

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1990

Manufacturer Pontiac Motor Division General Motors Corporation	Vehicle Line FIREBIRD	
Mailing Address Chevrolet-Pontiac-Canada Group Engineering Center General Motors Corporation 30003 Van Dyke Warren, MI 48090-9060	Issued June, 1989	Revised September, 1989

Direct questions concerning these specifications to the manufacturer listed above.

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



Motor Vehicle Manufacturers Association
of the United States, Inc.

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MVMA Specifications

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) specs. are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of compilation and are subject to change without notice or incurring obligation by the manufacturer.
4. Additional Vehicle Dimensions (based in part on SAE J1100 "Motor Vehicle Dimensions") may be available from the manufacturer.

MVMA Specifications

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

o Vehicle Origin

Design & development (company)	Chevrolet-Pontiac-GM of Canada
Where built (country)	U.S.A.
Authorized U.S. Sales marketing representative	Pontiac Motor Division

o Vehicle Models

Model Description & Drive (FWD/RWD/AWD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)
FIREBIRD 2-Door Coupe (RWD)		2FS87	4 (2/2)	45.4 (100)
FIREBIRD TRANS AM 2-Door Coupe (RWD)		2FW87	4 (2/2)	45.4 (100)
FIREBIRD FORMULA 2-Door Coupe (RWD)		2FS87 (With W68)	4 (2/2)	45.4 (100)
FIREBIRD GTA 2-Door Coupe (RWD)		2FS87 (With Y84)	4 (2/2)	45.4 (100)

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

MVMA Specifications

Vehicle Line	FIREBIRD				
Model Year	1990	Issued	6-89	Revised(*)	9-89

METRIC (U.S. Customary)
Power Teams

SAE J1349 Net bhp (brake hrspwr) and Net Torque corrected to 77 deg. F / 25 deg. C and 29.61 in. Hg/100 kPA atmos. press.

			A	B	C	D
E N G I N E	Engine Code		LHO	LHO	L03	L03
	Displacement Liters (cu. in.)		3.1 (191)	3.1 (191)	5.0 (305)	5.0 (305)
	Induction system (FI, Carb, etc.)		Multi-Port Fuel Injection	Multi-Port Fuel Injection	Throttle Body Injection	Throttle Body Injection
	Compression ratio		8.5:1	8.5:1	9.3:1	9.3:1
	SAE Net at RPM	Power kW (bhp)	104 (140) @ 4400	104 (140) @ 4400	127 (170) @ 4000	127 (170) @ 4000
		Torque Newton meters (lb.ft.)	244 (180) @ 3600	244 (180) @ 3600	346 (255) @ 2400	346 (255) @ 2400
Exhaust Single, dual		Single	Single	Single	Single	
T R A N S	Transmission/ Transaxle		MB1 Manual Transmission 5-Speed	MD8 Automatic Transmission 4-Speed	M39 Manual Transmission 5-Speed	MD8 Automatic Transmission 4-Speed
	Axle Ratio (std. first)		3.42	3.23	3.08	2.73

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MVMA Specifications

Vehicle Line FIREBIRD

Model Year	1990	Issued	6-89	Revised(*)	9-89
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METRIC (U.S. Customary)
Power Teams

SAE J1349 Net bhp (brake hrspwr) and Net Torque corrected to 77 deg. F / 25 deg. C and 29.61 in. Hg/100 kPA atmos. press.

			E	F	G	H
E N G I N E	Engine Code		LB9	LB9	LB9	L98
	Displacement Liters (cu. in.)		5.0 (305)	5.0 (305)	5.0 (305)	5.7 (350)
	Induction system (FI, Carb, etc.)		Multi-Port Fuel Injection	Multi-Port Fuel Injection	Multi-Port Fuel Injection	Multi-Port Fuel Injection
	Compression ratio		9.3:1	9.3:1	9.3:1	9.3:1
	SAE Net at RPM	Power kW (bhp)	153 (205) @ 4400	153 (205) @ 4400	168 (255) @ 4400	179 (240) @ 4400
		Torque Newton meters (lb.ft.)	386 (285) @ 3200	386 (285) @ 3200	400 (295) @ 3200	461 (340) @ 2800
Exhaust Single, dual		Single	Single	Dual	Dual	
T R A N S	Transmission/ Transaxle		M39 Manual Transmission 5-Speed	MD8 Automatic Transmission 4-Speed	MK6 Manual Transmission 5-Speed	MD8 Automatic Transmission 4-Speed
	Axle Ratio (std. first)		3.08	2.73	3.42	3.23

[illegible]

MVMA Specifications

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

3.1 LITER V6 (191 CID)

MULTI-PORT FUEL INJECTION RPO LHO

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	60 deg. V, Front, Longitudinal, OHV	
Manufacturer	C-P-C Group - G.M. Corporation	
No. of cylinders	6	
Bore	89mm (3.5 in.)	
Stroke	84mm (3.31 in.)	
Bore spacing (C/L to C/L)	111.78mm (4.40 in.)	
Cyl block matl & mass kg(lbs.)(machined)	Cast Iron, 48.15 (107.0)	
Cylinder block deck height	224.0mm (9.0 in.)	
Cylinder block length	435.5mm (17.4 in.)	
Deck clearance (minimum) (above or below block)	0.15mm (.006 in.), Above	
Cyl. head material & mass kg (lbs.)	Cast Iron, 13.15 (29)	
Cylinder head volume (cu. cm.)	51.35	
Cylinder liner material	Not Applicable	
Head gasket thickness (compressed)	1.02mm (.040 in.)	
Minimum combustion chamber total volume (cm. cu.)	50.35	
Cyl. no. system (front to rear)	L. Bank	2-4-6
	R. Bank	1-3-5
Firing order	1-2-3-4-5-6	
Intake manifold matl & mass[kg(lbs.)]**	Inlet Plenum - Aluminum Alloy, 3.8 (8.4) Inlet Center Manifold - Aluminum Alloy, 2.4 (5.3) Inlet Manifold - Aluminum Alloy, 3.2 (7.0)	
Exh. manifold matl & mass [kg (lbs.)]**	Nodular Cast Iron, Wt. Of Manifold, Fire Wall Side 3.765 (8.283); Wt. Of Other Manifold, 2.630 (5.786)	
Fuel required unleaded, diesel, etc.	Unleaded	
Fuel antiknock index (R + M) / 2	87	
Engine mounts	Quantity	2
	Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Elastomeric
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***	Not Available	

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy, 365 (12.8)
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Engine Camshaft

Location		Cylinder Block
Material & mass kg (weight, lbs.)		Cast Iron, 3.098 (6.83)
Drive type	Chain/belt	Chain
	Width/pitch	15.9 x 9.375mm (.625 x.369 in.)

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

**Finished state.

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

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description
Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)		90 deg. V, Front, Longitudinal
Manufacturer		C-P-C Group - G.M. Corporation
No. of cylinders		8
Bore		94.89 mm (3.74 in.)
Stroke		88.39 mm (3.48 in.)
Bore spacing (C/L to C/L)		111.8 mm (4.40 in.)
Cyl bick matl & mass kg(lbs.)(machined)		Cast Iron, 68.674 (151.4)
Cylinder block deck height		229.4 mm (9.025 in.)
Cylinder block length		512.8 mm (20.19 in.)
Deck clearance (minimum) (above or below block)		.635 mm (.025 in.) Below
Cyl. head material & mass kg (lbs.)		Cast Iron, 19.800 (43.7)
Cylinder head volume (cu. cm.)		--
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.533 mm (.021 in.)
Minimum combustion chamber total volume (cm. cu.)		55.2 (+/- 2.2)
Cyl. no. system (front to rear)	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Intake manifold matl & mass[kg(lbs.)]**		Cast Aluminum, 8.900 (15.2)
Exh. manifold matl & mass [kg (lbs.)]**		Cast Iron, 4.345 (9.6) L.H., 3.800 (8.4) R.H.
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) / 2		87
Engine mounts	Quantity	2
	Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Elastomeric
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		275.1 kg. (606 lbs.) Auto., 290.8 kg. (641 lbs.) Man.

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy, .645 (1.4)
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Engine Camshaft

Location		Cylinder Block Above Crankshaft
Material & mass kg (weight, lbs.)		Steel, 4.124 (9.1)
Drive type	Chain/belt	Chain
	Width/pitch	15.87mm (.625 in.) / 12.7mm (.500 in.)

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

**Finished state.

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

All those items necessary to make the engine a complete ready-to-run unit.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description
Engine Code

5.0 LITER V8 (305 CID)
TUNED PORT FUEL INJECTION RPO LB9

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)		90 deg. V, Front, Longitudinal
Manufacturer		C-P-C Group - G.M. Corporation
No. of cylinders		8
Bore		94.89 mm (3.74 in.)
Stroke		88.39 mm (3.48 in.)
Bore spacing (C/L to C/L)		111.8 mm (4.40 in.)
Cyl block matl & mass kg(lbs.)(machined)		Cast Iron, 68.674 (151.4)
Cylinder block deck height		229.4 (9.025)
Cylinder block length		512.8 mm (20.19 in.)
Deck clearance (minimum) (above or below block)		.635 mm (.025 in.) Below
Cyl. head material & mass kg (lbs.)		Cast Iron, 9.800 (43.7)
Cylinder head volume (cu. cm.)		55.2 +/- 2.2
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.724 mm (.0285 in.)
Minimum combustion chamber total volume (cm. cu.)		55.2 (+/- 2.2)
Cyl. no. system (front to rear)	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Intake manifold matl & mass(kg(lbs.))**		Cast Aluminum, 8.117 (13.5)
Exh. manifold matl & mass [kg (lbs.)]**		Cast Iron, L.H. 4.460 (9.8), R.H. 3.800 (8.4)
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) / 2		91
Engine mounts	Quantity	2
	Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Elastomeric
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		282.4 kg. (623 lbs.) Auto. 297.9 kg. (657 lbs.) Man.

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy, .645 (1.4)
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Engine Camshaft

Location		In Block Above Crankshaft
Material & mass kg (weight, lbs.)		Steel, 4.200 (9.3)
Drive type	Chain/belt	Chain
	Width/pitch	15.976 (.625)/.5

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

**Finished state.

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

All those items necessary to make the engine a complete ready-to-run unit.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

5.7 LITER V8 (350 CID)
TUNED PORT FUEL INJECTION RPO L98

ENGINE - GENERAL

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

90 deg. V, Front, Longitudinal

Manufacturer

C-P-C Group - G.M. Corporation

No. of cylinders

8

Bore

101.6 mm (4.00 in.)

Stroke

88.4 mm (3.48 in.)

Bore spacing (C/L to C/L)

111.8 mm (4.40 in.)

Cyl block matl & mass kg(lbs.)(machined)

Cast Iron, 68.674 (151.5)

Cylinder block deck height

229.4 mm (9.025 in.)

Cylinder block length

506.2 mm (19.93 in.)

Deck clearance (minimum) (above or below block)

.635 mm (.025 in.) Below

Cyl. head material & mass kg (lbs.)

Cast Iron, 19.800 (43.7)

Cylinder head volume (cu. cm.)

--

Cylinder liner material

Not Applicable

Head gasket thickness (compressed)

.724 mm (.0285 in.)

Minimum combustion chamber total volume (cm. cu.)

75.47 Combustion Chamber With Piston At Top Dead Center And All Components In Place Torqued To Specifications.

Cyl. no. system (front to rear)

L. Bank

1-3-5-7

R. Bank

2-4-6-8

Firing order

1-8-4-3-6-5-7-2

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

Cast Aluminum, 6.117 (13.5)

Exh. manifold matl & mass [kg (lbs.)]**

Cast Iron, L.H. 4.460 (9.8), R.H. 3.800 (8.4)

Fuel required unleaded, diesel, etc.

Unleaded

Fuel antiknock index (R + M) / 2

91

Engine mounts

Quantity

2

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

Elastomeric

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

Total dressed engine mass (wt) dry***

284.5 (627) Auto.

Engine - Pistons

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

Impacted Cast Aluminum, .540 (1.2)

Engine Camshaft

Location

In Cylinder Block "V" Above Crankshaft

Material & mass kg (weight, lbs.)

Steel, 4.200 (9.3)

Drive type

Chain/belt

Chain

Width/pitch

15.976 (.625)/.5

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

**Finished state.

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

All those items necessary to make the engine a complete ready-to-run unit.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description
Engine Code

3.1 LITER V6 (191 CID)
MULTI-PORT FUEL INJECTION RPO LHO

Engine - Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	6/6
	Head O.D. intake/exhaust	43.64 mm (1.72 in.) / 36.20 mm (1.43 in.)

Engine - Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Forged Steel, .602 (1.33) Full Assembly.
Length(axes centerline to centerline)	144.78 mm (5.79 in.)

Engine - Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron, 17.9 (39.5)
End thrust taken by bearing (no.)		3
Length & number of main bearings		** 4 Bearings
Seal (material, one, two piece design, etc.)	Front	Viton/Steel, One Piece
	Rear	Viton/Steel, One Piece

Engine - Lubrication System

Normal oil pressure(kPa(psi) @ eng rpm)	345-450 (50-65) @ 2400
Type oil intake (floating, stationary)	Stationary
Oil filter sys. (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	Refill W/W.O. Filter 3.8 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0 deg. F		
Injector Nozzle	Type	
	Opening pressure[kPa(psi)]	
Pre-chamber design		
Fuel in-jection pump	Manufacturer	
	Type	
Fuel inj. 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 APPLICABLE)

Turbo charger - manufacturer	
Super charger - manufacturer	
Intercooler	

* Finished State

** Standard measurement for width only:

For 3.1L V6; #1,4 = 29.5mm (1.18 in.); #2,3 = 24.0mm (0.96 in.)

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

Engine - Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	8/8
	Head O.D. intake/exhaust	46.74 (1.84) / 38.10 (1.50)

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Steel, .388 (.855)
Length (axes centerline to centerline)	

Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*		Nodular Cast Iron, 23.360 (51.50)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, One Piece, Lip Seal
	Rear	Fluoroelastomer, One Piece, Lip Seal

Engine - Lubrication System

Normal oil pressure (kPa (psi) @ eng rpm)	41 (6) @ 1000/124 (18) @ 2000/165 (24) @ 4000 (Hot)
Type oil intake (floating, stationary)	Stationary
Oil filter sys. (full flow, part, other)	Full Flow
Capacity of oil case, less filter-refill-L (qt.)	3.8 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0 deg. F		
Injector Nozzle	Type	
	Opening pressure[kPa(psi)]	
Pre-chamber design		
Fuel in-jection pump	Manufacturer	
	Type	
Fuel inj. 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 APPLICABLE)

Turbo charger - manufacturer	
Super charger - manufacturer	
Intercooler	

* Finished State

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
Engine Code

5.0 LITER V8 (305 CID)
TUNED PORT FUEL INJECTION RPO LB9

Engine - Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	8/8
	Head O.D. intake/exhaust	46.74 (1.84) / 38.10 (1.50)

Engine - Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel, .388 (.85)
Length (axes centerline to centerline)	144.78

Engine - Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron, 23.360 (51.50)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluorelastomer, One Piece, Lip Seal
	Rear	Fluorelastomer, One Piece, Lip Seal

Engine - Lubrication System

Normal oil pressure[kPa(psi) @ eng rpm]	41 (6) @ 1000/124 (18) @ 2000/165 (24) @ 4000 (Hot) **
Type oil intake (floating, stationary)	Stationary
Oil filter sys. (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	3.8 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0 deg. F		
Injector Nozzle	Type	
	Opening pressure[kPa(psi)]	
Pre-chamber design		
Fuel in-jection pump	Manufacturer	
	Type	
Fuel inj. 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 APPLICABLE)

Turbo charger - manufacturer	
Super charger - manufacturer	
Intercooler	

* Finished State

** 485-585 (70-85) @ 2000 with Manual Transmission.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.7 LITER V8 (350 CID)
TUNED PORT FUEL INJECTION RPO L98

Engine - Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	8/8
	Head O.D. intake/exhaust	49.28 (1.94) / 38.10 (1.50)

Engine - Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel, .388 (.85)
Length (axes centerline to centerline)	144.78

Engine - Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron, 23.360 (51.50)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, One Piece, Lip Seal
	Rear	Fluoroelastomer, One Piece, Lip Seal

Engine - Lubrication System

Normal oil pressure [kPa (psi) @ eng rpm]	41 (6) @ 1000/124 (18) @ 2000/165 (24) @ 4000 (Hot)
Type oil intake (floating, stationary)	Stationary
Oil filter sys. (full flow, part, other)	Full Flow
Capacity of oil case, less filter-refill-L (qt.)	3.8 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0 deg. F		
Injector Nozzle	Type	
	Opening pressure [kPa (psi)]	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel inj. 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 APPLICABLE)

Turbo charger - manufacturer		
Super charger - manufacturer		
Intercooler		

* Finished State

MVMA Specifications

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METRIC (U.S. Customary)

Engine Description

Engine Code

3.1 LITER V6 (191 CID)
 MULTI-PORT FUEL INJECTION RPO LHO

Engine - Cooling System

Coolant recovery system (std, opt, n.a.)		Standard		
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery		
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)		
Circulation thermostat	Type (choke, bypass)	Bypass		
	Starts to open @ deg's C(F)	91 (195)		
Water Pump	Type (centrifugal, other)	Centrifugal		
	GPM 1000 pump rpm	15.5		
	Number of pumps	1		
	Drive (V-belt, other)	Single Belt Poly 'V' Accessory Drive (Serpentine)		
	Bearing type	Sealed Ball-Roller		
	Impeller material	Cast Iron		
	Housing material	Aluminum		
By-pass recirculation [type (inter., ext.)]		Internal		
Cooling system capacity	With heater - L (qt.)	13.87 (14.66)		
	With air conditioner-L(qt.)	13.87 (14.66)		
	Opt. equip.[specify-L(qt.)]	--		
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	Auto	Standard	A/C
	Type (cross-flow, etc.)		Cross-Flow	
	Construction (fin & tube mechanical, braze, etc.)		Fin & Tube	
	Matl., mass [kg(wgt.,lbs.)]		Aluminum, High Efficiency Radiator	
	Width		667.5 mm	667.5 mm
	Height		437.8 mm	437.8 mm
	Thickness		23.5 mm	23.5 mm
	Fins per inch @		3.5 mm	3.5 mm
Radiator end tank material		Plastic		
Fan	Std., elec., opt.		Standard, Electric	
	Number of blades & type (flex, solid, material)		5, Plastic Solid	
	Diameter & projected width		423.0 (16.7)	
	Ratio(fan to crnkshft.rev.)		Not Available	
	Fan cutout type		ECM Controlled	
	Drive type (direct, remote)		--	
	RPM at idle (elec.)		1900 - 2100	
	Motor rating(wattage)(elec)		150W	
	Motor switch (type & location)(elec.)		Part ECM	
	Switch point (temp., pressure)(elec.)		108 deg. C (228 deg. F)	
	Fan shroud (material)		Plastic (Integral Partial Shroud)	

@ - Distance Between Top Of Fins.

MVMA Specifications

Vehicle Line	FIREBIRD			
Model Year	1990	Issued	6-89	Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

Engine - Cooling System

Coolant recovery system (std, opt, n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery	
Radiator cap relief valve pressure (kPa (psi))		103.4 (15.0)	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open @ deg's C(F)	90.6 (195)	
Water Pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	14 (Total Cooling System Flow)	
	Number of pumps	1	
	Drive (V-belt, other)	Single Belt Poly 'V' Accessory Drive (Serpentine)	
	Bearing type	Sealed Double Row Ball	
	Impeller material	Steel	
	Housing material	Cast Iron	
By-pass recirculation (type (inter., ext.))		Internal	
Cooling system capacity	With heater - L (qt.)	16.4 (17.33)	
	With air conditioner-L (qt.)	17.01 (17.97)	
	Opt. equip. (specify-L (qt.))	Auto	
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.)	Cross-Flow	
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube	
	Matl., mass (kg(wgt., lbs.))	Aluminum, High Efficiency Radiator	
	Width	667.5 mm	667.55 mm
	Height	437.8 mm	437.8 mm
	Thickness	23.5 mm	34.0 mm
	Fins per inch @	4.0 mm	2.5 mm
Radiator end tank material		Plastic	
Fan	Std., elec., opt.	Standard	Optional
	Number of blades & type (flex, solid, material)	5 Plastic, Solid	
	Diameter & projected width	423.0 (16.7)	
	Ratio(fan to crnkshft.rev.)	Not Applicable	
	Fan cutout type	ECM Controlled	
	Drive type (direct, remote)	--	
	RPM at idle (elec.)	1900 - 2100	
	Motor rating(wattage)(elec)	150W	
	Motor switch (type & location) (elec.)	Temp Switch Engine Cylinder Head	A/C Control Head & A/C Pressure Switch On Liquid Line
	Switch point (temp., pressure) (elec.)	223 deg. F	
Fan shroud (material)		Plastic (Integral Partial Shroud)	

@ - Distance Between Top Of Fins.

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
 TUNED PORT FUEL INJECTION RPO LB9

Engine - Cooling System

Coolant recovery system (std, opt, n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery	
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open @ deg's C(F)	90.6 (195)	
Water Pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	12 (Total Cooling System Flow)	
	Number of pumps	1	
	Drive (V-belt, other)	Single Belt Poly 'V' Accessory Drive (Serpentine)*	
	Bearing type	Sealed Double Row Ball	
	Impeller material	Steel	
	Housing material	Cast Iron	
By-pass recirculation [type (inter., ext.)]		Internal	
Cooling system capacity	With heater - L (qt.)	16.19 (17.11)	
	With air conditioner-L(qt.)	16.33 (17.26)	
	Opt. equip.[specify-L(qt.)]	--	
Water jackets full length of cyl(yes,no)		Yes	
Water all around cylinder (yes, no)		Yes	
Water jackets open at head face (yes,no)		No	
Radiator core	Std., A/C, HD	Standard	
	Type (cross-flow, etc.)	Cross-Flow	
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube	
	Matl., mass [kg(wgt.,lbs.)]	Aluminum, High Efficiency Radiator	
	Width	667.5 mm	
	Height	437.8 mm	
	Thickness	34.0 mm	
	Fins per inch @	2.5 mm	
Radiator end tank material		Plastic	
Fan	Std., elec., opt.	Standard	A/C
	Number of blades & type (flex, solid, material)	5, Plastic, Ring	
	Diameter & projected width	423.0 (16.7)	318.0 (12.5) - 2 Fans
	Ratio(fan to crnkshft.rev.)	Not Applicable	
	Fan cutout type	ECM Controlled	ECM (LH), Switch (RH)
	Drive type (direct, remote)	--	
	RPM at idle (elec.)	--	
	Motor rating(wattage)(elec)	150 W	150 W LH/RH
	Motor switch (type & location)(elec.)	ECM	LH - ECM & A/C Pressure Switch RH - A/C Pressure Switch/ECM
	Switch point (temp., pressure)(elec.)	1900 - 2100	2100 - 2200
	Fan shroud (material)	Plastic (Integral Shroud)	Plastic (Unshrouded Ring)

@ - Distance Between Top Of Fins.

* - 21.36mm (0.84") Wide, 5.20mm (0.20") Thick With Uniform Dynamic Tensioner.

MVMA Specifications

Vehicle Line	FIREBIRD			
Model Year	1990	Issued	6-89	Revised(*)
				9-89

METRIC (U.S. Customary)

Engine Description Engine Code

5.7 LITER V8 (350 CID)
TUNED PORT FUEL INJECTION RPO L98

Engine - Cooling System

Coolant recovery system (std, opt, n.a.)		Standard
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15.0)
Circulation thermostat	Type (choke, bypass)	Choke
	Starts to open @ deg's C(F)	90.6 (195)
Water Pump	Type (centrifugal, other)	Centrifugal With Cast Aluminum Housing
	GPM 1000 pump rpm	13
	Number of pumps	1
	Drive (V-belt, other)	Single Belt Poly 'V' Accessory Drive (Serpentine)*
	Bearing type	Sealed Double Row Ball
	Impeller material	Steel
	Housing material	Cast Iron
By-pass recirculation [type (inter., ext.)]		Internal
Cooling system capacity	With heater - L (qt.)	15.55 (16.43)
	With air conditioner-L(qt.)	15.55 (16.43)
	Opt. equip.[specify-L(qt.)]	--
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	A/C, Standard
	Type (cross-flow, etc.)	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube
	Matl., mass [kg(wgt., lbs.)]	Aluminum Header, Tubes And Fins, Plastic Tanks
	Width	667.5 mm
	Height	437.8 mm
	Thickness	34.0 mm
Fins per inch @		2.5
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Standard A/C
	Number of blades & type (flex, solid, material)	5-Blades, High Efficiency Curved Blades And Ring Shroud, Plastic
	Diameter & projected width	423.0 (16.7) 318.0 (12.5) - 2 Fans
	Ratio(fan to crnshft.rev.)	--
	Fan cutout type	ECM Controlled ECM (LH), Switch (RH)
	Drive type (direct, remote)	--
	RPM at idle (elec.)	--
	Motor rating(wattage)(elec)	150 W 150 W LH/RH
	Motor switch (type & location) (elec.)	ECM LH - ECM & A/C Pressure Switch RH - A/C Pressure Switch/ECM
	Switch point (temp., pressure)(elec.)	1900 - 2100 2100 - 2200
	Fan shroud (material)	Plastic (Integral Ring) Plastic (Unshrouded Ring)

@ - Distance Between Top Of Fins.

* - 21.36mm (0.84") Wide, 5.20mm (0.20") Thick With Uniform Dynamic Tensioner.

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description
 Engine Code

3.1 LITER V6 (191 CID)
 MULTI-PORT FUEL INJECTION RPO LHO

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		AC/Rochester Products
Carburetor no. of barrels		None
Idle A/F mix.		Preset-No Adjustment Provided
Fuel Injection	Point of inj. (no.)	Fuel Injectors At Inlet Ports (6)
	Constant, pulse, flow	Pulse
	Control (elec., mech.)	Electronic
	Sys. press. (kPa (psi))	300 (43.5)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	800 In Neutral
	Automatic	700 In Neutral, 650 In Drive
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water
Air cleaner type		Single Snorkel, Replaceable Paper Element
Fuel filter (type/location)		Replaceable Stainless Steel (With Paper Element) Located Near Fuel Tank
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Press. range (kPa (psi))	Pressure Depends On Flow Rate And System Voltage
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	62.4 @ 350 (16.51 @ 50.8)

Fuel Tank

Capacity (refill L (gallons))		58.7 (15.5)
Location (describe)		Rear Center
Attachment		Underbody Strap
Material & Mass (kg (weight lbs.))		Steel 8.579 (18.9)
Filler pipe	Location & material	Left Rear Quarter, Steel
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity (L (gallons))	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity (L (gallons))	"
	Location & material	"
	Attachment	"
	Sictr switch or valve	"
	Separate fill	"

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
 THROTTLE BODY INJECTION RPO L03

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		AC/Rochester Products
Carburetor no. of barrels		None
Idle A/F mix.		Preset - No Adjustment Provided
Fuel Injection	Point of inj. (no.)	Fuel Injection At Throttle Body (2)
	Constant, pulse, flow	Pulse
	Control (elec., mech.)	Electronic
	Sys. press. [kPa (psi)]	76 (11.0)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		Exhaust
Air cleaner type		Replaceable Paper Element, Single Snorkel
Fuel filter (type/location)		Replaceable Stainless Steel (With Paper Element) Located Near Fuel Tank
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Press. range [kPa (psi)]	Pressure Depends On Flow Rate And System Voltage
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	113 @ 83 (29.84 @ 12.0)

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear Center
Attachment		Underbody Strap
Material & Mass [kg (weight lbs.)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left Rear Quarter, Steel
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Slctr switch or valve	"
	Separate fill	"

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description Engine Code

5.0 LITER V8 (305 CID)
 TUNED PORT FUEL INJECTION RPO LB9

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		AC/Rochester Products
Carburetor no. of barrels		None
Idle A/F mix.		Preset - No Adjustment Provided
Fuel Injection	Point of inj. (no.)	Fuel Injection At Inlet Ports (8)
	Constant, pulse, flow	Pulse
	Control (elec., mech.)	ECM
	Sys. press. [kPa (psi)]	300 (44)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water
Air cleaner type		Replaceable Paper Elements, Single Snorkel
Fuel filter (type/location)		Replaceable Stainless Steel (With Paper Element) Located Near Fuel Tank
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Press. range [kPa(psi)]	Pressure Depends On Flow Rate And System Voltage
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	93.3 @ 350 (24.65 @ 50.8)

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear Center
Attachment		Underbody Strap
Material & Mass [kg (weight lbs.)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left Rear Quarter, Steel
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Sictr switch or valve	"
	Separate fill	"

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

5.7 LITER V8 (350 CID)
 TUNED PORT FUEL INJECTION RPO L98

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

Induction type: carburetor, fuel injection system, etc.		TPI - Tuned Port Fuel Injection
Manufacturer		AC/Rochester Products
Carburetor no. of barrels		None
Idle A/F mix.		Preset - No Adjustment Provided
Fuel Injection	Point of inj. (no.)	Fuel Injection At Inlet Ports (8)
	Constant, pulse, flow	Pulse
	Control (elec., mech.)	Electronic - On Board Computer
	Sys. press. [kPa (psi)]	300 (43.5)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water, Thermostat
Air cleaner type		Replaceable Paper Single Element
Fuel filter (type/location)		Replaceable Stainless Steel (With Paper Element) Located Near Fuel Tank
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Press. range [kPa(psi)]	Pressure Depends On Flow Rate And System Voltage
	Flow rate at regulated pressure [L (gal)/hr @ kPa (psi)]	93.3 @ 350 (24.65 @ 50.8)

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear Center
Attachment		Underbody Strap
Material & Mass [kg (weight lbs.)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left Rear Quarter, Steel
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Slctr switch or valve	"
	Separate fill	"

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

3.1 LITER V6 (191 CID)

MULTI-PORT FUEL INJECTION RPO LHO

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Computer Command Control
	Air injection	Pump or pulse	Pump
		Driven by	Belt
		Air distribution (head, manifold, etc.,)	Exhaust Manifold
		Point of entry	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated Controlled Flow
		Exhaust source	Exhaust Manifold
	Catalytic Converter	Point of exh.inj. (spacer, carb., manifold, other)	Inlet Manifold
		Type	Single Bed, Oxidizing & Reducing
		Number of	1
		Location(s)	Beneath RF Underbody
		Volume [L(cu.in)]	2.78 (170)
		Substrate type	Monolith
		Noble metal type	Platinum (Pt), Rhodium (Rh)
		Noble metal concentration (g/cu. cm.)	0.000838
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 Inlet Duct
Evaporative Emission Control	Vapor vented to crankcase, canister, other)	Fuel tank	Canister
		Carburetor	--
	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
* Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs.)]		1, Reverse Flow
Resonator no. & type		None
* Exhaust pipe	Branch o.d., wall thickness	(a)
	Main o.d., wall thickness	(b)
	Matl. & Mass [kg(wght.lbs.)]	See Notes 4.53 (10.0)
Intermediate pipe	o.d. & wall thickness	Aluminum Coated Steel
	Matl. & Mass [kg(wght.lbs.)]	57.15 x 1.09 mm (2.25 x 0.04 in.)
* Tail pipe	o.d. & wall thickness	Aluminum Coated Steel
	Matl. & Mass [kg(wght.lbs.)]	Aluminum Coated Steel, 3.231 (7.1)

MVMA Specifications

METRIC (U.S. Customary)

SUPPLEMENTAL PAGE

Vehicle Line	FIREBIRD		
Model Year	1990	Issued	6-89 Revised(*)

NOTES:

- (a) Left Hand/Right Hand Branch - Stainless Steel Laminated; 50.8 x 0.76 Outer Tube,
With 0.76 Thick Stainless Steel Inner Tube.
- (b) Stainless Steel Laminated; 57.15 x 0.76 Outer Tube With Stainless Steel Inner Tube 0.76 Thick.
- * Muffler And Tailpipe Unit 7.62 (16.8).

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air Injection W/Computer Command Control
	Air injection	Pump or pulse	Pump Vane
		Driven by	V-Belt
		Air distribution (head, manifold, etc.)	Exhaust Manifold And Catalytic Converter
		Point of entry	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated
		Exhaust source	Manifold Exhaust Crossover
		Point of exh.inj. (spacer, carb., manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Dual Bed (Oxidizing And Reducing)
		Number of	1
		Location(s)	Beneath RF Underbody
		Volume [L[cu.in]]	2.78 (170)
		Substrate type	Monolith
		Noble metal type	Platinum (Pt), Palladium (Pd), Rhodium (Rh)
		Noble metal concentration (g/cu. cm.)	
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)		Throttle Body
	Air int.(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
* Muffler no. & type (reverse flow, straight thru, separate resonator)	Material & Mass [kg (weight lbs.)]	
	1, Reverse Flow	
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	
	(a)	
	Main o.d., wall thickness	
	(b)	
	Matl. & Mass [kg(wght.lbs.)]	
	(See Notes) 4.07 (9.0)	
* Inter-mediate pipe	o.d. & wall thickness	
	57.15 x 1.14 mm (2.25 x .045 in.)	
* Tail pipe	Matl. & Mass [kg(wght.lbs.)]	
	Aluminum Coated Steel	

SEE ATTACHED NOTES

MVMA Specifications

METRIC (U.S. Customary)

SUPPLEMENTAL PAGE

Vehicle Line	FIREBIRD		
Model Year	1990	Issued	6-89
		Revised(*)	

NOTES:

- (a) Left Hand/Right Hand Branch - Stainless Steel Laminated; 50.8 x 0.76 Outer Tube,
With 0.76 Thick Stainless Steel Inner Tube.
- (b) Stainless Steel Laminated; 57.15 x 0.76 Outer Tube With stainless Steel Inner Tube 0.76 Thick.
- * Muffler And Tailpipe Unit 8.732 (19.3).

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

5.0 LITER V8 (305 CID)

Engine Code

TUNED PORT FUEL INJECTION RPO LB9

Vehicle Emission Control

Single Converter (Without N10)

Dual Converters (With N10)

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air Injection W/ Computer Command Control	
	Air injection	Pump or pulse	Air Pump	
		Driven by	Belt	
		Air distribution (head, manifold, etc.,)	Exhaust Manifold And Catalytic Converter	
		Point of entry	Exhaust Manifold	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated Controlled Flow	
		Exhaust source	Manifold	
		Point of exh.inj. (spacer, carb., manifold, other)	Inlet Manifold	
	Catalytic Converter	Type	Dual Bed, Oxidizing & Reducing	
		Number of	One	Two
		Location(s)	Beneath RF Underbody	
		Volume [L(cu.in)]	2.78 (170)	
		Substrate type	Monolith	
		Noble metal type	Platinum (Pt), Palladium (Pd), Rhodium (Rh)	
		Noble metal concentration (g/cu. cm.)	0.001096	
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)		Intake Manifold	
	Air inlt(breather cap, other)		Throttle Body	
Evaporative Emission Control	Vapor vented to crankcase, canister, other)	Fuel tank	Canister	
		Carburetor	--	
	Vapor storage provision		Canister	
Electronic System	Closed loop (yes/no)		Yes	
	Open loop (yes/no)		No	

Engine - Exhaust System

Single Converter (Without N10)

Dual Converters (With N10)

Type (single, single with cross-over, dual, other)		Single With Dual Tailpipes	
* Muffler no. & type (reverse flow, straight thru, separate resonator)	Material & Mass [kg (weight lbs.)]		1, Reverse Flow
	Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	(a)	(c)
	Main o.d., wall thickness	(b)	(d)
	Matl. & Mass [kg(wght.lbs.)]	4.07 (9.0)	15.68 (34.6)
* Intermediate pipe	o.d. & wall thickness	57.15 x 1.14mm (2.25 x .045 in.)	69.85 x 1.40mm (2.75 x 0.05 in.)
	Matl. & Mass [kg(wght.lbs.)]	Aluminum Coated Steel	
* Tail pipe	o.d. & wall thickness	63.5 x 1.07 mm (2.25 x .04 in.)	
	Matl. & Mass [kg(wght.lbs.)]	Aluminum Coated Steel	

* Muffler & tailpipe unit 8.845 (19.5).
 (SEE FOOTNOTES ON PAGE 7.5).

MVMA Specifications

METRIC (U.S. Customary)

SUPPLEMENTAL PAGE

Vehicle Line	FIREBIRD		
Model Year	1990	Issued	6-89
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-
- (a) Laminated - Stainless Steel Outer Pipe, 63.5 x 1.016 (2.5 x 0.04), Steel Inner Pipe.
 - (b) Laminated - Stainless Steel Outer Pipe, 76.2 x 1.016 (3.0 x 0.04), Steel Inner Pipe.
 - (c) 57.15 x 1.37 Thickwall Stainless Steel.
 - (d) 63.5 x 1.37 Thickwall Stainless Steel.
- W-Tube 69.85 x 1.37 Thickwall Stainless Steel.

NOTE: The Exhaust Pipe Has Two Converters In Each Branch Of The Pipe.

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

5.7 LITER V8 (350 CID)

Engine Code

TUNED PORT FUEL INJECTION RPO L98

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air Injection W/Computer Command Control
	Air injection	Pump or pulse	Air Pump
		Driven by	Belt
		Air distribution (head, manifold, etc.,)	Exhaust Manifold And Catalytic Converter
		Point of entry	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated Controlled Flow
		Exhaust source	Manifold
		Point of exh.inj. (spacer, carb., manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Dual Bed, Oxidizing & Reducing
		Number of	2
		Location(s)	Beneath RF Underbody
		Volume [L(cu.in)]	2.78 (170)
		Substrate type	Monolith
		Noble metal type	Platinum (Pt), Palladium (Pd), Rhodium (Rh)
		Noble metal concentration (g/cu. cm.)	0.001096
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)		Intake Manifold
	Air Int.(breather cap, other)		Throttle Body
Evaporative Emission Control	Vapor vented to crankcase, canister, other)	Fuel tank	Canister
		Carburetor	--
	Vapor storage provision		Canister
Electronic System	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine - Exhaust System

Dual Converters (With N10)

Type (single, single with cross-over, dual, other)		Single With Dual Tailpipes
* Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs.)]		1, Reverse Flow
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	(a)
	Main o.d., wall thickness	(b)
	Matl. & Mass [kg(wght.lbs.)]	15.68 (34.6)
* Intermediate pipe	o.d. & wall thickness	69.85 x 1.40 mm (2.75 x 0.05 in.)
	Matl. & Mass [kg(wght.lbs.)]	Aluminum Coated Steel
* Tail pipe	o.d. & wall thickness	63.5 x 1.07 mm (2.25 x .04 in.)
	Matl. & Mass [kg(wght.lbs.)]	Aluminum Coated Steel

(a) 57.15 x 1.37 Thickwall Stainless Steel.

(b) 63.5 x 1.37 Thickwall Stainless Steel. W-Tube 69.85 x 1.37 Thickwall Stainless Steel.

* Muffler & Tailpipe Unit 8.845 (19.5).

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
Engine Code

3.1 LITER V6 (191 CID)
MULTI-PORT FUEL INJECTION RPO LHO

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

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	Not Available
Manual 5-speed (manufacturer/country)	Standard
Automatic (manufacturer/country)	Optional
Auto, overdrive (manufacturer/country)	Optional

Manual Transmission/Transaxle (MBI)

Number of forward speeds		5
Gear ratios	1st	4.03
	2nd	2.37
	3rd	1.50
	4th	1.00
	5th	0.76
	Reverse	3.76
Synchronous meshing (specify gears)		All Forward Gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum
Lubricant	Capacity [L (pt.)]	3.25 (6.87)
	Type recommended	Dexron II

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
Clutch type (dry, wet; single, multiple disc)		Dry Disc
Linkage (hyd., cable, rod, lever, other)		Hydraulic
Max. pedal effort (nom. spring load, new) N (lbs.)	Depressed	130
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N(lbs)		5750 (1293)
Clutch facing	Facing mfr. & matl. coding	Valeo/F202
	Facing matl. & construction	Non-Asbestos
	Rivets per facing	16
	Outside x inside dia. (nom.)	232.0 x 155.0 mm (9.125 x 6.125 in.)
	Total eff. area(sq cm(sq in))	234.0 (36.28)
	Thickness (pressure plate side/fly wheel side)	3.2/3.2
	Rivet depth (pressure plate side/fly wheel side)	1.1 mm (.043 in.)
	Engagement cushion method	Driven Plate Wave Spoke Springs
Release bearing type & method lub.		Self Centering Angular Contact Ball Bearing Pre-Packed And Sealed
Torsional damping method, springs, hysteresis		Coil Springs With Non-Metal Friction Control

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

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
 Engine Code

5.0 LITER V8 (305 CID)
 THROTTLE BODY INJECTION RPO L03

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

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	Not Available
Manual 5-speed (manufacturer/country)	Standard
Automatic (manufacturer/country)	Optional
Auto, overdrive (manufacturer/country)	Optional

Manual Transmission/Transaxle

(M39)

Number of forward speeds		5
Gear ratios	1st	2.95
	2nd	1.94
	3rd	1.34
	4th	1.00
	5th	0.63
	Reverse	2.76
Synchronous meshing (specify gears)		All Forward Gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum
Lubricant	Capacity [L (pt.)]	3.25 (6.87)
	Type recommended	

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
Clutch type (dry, wet; single, multiple disc)		Dry Disc
Linkage (hyd., cable, rod, lever, other)		Hydraulic
Max. pedal effort (nom. spring load, new) N (lbs.)	Depressed	150
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N (lbs)		7750 (1742)
Clutch facing	Facing mfr. & matl. coding	Valeo/F202
	Facing matl. & construction	Non-Asbestos
	Rivets per facing	18
	Outside x inside dia. (nom.)	254.0 x 165.0 mm (10.0 x 6.5 in.)
	Total eff. area [sq cm (sq in.)]	293.0 (45.43)
	Thickness (pressure plate side/fly wheel side)	3.45/3.45
	Rivet depth (pressure plate side/fly wheel side)	1.1 mm (.043 in.)
	Engagement cushion method	Driven Plate Wave Spoke Springs
Release bearing type & method lub.		Self Centering Angular Contact Ball Bearing Pre-Packed And Sealed
Torsional damping method, springs, hysteresis		Coil Springs With Non-Metal Friction Control

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

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
TUNED PORT FUEL INJECTION RPO LB9

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

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	Not Available
Manual 5-speed (manufacturer/country)	Standard
Automatic (manufacturer/country)	Optional
Auto, overdrive (manufacturer/country)	Optional

Manual Transmission/Transaxle

(M39)

(MK6)

Number of forward speeds		5	5
Gear ratios	1st	2.95	2.75
	2nd	1.94	1.94
	3rd	1.34	1.34
	4th	1.00	1.00
	5th	0.63	0.74
	Reverse	2.76	2.76
Synchronous meshing (specify gears)		All Forward Gears	
Shift lever location		Floor	
Trans. case mat'l. & mass kg (lbs)*		Aluminum	
Lubricant	Capacity [L (pt.)]	3.25 (6.87)	
	Type recommended	5W-30	

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
Clutch type (dry, wet; single, multiple disc)		Dry Disc
Linkage (hyd., cable, rod, lever, other)		Hydraulic
Max. pedal effort (nom. spring load, new) N(lbs.)	Depressed	150
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N(lbs)		7750 (1742)
Clutch facing	Facing mfr. & matl. coding	Valeo/F202
	Facing matl. & construction	Non-Asbestos
	Rivets per facing	18
	Outside x inside dia. (nom.)	267.0 x 165.0 mm (10.5 x 6.5 in.)
	Total eff. area[sq cm(sq in)]	346.0 (53.6)
	Thickness (pressure plate side/fly wheel side)	3.45/3.45
	Rivet depth (pressure plate side/fly wheel side)	1.1 mm (.043 in.)
	Engagement cushion method	Driven Plate Wave Spoke Springs
Release bearing type & method lub.		Self Centering Angular Contact Ball Bearing Pre-Packed And Sealed
Torsional damping method, springs, hysteresis		Coil Springs With Non-Metal Friction Control

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

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
 Engine Code

5.7 LITER V8 (350 CID)
 TUNED PORT FUEL INJECTION RPO L98

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

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	"
Manual 5-speed (manufacturer/country)	"
Automatic (manufacturer/country)	Standard
Auto, overdrive (manufacturer/country)	Standard

Manual Transmission/Transaxle (NOT AVAILABLE)

Number of forward speeds		
Gear ratios	1st	
	2nd	
	3rd	
	4th	
	5th	
	Reverse	
Synchronous meshing (specify gears)		
Shift lever location		
Trans. case mat'l. & mass kg (lbs)*		
Lubricant	Capacity [L (pt.)]	
	Type recommended	

Clutch (Manual Transmission) (NOT AVAILABLE)

Clutch manufacturer		
Clutch type (dry, wet; single, multiple disc)		
Linkage (hyd., cable, rod, lever, other)		
Max. pedal effort (nom. spring load, new) N (lbs.)	Depressed	
	Released	
Assist (spring, power/percent, nominal)		
Type pressure plate springs		
Total spring load (nominal, new) N (lbs)		
Clutch facing	Facing mfr. & mat'l. coding	
	Facing mat'l. & construction	
	Rivets per facing	
	Outside x inside dia. (nom.)	
	Total eff. area [sq cm (sq in)]	
	Thickness (pressure plate side/fly wheel side)	
	Rivet depth (pressure plate side/fly wheel side)	
	Engagement cushion method	
Release bearing type & method lub.		
Torsional damping method, springs, hysteresis		

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

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

3.1 LITER V6 (191 CID)
MULTI-PORT FUEL INJECTION RPO LHO

o Automatic Transmission/Transaxle

Trade Name		
Type and special features (describe)		4-Speed Automatic
Gear selector	Location (column, floor, other)	Column & Floor
	Ltr./No. designation (e.g. PRND21)	P-R-N- <u>D</u> -2-1
	Shift interlock (yes, no, describe)	No
Gear ratios	1st	2.92
	2nd	1.56
	3rd	1.00 (Converter Clutch Engagement)
	4th	0.70 (Converter Clutch Engagement)
	Reverse	2.38
Max. upshift speed - drive range [km/h (mph)]		1-2 = 40 (25) 2-3 = 166 (103)
Max. kickdown speed - drive range [km/h (mph)]		4-3 = 140 (87) 3-2 = 105 (65) 2-1 = 60 (37)
Min. overdrive speed [km/h (mph)]		68 (42)
Torque converter	Number of elements	3
	Max. ratio at stall	2.22
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	245mm (9.8 in.)
	Capacity factor "K"	177
Lubricant	Capacity (refill L (pt.))	8.75 (18.38)
	Type recommended	Dexron II
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Standard, Integral Part Of Radiator
Trans. mass [kg (lbs)] & case matl.**		83.3 (183.26)

o All Wheel / 4 Wheel Drive

(NOT APPLICABLE)

Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.)		
Transfer case	Manufacturer and model	
	Type and location	
Low-range gear ratio		
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	
	Torque split(% frt/rear)	

* Input speed / square root of torque.

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

○ Automatic Transmission/Transaxle (See Power Teams for Transmission Usage)

Trade Name		'700-R4'	'200-4R'
Type and special features (describe)		4-Speed Automatic Torque Converter With Planetary Gears	
Gear selector	Location (column, floor, other)	Steering Column	
	Ltr./No. designation (e.g. PRND21)	P-R-N-D-2-1	
	Shift interlock (yes, no, describe)		
Gear ratios	1st	3.08	2.74
	2nd	1.83*	1.57
	3rd	1.00*	1.00*
	4th	0.70*	0.67*
	Reverse	2.29	2.07
Max. upshift speed - drive range [km/h (mph)]		1-2 = 60 (37.5) 2-3 = 108 (67)	Not Available
Max. kickdown speed - drive range [km/h (mph)]		3-2 = 100 (62) 2-1 = 45 (28)	"
Min. overdrive speed [km/h (mph)]		67 (41.5)	"
Torque converter	Number of elements	3	
	Max. ratio at stall	5.8:1	Not Available
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	298 (11.75)	
	Capacity factor K^*		
Lubricant	Capacity (refill L(pt.))	3.0 (6.3)	
	Type recommended	Dexron II	
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Standard, Integral With Radiator	
Trans. mass [kg(lbs)] & case matl.**		Aluminum	

○ All Wheel / 4 Wheel Drive (NOT AVAILABLE)

Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.)		
Transfer case	Manufacturer and model	
	Type and location	
Low-range gear ratio		
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	
	Torque split(% frt/rear)	

* Input speed / square root of torque.

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 8-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
TUNED PORT FUEL INJECTION RPO LB9

○ Automatic Transmission/Transaxle

Trade Name		700-R4'
Type and special features (describe)		4-Speed Automatic Torque Converter with Clutch
Gear selector	Location (column, floor, other)	Floor Console
	Ltr./No. designation (e.g. PRND21)	P-R-N-(D)-D-2-1
	Shift interlock (yes, no, describe)	
Gear ratios	1st	3.06
	2nd	1.63
	3rd	1.00*
	4th	0.70*
	Reverse	2.29
Max. upshift speed - drive range (km/h (mph))		1-2 = 66 (41), 2-3 = 122 (76)
Max. kickdown speed - drive range (km/h (mph))		3-2 = 116 (72), 2-1 = 63 (39)
Min. overdrive speed (km/h (mph))		66 (41)
Torque converter	Number of elements	3
	Max. ratio at stall	2.15
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	298 (11.75)
	Capacity factor "K"	115
Lubricant	Capacity (refill L(pt.))	4.7 (10.0)
	Type recommended	GM Dexron II
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Standard Integral With Radiator
Trans. mass (kg(lbs)) & case matl.**		Aluminum 74.2 (163.5)

* Torque Converter Clutch in 3rd & 4th Gears.

○ All Wheel / 4 Wheel Drive

(NOT APPLICABLE)

Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.)		
Transfer case	Manufacturer and model	
	Type and location	
Low-range gear ratio		
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	
	Torque split(% frt/rear)	

* Input speed / square root of torque.

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.7 LITER V8 (350-CID)
TUNED PORT FUEL INJECTION RPO L98

○ Automatic Transmisslon/Transaxle

Trade Name		'700-R4'
Type and special features (describe)		4-Speed Automatic Torque Converter with Clutch
Gear selector	Location (column, floor, other)	On Floor Console
	Ltr./No. designation (e.g. PRND21)	P-R-N- <u>D</u> -D-2-1
	Shift interlock (yes, no, describe)	
Gear ratios	1st	3.06
	2nd	1.63
	3rd	1.00*
	4th	0.70*
	Reverse	2.29
Max. upshift speed - drive range [km/h (mph)]		1-2 = 63 (39), 2-3 = 125 (78) 3-4 = 197 (125)
Max. kickdown speed - drive range [km/h (mph)]		3-2 = 104 (65), 2-1 = 57 (35)
Min. overdrive speed [km/h (mph)]		65 (41)
Torque converter	Number of elements	3
	Max. ratio at stall	1.91
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	298 (11.75)
	Capacity factor "K"	100
Lubricant	Capacity (refill L(pt.))	4.7 (10.0)
	Type recommended	GM Dexron II
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Standard Integral With Radiator
Trans. mass [kg(lbs)] & case matl.**		Aluminum 74.2 (163.5)

* Torque Converter Clutch in 3rd & 4th Gears.

○ All Wheel / 4 Wheel Drive

(NOT APPLICABLE)

Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.)		
Transfer case	Manufacturer and model	
	Type and location	
Low-range gear ratio		
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	
	Torque split(% frt/rear)	

* Input speed / square root of torque.

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
Engine Code

3.1 LITER V6 (191 CID)
MULTI-PORT FUEL INJECTION RPO LHO

○ Axle Ratio and Tooth Combinations

AUTOMATIC - MD8

MANUAL - MB1

Axle ratio (or overall top gear ratio)		3.23 (226)	3.42 (2.60)
Ring gear o.d.		7.625 in.	7.625 in.
No. of teeth	Pinion	13	12
	Ring gear	42	41

○ Rear Axle Unit

Description		Salisbury/Beam Housing
Limited slip differential (type)		Not Applicable
Drive pinion	Type	Hypoid
	Offset	1.50
No. of differential pinions		2
Pinion/differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Shim
Driving wheel bearing (type)		Cylindrical Roller Direct On Shafts, Drawn Cup
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

○ Propeller Shaft - Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Saginaw Division Straight Tube W/Internal Damper	
Outer diam. x length* x wall thickness	Manual 3-speed transmission		Not Applicable	
	Manual 4-speed transmission		Not Applicable	
	Manual 5-speed transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
	Overdrive		Not Available	
	Automatic transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
Inter- mediate bearing	Type (plain, anti-friction)		Not Applicable	
	Lub. (fitting, prepack)		Not Applicable	
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 Division
			Rear	Saginaw Division
	Number used		2	
	Type (ball and trunnion, cross)		Cross	
	Rr. attach(u-bolt,clamp,etc)		Strap & Bolts	
	Bearing	Type (plain, anti-friction)	Anti-Friction	
		Lubrication (fitting, prepack)	Prepacked	
Drive taken through (torque tube, arms or springs)			Propeller Shaft Assembly	
Torque taken through (torque tube, arms or springs)			Torque Arm Assembly	

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

* 70mm (2.75 in) Dia. Aluminum Shaft Replaces Base Steel Shaft Where Necessary For Weight Reduction.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

○ Axle Ratio and Tooth Combinations

AUTOMATIC - MD8

MANUAL - M39

Axle ratio (or overall top gear ratio)		2.73 (1.91)	3.08 (1.94)
Ring gear o.d.		Not Available	
No. of teeth	Pinion	"	
	Ring gear	"	

○ Rear Axle Unit

Description		Salisbury/Beam Housing
Limited slip differential (type)		Not Applicable
Drive pinion	Type	Hypoid
	Offset	1.50
No. of differential pinions		2
Pinion/differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Shim
Driving wheel bearing (type)		Cylindrical Roller Direct On Shafts, Drawn Cup
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

○ Propeller Shaft - Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Saginaw Division Straight Tube W/Internal Damper	
Outer diam. x length* x wall thickness	Manual 3-speed transmission		Not Applicable	
	Manual 4-speed transmission		Not Applicable	
	Manual 5-speed transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
	Overdrive		Not Available	
	Automatic transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
Inter- mediate bearing	Type (plain, anti-friction)		Not Applicable	
	Lub. (fitting, prepack)		Not Applicable	
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 Division	
		Rear	Saginaw Division	
	Number used		2	
	Type (ball and trunnion, cross)		Cross	
	Rr. attach(u-bolt, clamp, etc)		Strap & Bolts	
	Bearing	Type (plain, anti-friction)	Anti-Friction	
		Lubrication (fitting, prepack)	Prepacked	
Drive taken through (torque tube, arms or springs)			Propeller Shaft Assembly	
Torque taken through (torque tube, arms or springs)			Torque Arm Assembly	

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

* 70mm (2.75 in) Dia. Aluminum Shaft Replaces Base Steel Shaft Where Necessary For Weight Reduction.

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description
 Engine Code

5.0 LITER V8 (305 CID)
 TUNED PORT INJECTION RPO LB9

○ Axle Ratio and Tooth Combinations

	AUTOMATIC - MD8	MANUAL - M39	MANUAL - MK6
Axle ratio (or overall top gear ratio)	2.73 (1.91)	3.08 (1.94)	3.42 (2.50)
Ring gear o.d.	Not Available		
No. of teeth	Pinion	"	
	Ring gear	"	

○ Rear Axle Unit

Description		Salisbury/Beam Housing
Limited slip differential(type)		Not Applicable
Drive pinion	Type	Hypoid
	Offset	1.50
No. of differential pinions		2
Pinion/ differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Shim
Driving wheel bearing (type)		Cylindrical Roller Direct On Shafts, Drawn Cup
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

○ Propeller Shaft - Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Saginaw Division Straight Tube W/Internal Damper	
Outer diam. x length* x wall thickness	Manual 3-speed transmission		Not Applicable	
	Manual 4-speed transmission		Not Applicable	
	Manual 5-speed transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
	Overdrive		Not Available	
	Automatic transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
Inter- mediate bearing	Type (plain, anti-friction)		Not Applicable	
	Lub. (fitting, prepack)		Not Applicable	
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 Division	
		Rear	Saginaw Division	
	Number used		2	
	Type (ball and trunnion, cross)		Cross	
	Rr. attach(u-bolt, clamp, etc)		Strap & Bolts	
	Bearing	Type (plain, anti-friction)	Anti-Friction	
		Lubrication (fitting, prepack)	Prepacked	
	Drive taken through (torque tube, arms or springs)			Propeller Shaft Assembly
Torque taken through (torque tube, arms or springs)			Torque Arm Assembly	

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

* 70mm (2.75 in) Dia. Aluminum Shaft replaces Base Steel Shaft Where Necessary For Weight Reduction.

MVMA Specifications

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

5.7 LITER V8 (305 CID)

Engine Code

TUNED PORT INJECTION RPO L98

○ Axle Ratio and Tooth Combinations AUTOMATIC - MD8

Axle ratio (or overall top gear ratio)		3.23 (2.26)
Ring gear o.d.		Not Available
No. of teeth	Pinion	"
	Ring gear	"

○ Rear Axle Unit

Description		Salisbury/Beam Housing
Limited slip differential (type)		Not Applicable
Drive pinion	Type	Hypoid
	Offset	1.50
No. of differential pinions		2
Pinion/differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Shim
Driving wheel bearing (type)		Cylindrical Roller Direct On Shafts, Drawn Cup
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

○ Propeller Shaft - Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Saginaw Division Straight Tube W/Internal Damper	
Outer diam. x length* x wall thickness	Manual 3-speed transmission		Not Applicable	
	Manual 4-speed transmission		Not Applicable	
	Manual 5-speed transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
	Overdrive		Not Available	
	Automatic transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)	
Inter- mediate bearing	Type (plain, anti-friction)		Not Applicable	
	Lub. (fitting, prepack)		Not Applicable	
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 Division	
		Rear	Saginaw Division	
	Number used		2	
	Type (ball and trunnion, cross)		Cross	
	Rr. attach(u-bolt, clamp, etc)		Strap & Bolts	
	Bearing	Type (plain, anti-friction)	Anti-Friction	
		Lubrication (fitting, prepack)	Prepacked	
Drive taken through (torque tube, arms or springs)			Propeller Shaft Assembly	
Torque taken through (torque tube, arms or springs)			Torque Arm Assembly	

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

* 70mm (2.75 in) Dia. Aluminum Shaft Replaces Base Steel Shaft Where Necessary For Weight Reduction.

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

ALL

Suspension – General Including Electronic Controls

Car leveling	Std./opt./n.a.	Not Available
	Manual/automatic control	"
	Type (air/hydraulic)	"
	Primary/assist spring	"
	Rear only/4 wheel leveling	"
	Single/dual rate spring	"
	Single/dual ride heights	"
	Provision for jacking	Body Pickup At Rocker Panels
Shock absorber damping controls	Std./opt./n.a.	Not Applicable
	Manual/automatic control	"
	Number of damping rates	"
	Type of actuation (manual/ electric motor/air, etc.)	"
	s e n s o r s	Lateral acceleration
		Deceleration
		Acceleration
Shock absorber (front & rear)	Type	Direct, Double-Action, Hydraulic
	Make	Delco Products
	Piston diameter	32.0mm(1.26in), 35.0mm(1.38in)W/WS6 Front; 25.0mm(.98in), 32.0mm(1.26in)W/WS6
	Rod diameter	25mm (1.0 in.) Front; 12.5mm (0.5 in.) Rear. 25.0mm (1.0 in.) Rear

Suspension – Front

Type and description		Independent W/Coil Springs, Modified MacPherson Strut
Travel*	Full jounce	75.0 mm (2.95 in.) Base & Trans Am; 57.0 mm (2.24 in.) GTA, Formula
	Full rebound	104.0 mm (4.09 in.)
Spring	Type (coil, leaf, other) & matl	Coil, Steel
	Insulators (type & matl)	Rubber (Top)
	Size (coil design height & i.d.)	260.0 x 103.0; 2490.0 x 15.0 mm Base (10.2 x 4.06; 98.0 x 0.59 in.)
	Spring rate [N/mm (lb./in.)]	64 (345.8), 96 (547.2) (a)
	Rate @ wheel [N/mm (lb./in.)]	Spring Rate x (2.455)
Stabilizer	Type (link, linkless, frmlless)	Link
	Material & bar diameter	STL-30.0mm(1.2 in.) Base & V6; 34.0mm (1.34 in.) Trans Am; (Base); 36.0 mm (1.4 in.) W/WS6 Opt.

Suspension – Rear

Type and description		Salisbury Axle W/Torque Arm, LCA, Track Bar, Coil Springs
Travel*	Full jounce	85.0mm (3.3 in.)
	Full rebound	118.0mm (4.6 in.)
Spring	Type (coil, leaf, other) & matl	Coil, Steel
	Size (length x width, coil design height & i.d.)	254.0 x 102.6; 2709.0 x 12.0mm (10.0 x 4.03; 27.9 x 0.472 in.)
	Spring rate [N/mm (lb/in)]	18 (159), 23 (204) (b)
	Rate @ wheel [N/mm (lb/in)]	(Spring Rate x 0.98)
	Insulators (type & material)	Rubber Isolated
	If leaf	No. of leaves
Stabilizer		Shackle (comp or tens)
	Type (link, linkless, frmlless)	Link
Material & bar diameter		Steel-18.0mm(0.71 in.) Base & V6; 23.0mm(0.91 in.) (c); 24.0mm(.94 in.)W/WS6
Track bar (type)		'U' Section W/Rubber Bushings

* Define load condition:

MVMA Specifications

METRIC (U.S. Customary)

SUPPLEMENTAL PAGE

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*)

(a)

Firebird-Base: 64 (V6), 96 (V8)

Formula And GTA - Base: 96

Trans AM - Base: 96, WS6: 96

(b)

Firebird - Base: 18/25

Formula And GTA: 23

Trans AM: 18; WS4:23; WS6:23

(c)

Trans AM Base & V8: 23.0mm (.91) WS4; 24.0mm (.94 in.) WS6 Formula, GTA

MVMA Specifications

METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

Brakes - Service

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*)

ALL

Description		Single Caliper Disc Front, Duo-Servo Drum Rear, Disc Optional Front/Rear (RPO J65)	
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Disc	
	Rear (disc or drum)	Drum; Disc Optional	
Valving type(prop, delay, metering, other)		Remote Metering And Proportioning, Front/Rear Split	
Power brake (std., opt., n.a.)		Standard	
Booster type(rmt, intgr, vac., hyd., etc.)		Tandem vacuum	
Vacuum	Source (inline, pump, etc.)	Inline	
	Reservoir (volume cu. in.)	None	
	Pump-type	None	
Traction Control	Operational speed range	"	
	Type engine intervention	"	
Anti-lock device	Front/rear (std., opt., n.a.)	"	
	Manufacturer	"	
	Type (electronic, mech.)	"	
	Number sensors or circuits	"	
	No. anti-lock hyd. circuits	"	
	Integral or add-on system	"	
	Yaw control (yes, no)	"	
Hydraulic power source		"	
Effective area [sq. cm. (sq. in.)]*		615.5 (95.4) total	
Gross Lng area [sq cm (sq in)] ** (F/R)		691.6 (107.2) total	
Swept area [sq cm (sq in)]*** (F/R)		1885.1 (307.7) total	
Rotor	Outer working diameter	F/R	F/267.0mm (10.5); R/296.0 mm (11.65 in.)
	Inner working diameter	F/R	F/171.5mm (6.75); R/211.0 mm (8.31 in.)
	Thickness	F/R	F/26.2mm (1.03); R/20.0 mm (0.79 in.)
	Matl & type (vented/std)	F/R	Cast Iron, Vented F/R
Drum	Diameter & width	F/R	241.0mm (9.5 in.) x 50.8mm (2.0 in.)
	Type and material	F/R	Cast Iron Finned (Aluminum For Selected Applications)
Wheel cylinder bore		F/64.0mm (2.5 in.); R/19.0mm (.75 in.) Drum; 40.5mm (1.6 in.) Disc	
Master cylinder	Bore/stroke	F/R	Bore: 24.0mm (0.94 in.)
Pedal arc ratio		3.25:1	
Line pressure at 445 N (100 lb.) pedal load [kPa (psi)]			
Lining clearance		F/R	Self-Adjusting F/R
Brake lining	Front wheel	Bonded or riveted	Riveted (8)
		Rivet size	5.33 x 7.92mm (0.210 x 0.312 in.)
		Manufacturer	Bendix
		Lining code *****	7181A
		Material	Semi-Metallic
		**** Pri. or out-brd	125.0 x 48.4 x 11.04mm (4.92 x 1.91 x 0.435 in.)
		Size Sec. or in-brd	125.0 x 48.4 x 10.55mm (4.92 x 1.91 x 0.415 in.)
		Shoe thcknss. (no lng)	OB/3.42mm (0.135 in.); IB 4.85mm (0.191 in.)
	Rear wheel	Bonded or riveted	Riveted 10 Primary, Secondary (Drum) Molded (Disc)
		Manufacturer	Inland (Drum) JBI (Disc)
		Lining code *****	IN 4035/4050 B33
		Material	Organic Semi-Metallic
		**** Pri. or out-brd	192.5x50.8x4.98mm(7.58x2.0x0.196 in.)125.0x48.4x11.04mm(4.92x1.91x0.435 in.)
		Size Sec. or in-brd	249.6x50.8x6.75mm(9.83x2.0x0.266 in.)125.0x48.4x10.55mm(4.92x1.91x0.435 in.)
		Shoe thcknss (no lng)	Drum F/R 1.98mm (.078 in.), disc OB/4.0mm(0.16 in.); IB/5.5mm (0.21 in.)

* 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 circum.)
(Disc brake: Square of Outer Working Dia. - Square of inner Working Dia. X Pi/2 for each brake.)

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

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

MVMA Specifications

METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

Brakes - Service

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*)

HEAVY DUTY (OPTIONAL RPO 1LE)

Description			Front & Rear Disc Brakes
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Disc
	Rear (disc or drum)		Disc
Valving type(prop, delay, metering, other)			Remote Proportioning, Front/Rear Split
Power brake (std., opt., n.a.)			Standard
Booster type(rmt, intgrl, vac., hyd., etc.)			200mm (7.87 in.) Tandem Vacuum
Vacuum	Source (inline, pump, etc.)		Engine
	Reservoir (volume cu. in.)		Not Applicable
	Pump-type		"
Traction Control	Operational speed range		"
	Type engine intervention		"
Anti-lock device	Front/rear (std., opt., n.a.)		"
	Manufacturer		"
	Type (electronic, mech.)		"
	Number sensors or circuits		"
	No. anti-lock hyd. circuits		"
	Integral or add-on system		"
	Yaw control (yes, no)		"
	Hydraulic power source		"
Effective area [sq. cm. (sq. in.)]*			717 (111.1)
Gross Lng area [sq cm (sq in)] ** (F/R)			792 (122.9)
Swept area [sq cm (sq in)]*** (F/R)			2980.74 (462.02)
Rotor	Outer working diameter	F/R	F 301.25mm (11.86 in.) R 296.0mm (11.65 in.)
	Inner working diameter	F/R	F 197.40mm (7.77 in.) R 211.0mm (8.31 in.)
	Thickness	F/R	F 26.20mm (1.03 in.) R 20.0mm (0.79 in.)
	Matl & type (vented/sld)	F/R	Cast Iron, Vented
Drum	Diameter & width	F/R	Not Applicable
	Type and material	F/R	"
Wheel cylinder bore			F 2 x 38mm (1.50 in.) R 40.5mm (1.69 in.)
Master cylinder	Bore/stroke	F/R	24.0mm (0.94 in.)
Pedal arc ratio			3.25:1
Line pressure at 445 N (100 lb.) pedal load [kPa (psi)]			--
Lining clearance			F/R Self-Adjusting
Brake lining	Front wheel	Bonded or riveted	Integrally Molded
		Rivet size	Not Available
		Manufacturer	Japan Brake Industries
		Lining code ****	CP28
		Material	Semi-Metallic
		**** Pri. or out-brd	53.2 sq.cm. x 9.5mm (8.25 sq.in. x .37 in.) Area x Thickness
		Size Sec. or in-brd	52.2 sq.cm. x 9.5mm (8.25 sq.in. x .37 in.) Area x Thickness
		Shoe thickness (no lng)	IB/6.0mm (.24 in.) OB 6.0mm (.24 in.)
	Rear wheel	Bonded or riveted	Integrally Molded
		Manufacturer	Japan Brake Industries
		Lining code ****	HB33
		Material	Semi-Metallic
		**** Pri. or out-brd	28.4 sq.cm. x 8.2mm (4.4 sq.in. x .32 in.) Area x Thickness
		Size Sec. or in-brd	28.4 sq.cm. x 8.2mm (4.4 sq.in. x .32 in.) Area x Thickness
		Shoe thickness (no lng)	IB 5.5mm (.21 in.) OB 4.0mm (.16 in.)

* 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 circum.) (Disc brake: Square of Outer Working Dia. - Square of inner Working Dia. X Pi/2 for each brake.)

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

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

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

BASE	FORMULA	TRANS AM L03 Y99 W/LB8	GTA
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Tires And Wheels (Standard)

WHEELS AND TIRES (Standard)						
Tires	Size (load range, ply)		215/65R15	245/50ZR16	215/65R15	245/50ZR16
	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(45mph)		498	505	498	505
Wheels	Type & material		Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum
	Rim (size & flange type)		15 x 7 JJ	16 x 8 JJ	15 x 7 JJ	16" x 8" JJ
	Wheel offset		8mm	0mm F/16mmR	8mm	0mm F/16mmR
	Attachment	Type(bolt,stud)	Stud			
		Circle diameter	120.7mm (4.75 in.)			
Number & size		5-M12 x 1.5 - 6H- 1hd (Metric)				
Spare	Tire and wheel		T125/70D15, 15 x 4 (Except With G80 Axle)			
	Storage position & location (describe)		Vertically, Adjacent To RH Quarter Panel			

Tires And Wheels (Optional)

Tire size (load range, ply)	P245/50ZR16 * +
Type (bias, radial, steel, nylon, etc.)	Steel Belted Radial
Wheel (type & material)	Cast Aluminum
Rim (size, flange type and offset)	16" x 8", Front: 0, Rear: 16
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Spare tire and wheel size	14x5; P195/75D14 (Inflatable) Used With G80 Axle And 15 in. Road Tire.
(If configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	15x5; P195/75D15 (Inflatable) Used With 16 in. Road Tire.

Brakes - Parking

Type of control		Hand Lever Application - Push Button Reverse - Self-Adjusting
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)	

* Directional Tread
 + Non - "All Seasons" Tire

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

ALL

Steering

Manual (std., opt., n.a.)				Not Available				
Power (std., opt., n.a.)				Standard				
Adjustable steering wheel/ column (tilt, telescope, other)		Type		Tilt, 5 Position				
		Manufacturer		Saginaw Division				
		(std., opt., n.a.)		Standard				
Wheel diameter ** (W9) SAE J1100		Manual		Not Available				
		Power		368.0mm (14.5 in.) Rim				
Turning diameter m (ft.)	Out-side front	Wall to wall (l. & r.)		12.59 (41.3)				
		Curb to curb (l. & r.)		11.73 (38.5) 12.28 (40.3)				
	In-side rear	Wall to wall (l. & r.)		Not Available				
		Curb to curb (l. & r.)		"				
Scrub Radius *				"				
Manual	Gear	Type		"				
		Manufacturer		"				
		Ratios	Gear		"			
			Overall		"			
	No. wheel turns(stop to stop)		"					
Power	Type (hydraulic, elec., etc.)		Hydraulic					
	Manufacturer		Saginaw Division					
	Gear	Type		Recirculating Ball				
		Ratios	Gear		14:1 (a) 12.7:1 (b) 12.7:1 (c)			
			Overall		15.4:1 14:1 14:1			
	Pump (drive)		Belt					
	No. wheel turns(stop to stop)		2.57 2.14 2.14					
Linkage	Type		Parallelogram					
	Location (front or rear of wheels, other)		Front					
	Tie Rods (one or two)		2					
Steering axis	Inclination at camber (deg.)		Not Available					
	Bear-ings (type)	Upper		Ball stud				
		Lower		Ball stud				
		Thrust		None				
Steering spindle/knuckle & joint type				Steering Knuckle W/Spherical Joints				
Wheel spindle/ hub	Dia-meter	Inner bearing		31.73 - 31.74 mm (1.2493 - 1.2498 in.)				
		Outer bearing		21.04 - 21.42 mm (0.83 - 0.84 in.)				
	Thread (size)		3/4 - 20 UNEF - 3A (Modified)					
	Bearing (type)		Tapered Roller					

* The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
 ** See Page 22.

- (a) Base.
- (b) RPO F41 (Trans Am)
- (c) RPO FE2 (Formula)

MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

ALL

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+5.0 (L/R Side To Be Equal Within 0.7)
		Camber (deg.)	0.3 (+/-) .5
		Toe-in (outside track-mm (in.))	0 (+/-) .2
	Service reset*	Caster (deg.)	+5.0 (+/-) .5 (L/R Side To Be Equal With 0.7)
		Camber (deg.)	.3 (+/-) .5
		Toe-in (deg.)	0 (+/-) .2
	Periodic M.V. inspection	Caster (deg.)	+5.0 (+/-) .5
		Camber (deg.)	0.3 (+/-) .5
		Toe-in (deg.)	0 (+/-) .2
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	Not Applicable
		Toe-in (outside track-mm (in.))	"
	Service reset*	Camber (deg.)	"
		Toe-in (deg.)	"
	Periodic M.V. inspection	Camber (deg.)	"
		Toe-in (deg.)	"

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Round Dial, Pointer, 0-120 mph (a)
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		Not Available
Charge indicator	Type	Gauge
	Warning device (light, audible)	Not Available
Temperature indicator	Type	Gauge
	Warning device	Not Available
Oil pressure indicator	Type	Gauge
	Warning device	Not Available
Fuel indicator	Type	Gauge
	Warning device	Not Available
Windshield wiper	Type (standard)	Electric 2-Speed, Depressed Park
	Type (optional)	Intermittent Standard
	Blade length	454.4mm (18 in.)
	Swept area (sq cm (sq in))	5792.0 (898.0)
Windshield washer	Type (standard)	Pushbutton Wet Arm Standard
	Type (optional)	Not Available
	Fluid level indicator	Optional
Rear window wiper, wiper/washer (std., opt., n.a.)		Not Available
Horn	Type	Electric Vibrator
	Number used	Dual Standard
Other		Tachometer Standard, Upshift Telltale On Manual Transmission. Check Engine, Headlamp High Beam, Turn Signals, Brake Warning Light, Fasten Seat Belts, Security, SIR.

(a) 0-140 mph With LB9 W/MK6 or L98

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Engine Description

Engine Code

3.1 LITER V6 (191 CID)
 MULTI-PORT FUEL INJECTION RPO LHO

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525
	Voltage	12
	Amps at 0 deg F cold crnk	525
	Minutes-reserve capacity	90
	Amps/hrs. - 20 hr. rate	--
	Location	Engine Compartment Left Front
Alternator	Manufacturer	Delco Remy
	Rating(idle/max rpm drive)	100 Amps (36 Amp At Idle)
	Ratio (alt. crank/rev.)	2.75:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type	Micro Circuit Units, Integral With Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain 20 deg F	325
	Power rating [kw (hp)]	1.4 (1.9)
Motor drive	Engagement type	Positive Shift Solenoid
	Pinion engages from (front, rear)	Rear

Electrical - Ignition System

Type	Electronic (std, opt, n.a.)	Standard
	Other (specify)	High Energy Ignition
Coil	Manufacturer	Delco Remy
	Model	Separate
	Current	Engine stopped-A 0
		Engine idling - A 5.5 max.
Spark plug	Manufacturer	AC/Rochester Products
	Model	R43TS
	Thread (mm)	14 x 1.25
	Tightening torque [Newton meters (lb. ft.)]	9-20 (7-15)
	Gap	1.14mm (.045 in.)
	Number per cylinder	1
Distributor	Manufacturer	Delco Remy
	Model	10455016

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High-Tension Ignition Cables, Resistor Spark Plugs, Ignition Coil By-Pass Capacitor, Internal AC Blower Motor By-Pass Capacitor & A/C Compression Diode, With Radio Provisions; Engine To Dash Panel Ground Strap, And On "Heater Only" Blower Motors And Coax Capacitor.
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MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
Engine Code

5.0 LITER V8 (305 CID)
THROTTLE BODY INJECTION RPO L03

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525 (Man.) 75-570 (Auto.)
	Voltage	12
	Amps at 0 deg F cold crnk	525
	Minutes-reserve capacity	90
	Amps/hrs. - 20 hr. rate	--
	Location	Engine Compartment
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	100 Amps (36 Amp At Idle)
	Ratio (alt. crank/rev.)	3.0:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type	Micro Circuit Units, Integral With Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain 20 deg F	420
	Power rating [kw (hp)]	2.3 (3.1)
Motor drive	Engagement type	Positive Shift Solenoid
	Pinion engages from (front, rear)	Rear

Electrical - Ignition System

Type	Electronic (std, opt, n.a.)	--
	Other (specify)	High Energy Ignition, (H.E.I.)
Coil	Manufacturer	Delco Remy
	Model	Separate
	Current	Engine stopped - A
		Engine idling - A
Spark plug	Manufacturer	AC
	Model	R45TS
	Thread (mm)	14 x 1.25
	Tightening torque [Newton meters (lb. ft.)]	9-20 (7-15)
	Gap	0.89 (0.035)
	Number per cylinder	1
Distributor	Manufacturer	Delco Remy
	Model	1103460

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High-Tension Ignition 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 And Coax Capacitor.
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MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

5.0 LITER V8 (305 CID)
 TUNED PORT FUEL INJECTION RPO LB9

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525 (Man.) 75-570 (Auto.)
	Voltage	12
	Amps at 0 deg F cold crnk	525 (a), 570 (b)
	Minutes-reserve capacity	75 (a), 90 (b)
	Amps/hrs. - 20 hr. rate	--
	Location	Engine Compartment Right Front
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	105 Amps (42 Amps At Idle)
	Ratio (alt. crank/rev.)	3.14:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type	Micro Circuit Units, Integral With Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain -20 deg F	305
	Power rating [kw (hp)]	1.9 (2.5)
Motor drive	Engagement type	Positive Shift Solenoid
	Pinion engages from (front, rear)	Rear

Electrical - Ignition System

Type	Electronic (std, opt, n.a.)	--
	Other (specify)	High Energy Ignition, (H.E.I.)
Coil	Manufacturer	Delco Remy
	Model	Remote Mounted
	Current	Engine stopped-A 0.5
		Engine idling - A 1.0
Spark plug	Manufacturer	AC
	Model	R45TS
	Thread (mm)	M14 x 1.25 SAE
	Tightening torque [Newton meters (lb. ft.)]	9-20 (7-15)
	Gap	0.89 (0.035")
	Number per cylinder	1
Distributor	Manufacturer	Delco Remy
	Model	1103698

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High-Tension Ignition Cables, Resistor Spark Plugs, Ignition Coil By-Pass Capacitor, Internal AC Blower Motor By-Pass Capacitor & A/C Compression Diode, With Radio Provisions; Engine To Dash Panel Ground Strap, Fuse Block Capacitor And On "heater only" blower motors and coax capacitor.
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MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description
 Engine Code

5.7 LITER V8 (350 CID)
 TUNED PORT FUEL INJECTION RPO L98

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75 - 630
	Voltage	12
	Amps at 0 deg F cold crnk	630
	Minutes-reserve capacity	90
	Amps/hrs. - 20 hr. rate	--
	Location	Engine Compartment Right Front
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	105 Amps (42 Amps At Idle)
	Ratio (alt. crank/rev.)	3.14:1
	Output at idle (rpm, park)	
Regulator	Optional (type & rating)	None
	Type	Micro Circuit Units, Integral With Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain -20 deg F	305
	Power rating [kw (hp)]	2.3 (3.1)
Motor drive	Engagement type	Positive Shift Solenoid
	Pinion engages from (front, rear)	Rear

Electrical - Ignition System

Type	Electronic (std, opt, n.a.)		--
	Other (specify)		High Energy Ignition, (H.E.I.)
Coil	Manufacturer		Delco Remy
	Model		Remote Mounted
	Current	Engine stopped-A	0.5
		Engine idling - A	1.0
Spark plug	Manufacturer		AC
	Model		R45TS
	Thread (mm)		M14 x 1.25 SAE
	Tightening torque [Newton meters (lb. ft.)]		9-20 (7-15)
	Gap		0.89 (0.035")
	Number per cylinder		1
Distributor	Manufacturer		Delco Remy
	Model		1103698

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High-Tension Ignition 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 And Coax Capacitor.
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MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Body Type

ALL

Body

Structure	Full Unitized Steel Construction. Cowl, Roof, Underbody And Body Panels Welded To Form Body Shell. Bolt-In-Front Suspension Crossmember. Doors, Roof, Hood And Hatch Lid Double Panel Construction.
Bumper System Front - Rear	Body Color Soft Fascia, Honeycomb Absorber And Heavy Gauge Reinforcement Used Front And Rear.
Anti-Corrosion Treatment	Galvanized Metals, Zinc Rich Primers, Wax Coating And Other Corrosion Resistant Materials Used Throughout.

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)	High Solids Acrylic Enamel Base Coat/Clear Coat	
Hood	Material & mass	Steel
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Gas Strut Assist
	Release control (int., ext.)	Internal
Trunk lid	Material & mass	Not Applicable
	Type (counterbalance, other)	"
	Internal release control (elec., mech., n.a.)	"
Hatch-back lid	Material & mass	Glass/Steel
	Type (counterbalance, other)	Dual Gas Struts-Electric Final Closure Standard
	Internal release control (elec., mech., n.a.)	Electric Release Optional
Tailgate	Material & mass	Not Applicable
	Type (drop, lift, door)	"
	Internal release control (elec., mech., n.a.)	"
Vent window control (crank, friction, pivot, power)	Front	Not Available
	Rear	"
Window regulator type (cable, tape, flex drive, etc.)	Front	Sector Drive
	Rear	Sector Drive
Seat cushion type (e.g., 60/40, bucket, bench wire, foam, etc.)	Front	Bucket Molded Foam Pad
	Rear	"
	3rd seat	--
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Reclining Bucket Molded Foam Pad
	Rear	Folding Bench, Molded Foam Pad
	3rd seat	--

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Body Type

ALL

Restraint System

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

Glass

	SAE Ref No	
Windshield glass exposed surface area [sq. cm. (sq. in.)]	S1	9000.4 (1395.0)
Side glass exposed surface area [sq. cm. (sq. in.)] - total 2-sides	S2	6519.8 (1010.6)
Backlight glass exposed surface area [sq. cm. (sq. in.)]	S3	6232.0 (966.0)
Total glass exposed surface area [sq. cm. (sq. in.)]	S4	21752.2 (3371.6)
Windshield glass (type)		Curved-Laminated Plate
Side glass (type)		Curved-Tempered Plate
Backlight glass (type)		Curved-Tempered Plate

Headlamps

Description - sealed beam, halogen, replaceable bulb, etc.	Sealed Beam - Two Lamp System
Shape	Rectangular
Lo-beam type (2A1, 2B1, 2C1, etc.)	2B
Quantity	2
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	(2B)
Quantity	(2)

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Full Integral Body Frame, Includes Bolted On Front Suspension Crossmember.
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MVMA Specifications

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Body Type

ALL

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

Air conditioning (manual, auto, temp control)		Manual Controls Std GTA - Optional, Sport Coupe & Trans AM
Clock (digital, analog)		Digital, In Radio
Compass / thermometer		Not Available
Console (floor, overhead)		Full Length Front Console - Standard Floor; Overhead Not Available
Defroster, elec. backlight		Electric - Standard GTA; Optional Others
Electronic	Diagnostic monitor (integrated, individual)	Not Available
	Instrument cluster (list instruments)	Tachometer, Speedometer, Trip Odometer, Fuel, Oil Pressure*, Temp, Volt, Seat Belt Warning, Engine Warning
	Keyless entry	Not Available
	Tripminder (avg. spd. fuel)	"
	Voice alert (list items)	"
	Other	"
Fuel door lock (remote, key, electric)		Not Available
Lamps	Auto head on/off delay, dimming	"
	Cornering	"
	Courtesy (map, reading)	Included In Optional Lamp Group (Under Dash); Lighted Mirror Standard GTA
	Door lock, ignition	Not Available
	Engine compartment	"
	Fog	Standard Trans AM & GTA; Not Available Base Or Formula
	Glove compartment	Standard (Compartment In Floor Console)
	Trunk	(Rear Compartment) Standard GTA, Optional Others
	Illuminated entry system (list lamps, activation)	Not Applicable
	Other	
Mirrors	Day / night (auto. man.)	Standard - Manual
	L.H. (remote, pwr., heated)	Remote Standard, Power Standard GTA; Optional, Others - Not Heated
	R.H. (convex, rmt, pwr, htd)	Manual - Std., Power Standard GTA; Opt. Others; Both Convex - Not Heated
	Visor vanity (RH/LH illum.)	RH - Optional (Non-Illuminated)
Navigation system (describe)		
Prkg. brake-auto release (warn. light)		Hand Release, Warning Light Standard

Radio Options

- * Full Gauge Package Standard

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Engine Description

Engine Code

ALL

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

Power equipment	Deck lid(release, pull down)		Power Door Locks And Hatch Rel. Std. GTA Opt. Others***
	Door locks (manual, auto., describe system)		Manual - Standard Electric - Optional
	Seats	2 - 4 - 6 way, etc.	Ultima Seat - Base GTA, Opt. Trans AM 4-Way
		Reclining(R.H., L.H.)	Driver/Passenger - Standard
		Memory (R.H., L.H., preset, recline)	Not Available
		Lumbar, hip, thigh, support	"
		Heated (R.H., L.H., other)	"
	Side windows		Standard GTA, Optional All Others
	Vent windows		Not Available
Rear windows		"	
Radio systems	Antenna (location, whip, w/shield, power)		R.F. Fender Fixed Mast W/Radio, Pow. Std. GTA; Opt. Others
	Stan.	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM Stereo Standard
	Opt.		AM/FM Stereo Cassette: AM Stereo/FM Stereo Cassette With Equalizer And Soft Touch Switches On Tape Drive; AM Stereo/FM Stereo Auto. Reverse Cassette, Equalizer, All Pushbutton Control (Std. For GTA). Redundant Pushbutton Controls, In Steering Wheel Hub, Standard For GTA.
	Speaker (number, location)		6.2 In. I.P., 2 In Sail Panel, 2 Subwoofers In Sail Panel
	Roof: open air or fixed (flip-up, sliding, "T")		Hatch Roof W/Removable Acrylic Panels - Optional
Speed control device		Cruise Control With Resume Speed - Std GTA; Opt. Others	
Speed warn. dev. (light, buzzer, etc.)		Not Available	
Tachometer (rpm)		Standard	
Telephone system (describe)		Not Available	
Theft deterrent system		Lock Mounted On Steering Column - Locks Steering Wheel, Transmission	
		Shift Levers And Ignition. Electronic System (VATS II) Standard.	

*** Power Final Hatch Closure Latch Standard - All

MVMA Specifications

Vehicle Line FIREBIRDModel Year 1990 Issued 6-89 Revised(*) 9-89

METRIC (U.S. Customary)

Vehicle Dimensions

See Key Sheets for definitions

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

Body Type

2FS87

2FW87

Width

SAE Ref. No.

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	--
Tumble-home (deg.)	W122	
Outside mirror width	W410	

Length

Wheelbase	L101	2566 (101.0)
Vehicle length	L103	4777 (188.1) 4867 (191.6)
Overhang (front)	L104	1150 (45.3) 1182 (46.5)
Overhang (rear)	L105	1123 (44.2)
Upper structure length	L123	2669 (105.1)
Rear wheel C/L 'X' coordinate	L127	2138 (84.2)

Height **

Passenger distribution (front/rear)	PD1,2,3	2 - 2	**
Trunk/cargo load			**
Vehicle height	H101	1271 (50.0)	
Cowl point to ground	H114	887 (34.9)	
Deck point to ground	H138	912 (35.9)	
Rocker panel-front to ground	H112	184 (7.2)	
Rocker panel-rear to ground	H111	187 (7.4)	
Windshield slope angle (deg.)	H122	62.0	
Backlight slope angle (deg.)	H121	71.0	

Ground Clearance **

Front bumper to ground	H102	273 (10.7)
Rear bumper to ground	H104	359 (14.1)
Bumper to ground (front at curb mass (wt.))	H103	304 (12.0)
Bumper to ground (rear at curb mass (wt.))	H105	378 (14.9)
Angle of approach (degrees)	H106	15.7
Angle of departure (degrees)	H107	15.6
Ramp breakover angle (degrees)	H147	10.7
Axle differential to ground (front/rear)	H153	305 (12.0)
Min. running ground clearance	H156	115 (4.5)
Location of min. run. grd. clear.		Front Crossmember

** All Vehicle Height And Ground Clearance 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.

All linear dimensions are in millimeters (inches)

MVMA Specifications

Vehicle Line	FIREBIRD			
Model Year	1990	Issued	6-89	Revised(*) 9-89

METRIC (U.S. Customary) Vehicle Dimensions

See Key Sheets for Definitions

Body Type

2FS87

2FW87

○ Front Compartment

SAE Ref. No.

SgRP front, 'X' coordinate	L31	1050 (41.3)
Effective head room	H61	940 (37.0)
Max. eff. leg room (accelerator)	L34	1092 (43.0)
SgRP to heel point	H30	181 (7.1)
SgRP to heel point	L53	911 (35.9)
Back angle (deg.)	L40	26.5
Hip angle (deg.)	L42	98.0
Knee angle (deg.)	L44	133.0
Foot angle (deg.)	L46	87.0
Design H-point front travel	L17	192 (7.6)
Normal driving & riding seat track trvl.	L23	171 (6.7)
Shoulder room	W3	1460 (57.7)
Hip room	W5	1430 (56.3)
*** Upper body opening to ground	H50	1164 (45.8)
Steering wheel maximum diameter*	W9	370 (14.6)
Steering wheel angle (deg.)	H18	18.0
Accel. heel pt. to steer. whl. cntr	L11	Not Available
Accel. heel pt. to steer. whl. cntr	H17	"
Undepressed floor covering thickness	H67	16 (0.6)

Front Compartment Int. Dim. Are Measured With The Seating Ref. Pt.
(SgRP) mm Forward And mm Upward of Rearmost Position.

○ Rear Compartment

SgRP point couple distance	L50	668 (26.3)
Effective head room	H63	905 (35.6)
Min. effective leg room	L51	756 (29.8)
SgRP (second to heel)	H31	183 (7.2)
Knee clearance	L48	-15 (-0.6)
Shoulder room	W4	1430 (56.3)
Hip room	W6	1087 (42.8)
*** Upper body opening to ground	H51	---
Back angle (deg.)	L41	28.0
Hip angle (deg.)	L43	68.5
Knee angle (deg.)	L45	66.5
Foot angle (deg.)	L47	116.5
Depressed floor covering thickness	H73	18 (0.7)

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	879 (31.)
*** Liftover height	H195	-

Interior Volumes (EPA Classification)

Vehicle class		Sub-Compact
Interior volume index (cu. ft.)**		97.2
Trunk / cargo index (cu. ft.)		12.4

* See page 14.

** Includes passenger and trunk / cargo index - see definition page 32.

*** EPA Loaded Vehicle Weight, Loading Conditions

All Linear Dimensions Are in Millimeters (Inches)

MVMA Specifications

Vehicle Line FIREBIRD

Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Vehicle Dimensions

See Key Sheets for Definitions

Body Type

2FS87

2FW87

Station Wagon - Third Seat

SAE Ref. No. (NOT APPLICABLE)

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

Station Wagon - Cargo Space

(NOT APPLICABLE)

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

Hatchback - Cargo Space

Cargo length at front seatback height	L208	886 (34.9)
Cargo length at floor (front)	L209	1556 (61.3)
Cargo length at second seatback height	L210	610 (24.0)
Cargo length at floor (second)	L211	845 (33.3)
Front seatback to load floor height	H197	360 (14.2)
Second seatback to load floor height	H198	242 (9.5)
Cargo volume index [cu. m. (cu. ft.)]	V3	879 (31.0)
Hidden cargo vol. index [cu.m.(cu.ft.)]	V4	--
Cargo volume index-rear of 2-seat	V11	292 (10.3)

* EPA Loaded Vehicle Weight, Loading Conditions

All Linear Dimensions Are In Millimeters (Inches)

MVMA Specifications

Vehicle Line FIREBIRD
 Model Year 1990 Issued 6-89 Revised(*)

METRIC (U.S. Customary)

Body Type	2FW87	2FW87
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Vehicle Fiducial Marks

Number*	Define Coordinate Location	
Front	X - Fiducial Mark To Vertical Zero Grid Line - Front Measured Horizontally, From The Zero 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 Car To Fiducial Mark Located On Top Of The Front Seat Adjuster Mounting Block.	
	Z - Fiducial Mark To Horizontal Zero Grid Line - Front Measured Vertically From Zero Grid Line To Front Fiducial Mark Located On Top Of The Front Seat Adjuster Mounting Block.	
Rear	X - Fiducial Mark To Vertical Zero Grid Line - Rear, Measured Horizontally From The Zero Grid Line To Rear Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).	
	Y - Fiducial Mark To Centerline Of Car - Rear, Width Measurement Made From Centerline Of Car To Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).	
	Z - Fiducial Mark To Horizontal Zero Grid Line - Rear, Measured Vertically From The Zero Grid Line To Rear Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).	
Fiducial Mark Number		
Front	W21*	540 (21.3)
	L54*	688 (27.1)*
	H81*	-32 (-1.3)#
	H161*	293 (11.5)
	H183*	267 (10.5)
Rear	W22*	548 (21.6)
	L55*	2815 (110.8)*
	H82*	96 (3.8)#
	H182*	421 (16.6)
	H184*	402 (15.8)
* Vertical Base Grid 2000 mm Line		
# Horizontal Base Grid 500 mm Line		

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

*** EPA Loaded Vehicle Weight, Loading Conditions

All Linear Dimensions Are In Millimeters (Inches)

METRIC (U.S. Customary)

Vehicle Line FIREBIRD

Model Year	1990	Issued	6-89	Revised(*)	9-89
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[illegible]

Curb Mass - The calculated mass of a vehicle with standard equipment only as designed with the additional load of oil, lubes, coolants, and fuel all filled to capacity.

Shipping Mass - Same as base curb weight, except 3 gallons of gasoline.

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

* ETWC - Equivalent Test Weight Class - basis for U.S. Environmental Protection Agency emission certifications.
Refer to ETWC code legend below for test weight class.

ETWC LEGEND

A	=	1000	I	=	2000	Q	=	3000	Y	=	4000
B	=	1125	J	=	2125	R	=	3125	Z	=	4250
C	=	1250	K	=	2250	S	=	3250	AA	=	4500
D	=	1375	L	=	2375	T	=	3375	BB	=	4750
E	=	1500	M	=	2500	U	=	3500	CC	=	5000
F	=	1625	N	=	2625	V	=	3625	DD	=	5250
G	=	1750	O	=	2750	W	=	3750	EE	=	5500
H	=	1875	P	=	2875	X	=	3875	FF	=	5750

SHIPPING MASS (weight) Calculation (Kg. (lbs.))

Shipping Mass (weight) = Curb Mass (weight) Less:

35 (77)

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line FIREBIRD
Model Year 1990 Issued 6-89 Revised(*) 9-89

		Optional Equipment Differential Mass (weight)*			
Code	Equipment	MASS, kg. (lb.)			Remarks Restrictions, Requirements
		Front	Rear	Total	
A31	Power Windows	1.2 (2.8)	1.0 (2.2)	2.2 (4.8)	
B20	Luxury Interior	-0.2 (-0.4)	-0.2 (-1.4)	-0.4 (-1.8)	
CC1	Hatch Roof	5.8 (12.8)	9.6 (21.1)	15.4 (33.9)	Integral Locks
C60	Air Conditioning	18.0 (39.7)	1.4 (3.1)	19.4 (42.8)	With RPO LB9 Engine
		17.6 (38.8)	1.4 (3.1)	19.0 (41.9)	With RPO LB8 Engine
		15.8 (34.8)	1.4 (3.0)	17.2 (37.8)	With RPO LO3 Engine
		17.4 (38.4)	1.2 (2.6)	18.6 (41.0)	With RPO L98 Engine
D81	Spoiler-Aero Wind	-1.8 (-1.8)	8.0 (17.7)	7.2 (15.9)	2FW67 Only
J65	4-Wheel Disc Brakes	0 (0)	8 (18.9)	8.6 (18.9)	
K34	Cruise Control	2.2 (4.9)	0 (0)	2.2 (4.9)	

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

METRIC (U.S. Customary)

Model Year	1990	Issued	6-89	Revised(*)	9-89
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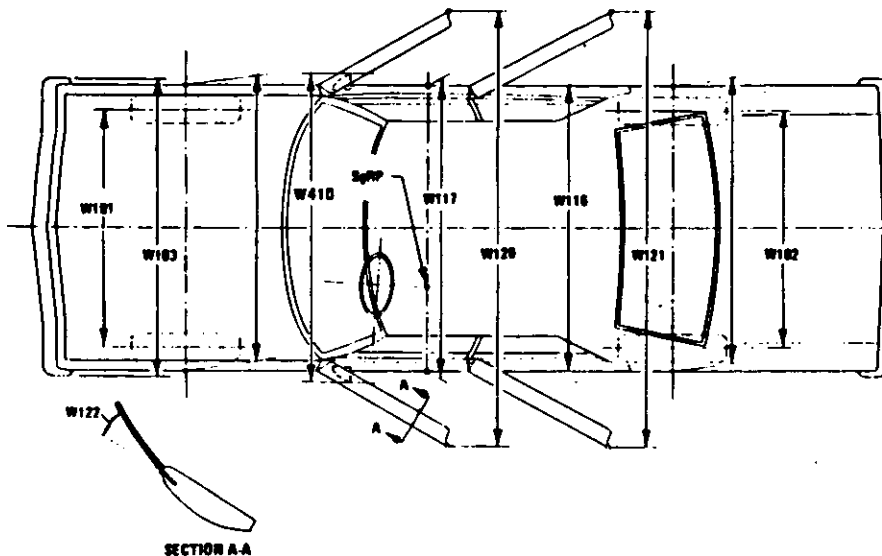
* Also see Engine - General Section for dressed engine mass (weight).

MVMA Specifications

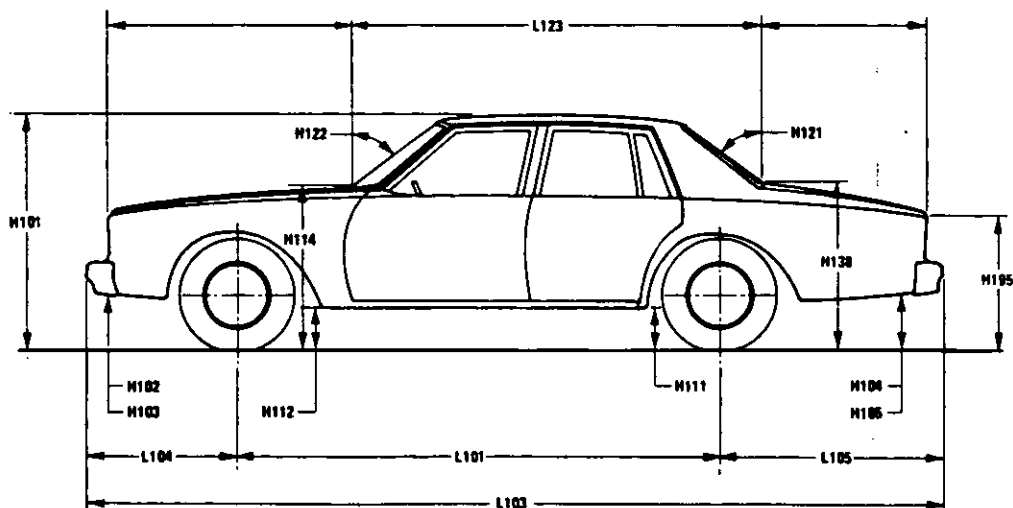
METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions – Key Sheet

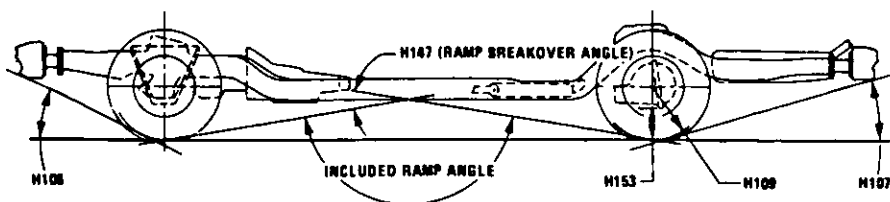
Exterior Width



Exterior Length & Height



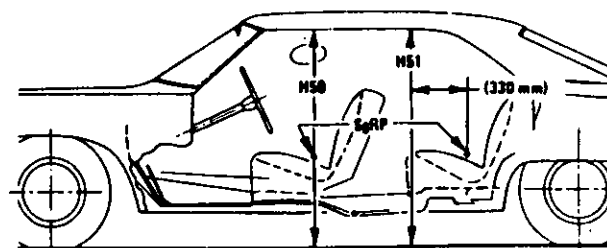
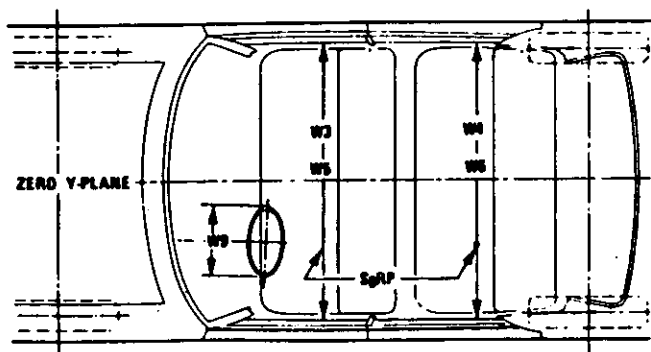
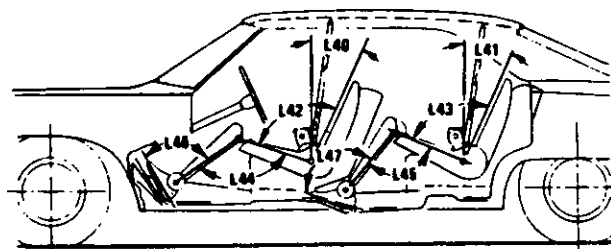
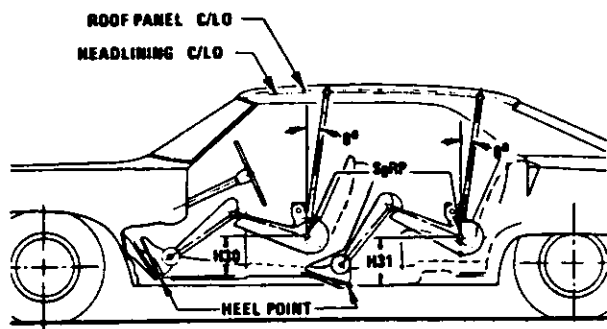
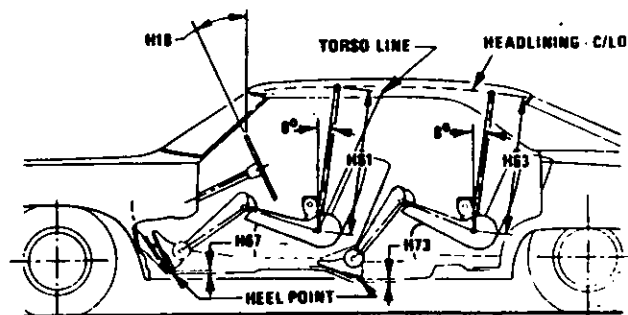
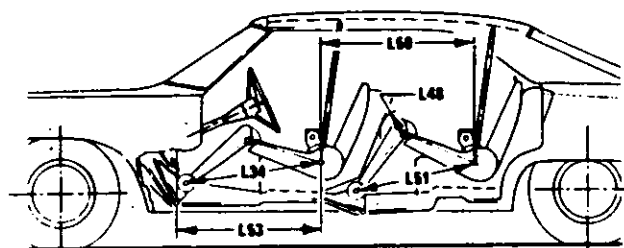
Exterior Ground Clearance



MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet

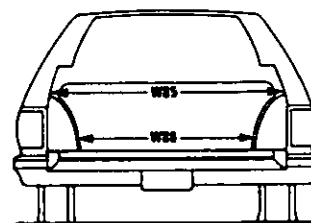
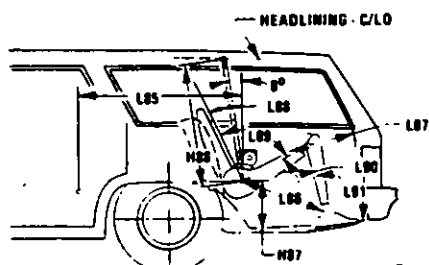


MVMA Specifications Form

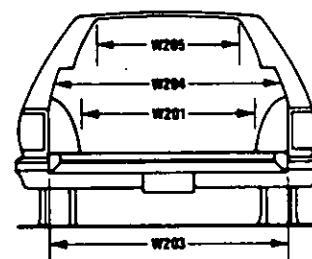
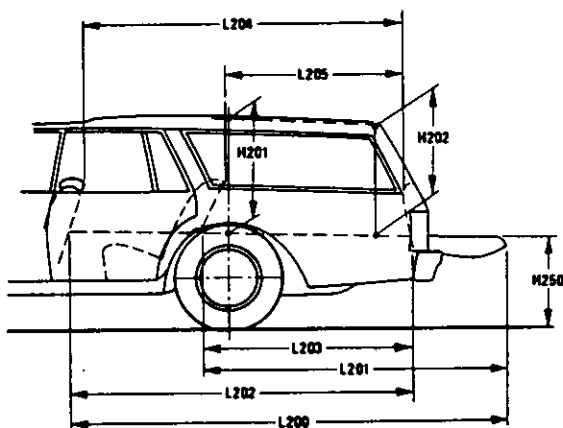
METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions -- Key Sheet

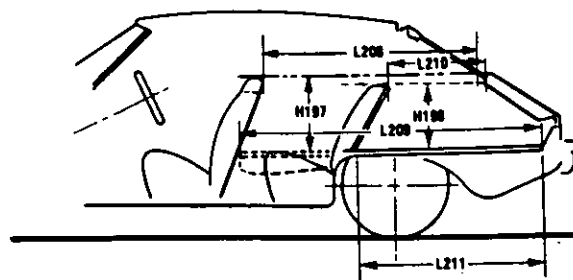
Third Seat



Cargo Space



Station Wagon



Hatchback

MVMA Specifications

METRIC (U.S. Customary)

Exterior Vehicle 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.
- 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.
- W410 OUTSIDE MIRROR WIDTH. The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" 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 OVERHAND – 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 the midpoint of the distance between the rear axle centerlines.

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.
- H138 DECK POINT TO GROUND. Measured at zero "Y" plane.
- H109 STATIC LOAD – TIRE RADIUS – REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

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.
- 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 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.

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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

- 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. (See SAE J1100)
- L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. 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. (See SAE J1100).
- 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.
- H7 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.
- 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.

Rear Compartment Dimensions

- 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 centerline.
- 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 the 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 254 mm (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.
- 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.

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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.

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 to 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 51 mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.
- L88 BACK ANGLE – THIRD. Measured 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. from the SgRP – third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).
- H87 SgRP – THIRD TO HEEL POINT.
- 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 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 to 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.
- 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:

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

Measured in mm:

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

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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:

$$\frac{L506 \times W505 \times H503}{1728} = \text{ft}^3$$

Measured in mm:

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

V6 TRUCKS AND MPV'S WITH CLOSED AREA.

Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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

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 electronically 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 "X" 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 undeepressed floor covering.

H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT: The dimension measured vertically from the second seatback to the undeepressed floor covering.

V3 HATCHBACK.

Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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

MVMA Specifications

METRIC (U.S. Customary)

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