
Water all around cylinder (yes, no)		Yes	Yes
Radiator core	Std., A/C, HD	Standard A/C	Standard A/C
	Width	668 (26.3)	
	Height	437.8 (17.24)	430 (16.9)
	Thickness	23.5 (.925)	40.2 (1.6)
	Fins per inch	4.3 ; 6.35(MAN; 7.26(AUTO)	6.4 ; 85
Fan	Std., elec., opt.	Standard	Standard Electric
	Number of blades & type (flex, solid, material)	7, Staggered	5
	Diameter & projected width	432 (17.0)	410 (16.1)
	Ratio (fan to crankshaft rev.)		
	Fan cutout type	Clutch	Electric
	Drive [type (direct, remote)]	V-Belt, One	
	RPM at idle (elec.)		1500
	Motor rating (wattage) (elec.)		150W
	Motor switch (type & location) (elec.)		In Head
	Switch point (temp., pressure) (elec.)		
	Fan shroud (material)		Plastic

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID) ELECTRONIC FUEL INJECTION RPO LQ9	2.8L V6 (173 CID) 2-BBL. CARBURETOR RPO LC1 RPO LL1 (HO)
---	--

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	Carburetor
Carburetor	Mfr.		Rochester Varajet
	Choke (type)	None	Electric
	Idle spd.-rpm (spec neutral or drive and propane if used)	Manual	
		Automatic	
Idle A/F mix.		Preset	
Fuel injection	Point of injection (no.)	One	
	Constant, pulse, flow	Pulse	
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	83.0 (12.0)	
Intake manifold heat control (exhaust or water) thermostatic or fixed		Water	Exhaust
Air cleaner type	Standard	Replaceable Paper Element, Single Snorkel	
	Optional	--	
Fuel pump	Type (elec. or mech.)	Electric	Mechanical
	Location (eng., tank)	Fuel Tank	Lower Left Front
	Pressure range [kPa (psi)]	83.0 (12.0)	41.4-51.7 (6-7.5)

Fuel Tank

Capacity [refill L (gallons)]		60.2 (15.9)	61.0 (16.1)
Location (describe)		Rear Center - Over Rear Axle	
Attachment		Underbody Strap	
Material		Steel	
Filler pipe	Location & material	Left Rear Quarter	
	Connection to tank	Solid Solder	
Fuel line (material)		Steel	
Fuel hose (material)		Rubber	
Return line (material)		Steel	
Vapor line (material)		Steel	
Extended range tank	Opt., n.a.		
	Capacity [L (gallons)]		
	Location & material		
	Attachment		
Auxiliary tank	Opt., n.a.		
	Capacity [L (gallons)]		
	Location & material		
	Attachment		
	Selector switch or valve		
Separate fill			

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO LG4

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO L69

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

Induction type: carburetor, fuel injection system, etc.		Carburetor	
Carburetor	Mfr.	Rochester Quadrajet	
	Choke (type)	Electric	
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	
		Automatic	
Idle A/F mix.			
Fuel injection	Point of injection (no.)		
	Constant, pulse, flow		
	Control (electronic, mech.)		
	System pressure [kPa (psi)]		
Intake manifold heat control (exhaust or water) thermostatic or fixed		Exhaust	
Air cleaner type	Standard	Replaceable Paper Element; Single Snorkel	
	Optional	--	
Fuel pump	Type (elec. or mech.)	Mechanical	
	Location (eng., tank)	Lower Right Front	
	Pressure range [kPa (psi)]	51.7-62.0 (7.5-9.0)	

Fuel Tank

Capacity (refill L (gallons))		61.0 (16.1)
Location (describe)		Rear Center - Over Rear Axle
Attachment		Underbody Strap
Material		Steel
Filler pipe	Location & material	Left Rear Quarter
	Connection to tank	Solid Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt. n.a.	N/A
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt. n.a.	
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (•) _____

Engine Description/Carb.
 Engine Code

2.5L I4 (151 CID) ELECTRONIC FUEL INJECTION RPO LQ9	2.8L V6 (173 CID) 2-BBL. CARBURETOR RPO LC1	RPO LL1 (HO)
---	---	--------------

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		3C-Throttle Body Injection Single Bed 3-Way, EST, RPEGR	Air Injection with Computer Command Control
	Air Injection	Pump or pulse	Not Available	Vane
		Driven by	---	V-Belt
		Air distribution (head, manifold, etc.)	---	Manifold, Converter
		Point of entry	---	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled Flow	Back Pressure Modulated Controlled Flow
		Exhaust source	Exhaust Manifold	Manifold Exhaust Crossover
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold	
	Catalytic Converter	Type	Single Bed, Oxidizing & Reducing	Dual Bed, Oxidizing & Reducing
		Number of	One	
		Location(s)	Forward Under Floor	Beneath RF Underbody
		Volume [L (in ³)]	2.623 (160)	2.782 (170)
		Substrate type	Pellets	Monolith
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction System	
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum	
	Discharges (to intake manifold, other)		Inlet Manifold	
	Air inlet (breather cap, other)		TBI Air Cleaner	Carburetor Air Cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister	
		Carburetor	---	Canister
Electronic system	Vapor storage provision		Canister	
	Closed loop (yes/no)		Yes	
	Open loop (yes/no)		No	

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single	Single With Crossover	
Muffler no. & type (reverse flow, straight thru, separate resonator)		Dual Outlet Reverse Flow	Single Outlet Reverse Flow	Dual Outlet Reverse Flow
Resonator no. & type		None		
Exhaust pipe	Branch o.d., wall thickness	--	44.5x1.02	50.8x1.02
	Main o.d., wall thickness	44.5x1.09(1.75x.043)	50.8x1.02	57.15x1.02
	Material	Stainless Steel	(a)	
Inter- mediate pipe	o.d. & wall thickness	50.8x1.09(2.0x.043)	57.15x1.14(2.25x.045)	
	Material	Aluminum Coated Steel		
Tail pipe	o.d. & wall thickness	57.15x1.09(2.25x.043)	50.8x1.09(2.0x.043)	
	Material	Aluminum Coated Steel		

(a) Inner and Outer Tubing Stainless Steel With 2.13 mm (.084) Air Gap
 Between Tubes.

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (•) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO LG4	5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO L69
---	---

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air Injection With Computer Command Control
	Air Injection	Pump or pulse	Vane
		Driven by	V-Belt
		Air distribution (head, manifold, etc.)	Manifold Converter
		Point of entry	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Pulse Width Modulated
		Exhaust source	Manifold Exhaust Crossover
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Dual Bed, Oxidizing and Reducing
		Number of	One
		Location(s)	Beneath RF Underbody
		Volume [L (in ³)]	2.786 (170)
		Substrate type	Monolith
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction System
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum
	Discharges (to intake manifold, other)		Inlet Manifold
	Air inlet (breather cap, other)		Air Cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	Canister
	Vapor storage provision		Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single With Dual Tailpipes	Dual With Single Exhaust Pipe
Muffler no. & type (reverse flow, straight thru, separate resonator)		One, Reverse Flow	Two, Reverse Flow
Resonator no. & type		Dual	--
Exhaust pipe	Branch o.d., wall thickness	(a)	(a)
	Main o.d., wall thickness	63.5 x 1.02 (2.5 x .04)	(b)
	Material		
Intermediate pipe	o.d. & wall thickness	57.15 x 1.14 (2.25 x .045)	(c)
	Material	Aluminum Coated Steel	Stainless Steel
Tail pipe	o.d. & wall thickness	50.8x1.07 (2.0x.042)	63.5x1.3 (2.5x.05)
	Material	Aluminum Coated Steel	Stainless Steel

- Right hand branch-50.8x.86 (2.0x.034)- laminated stainless steel tubing.
- Left hand branch-57.15x1.02 (2.25x.04) stainless steel outer tube, 50.8x.86 (2.0x.034) stainless steel inner tube, 2.155 (.085) air gap between tubes.
- (b) - Stainless steel inner and outer tubes with 2.155 (.085) air gap between tubes.
- (c) - With dual pipes 44.5x.86 (1.75x.034), stainless steel, to dual resonators with 63.5x1.3 (2.5x.05) tail pipes for WS6. Page 7A

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID)
 ELECTRONIC FUEL INJECTION
 RPO L09

2.8L V6 (173 CID)
 2-BBL. CARBURETOR
 RPO LC1 RPO LL1 (HO)

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.)	Not Available	
Manual 4-speed (std., opt., n.a.)	Standard	Not Available
Manual 5-speed (std., opt., n.a.)	Optional	Standard
Manual overdrive (std., opt., n.a.)	Not Available	
Automatic (std., opt., n.a.)	Optional	
Automatic overdrive (std., opt., n.a.)	Optional	

Manual Transmission/Transaxle

Number of forward speeds		4	5	5
Transmis- sion ratios	In first	3.76	3.76	3.50
	In second	2.18	2.18	2.14
	In third	1.42	1.42	1.36
	In fourth	1.00	1.00	1.00
	In fifth	--	.72	.78
	In overdrive	--	--	--
	In reverse	3.76	3.76	3.39
Synchronous meshing (specify gears)		All Forward Gears		
Shift lever location		Floor		
Lubricant	Capacity [L (pt)]	3.25 (6.9)		
	Type recommended	GM Dexron II		
	SAE vis- cosity number	Summer		
		Winter		
		Extreme cold		

Clutch (Manual Transmission)

Make & type		Borg and Beck - Dry Disc	
Type pressure plate springs		Bellville	
Total spring load [N (lb.)]		1360	5782 (1300)
No. of clutch driven discs		One	
Clutch facing	Material	Woven Molded Asbestos	
	Manufacturer	Borg & Beck	
	Part number	14045173	14036057
	Rivets/plate	36	
	Rivet size	.142 dia.	--
	Outside & inside dia.	321.78x155.58(9.125x6.125)	246x152.4(9.685x6.0)
	Total eff. area [cm ² (in ²)]	231.825 cm ²	292.88 (45.4)
	Thickness	7.50-8.00 mm (.295-.315)	
Engagement cushion method		Driven Plate Wave Spoke Springs	
Release bearing	Type & method of lubrication	Ball Thrust-Prepacked and Sealed	
Torsional damping	Method: springs, friction material	Coil Springs and Metal to Metal Friction	

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO LG4

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO L69

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.)	Not Available
Manual 4-speed (std., opt., n.a.)	Not Available
Manual 5-speed (std., opt., n.a.)	Standard
Manual overdrive (std., opt., n.a.)	Not Available
Automatic (std., opt., n.a.)	Not Available
Automatic overdrive (std., opt., n.a.)	Optional

Manual Transmission/Transaxle

Number of forward speeds		5
Transmission ratios	In first	2.95
	In second	1.94
	In third	1.34
	In fourth	1.00
	In fifth	0.73
	In overdrive	--
	In reverse	2.76
Synchronous meshing (specify gears)		All Forward Gears
Shift lever location		Floor
Lubricant	Capacity [L (pt.)]	
	Type recommended	GM Dexron II
	SAE viscosity number	Summer
		Winter
		Extreme cold

Clutch (Manual Transmission)

Make & type		Borg & Beck - Dry Disc
Type pressure plate springs		Bellville
Total spring load [N (lb.)]		7117 (1600)
No. of clutch driven discs		One
Clutch facing	Material	Molded Asbestos
	Manufacturer	Borg & Beck
	Part number	14033032
	Rivets/plate	40
	Rivet size	
	Outside & inside dia.	262.6x165.0 (10.34x6.5)
	Total eff. area (cm ² (in ²))	327.8 (50.8)
	Thickness	7.75 (.305)
Release bearing	Engagement cushion method	
	Type & method of lubrication	
Torsional damping	Method: springs, friction material	

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID) ELECTRONIC FUEL INJECTION RPO LQ9	2.8L V6 (173 CID) 2-BBL. CARBURETOR RPO LC1 RPO LL1 (HO)
---	--

Automatic Transmission/Transaxle

Trade name	4-Speed Automatic	
Type and special features (describe)	Torque Converter With Planetary Gears 700-R4	
Selector	Location	On Console
	Ltr./No. designation	P-R-N-D-D-2-1
Gear ratios	R	2.29
	D	.70
	L ₃	1.00
	L ₂	1.63
	L ₁	3.06
Max. upshift speed - drive range [km/h (mph)]	101 (63)	115 (70)
Max. kickdown speed - drive range [km/h (mph)]	96 (60)	112 (67)
Min. overdrive speed [km/h (mph)]	62 (38)	54 (33)
Torque converter	Number of elements	3
	Max. ratio at stall	2.48 2.48
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	245 298
Lubricant	Capacity [refill L (pt.)]	10.9 (23.0)
	Type recommended	GM Dexron II
Oil cooler (std., opt., NA, internal, external, air, liquid)	Standard, Liquid	

Axle or Front Wheel Drive Unit

Type (front, rear)	Rear	
Description	Semi-floating axle, overhung hypoid driven pinion and ring gear	
Limited slip differential (type)	Disc Clutch	
Drive pinion offset	1.75	
Drive pinion (type)	--	
No. of differential pinions	Two	
Pinion adjustment (shim, other)	Shim	
Pinion bearing adj. (shim, other)	Collapsible Spacer	
Driving wheel bearing (type)	Roller Bearing	
Lubricant	Capacity [L (pt.)]	4.25
	Type recommended	GL5 Gear Lube
	SAE viscosity number	Summer 80W or 80W-90
		Winter 80W or 80W-90
		Extreme cold 80W or 80W-90

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

Axle ratio (or overall top gear ratio)		3.08	3.23	3.42	3.73
No. of teeth	Pinion	13	13	12	11
	Ring gear or gear	40	42	41	41
Ring gear o.d.	191 (7.5)				
Transaxle	Transfer gear ratio				
	Final drive ratio				

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

Car Line FIREBIRD

Model Year 1984

Issued 7-15-83

Revised (*)

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO LG4

5.0L V8 (305 CID)
 4-BBL. CARBURETOR
 RPO L69

Automatic Transmission/Transaxle

Trade name		4-Speed Automatic	
Type and special features (describe)		Torque Converter with Planetary Gears 700-R4	
Selector	Location	On Console	
	Ltr./No. designation	P-R-N-D-D-2-1	
Gear ratios	R	2.29	
	D	.70	
	L ₃	1.00	
	L ₂	1.63	
	L ₁	3.06	
Max. upshift speed - drive range [km/h (mph)]		108 (66)	
Max. kickdown speed - drive range [km/h (mph)]		108 (66)	105 (63)
Min. overdrive speed [km/h (mph)]		50 (30)	
Torque converter	Number of elements	3	
	Max. ratio at stall	2.34	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	298 (11.7)	
Lubricant	Capacity [refill L (pt.)]	10.9 (23.0)	
	Type recommended	GM Dexron II	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard - Liquid	

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear	
Description		Semi-floating axle, overhung hypoid driven pinion and rear gear	
Limited slip differential (type)		Disc Clutch	
Drive pinion offset		1.75	
Drive pinion (type)		--	
No. of differential pinions		Two	
Pinion adjustment (shim, other)		Shim	
Pinion bearing adj. (shim, other)		Collapsible Spacer	
Driving wheel bearing (type)		Roller Bearing	
Lubricant	Capacity [L (pt.)]		4.25
	Type recommended		GL5 Gear Lube
	SAE viscosity number	Summer	80W or 80W-90
		Winter	80W or 80W-90
		Extreme cold	80W or 80W-90

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

Axle ratio (or overall top gear ratio)		3.08	3.23	3.73	3.42
No. of teeth	Pinion	13	13	11	12
	Ring gear or gear	42	42	41	41
Ring gear o.d.		191 (7.5)			
Transaxle	Transfer gear ratio				
	Final drive ratio				

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (•) _____

Engine Description/Carb.
 Engine Code

A11

Propeller Shaft — Conventional Drive

Type (straight tube, tube-in-tube, internal-external damper, etc.)		Straight Tube	
Outer diam. x length* x wall thickness	Manual 3-speed trans.	Not Available	
	Manual 4-speed trans.	63.5 x 1056.8 x 1.65 mm (2.5 x 41.6 x .065 in.)	
	Manual 5-speed trans.	63.5 x 1056.8 x 1.65 mm (2.5 x 41.6 x .065 in.)	
	Overdrive	--	
	Automatic transmission	63.5x1135x1.65 mm (3-Spd.); 63.5x1056.8x1.65 (4-Spd.)	
Inter-mediate bearing	Type (plain, anti-friction)	Not Available	
	Lubrication (fitting, prepack)	Not Available	
Slip yoke	Type	Splined	
	Number of teeth	27	
	Spline o.d.	29.84 mm (1.174 in.)	
Universal joints	Make and mfg. no.	Front	Saginaw Size 44
		Rear	Saginaw Size 44
	Number used	Two	
	Type (ball and trunnion, cross)	Cross	
	Rear attach (u-bolt, clamp, etc.)	Strap and Bolt	
	Bearing	Type (plain, anti-friction)	Anti-Friction
		Lubric. (fitting, prepack)	Prepacked
Drive taken through (torque tube, arms or springs)		Torque Arm	
Torque taken through (torque tube, arms or springs)		Torque Arm	

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

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Body Type And/Or
 Engine Displacement

All

Suspension – General

Car leveling	Std./opt./n.a.	Not Available
	Type (air, hyd., etc.)	---
	Manual/auto. controlled	---
Provision for brake dip control		Front Suspension Geometry
Provision for accel. squat control		Rear Suspension Geometry
Special provisions for car jacking		Jacking Provisions on Rocker
Shock absorber (front & rear)	Type	Direct Double-Action Hydraulic
	Make	Delco
	Piston diameter	54mm (2.125 in.) Front; 25 (1.0) Rear
	Rod diameter	

Suspension – Front

Type and description		Independent With Coil Springs
Travel	Full jounce	75mm (2.95 in)
	Full rebound	95mm (3.74 in)
Spring	Type (coil, leaf, other)	Coil
	Material	Alloy Steel
	Size (coil design height & i.d., bar length x dia.)	260 x 103.0; 2490 x 15mm, Base (10.2 x 4.06; 98 x .59 in)
	Spring rate [N/mm (lb./in.)]	58.0 (Base L4 & V6); 64.0 (Base V8 & S/E L4, V6)*
	Rate at wheel [N/mm (lb./in.)]	9.62 (54.9)
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	Steel-27mm(Base); 30mm(S/E & T/A); 32mm or 34mm(W/WS6 Option)

Suspension – Rear

Type and description		Salisbury Axle With Torque Arm, LCA, Track Bar, Coil Springs
Drive and torque taken through		LCA & Torque Arm
Travel	Full jounce	85 (3.3)
	Full rebound	118 (4.6)
Spring	Type (coil, leaf, other)	Coil
	Material	Alloy Steel
	Size (length x width, coil design height & i.d., bar length & dia.)	254.0 x 102.6; 2709 x 12.0 (10 x 4.03; 27.9 x .472 in.)
	Spring rate [N/mm (lb./in.)]	18/25; 20/23 (W/WS6 Option)
	Rate at wheel [N/mm (lb./in.)]	18 (Exc. T/A); 32 (T/A)
	Mounting insulation (type)	Rubber Isolated
	II leaf	No. of leaves Shackle (comp. or tens.)
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	Steel - 18mm (S/E & T/A); 21, 23 or 25 (W/WS6)
Track bar (type)		HAT Section With Rubber Bushings

*70.0 (S/E & T/A V8); 96.0 (W/WS6 Option)

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Body Type And/Or
 Engine Displacement

All

Brakes — Service

Description			
Brake type (std., opt., n.a.)	Front (disc or drum)		Disc
	Rear (disc or drum)		Drum; Disc Optional
Self-adjusting (std., opt., n.a.)			Standard
Special valving	Type (proportion, delay, metering, other)		Metering and Proportioning
Power brake (std., opt., n.a.)			Standard
Booster type (remote, integral, vac., hyd., etc.)			200 mm (7.87 in.) Tandem Vacuum
Vacuum source (inline, pump, etc.)			Engine
Vacuum reservoir (volume in.³)			
Vacuum pump-type (elec., gear driven, belt driven, if other so state)			None
Anti-skid device type (std., opt., n.a.) (F/R)			Not Available
Effective area [cm²(in.²)] *			615.5 (95.42)
Gross lining area [cm²(in.²)] ** (F/R)			691.6 (107.22)
Swept area [cm²(in.²)] *** (F/R)			1985.1 (307.7)
Rotor	Outer working diameter	F/R	F-267 (10.5); R-267 (10.5)
	Inner working diameter	F/R	F-171.5 (6.75);
	Thickness	F/R	F-26.2 (103); R-26.2 (103)
	Material & type (vented/solid)	F/R	F-Semi-Metallic - Vented
Drum	Diameter (nominal)	F/R	R-241 (9.5)
	Type and material	F/R	R-Cast Iron Finned (Alum. for Selected Applications)
Wheel cylinder bore			F-64 (2.5); R-19 (.75)
Master cylinder	Bore/stroke	F/R	Bore: 24 (.94) - W/Disc/Drum; 25.4 (1.0) W/4-Wheel Disc #
Pedal arc ratio			3.25:1
Line pressure at 445 N (100 lb.) pedal load [kPa (psi)]			
Lining clearance per shoe		F/R	Self Adjusting F & R
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)	Riveted, 8
		Rivet size	5.33 x 7.92 (.210 x .312)
		Manufacturer	Delco Moraine
		Lining code	--
		Material	Semi-Metallic
		*** Primary or out-board	125 x 48.4 x 11.04 (4.92 x 1.91 x .435)
		Size Secondary or in-board	Same
		Shoe thickness (no lining)	Inboard 15.84 (.620); Outboard 13.97 (.550)
	Rear wheel	Bonded or riveted (rivets/seg.)	Riveted 10 Primary, 12 Secondary
		Manufacturer	Delco Moraine
		Lining code	--
		Material	Asbestos
		*** Primary or out-board	192.5x50.8x4.98 (7.58x2.0x0.196)
		Size Secondary or in-board	249.6x50.8x6.75 (9.83x2.0x0.266)
Shoe thickness (no lining)		9.7 (0.380)	

* 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 Work Dia. minus Square of Inner Working Dia. multiplied by Pi/2 for each brake.)

**** Size for drum brakes includes length x thickness. #Stroke: 37.1(1.46) - W/Disc/Drum; 37.35(1.47) W/4-Wheel Disc

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (•) _____

Body Type And/Or
 Engine Displacement

All

Tires And Wheels (Standard)			BASE	S/E, T/A or T/W Y99	T/W WS6	16"
Tires	Size (load range, ply)		195/75R14 B/W	205/70R14 B/W	215/65R15 B/W	245/50R16 B/W
	Type (bias, radial, etc.)		Steel Belted Radial			
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	240 KPA (35 PSI)			207KPA (30PSI)
		Rear [kPa (psi)]	240 KPA (35 PSI)			207KPA (30PSI)
	Rev./mile—at 70 km/h (45 mph)		817	823	801	
Wheels	Type & material		Disc, Steel	Turbo Finned, Cast Aluminum		
	Rim (size & flange type)		14x6JJ	14x7JJ	15x7JJ	16 x 8
	Wheel offset		0	8mm		
	Attachment	Type (bolt or stud)	Stud			
		Circle diameter	4.75			
Number & size		(5) M12x1.5				
Spare	Tire and wheel (same, if other describe)		T125/70015, 15x4 Compact (a)			
	Storage position & location (describe)		Vertically Adjacent to RH Quarter Panel			

Tires And Wheels (Optional)

Size (load range, ply)	195/75R14 (Available Base Only)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Rally V, Steel (PE5); Cast Aluminum (N90)
Rim (size, flange type and offset)	14x6JJ
Size (load range, ply)	205/70R14 (Optional Base Only T/W Y99)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Turbo Finned, Cast Aluminum (N24)
Rim (size, flange type and offset)	14x7JJ
Size (load range, ply)	215/65R15 (Optional S/E Only T/W WS6, N/A Base)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Turbo Finned, Cast Aluminum (N24)
Rim (size, flange type and offset)	15x7JJ
Size (load range, ply)	215/65R15 (Optional S/E Only T/W WS6; N/A Base)
Type (bias, radial, etc.)	Steel Belted Radial
Wheel (type & material)	Turbo Finned Cast Aluminum (Required)
Rim (size, flange type and offset)	15x7JJ
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	

Brakes — Parking

Type of control	Hand Lever Application - Push Button Release
Location of control	Between Front Seats
Operates on	Rear Service Brakes
If separate from service brakes	Type (internal or external)
	Drum diameter
	Lining size (length x width x thickness)

(a) P195/75D14 Stowaway T/W G80 Limited Slip Differential

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Body Type And/Or
 Engine Displacement

All

Steering

Manual (std., opt., n.a.)		Not Available		
Power (std., opt., n.a.)		Standard		
Adjustable steering wheel (tilt, swing, other)	Type and description	Tilt-Universally Jointed Steering Shaft at Base of Steering Wheel - 6 Position		
	(Std., opt., n.a.)	Optional		
Wheel diameter	Manual	---		
	Power	368 mm (14.5 in)		
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	12.02 (39.4)	
		Curb to curb (l. & r.)	11.25 (36.9)	
	Inside rear	Wall to wall (l. & r.)	---	
		Curb to curb (l. & r.)	---	
Scrub Radius				
Manual	Gear	Type	Not Available	
		Make	---	
		Ratios	Gear	---
			Overall	---
	No. wheel turns (stop to stop)		---	
Power	Type (coaxial, linkage, etc.)		Coaxial Recirculating Ball	
	Make		Saginaw Steering Gear	
	Gear	Type	Acme Worm Recirculating Ball	
		Ratios	Gear	14:1 (a) 15/13:1 (b) 12.7:1 (c)
			Overall	15.4:1 16.5/14.3 14:1
	Pump (drive)		V-Belt	
	No. wheel turns (stop to stop)		2.7 3.0 2.5	
Linkage	Type		Parallelogram	
	Location (front or rear of wheels, other)		Front	
	Drag links (trans. or longit.)		None	
	Tie rods (one or two)		Two	
Steering axis	Inclination at camber (deg.)		---	
	Bearings (type)	Upper	Ball Stud	
		Lower	Ball Stud	
		Thrust	None	
Steering spindle & joint type		Steering Knuckle with Spherical Joints		
Wheel spindle	Diameter	Inner bearing	31.73-31.74 (1.2493-1.2498)	
		Outer bearing	21.04-21.42 (0.83-0.84)	
	Thread (size)		3/4-20 UNEF-3A (Modified)	
	Bearing (type)		Tapered Roller	

(a) S/E & T/A

(b) Base Firebird

(c) T/A & S/E With WS6 Performance Suspension

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Body Type And/Or
 Engine Displacement

All

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+3.0° +/- .5° (a)
		Camber (deg.)	+1.0° +/- .5°
		Toe-in (outside track-mm (in.))	+2.0° +/- .10° Per Wheel
	Service reset*	Caster	+3.0° +/- .5° (b)
		Camber	+1.0° +/- .5°
		Toe-in	+2.0° +/- .05° Per Wheel
	Periodic M.V. inspection	Caster	--
		Camber	--
		Toe-in	--
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	
		Toe-in (outside track-mm (in.))	
	Service reset*	Camber	
		Toe-in	
	Periodic M.V. inspection	Camber	
		Toe-in	

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

(a) L&R Side to be Equal Within 1.0°

(b) L&R Side to be Equal Within .5°

Electrical — Instruments and Equipment

All Engines

Speed-ometer	Type	7 Digit Odometer with Round Dial and Pointer
	Trip odometer (std., opt., n.a.)	Optional
EGR maintenance indicator		Not Available
Charge indicator	Type	Tell-Tale*
	Warning device	Inherent
Temperature indicator	Type	Tell-Tale*
	Warning device	Inherent
Oil pressure indicator	Type	Tell-Tale*
	Warning device	Inherent
Fuel indicator	Type	Electric Gauge
	Warning device	Inherent
Wind-shield wiper	Type (standard)	2-Speed Electric Depressed Park
	Type (optional)	Intermittent
	Blade length	454 mm (18 in)
	Swept area (cm ² (in. ²))	5792 (898.0)
Wind-shield washer	Type (standard)	Push Button (a)
	Type (optional)	Not Available
	Fluid level indicator	Not Available
Horn	Type	Vibrator
	Number used	Dual Standard
Other		Provisions for electronic cruise control and oxygen sensor flag, check engine, headlamp high beam, turn signals, brake warning light, fasten seat belts.

(a) Fluidic Type Standard. (8) - Replaced by Gauges T/W U21 Gauge, Rally Cluster Opt.

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.5L L4 (151 CID)	2.8L V6 (173 CID)
ELECTRONIC FUEL INJECTION	2-BBL. CARBURETOR
RPO L09	RPO LCI RPO LLI (HO)

Electrical – Supply System

Battery	Make	Delco Remy Freedom II	
	Model, std., (opt.)	83-60 Base; 75-60 W/UA1	83-50 Base; 75-60 W/UA1
	Voltage	12V Nominal	
	Amps at 0°F cold crank	405; 500	315; 500
	Minutes-reserve capacity	75; 90	75; 90
	Amp/hrs. - 20 hr. rate	45; 54	45; 54
	Location	Left Side Engine Compartment	Engine Compartment Right Front
Generator or alternator	Type and rating	(c,d,e,f)	(c,d,e)
	Ratio (alt. crank/rev.)	2.67:1	
	Optional (type & rating)	(d,e,f)	
Regulator	Type	Integral with Alternator	

Electrical – Starting System

Start, motor	Current drain at 0°F	280	285
Motor drive	Engagement type	Positive Shift Solenoid	
	Pinion engages from (front, rear)	Rear	

Electrical – Ignition System

Type	Conventional (std., opt., n.a.)		--	
	Electronic (std., opt., n.a.)		--	
	Other (specify)		High Energy Ignition (HEI) W/ESC	
Coil	Make		Delco Remy	
	Model		1115459 (Remote Mounted)	Integral - 1115463
	Current	Engine stopped - A	0.5	
		Engine idling - A	5.1	
Spark plug	Make		AC	
	Model		R44TSX	R43CTS R42CTS
	Thread (mm)		M14x1.25	M14x1.25 SAE
	Tightening torque [N-m (lb., ft.)]		20-34 (15-25)	9-20 (7-15)
	Gap		1.524 (0.60)	1.143 (0.45)
Distributor	Make		Delco Remy	
	Model		1103551	113519

Electrical – Suppression

Locations & type	Internal alternator capacitor, non-metallic high-tension cables, resistor spark plugs, ignition coil by-pass capacitor, internal AC blower motor by-pass capacitor & A/C compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors a coax capacitor.			
------------------	--	--	--	--

- (a) - Standard
- (b) - Heavy Duty
- (c) - 42 Amp with Heater, 10 SI (22 Amp @ Idle)
- (d) - 66 Amp with Heater, and Heated Backlight, 12 SI (24 Amp @ Idle)
- (e) - 78 Amp with A/C, 12 SI (30 Amp @ Idle)
- (f) - 94 Amp 12 SI (30 Amp @ Idle)

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Engine Description/Carb.
 Engine Code

5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO LG4	5.0L V8 (305 CID) 4-BBL. CARBURETOR RPO L69
---	---

Electrical – Supply System

Battery	Make	Delco Remy Freedom II	
	Model, std., (opt.)	75-60	
	Voltage	12V Nominal	
	Amps at 0°F cold crank	500	
	Minutes-reserve capacity	90	
	Amp/hrs. - 20 hr. rate	54	
	Location	Engine Compartment Right Front	
Generator or alternator	Type and rating	(a,c)	(f)
	Ratio (alt. crank/rev.)	3.13:1	
	Optional (type & rating)	(d,e)	--
Regulator	Type	Integral With Alternator	

Electrical – Starting System

Start, motor	Current drain at 0°F	330
Motor drive	Engagement type	Positive Shift Solenoid
	Pinion engages from (front, rear)	Rear

Electrical – Ignition System

Type	Conventional (std., opt., n.a.)		--
	Electronic (std., opt., n.a.)		--
	Other (specify)		High Energy Ignition (HEI)
Coil	Make		Delco Remy
	Model		Integral
	Current	Engine stopped -- A	--
		Engine idling -- A	--
Spark plug	Make		AC
	Model		R45TS
	Thread (mm)		14 x 1.25 SAE
	Tightening torque (N-m (lb., ft.))		9-20 (7-15)
	Gap		1.143 (0.45)
Distributor	Make		Delco Remy
	Model	1103460	1103539

Electrical – Suppression

Locations & type	Internal alternator capacitor, non-metallic high-tension cables, resistor spark plugs, ignition coil by-pass capacitor, internal AC blower motor by-pass capacitor & A/C compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors a coax capacitor.		
(a) - 42 Amp (& C41/C49), 10 SI (22 Amp @ Idle).			
(c) - 78 Amp (& C49/C60), 12 SI (30 Amp @ Idle).			
(d) - 78 Amp (& C41/C49), 12 SI (30 Amp @ Idle).			
(e) - 85 Amp (& C60), 15 SI (35 Amp @ Idle). Heavy Duty Option			
(f) - 94 Amp 12 SI (30 Amp @ Idle).			

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*)

Body Type

All

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)	Lacquer and Water Base	
Hood	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Spring
	Release control (internal, external)	External
Trunk lid	Type (counterbalance, other)	
	Internal release control (elec., mech., n.a.)	
Hatch back lid	Type (counterbalance, other)	Telescoping Gas Strut Rods
	Internal release control (elec., mech., n.a.)	Option - Electric
Bumper front	Bar material & mass (wt.)	
	Reinforcement material & mass (wt.)	
Bumper rear	Bar material & mass (wt.)	
	Reinforcement material & mass (wt.)	
Vent window control (crank, friction, pivot, power)	Front	None
	Rear	None
Seat cushion type	Front	Molded Foam Pad
	Rear	Molded Foam Pad
	3rd seat	--
Seat back type	Front	Molded Foam Pad
	Rear	Molded Foam Pad
	3rd seat	--
Vehicle ident. no. location	Top LH Side of I/P - Visible Thru Windshield	

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)

Partially - Unitized Frame

Glass

2FS87

Backlight slope angle (deg.)	H121	71.0
Windshield slope angle (deg.)	H122	62.0
Tumble-Home (deg.)	W122	31.5
Windshield glass exposed surface area [cm ² (in. ²)]	S1	9000
Side glass exposed surface area [cm ² (in. ²)]	S2	6520
Backlight glass exposed surface area [cm ² (in. ²)]	S3	6232
Total glass exposed surface area [cm ² (in. ²)]	S4	21752
Windshield glass (type)		Curved - Laminated Plate
Side glass (type)		Curved - Laminated Plate
Backlight glass (type)		Curved - Laminated Plate

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line FIREBIRD
Model Year 1984 Issued 7-15-83 Revised (*)

Body Type

SAE Ref. No.	All
--------------------	-----

Restraint System

Active restraint system	Standard/ optional	Standard	
	Type and description	Lap & Shoulder Belt Combo.	Lap Belt
	Location	Front (2)	Rear (2)
Passive seat belts	Standard/ optional	Not Available	
	Power/ manual	Not Available	
	2 or 3 point	Not Available	
	Knee bar/ lap belt	Not Available	

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

Car Line FIREBIRD
Model Year 1984 Issued 7-15-83 Revised (*)

A11

Convenience Equipment

[illegible]

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line FIREBIRD

Model Year 1984 Issued 7-15-83 Revised (*)

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each car line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice.
J1100a "Motor Vehicle Dimensions," unless otherwise specified.

Body Type

SAE
Ref.
No.

2FS87

Width

Tread (front)	W101	1541 (60.7)
Tread (rear)	W102	1564 (61.6)
Vehicle width	W103	1838 (72.4)
Body width at Sg RP (front)	W117	1830 (72.0)
Vehicle width (front doors open)	W120	3939 (155.1)
Vehicle width (rear doors open)	W121	--

Length

Wheelbase	L101	2566 (101.0)
Vehicle length	L103	4823 (189.9)
Overhang (front)	L104	1151 (45.3)
Overhang (rear)	L105	1106 (43.5)
Upper structure length	L123	2669 (105.1)
Rear wheel C/L "X" coordinate	L127	2138 (84.2) From Base Grid Line
Cowl point "X" coordinate	L125	108 (4.3) RR of Base Grid

Height **

Passenger distribution (frt./rear)	PD1.2.3	2/0	**
Trunk/cargo load		--	**
Vehicle height	H101	1262 (49.7)	
Cowl point to ground	H114	885 (34.8)	
Deck point to ground	H138	912 (35.9)	
Rocker panel-front to ground	H112	182 (7.2)	
Bottom of door closed-front to grd.	H133	249 (9.8)	
Rocker panel-rear to ground	H111	187 (7.4)	
Bottom of door closed-rear to grd.	H135	--	

Ground Clearance **

Front bumper to ground	H102	269 (10.6)	
Rear bumper to ground	H104	360 (14.2)	
Bumper to ground (front at curb mass (wt.))	H183	304 (12.0)	
Bumper to ground (rear at curb mass (wt.))	H105	378 (14.9)	
Angle of approach	H106	15.4°	
Angle of departure	H107	15.6°	
Ramp breakover angle	H147	10.5°	
Rear axle differential to ground	H153	305 (12.0)	
Min running ground clearance	H156	113 (4.4)	
Location of min. run grd. clear		Front Crossmember	

All linear dimensions are in millimeters (inches) and all mass (weight) specifications are in kilograms (pounds).

**** All Vehicle Height And Ground Clearances Are Made Using EPA Loaded Vehicle Weight, Loading Conditions.**

EPA LOADED VEHICLE WEIGHT Is The Base Vehicle Weight Plus All Coolant And Fluids Necessary For Operation Plus 100% Of The Fuel Capacity, Plus The Weight Of All Options And Accessories Which Weigh Three Pounds Or More And Which Are Sold On At Least 33% Of The Car Line, Plus Two Occupants.

MVMA Specifications Form**Passenger Car****METRIC (U.S. Customary)****Car and Body Dimensions** See Key Sheets for definitionsCar Line FIREBIRDModel Year 1984 Issued 7-15-83 Revised (*) _____

Body Type

SAE
Ref.
No.

2FS87

Front Compartment

Sg RP front, "X" coordinate	L31	1050 (41.3)
Effective head room	H61	940 (37.0)
Max. eff. leg room (accelerator)	L34	1092 (43.0)
Sg RP (front to heel)	H30	181 (7.1)
Design H-point front travel	L17	192 (7.6)
Shoulder room	W3	1466 (57.7)
Hip room	W5	1430 (56.3)
** Upper body opening to ground	H50	1163 (45.8)
Steering wheel angle	H18	18°
Back angle	L40	26.5°

Rear Compartment

Sg RP Point couple distance	L50	668 (26.3)
Effective head room	H63	905 (35.6)
Min. effective leg room	L51	756 (29.8)
Sg RP (second to heel)	H31	183 (7.2)
Knee clearance	L48	-15 (-.6)
Compartment room	L3	582 (22.9)
Shoulder room	W4	1430 (56.3)
Hip room	W6	1087 (42.8)
** Upper body opening to ground	H51	--

Luggage Compartment

Usable luggage capacity (L (cu. ft.))	V1	292 (10.3)
** Liftover height	H195	879 (24.6)

All linear dimensions are in millimeters (inches).

**** EPA Loaded Vehicle Weight, Loading Conditions**

All Interior Dimensions Are Measured With The Seating Reference Point (SgRP) _____ mm
(1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line FIREBIRD
Model Year 1984 Issued 7-15-83 Revised (*)

Body Type

SAE Ref. No.	2FS87
--------------	-------

Station Wagon — Third Seat

Not Applicable

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

Station Wagon — Cargo Space

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	

Hatchback — Cargo Space

Front seat back to load floor height	H197	358 (14.1)
Cargo length at front seat back height	L208	892 (35.1)
Cargo length at floor (front)	L209	1556 (61.3)
Cargo volume index [m ³ (ft. ³)]	V3	879 (31.0) Rear Seat Down; 328.5 (11.6) Rear Seat Up
Hidden cargo volume [m ³ (ft. ³)]	V4	

Aerodynamics*

Wheel lip to ground, front	Not Available
Wheel lip to ground, rear	Not Available
Frontal area	Not Available

* Describe measurement method.

A printed or computer tape supplement containing additional car and body dimensions and/or drawings (based in part on SAE J1100a "Motor Vehicle Dimensions") may be available from the manufacturer.

All dimensions are in millimeters (inches).

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line FIREBIRD

Model Year 1984 Issued 7-15-83 Revised (*)

Body Type

2FS87

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
(1) Front	X - Fiducial mark to vertical base grid line - front, measured horizontally from the base grid line to the front fiducial mark located on top of the front seat adjuster mounting bolt.
	Y - Fiducial mark to centerline of car - front, width measurement made from centerline of car to fiducial mark located on top of the front seat adjuster mounting bolt.
(2)	Z - Fiducial mark to horizontal base grid line - front, measured vertically from base grid line to front fiducial mark located on top of the front seat adjuster mounting bolt.
(1) Rear	X - Fiducial mark to vertical base grid line - rear, measured horizontally from base grid line to the rear fiducial mark located on the frame.
	Y - Fiducial mark to centerline of car - rear, measurement made from centerline of car to fiducial mark located on the frame.
(2)	Z - Fiducial mark to horizontal base grid line - rear, measured vertically from base grid line to the rear fiducial mark located on the frame.
Fiducial Mark Number	
Front	W21 540 (21.3)
	L54 688 (27.1) RR of Base Grid
	H81 -32 (-1.3) Below Base Grid
	H161 293 (11.5)
**	H163 266 (10.5)
Rear	W22 548 (21.6)
	L55 2815 (110.8)
	H82 96 (3.8) Above Base Grid
	H162 421 (16.6)
**	H164 402 (15.8)
	(1) Base Grid is 2000 mm Line
	(2) Base Grid is 500 mm Line

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

** EPA Loaded Vehicle Weight, Loading Conditions

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Body Type

SAE Ref. No.	2FS87
--------------------	-------

Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (H127)	Highest**	692 (27.2)
		Lowest	--
	Taillamp (H128)	Highest**	756 (29.8)
		Lowest	--
	Sidemarker	Front	524 (20.6)
		Rear	558 (22.0)
Distance from C/L of car to center of bulb	Headlamp	Inside	--
		Outside**	622 (24.5)
	Taillamp	Inside	404 (15.9)
		Outside**	543 (21.4)
	Directional	Front	369 (14.5)
		Rear	673 (26.5)
	Headlamp shape		

* Measured at curb mass (weight).

** If single lamps are used enter here.

METRIC (U.S. Customary)

Model Year 1984 Issued 7-15-83 Revised (*)

[illegible]

* Reference — SAE J1100a, Motor vehicle dimensions, curb weight definition.

•• Shipping mass (weight) definition –

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

Car Line FIREBIRD
 Model Year 1984 Issued 7-15-83 Revised (*) _____

Optional Equipment Differential Mass (weight)*				
Equipment	MASS, kg. (weight, lb.)			Remarks
	Front	Rear	Total	
2.8L Engine (LC1)	30.40	1.60	32.00	
5.0L Engine (LG4)	108.11	5.69	113.80	
5.0L Engine (L69)	113.90	6.0	119.90	
5-SPD. MT (MM5)	3.76	1.36	5.02	
(Base Only)				
3 SPD-AT MV9				
-T/W LQ9	5.55	1.85	7.41	
-T/W LC1/LL1	7.12	2.38	9.50	
-T/W LG4	12.00	4.00	16.00	
-T/W LU5	15.08	5.02	20.10	
4-SPD AT (MD8)	14.85	4.96	19.81	
Lugg Compt Trim (B48)	1.40	1.40	2.80	
Hatch Roof Panels (CC1)	6.46	10.34	16.80	
Power F&R Disc Brakes(J65)	3.50	3.50	7.00	
Cruise Control (K35)	2.07	.23	2.30	
P215/65R15 Tires (QYH)	5.80	5.80	11.60	
UL1 Radio	2.74	.86	3.60	
UL6 Radio	1.40	.60	2.00	
UM6 Radio	2.45	1.05	3.50	
Spec. Perf. Pkg. (WS6)				
-T/W LC1/LL1	2.15	2.15	4.30	
-T/W LG4/LU5	2.60	2.60	5.20	
Air Conditioning (C60)	25.30	.00	25.30	
Power Windows (A31)	1.60	1.60	3.20	
Louvered Sunshade (QE1)	- .60	7.60	7.00	
Rear Window Wiper (C25)	- .99	4.29	3.30	

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

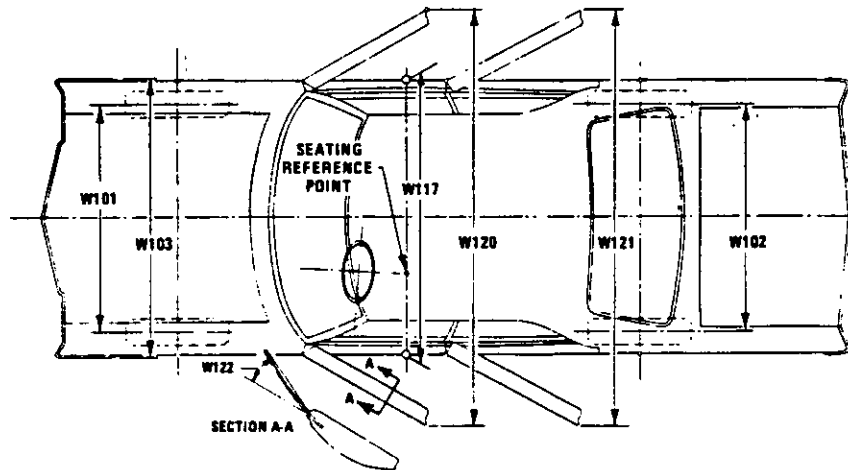
MVMA Specifications Form

Passenger Car

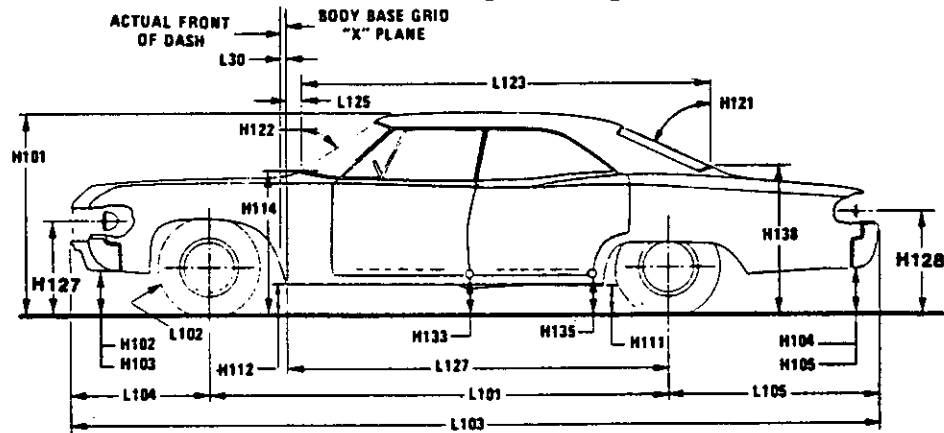
METRIC (U.S. Customary)

Exterior Car And Body Dimensions — Key Sheet

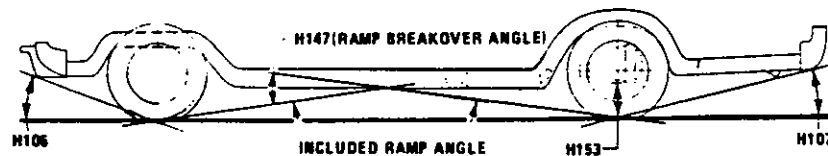
Exterior Width



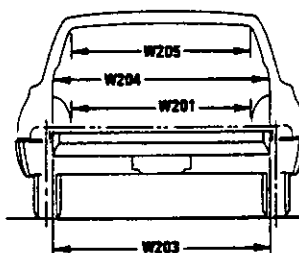
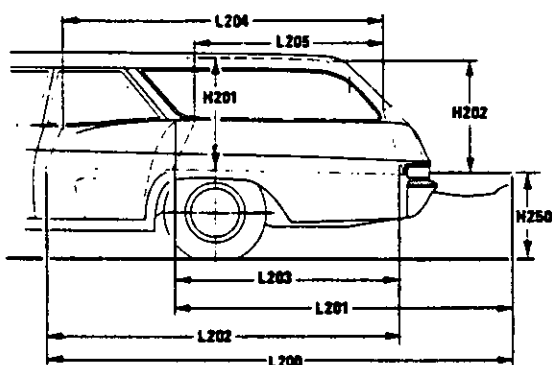
Exterior Length & Height



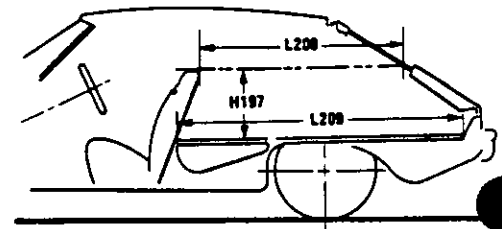
Exterior Ground Clearance



Cargo Space



Station Wagon

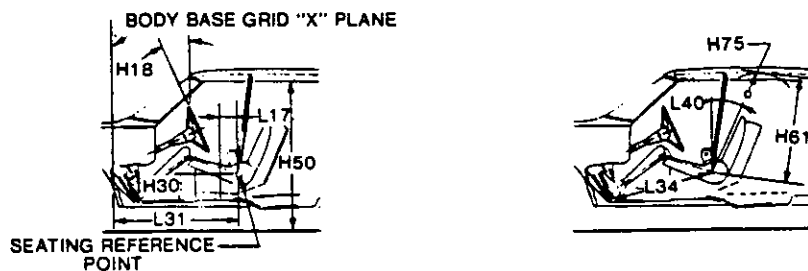


Hatchback

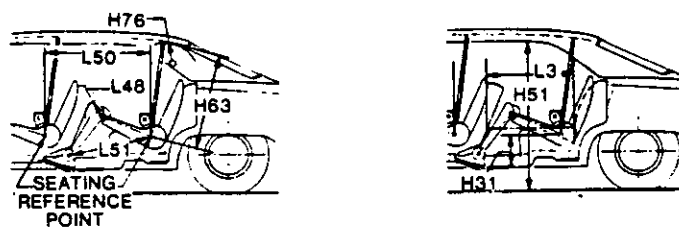
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Interior Car And Body Dimensions — Key Sheet

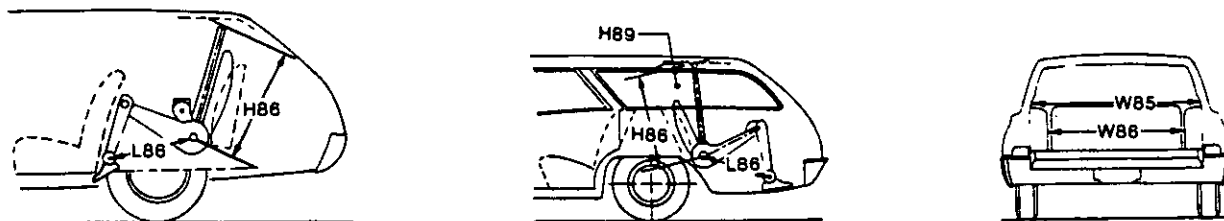
Front Compartment



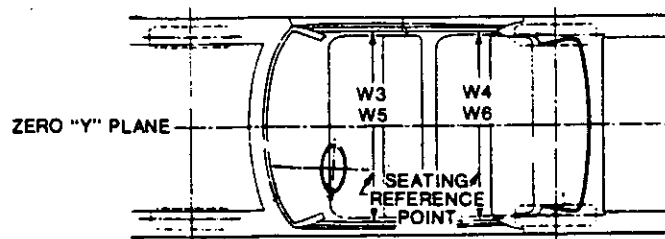
Rear Compartment



Third Seat



Interior Width



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, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

Width Dimensions

- W101 TREAD—FRONT. The dimension measured between the tire centerlines at the ground.
- W102 TREAD—REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.
- W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.
- W117 BODY WIDTH AT SgRP—FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.
- W120 VEHICLE WIDTH—FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.
- W121 VEHICLE WIDTH—REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open 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

- L30 FRONT OF DASH "X" COORDINATE. A minus (-) dimension indicates actual front of dash in forward of the zero "X" plane.
- L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.
- L102 TIRE SIZE. As specified by the manufacturer.
- L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.
- L104 OVERHANG—FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

- L105 OVERHANG—REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle, including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.
- L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.
- L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be in the midpoint of the distance between the rear axle centerlines.
- L125 COWL POINT "X" COORDINATE.

Height Dimensions

- H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.
- H114 COWL POINT TO GROUND. Measured at zero "Y" plane.
- H138 DECK POINT TO GROUND. Measured at zero "Y" plane.
- H112 ROCKER PANEL—FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.
- H132 BOTTOM OF DOOR OPEN—FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, to ground.
- H111 ROCKER PANEL—REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.
- H134 BOTTOM OF DOOR OPEN—REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, to ground.
- H135 BOTTOM OF DOOR CLOSED—REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.
- H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.
- H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield are running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.
- H127 HEADLAMP TO GROUND—CURB MASS (WT.). The dimensional measured vertically from the centerline of the lowest headlamp lens to ground.
- H128 TAILLAMP TO GROUND—CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.

Ground Clearance Dimensions

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

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Interior Car And Body Dimensions — Key Sheet

Dimensions Definitions

- H103 FRONT BUMPER TO GROUND CURB MASS (WT.). Measured in the same manner as H104.
- H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.
- H105 REAR BUMPER TO GROUND—CURB MASS (WT.). Measured in the same manner as H104.
- H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius are the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.
- H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius are the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.
- H147 REAR BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.
- H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.
- H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

Front Compartment Dimensions

- PD1 PASSENGER DISTRIBUTION—FRONT.
- L31 SgRP—FRONT "X" COORDINATED.
- H61 EFFECTIVE HEAD ROOM—FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP—front to the headlining plus 102 mm (4.0 in.).
- H75 EFFECTIVE T-POINT HEAD ROOM—FRONT. The minimum radius from the T-point to the headlining plus 762 mm (30 in.).
- L34 MAXIMUM EFFECTIVE LEG ROOM—ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP—front plus 254 mm (10.0 in.) measured with right foot on the un-depressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.
- H30 SgRP—FRONT TO HEEL. The dimension measured vertically from the SgRP—front to the accelerator heel point.
- L17 DESIGN H-POINT—FRONT TRAVEL. The dimension measured horizontally between the design H-point—front in the foremost and rearmost seat trace positions.
- W3 SHOULDER ROOM—FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP—front within the belt line and 254 mm (10.0 in.) above the SgRP—front.
- W5 HIP ROOM—FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP—front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP—front and 76 mm (3.0 in.) fore and aft the SgRP—front.
- H150 UPPER BODY OPENING TO GROUND—FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP—front "X" plane.

- H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
- L40 BACK ANGLE—FRONT. The angle measured between a vertical line through the SgRP—front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

Rear Compartment Dimensions

- PD2 PASSENGER DISTRIBUTION—SECOND.
- L50 SgRP COUPLE DISTANCE. The dimension measured horizontally from the driver SgRP—front to the SgRP—second.
- H63 EFFECTIVE HEAD ROOM—SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).
- H76 EFFECTIVE T-POINT HEAD ROOM—SECOND. Measured in the same manner as H75.
- L51 MINIMUM EFFECTIVE LEG ROOM—SECOND. The dimension measured along a line from the ankle pivot center to the SgRP—second plus 254 mm (10.0 in.).
- H31 SgRP—SECOND TO HEEL. The dimension measured vertically from the SgRP—second to the two dimensional device heel point on the depressed floor covering.
- L48 KNEE CLEARANCE—SECOND. The minimum dimension measured from the knee pivot to the back of front seatback minus 51 mm (2.0 in.).
- L3 COMPARTMENT ROOM—SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.
- W4 SHOULDER ROOM—SECOND. The minimum dimension measured laterally between trimmed surfaces on the "X" plane through the SgRP—second within 254-406 mm (10.0-16.0 in.) above the SgRP—second.
- W6 HIP ROOM—SECOND. Measured in the same manner as W5.
- H51 UPPER BODY OPENING TO GROUND—SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP—second.

Luggage Compartment Dimensions

- V1 USABLE LUGGAGE CAPACITY—Total of volumes of individual pieces of standard luggage set plus H-boxes stowed in the luggage compartment in accordance with the procedure described in paragraph 8.2 of SAE-J1100a.
- H195 LIFTOVER HEIGHT. The dimension measured vertically from the luggage compartment lower opening at the zero "Y" plane to ground.

Station Wagon — Third Seat Dimensions

- PD3 PASSENGER DIRECTION—THIRD.
- W85 SHOULDER ROOM—THIRD. Measured in the same manner as W5.
- W86 HIP ROOM—THIRD. Measured in the same manner as W5.
- L86 EFFECTIVE LEG ROOM—THIRD. The dimension measured along a line from the ankle pivot center to the SgRP—third plus 254 mm (10.0 in.).
- H86 EFFECTIVE HEAD ROOM—THIRD. The dimension, measured along a line 8 deg. from the SgRP—third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).
- H89 EFFECTIVE T-POINT HEAD ROOM—THIRD. Measured in the same manner as H75.

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Interior Car And Body Dimensions — Key Sheet

Dimensions Definitions

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 on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.
- L202** CARGO LENGTH—CLOSED—FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.
- L203** CARGO LENGTH—CLOSED—SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.
- L204** CARGO LENGTH AT BELT—FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab back panel at the height of the belt, on the zero "Y" plane.
- L205** CARGO LENGTH AT BELT—SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.
- W201** CARGO WIDTH—WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measure the sheet metal.
- W203** REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.
- W204** REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.
- W205** REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.

- H201** CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinated on the zero "Y" plane.
- H202** REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.
- H250** TAILGATE TO GROUND (CURB MASS WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.
- V2** STATION WAGON
Measured in inches:

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

 Measured in mm:

$$\frac{W4 \times H201 \times L204}{109} = \text{m}^3(\text{cubic meter})$$
- V4** HIDDEN CARGO VOLUME. As specified by the manufacturer.

Hatchback — Cargo Space Dimensions

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

- H197** FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.
- 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.
- V3** HATCHBACK.
Measured in inches:

$$\frac{L208 + L209}{2} \times W4 \times H197$$

$$\frac{\quad}{1728} = \text{ft.}^3$$

 Measured in mm:

$$\frac{L208 + L209}{2} \times W4 \times H197$$

$$\frac{\quad}{109} = \text{m}^3(\text{cubic meter})$$

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Index

Subject	Page No.
Aerodynamics	22
Alternator	16
Automatic Transmission	9
Axis, Steering	14
Axle, Rear	10
Axle Shafts	10
Battery	16
Brakes — Parking, Service	12, 13
Camber	15
Camshaft	3
Capacities	
Cooling System	5
Fuel Tank	6
Lubricants	
Engine Crankcase	3
Transmission	9
Rear Axle	10
Car Models	1
Car and Body Dimensions	
Width	20
Length	20
Height	20
Ground Clearance	20
Front Compartment	21
Rear Compartment	21
Luggage Compartment	21
Station Wagon — Third Seat	22
Station Wagon — Cargo Space	22
Hatchback — Cargo Space	22
Carburetor	2, 6
Caster	15
Choke, Automatic	6
Clutch — Pedal Operated	8
Coil, Ignition	16
Connecting Rods	4
Convenience Equipment	19
Cooling System	5
Crankshaft	4
Cylinders and Cylinder Head	3
Diesel Information	4
Dimension Definitions	
Key Sheet — Exterior	27, 29
Key Sheet — Interior	28, 30, 31
Electrical System	15, 16
Emission Controls	7
Engine	
Bore, Stroke, Type	3
Compression Ratio	2
Displacement	2, 3
Firing Order, Cylinder Numbering	3
General Information, Power & Torque	2
Identification Number Location	17
Power Teams	2
Exhaust System	7
Equipment Availability, Convenience	19
Fan, Cooling	5
Fiducial Marks	23
Filters — Engine Oil, Fuel System	4
Feature Highlights	20
Frame	17
Front Suspension	11
Front Wheel Drive Unit	10
Fuel System	6
Fuel Injection	6
Fuel Tank	6
Generator and Regulator	16
Glass	17
Headroom — Body	21, 22
Heights — Car and Body	20
Horns	15
Horsepower — Brake	2
Ignition System	16
Inflation — Tires	13
Instruments	15

Subject	Page No.
Kingpin (Steering Axis)	14
Lamps and Headlamp Shape	24
Legroom	21, 22
Lengths — Car and Body	20
Leveling, Suspension	11
Lifters, Valve	4
Linings — Clutch, Brake	8, 12
Lubrication	8, 9
Luggage Compartment	21
Mass	25, 26
Models	1
Motor Starting	16
Muffler	4
Passenger Capacity	1
Passenger Mass Distribution	25
Pistons	3
Power Brakes	12
Power, Engine	2
Power Steering	14
Power Teams	2
Propeller Shaft, Universal Joints	10
Pumps — Fuel	6
Water	5
Radiator — Cap, Hoses	5
Ratios — Axle	2, 9
Compression	2
Steering	14
Transmission	2, 8, 9
Rear Axle	2, 9, 10
Regulator — Generator	16
Restraint System	18
Rims	13
Rods — Connecting	4
Seats	17
Shock Absorbers, Front & Rear	11
Spark Plugs	16
Speedometer	15
Springs — Front & Rear Suspension	11
Stabilizer (Sway Bar) — Front & Rear	11
Starting System	16
Steering	14
Suppression — Ignition, Radio	16
Suspension — Front & Rear	11
Tail Pipe	4
Theft Protection	19
Thermostat, Cooling	5
Tires	13
Toe-In	15
Torque Converter	10
Torque — Engine	2
Transaxle	9
Transmission — Types	2, 8, 9
Transmission — Automatic	2, 8, 9
Transmission — Manual	2, 8, 9
Transmission — Ratios	2, 9
Tread	20
Trunk Cargo Load	1
Trunk Luggage Capacity	21
Turning Diameter	14
Utilized Construction	17
Universal Joints, Propeller Shaft	10
Valve System	4
Vehicle Identification Number	17
Voltage Regulator	16
Water Pump	5
Weights	25, 26
Wheel Alignment	15
Wheelbase	20
Wheels & Tires	13
Wheel Spindle	14
Widths — Car and Body	20
Windshield	17
Windshield Wiper and Washer	15