

# MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

## 1990

Manufacturer <b>CHRYSLER MOTORS CORPORATION</b>	Vehicle Line <b>PLYMOUTH HORIZON</b>	
Mailing Address <b>DETROIT, MICHIGAN 48288</b>	Issued <b>9-15-89</b>	Revised

Direct questions concerning these specifications to the manufacturer listed above.

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

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

# MVMA Specifications Form

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 follows in parentheses.
2. UNLESS OTHERWISE INDICATED:
  - a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
  - b. Nominal design dimensions are used throughout these specifications.
  - c. All linear dimensions are in millimeters (inches), and all mass (weight) specifications are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of 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 PLYMOUTH HORIZON  
Model Year 1990 Issued 9-15-89 Revised (e) \_\_\_\_\_

METRIC (U.S. Customary)

## Vehicle Origin

Design & Development (company)	Chrysler Motors Corporation
Where built (country)	U.S.A.
Authorized U.S. sales marketing representative	Chrysler/Plymouth Division of Chrysler Motors Corporation

## 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)
Horizon 4 - Door Hatchback FWD	October 1989	ALME44	5(2/3)	52(115)

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

## MVMA Specifications

**Vehicle Line**      **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised (●)**METRIC (U.S. Customary)**

## Power Teams

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

			A	B	C	D
E N G I N E	Engine Code		EDF	←		
	Displacement Liters (in <sup>3</sup> )		2.2 (135.0)	←		
	Induction system (FI, Carb., etc.)		TBI-EFI	←		
	Compression ratio		9.5:1	←		
	SAE Net at RPM	Power kW (bhp)	69 (93) @ 4800	← ←		
		Torque Nm (lb.-ft.)	165 (122) @ 3200	← ←		
	Exhaust single, dual		single	←		
T R A N S	Transmission/ Transaxle		5-speed manual	3-speed automatic		
	Axle Ratio (std. first) (a)		2.55:1	2.78:1		

[illegible]

**(a) Overall top gear ratio**

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised (●)

## METRIC (U.S. Customary)

Engine Description

Engine Code

**2.2L (135.0 in<sup>3</sup>)**

**EFI, EDF**

### ENGINE - GENERAL

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

**Four cylinder, in-line, SOHC, canted, front, transverse**

Manufacturer		Chrysler
No. of cylinders		4
Bore		87.5 (3.44)
Stroke		92.0 (3.62)
Bore Spacing (C/L to C/L)		96.0 (3.78)
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron 44.23 (97.5)
Cylinder block deck height		237.8 (9.36)
Cylinder block length		418 (16.46)
Deck clearance (minimum) (above or below block)		0.00
Cylinder head material & mass kg (lbs.)		Aluminum 9.71 (21.4)
Cylinder head volume (cm <sup>3</sup> )		48.5 to 51.5
Cylinder liner material		N.A.
Head gasket thickness (compressed)		1.78 (.070)
Minimum combustion chamber total volume (cm <sup>3</sup> )		65.31
Cyl. no. system (front to rear)*	L. Bank	R to L as installed - 1, 2, 3, 4 --
	R. Bank	
Firing order		1, 3, 4, 2
Intake manifold material & mass [kg (lbs.)]**		Aluminum 2.86 (6.3)
Exhaust manifold material & mass [kg (lbs.)]**		Cast Iron 6.08 (13.4)
Fuel required, unleaded, diesel, etc.		Unleaded regular
Fuel antiknock index (R + M) + 2		87 or higher
Engine mounts	Number	3
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	Natural Rubber
	Added isolation (sub-frame, crossmember, etc.)	None
Total dressed engine mass (wt) dry***		142.26 (313.0)

### Engine - Pistons

Material & mass, g (weight, oz.) - piston only	<b>Aluminum 445 (15.7)</b>
--	----------------------------

### Engine - Camshaft

Location	<b>Overhead</b>
Material & mass kg (weight, lbs.)	<b>Post-hardened nodular iron 2.68 (5.9)</b>
Drive type	Chain/belt
	<b>Belt</b>
	<b>Width/pitch 23.8/9.52 (0.937/0.375)</b>

\* 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: starter, alternator, manifolds, water pump, engine mounted emissions controls, power steering pump, drive belts, oil filter, right engine mount, and throttle controls as required.

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised (e)

## METRIC (U.S. Customary)

Engine Description  
Engine Code

**2.2L (135.0in<sup>3</sup>)  
EFI, EDF**

### Engine - Valve System

Hydraulic lifters (std., opt., n.a.)	Std.
Valves	4/4
Number intake/exhaust	
Head O.D. intake/exhaust	40.6 / 35.4 (1.60/1.39)

### Engine - Connecting Rods

Material & Mass [kg., (weight lbs.)]*	Forged steel 0.65 (1.43)
Ø Length (axes e to e) mm	151 (5.94)

### Engine - Crankshaft

Material & Mass [kg., (weight lbs.)]*	Nodular iron 15.10 (33.2)
End thrust taken by bearing (no.)	Three
Length & number of main bearings	487.1 (19.2) / 5
Seal (material, one, two piece design, etc.)	Poly Acrylic / One piece
Front	Fluorcarbon / One piece
Rear	

### Engine - Lubrication System

Normal oil pressure [kPa (psi) at eng. rpm]	172 - 552 (25-80) @ 3000/Fully warmed
Type of intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full flow
Capacity of c/case, less filter-refill-L (qt.)	3.8 (4)

### Engine - Diesel Information

Diesel engine manufacturer	
Glow plug, current drain at 0° F	
Injector nozzle	Type
	Opening pres. [kPa (psi)]
Pre-chamber design	
Fuel inj. 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

Turbo charger - Manufacturer	
Super charger - manufacturer	
Intercooler	

\* Finished State

# MVMA Specifications

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METRIC (U.S. Customary)

Engine Description  
Engine Code

2.2L (135.0 in <sup>3</sup> ) EFI, EDF	
W/O AC	W/AC

## Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard		
Coolant fill location (rad, bottle)		Fill through radiator and maintain coolant level in bottle		
Radiator cap relief valve pressure [kPa (psi)]		96-124(14-18)		
Circulation thermostat	Type (choke, bypass)	Choke, Pellet Operated		
	Starts to open at °C (°F)	90.6(195)		
Water pump	Type (centifugal, other)	Centrifugal		
	GPM 1000 pump rpm	--		
	Number of pumps	One		
	Drive (V-belt, other)	Multi-Groove Belt		
	Bearing type	Integral Ball Bearing		
	Impeller material	Steel		
	Housing material	Cast Aluminum		
By-pass recirculation [type (inter., ext.)]		External in series with heater		
Cooling system capacity	With heater - L(qt.)	8.0(8.5)		
	With air cond. - L(qt.)	--		
	Opt. equipment [specify - L(qt.)]	--		
Water jackets full length of cyl. (yes, no)		Yes		
Water all around cylinder (yes, no)		No		
Water jackets open at head face (yes, no)		No		
Radiator core	Std. A/C, HD	standard	Man. A/C	Auto. A/C
	Type (cross-flow, etc.)	Cross Flow		
	Construction (fin & tube mechanical, braze, etc.)	Tube & Fin Spacer, Soldered, 1 Row		
	Material, mass [kg (wgt.lbs.)] (a)	Alum., 3.09(6.8) ,man./3.41(7.5) auto.	Alum. 3.14(6.9)	Alum. 3.45(7.6)
	Width	411 (16.2)		
	Height	367 (14.5)		
	Thickness	17.8(0.7)		
	Fins per inch	13	Man. 14	Auto. 19
	Radiator end tank material		Brass	
Fan	Std., elec., opt.	Electric		
	Number of blades & type (flex, solid, material)	2-Blade Metal		
	Diameter & projected width	360(14.2) / 46(1.8)		
	Ratio (fan to crankshaft rev.)	--		
	Fan cutout type	Electric Motor		
	Drive type (direct, remote)	--		
	RPM at idle (elec.)	1150	1780	
	Motor rating (wattage) (elec.)	50	130	
	Motor switch (type & location) (elec.)	Thermistor, Water Box & AC clutch		
	Switch point (temp., pressure) (elec.)	99°C (210°F) < 40 mph; 110°C (230°F) > 40 mph		
	Fan shroud (material)	Metal		

(a) Mass (weight) shown is for assembly as purchased.

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Model Year **1990**

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Revised (•)

## METRIC (U.S. Customary)

Engine Description

Engine Code

**2.2L (135.0 in<sup>3</sup>) TBI-EFI  
EDF**

### Engine - Fuel System (see supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.	Fuel injection
Manufacturer	Holley/Bosch
Carburetor no. of barrels	N.A.
Idle A/F mix.	N.A.
Fuel Injection	Throttle body (1)
	Pulse
	Electronic
	100 (14.5)
Idle spd.-rpm (spec. neutral or drive and propane if used)	850
Intake manifold heat control (exhaust or water thermostatic or fixed)	850 / Neutral
Air cleaner type	Water, unregulated
Fuel filter (type/location)	Oil wetted paper element
Fuel pump	Paper element; Stainless steel canister; Inline underbody
	Electric
	In fuel tank
	N.A.
Flow rate at regulated pressure (L (gal) / hr @ kPa (psi))	81-161 (21-42) @ 12V & 15psi

### Fuel Tank

Capacity refill L (gallons)	49 (13)
Location (describe)	Forward of axle
Attachment	Galvanized or terne plated steel strap to floor pan
Material & Mass (kg (weight lbs.))	Terne plated steel 6.95 (15.3) (a)
Filler pipe	Right rear quarter panel, lead dipped steel tube
	Rubber grommet
Fuel line (material)	Duplex coated steel
Fuel hose (material)	Fuel resistant rubber
Return line (material)	Duplex coated steel
Vapor line (material)	Duplex coated steel
Extended range tank	Opt., n.a.
	Capacity (L (gallons))
	Location & material
	Attachment
Auxiliary tank	Opt., n.a.
	Capacity (L (gallons))
	Location & material
	Attachment
	Selector switch or valve
	Separate fill

(a) Includes tank-mounted fuel pump



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Engine Description  
Engine Code

2.2L (135.0in <sup>3</sup> ) TBI-EFI, EDF			
49 states, man.	49 states, auto.	Cal., manual	Cal, automatic

## Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		exhaust gas recirculation, engine modifications, catalytic converter			
	Air injection		aspirator			
		Pump or pulse	pulse			N.A.
		Driven by	exhaust pressure			N.A.
		Air distribution (head, manifold, etc.)	fixed			N.A.
		Point of entry	catalytic converter			N.A.
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	exhaust back pressure-controlled flow			
		Exhaust source	exh. manifold			
		Point of exhaust injection (spacer, carburetor, manifold, other)	intake manifold			
	Catalytic Converter	Type	3-way + oxidation		3-way	
		Number of	one			
		Location(s)	below exhaust manifold			
		Volume [L(in. <sup>3</sup> )]	1.23 + 0.74 (75 + 45)		1.23 + 0.9 (75 + 55)	
		Substrate type	monolithic			
		Noble metal type	Pt:Rh + Pd (a)		Platinum:Rhodium	
		Noble metal concentration (g/cm <sup>3</sup> )	0.00061:0.00009 + 0.00085	0.00061:0.00009 + 0.00061:0.00007		0.00061:0.00018
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		closed induction system			
	Energy source (manifold vacuum, carburetor, other)		manifold vacuum			
	Discharges (to intake manifold, other)		intake manifold			
	Air inlet (breather cap, other)		air cleaner			
Evaporative emission control	Vapor vented to (crankcase, canister, other)	Fuel tank	canister			
		Carburetor	--			
Electronic system	Vapor storage provision		canister			
	Closed loop (yes/no)		yes - hot engine			
	Open loop (yes/no)		yes - cold engine			

## Engine - Exhaust System

Type (single, single with cross-over, dual, other)		single			
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & mass [kg. (weight lbs.)]		one, tri-flow stainless steel 4.85 (10.7) - includes tail-pipe			
Resonator no. & type		none			
Exhaust pipe	Branch o. d., wall thickness	Into catalyst 50.8 x 1.4 (2.00 x 0.055)			
	Main o. d., wall thickness	Out of catalyst 50.8 x 1.4 (2.00 x 0.055)			
	Material & mass [kg. (weight lbs.)]	6.35 (14.0) (a)	6.19 (13.4) (a)	6.35 (14.0) (a)	6.19 (13.4) (a)
Intermediate pipe	o. d., & wall thickness	47.8 x 1.2 (1.88 x 0.047)			
	Material & mass [kg. (weight lbs.)]	stainless steel 2.20 (4.85)			
Tail pipe	o. d., & wall thickness	47.8 x 1.1 (1.88 x 0.043)			
	Material & mass [kg. (weight lbs.)]	stainless steel (see muffler assembly)			

(a) Pt = platinum; Rh = rhodium; Pd = palladium

(b) stainless steel (includes catalytic converter)

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised(\*)

METRIC (U.S. Customary)

Engine Description  
Engine Code

**2.2L (135.0 in<sup>3</sup>) / EFI  
EDF**

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

Manual 3-speed (manufacturer/country)	N.A.
Manual 4-speed (manufacturer/country)	N.A.
Manual 5-speed (manufacturer/country)	Std./Chrysler-New Process Gear/U.S.
Automatic (manufacturer/country)	Opt./Chrysler/U.S.
Automatic overdrive (manufacturer/country)	N.A.

## Manual Transmission/Transaxle

Number of forward speeds	5
1st	3.29
2nd	2.08
3rd	1.45
4th	1.04
5th	0.72
Reverse	3.14
Synchronous meshing (specify gears)	All Forward Gears
Shift lever location	Floor
Trans. case mat'l. & mass kg. (lbs.)*	380 Aluminum Die Cast 45.45 (100.0)
Lubricant	2.1L (4.3pt.)
Capacity [L (pt.)]	ATF, Dextron II
Type recommended	

## Clutch (Manual Transmission)

Clutch manufacturer	Luk
Clutch type (dry, wet; single, multiple disc)	Dry Disc, single
Linkage (hydraulic, cable, rod, lever, other)	Cable
Max. pedal effort (nom.)	80 (18)
Depressed**	120 (27)
spring load, new N (lbs.)	Released***
Assist (spring, power/percent, nominal)	None
Type pressure plate springs	Belleville
Total spring load (nominal, new) N (lbs.)	4400 (989)
Facing mfr. & material coding	Valeo F-202
Facing material & construction	Fiberglass, woven
Rivets per facing	8
Outside x inside dia. (nominal)	215 x 154 (8.46 x 6.06)
Total eff. area (cm <sup>2</sup> (in <sup>2</sup> ))****	353.6 (54.8)
Clutch facing	Thickness (pressure plate side/ fly wheel side)
	3.15/3.15 (0.124/0.124)
	Rivet depth (pressure plate side/ fly wheel side)
	1.2/1.2 (0.047/0.047) min.
	Engagement cushion method
	Wave spring segments
Release bearing type & method lub.	Angular-contact ball bearing, permanently lubed with grease
Torsional damping method, springs, hysteresis	Coil springs and friction fiber washers

\* Dry weight, includes shift linkage

\*\* Hold down effort

\*\*\* Maximum effort at clutch release point of travel.

\*\*\*\* Includes both clutch facings.

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Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised (•)

## METRIC (U.S. Customary)

Engine Description  
Engine Code

**2.2L (135.0 in.<sup>3</sup>) EFI  
EDF**

### ⊗ Automatic Transmission/Transaxle

Trade name		Torqueflite
Type and special features (describe)		Electronic lock-up torque converter with automatically operated planetary gear transmission and parallel axis final drive
Gear selector	Location (column, floor, other)	Floor mounted
	Ltr./No. designation (e.g. PRND21)	PRND21
	Shift interlock (yes, no, describe)	No
Gear ratios	1st	2.69
	2nd	1.55
	3rd	1.00
	4th	--
	Reverse	2.10
Max. upshift speed - drive range [km/h (mph)]		123 (77)
Max. kickdown speed - drive range [km/h (mph)]		115 (72)
Min. overdrive speed [km/h (mph)]		--
Torque converter	Number of elements	Three
	Max. ratio at stall	2.15 : 1
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	241 (9.5)
	Capacity factor "K"	210
Lubricant	Capacity (refill L (pt.))	8.40 (17.75) - Torque converter, Transmission and Differential
	Type recommended	Mopar ATF Plus (Auto trans. fluid - Type 7176) (a)
Oil cooler (std, opt, n.a., internal, external, air, liquid)		Std. - w/ AC - in radiator, liquid / w/o AC - external, air
Transmission case material & mass [kg. (lbs.)]**		Die cast aluminum - 57.73 (127.0)(b)

### ⊗ All Wheel / 4 Wheel Drive

Description & type (part-time, full-time, 2/4 shift while moving, mechanical, 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 (% front/rear)	

\* Input speed + √ torque

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

(a) Dexron II ATF may be used, only if Mopar ATF is not available.

(b) Dry weight, includes shift linkage

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## METRIC (U.S. Customary)

Engine Description

Engine Code

**2.2L (135.0 in<sup>3</sup>)  
EFI,EDF**

### Ø Axle Ratio and Tooth Combinations (see 'Power Teams' for axle ratio usage)

Effective final drive ratio (or overall top gear ratio)			<b>2.55 (manual trans.)</b>	<b>2.78 (auto. trans.)</b>
Transfer ratio and method (chain, gear, etc.)			<b>--</b>	<b>0.91</b>
Front drive unit	Ring gear o.d.		<b>198.05 (7.80)</b>	<b>187.4 (7.38)</b>
	No. of teeth	Pinion	<b>9</b>	<b>20</b>
		Ring gear	<b>57</b>	<b>61</b>

### Ø Front Drive Unit

Description (integral to trans., etc.)		Integral with transmission
Limited slip differential (type)		N.A.
Drive pinion	Type	Helical
	Offset	--
No. of differential pinions		Two
Pinion / differential	Adjustment (shim, etc.)	--
	Bearing adjustment	Shim
Driving wheel bearing (type)		See Wheel Spindle Hub, p. 14
Lubricant	Capacity[L (pt.)]	See transaxle
	Type recommended	See transaxle

### Ø Axle Shafts - Front Wheel Drive

Manufacturer and number used			Two	
Type (straight, solid bar, tubular, etc.)		Left	Solid bar	
		Right	Tube	
Outer diam. x length* x wall thickness	Manual transaxle	Left	GKN-EUR: 22.90 x 345.5 (0.90 x 13.60)	
		Right	GKN-EUR: 40.5 x 595.3 x 2.7 (1.59 x 23.44 x 0.016)	
	Automatic transaxle	Left	GKN: 22.9 x 314.2 (0.90 x 12.37)	
		Right	GKN: 40.5 x 595.3 (1.59 x 23.44)	
	Optional transaxle	Left	--	
		Right	--	
Slip yoke	Type		--	
	Number of teeth		--	
	Spline o.d.		--	
Universal joints	Make and mfg. no.	Inner	GKN-EUR: G169	
		Outer	GKN-EUR: 92 AC	
	Number used		Two	
	Type, size, plunge	Inner	Tripod plunge	
		Outer	Rzeppa - fixed	
	Attach (u-bolt, clamp, etc.)		--	
	Bearing	Type (plain, anti-friction)	--	
		Lubrication (fitting, prepack)	Prepack	
Drive taken through (torque tube, arms or springs)			--	
Torque taken through (torque tube, arms or springs)			--	

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

# MVMA Specifications

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Model Year **1990**

Issued **9-15-89**

Revised (•)

METRIC (U.S. Customary)

Body Type

All

## Suspension - General

Car leveling	Standard / optional / not avail.	
	Manual / automatic control	
	Type (air / hydraulic)	
	Primary / assist spring	
	Rear only / 4 wheel leveling	
	Single / dual rate spring	
	Single / dual ride heights	
Shock absorber damping controls	Provision for jacking	
	Standard / optional / not avail.	
	Manual / automatic control	
	Number of damping rates	
	Type of actuation (manual / electric motor / air, etc.)	
	sensors	
	Lateral acceleration	
Shock absorber (front & rear)	Deceleration	
	Acceleration	
	Road surface	
	Type	Direct - Hydraulic
	Make	Front: Monroe or Delco Rear: Maremont
	Piston diameter	Front: 32 (1.26) Rear: 25.4 (1.0)
	Rod diameter	Front: 20 (0.79) Rear: 11.1 (0.44)

## Suspension - Front

Type & description		
Travel*	Full jounce	Iso-strut 75.0 (2.95)
	Full rebound	99.0 (3.90)
Spring	Type (coil, leaf, other) & material	Coil, AISI 5160 H Chromium steel
	Insulators (type & material)	Compression: Rubber
	Size (coil design height & i.d., bar length x dia.)	202 x 152 I.D. (7.95 x 6.0 I.D.) 210 x 152 I.D. (8.27 x 6.0 I.D.) @ Curb
	Spring rate [N/mm (lb./in.)]	14.9 (85)
	Rate at wheel [N/mm (lb./in.)]	18.4 (105)
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material & bar diameter	AISI 1090 Spring steel 25.4 (1.00)

## Suspension - Rear

Type & description		
Travel*	Full jounce	Semi-independent trailing arm 62 (2.44)
	Full rebound	135 (5.31)
Spring	Type (coil, leaf, other) & material	Coil: AISI 5160 H Chromium steel
	Size (length x width, coil design height & i.d., bar length & dia.)	240 (9.45) x 85 (3.35) x 10.4 (0.409)
	Spring rate [N/mm (lb./in.)]	15.8 (90)
	Rate at wheel [N/mm (lb./in.)]	16.2 (93)
	Insulators (type & material)	Compression: Rubber
	If leaf	No. of leaves
		Shackle (comp. or tens.)
Stabilizer	Type (link, linkless, frameless)	None
	Material & bar diameter	None
Track bar (type)		None

\* Define load condition: Passenger Seating - 2 Front - 3 Rear - Full tank of gas

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised (•)

## METRIC (U.S. Customary)

Body Type And / Or  
Engine Displacement

All

### Brakes - Service

Description			Four-wheel hydraulic-actuated system	
Manufacturer and brake type (std., opt., n.a.)		Front (disc or drum)	Disc	
		Rear (disc or drum)	Drum	
Valving type (proportion, delay, metering, other)			Dual proportioning valve	
Power brake (std., opt., n.a.)			Standard	
Booster type (remote, integral, vac., hyd., etc.)			Vacuum, single	
Vacuum	Source (inline, pump, etc.)		Throttle body	
	Reservoir (volume in. <sup>3</sup> ) and source		--	
	Pump-type (elec., gear driven, belt driven)		--	
Traction control	Operational speed range			
	Type engine intervention (electronic, mech.)			
Anti-lock device	Front/rear (std., opt., n.a.)			
	Manufacturer			
	Type (electronic, mech.)			
	Number sensors or circuits			
	Number anti-lock hydraulic circuits			
	Integral or add-on system			
	Yaw control (yes, no)			
Hydraulic power source (elec., vac. mtr., pwr. strg.)				
Effective area [cm <sup>2</sup> (in. <sup>2</sup> )]* (F/R)			391 (60.6)	
Gross lining area [cm <sup>2</sup> (in. <sup>2</sup> )]** (F/R)			417.58 (64.73)	
Swept area [cm <sup>2</sup> (in. <sup>2</sup> )]*** (F/R)			1302.97 (201.96)	
Rotor	Outer working diameter	F/R	F: 228 (8.98)	
	Inner working diameter	F/R	F: 153 (6.02)	
	Thickness	F/R	F: 12.64 (0.498)	
	Material Type (vented/solid)	F/R	F: damped cast iron, solid / R: N.A.	
Drum	Diameter & Width	F/R	F: N.A. / R: 200 (7.87) x 37.62 (1.48)	
	Type & Material	F/R	F: N.A. / R: Cast composite	
Wheel cylinder bore			F: 54 (2.13) / R: 15.87 (0.625)	
Master cylinder	Bore/stroke	F/R	21.0 (0.827) / 32.79 (1.291)	
Pedal arc ratio			3.79 : 1 Power	
Line pressure at 445 N(100lb.) pedal load (kPa (psi))			Power: 9308 (1350)	
Lining clearance		F/R	No major adjustment	
Brake lining	Front Wheel	Bonded or riveted (rivets/seg.)		Riveted, 5 / shoe
		Rivet size		3.57 (0.14) dia. x 7.57 (0.3)
		Manufacturer		Bendix
		Lining code *****		BX-JD-EE
		Material		Molded metallic
		****	Primary or outboard	3987 mm <sup>2</sup> x 12.34 (6.18 in <sup>2</sup> x 0.486)
		Size	Secondary or inboard	3987 mm <sup>2</sup> x 12.34 (6.18 in <sup>2</sup> x 0.486)
		Shoe thickness (no lining)		Outer: 4.83 (0.190); Inner: 5.18 (0.204)
	Rear Wheel	Bonded or riveted (rivets/seg.)		Riveted, 10 / shoe
		Manufacturer		Bendix
		Lining code *****		BX-MO-FF
		Material		Rolled asbestos
		****	Primary or outboard	198.56 x 32.5 x 6.65 (7.82 x 1.28 x 0.262)
		Size	Secondary or inboard	198.56 x 32.5 x 6.65 (7.82 x 1.28 x 0.262)
		Shoe thickness (no lining)		2.17 (0.0854)

\* Excludes rivet holes, grooves, chamfers, etc.

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

\*\*\* Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)  
(Disc brake: Square of Outer Working Dia. minus Square of Inner Working Dia. multiplied by Pi/2 for each brake.)

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

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

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised (e)

Body Type And/Or  
Engine Displacement

All

## Tires And Wheels (Standard)

Tires	Size (load range, ply)		P165/80 R 13 SL
	Type (bias, radial, steel, nylon, etc.)		Steel radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	240 (35)
		Rear [kPa (psi)]	240 (35)
	Rev./mile - at 70 km/h (45 mph)		894
Wheels	Type & material		Steel disc
	Rim (size & flange type)		13 x 5.0 JB
	Wheel offset		40 (1.6)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	100 (3.94)
		Number & size	4 - M12 x 1.5
Spare	Tire and wheel		P165/75 D 13 Low mileage spare (a)
	Storage position & location (describe)		Horizontal - Rear floor pan under cargo floor

## Tires And Wheels (Optional)

Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange, type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Tire size (load range, ply)	
Type (bias, radial, steel, nylon, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Spare tire and wheel (size)	
(If configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	

## Brakes - Parking

Type of control		Hand operated lever with push button release
Location of control		Floor, between front seats
Operates on		Rear wheels
If separate from service brakes	Type (internal or external)	--
	Drum diameter	--
	Lining size (length x width x thickness)	--
		--

(a) With air conditioning- Same as road tire and wheel.

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised(•)

METRIC (U.S. Customary)

Body Type And/Or  
Engine Displacement

All

## Steering

Manual (std., opt., n.a.)			Std.
Power Steering (std., opt., n.a.)			Opt.
Adjustable steering wheel column (tilt, telescope, other)	Type		N.A.
	Manufacturer		--
	(Std., opt., n.a.)		--
Wheel diameter** (W9) SAE J1100	Manual		381 (15)
	Power		381 (15)
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	--
		Curb to curb (l. & r.)	10.8 (35.5) L; 11.4 (37.5)R
	Inside rear	Wall to wall (l. & r.)	--
		Curb to curb (l. & r.)	--
Scrub Radius*			-8 (-0.3)
Manual	Gear	Type	Rack & pinion
		Manufacturer	Cam gears
		Ratios	32.3 mm / Rev.
		Gear Overall	22:1
	No. wheel turns (stop to stop)		
Power	Type (coaxial, elec., hyd., etc.)		Integral power unit
	Manufacturer		T.R.W.
	Gear	Type	Rack & pinion with integral power unit
		Ratios	40.7 mm / Rev.
		Gear Overall	18.0:1
	Pump (drive)		Pulley and belt, off crankshaft
no. wheel turns (stop to stop)			2.88
Linkage	Type		Rack & Pinion (Rod & ball directly attached to gear)
	Location (front or rear of wheels, other)		Rear of wheels
	Tie rods (one or two)		Two (tie rod inners integral with rack & pinion gear)
Steering axis	Inclination at camber (deg.)		13.36°
	Bearings (type)	Upper	Acetal thermoplastic bearing
		Lower	Ball joint
		Thrust	Acetal thermoplastic bearing
Steering spindle & joint type			ISO strut with lower ball joint
Wheel spindle/hub	Diameter	Inner bearing	76/40 (3.0/1.57) dia.:28/33 (1.1/1.3) wide
		Outer bearing	--
	Thread (size)		M22 x 1.5
	Bearing (type)		Double-row angular-contact ball

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

\*\*See page 21



# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised (●) \_\_\_\_\_

**METRIC (U.S. Customary)**

Body Type And/Or  
Engine Displacement

All

## Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	--
		Camber (deg.)	-0.2° - + 0.8°
		Toe-in [outside track - mm(in)]	0.4° Toe-in to 0.2° Toe-out (a)
	Service reset*	Caster	Not adjustable; Ref. 1.4°; Max. side to side Differential 1.5°
		Camber	+ 0.3° ± 0.3°
		Toe-in	+ 0.1° toe-in ± 0.1° (a)
	Periodic M.V. inspection	Caster	Same as Service Checking
		Camber	--
		Toe-in	--
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-1.3° to -0.2°
		Toe-in [outside track - mm(in)]	0.4° Toe-out to 0.8° Toe-in (a)
	Service reset*	Camber	-0.75° ± 0.5° (shim)
		Toe-in	+ 0.2° toe-in ± 0.6° (shim) (a)
	Periodic M.V. inspection	Camber	Same as Service Checking
		Toe-in	--

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

## Electrical - Instruments and Equipment

Speed-ometer	Type (Analog, digital, std., opt.)	Electric/Analog
	Trip odometer (std., opt., n.a.)	Std.
EGR maintenance indicator		--
Charge indicator	Type	Voltmeter
	Warning device (light, audible)	--
Temp. indicator	Type	Magnetic gage
	Warning device (light, audible)	--
Oil pressure indicator	Type	--
	Warning device (light, audible)	Light - Std.
Fuel indicator	Type	Magnetic gage
	Warning device (light, audible)	--
Wind-shield wiper	Type (standard)	Electric 2-speed, intermittent wipe
	Type (optional)	--
	Blade length	406.4 (16)
	Swept area [cm <sup>2</sup> (in <sup>2</sup> )]	4755 (737)
Wind-shield washer	Type (standard)	Electric
	Type (optional)	--
	Fluid level indicator (light, audible)	--
Rear window wiper, wiper/washer (std., opt., n.a.)		Wiper/washer - Std.
Horn	Type	Seashell
	Number used	1
Other		

(a) Measurements in degrees, not inches

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised(\*)

Engine Description  
Engine Code

**2.2L (135.0 in<sup>3</sup>) TBI-EFI  
EDF**

## Electrical - Supply System

Battery	Manufacturer	Johnson Controls
	Model, std., (opt.)	GRP 25
	Voltage	12V
	Amps at 0°F cold crank	430
	Minutes-reserve capacity	100
	Amp/hrs. - 20 hr. rate	42
	Location	Left front fender side shield
Alternator	Manufacturer	Nippondenso
	Rating (idle/max. rpm)	90 HS
	Ratio (alt. crank/rev.)	2.60:1
	Output at idle (rpm, park)	40 A
	Optional (type & rating)	-
Regulator	Type	Engine control computer

## Electrical - Starting System

Motor	Manufacturer	Bosch
	Current drain at 0 °F	125 - 175A
	Power rating [kW (hp)]	1.1 (1.475)
Motor drive	Engagement type	Solenoid shift
	Pinion engages from (front, rear)	Front

## Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	N.A.
	Other (specify)	Engine control computer w/ electronic spark advance & voltage regulator
Coil	Manufacturer	UTC Prestolite Diamond
	Model	5226865 5227372 5227252
	Current Engine stopped - A.	0.0 A
	Engine idling - A	1.9 A
Spark plug	Manufacturer	Champion
	Model	RN12YC
	Thread (mm)	14 mm
	Tightening torque [N•m (lb-ft)]	28 (20)
	Gap	0.9 (0.035)
Distributor	Number per cylinder	One
	Manufacturer	Chrysler
	Model	5226575

## Electrical Suppression

Locations & type	Resistor spark plugs; Resistance ignition wire; Capacitor - Alternator, Blower motor ; Diode - A/C clutch, Horn relay, Internal fuel pump filter, Starter relay; Ground cable - Engine to dash, Engine mount, Blocking Diode-Clutch relay
------------------	---

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised(•)

Body Type

All

## Body

Structure	Unibody unitized construction with bolt on front suspension crossmember
Bumper system front - rear	Front: Aluminum extrusion, EPDM rubber end caps Rear: Aluminum extrusion, EPDM rubber end caps
Anti-corrosion treatment	Extensive use of galvanized steel

Body - Miscellaneous Information		
Type of finish (lacquer, enamel, other)	Enamel - Universal base coat / Clear coat	
Hood	Material & mass	14.74 (32.5)
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
Trunk lid	Release control (internal, external)	Internal
	Material & mass	--
	Type (counterbalance, other)	--
Hatch-back lid	Internal release control (elec., mech., n.a.)	--
	Material & mass	9.44 (20.8)
	Type (counterbalance, other)	Gas pressurized struts
Tailgate	Internal release control (elec., mech., n.a.)	--
	Material & mass	--
	Type (drop, lift, door)	--
Vent window control (crank, friction, pivot, power)	Front	None
	Rear	None
Window Regulator type (cable, tape, flex, drive, etc.)	Front	Single arm - manual
	Rear	Single arm - manual
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - zig-zag element platform with full volume foam
	Rear	Bench - Full volume foam
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	3 <sup>rd</sup> seat	--
	Front	Bucket - Full foam
	Rear	Bench - Full Foam
	3 <sup>rd</sup> seat	--

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised (e)

METRIC (U.S. Customary)

Body Type

All

## Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt,	First seat	Lap & Shoulder belt Std.	N.A.	Lap & Shoulder belt Std.
	Standard/Optional	Second seat	Lap & shoulder belt Std.	Lap belt Std.	Lap & shoulder belt Std.
		Third seat	N.A.	N.A.	N.A.
Passive	Type & description (air bag, motorized - 2-point belt, fixed belt, knee bolster, manual - lap belt)	First seat	Air bag & Knee bolster Std.	N.A.	N.A.
	Standard/Optional	Second seat	N.A.	N.A.	N.A.
		Third seat	N.A.	N.A.	N.A.

Glass	SAE Ref. No.	
Windshield glass exposed surface area [cm <sup>2</sup> (in <sup>2</sup> )]	S1	7746 (1203)
Side glass exposed surface area [cm <sup>2</sup> (in <sup>2</sup> )] - total 2 sides	S2	10488 (1626)
Backlight glass exposed surface area [cm <sup>2</sup> (in <sup>2</sup> )]	S3	6803 (1054)
Total glass exposed surface area [cm <sup>2</sup> (in <sup>2</sup> )]	S4	25055 (3883)
Windshield glass (type)		Laminated safety glass
Side glass (type)		Heat treated safety glass
Backlight glass (type)		Heat treated safety glass

## Lamps and Headlamps Locations

Headlamps	Description - sealed beam, halogen, replaceable bulb, etc	Sealed beam
	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)	Unitized Construction
--	-----------------------

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised (e)

## METRIC (U.S. Customary)

Body Type

All

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

Air conditioning (manual, auto. temp control)		Manual - Opt.
Clock (digital, analog)		Digital (in radio) - Opt.
Compass/thermometer		N.A.
Console (floor, overhead)		Forward floor - Std.
Defroster, elec. backlight		Opt.
Electronic	Diagnostic monitor (integrated, individual)	Integrated - Std.
	Instrument cluster (list instruments)	N.A.
	Keyless entry	N.A.
	Tripminder (avg. spd., fuel)	N.A.
	Voice alert (list items)	N.A.
	Other	
Lamps	Fuel door lock (remote, key, electric)	N.A.
	Auto head on / off delay, dimming	N.A.
	Cornering	N.A.
	Courtesy (map, reading)	Opt.
	Door lock, ignition	N.A.
	Engine compartment	N.A.
	Fog	N.A.
	Glove compartment	Std.
	Trunk	Std.
	Illuminated entry system (list lamps, activation)	N.A.
	Other	Dome - Std.
Mirrors	Day / night (auto. man.)	Manual - Std.
	L.H. (remote, power, heated)	Remote - Std.
	R.H. (convex, remote, power, heated)	Remote - Opt.
	Visor vanity (RH/LH, illuminated)	RH - Std.
Navigation system (describe)		N.A.
Parking brake-auto release (warning light)		Warning light - Std. / Auto release - N.A.

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised (•)

METRIC (U.S. Customary)

Model Code

All

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

Power Equipment	Deck lid (release, pull down)		N.A.
	Door locks (manual, automatic, describe system)		N.A.
	Seats	2 - 4 - 6 way, etc.	N.A.
		Reclining (R.H., L.H.)	N.A.
		Memory (R.H., L.H., preset, recline)	N.A.
		Lumbar, hip, thigh, support	N.A.
		Heated (R.H., L.H., other)	N.A.
	Side windows		N.A.
	Vent windows		N.A.
Rear windows		N.A.	
Radio systems	Antenna (location, whip, w/shield, power)		Whip - Right front fender - included with radio
	Std.	AM, FM, stereo, tape, theft deterrent, radio prep pkg., headphone jacks, etc.	N. A.
	Opt.		AM/FM/MX/ETR
			AM/FM/MX/ETR w/Cassette
	Speaker (number, location)		2, In front doors
Roof open air fixed (flip-up, sliding, "T")			N.A.
Speed control device			N.A.
Speed warning device (light buzzer, etc.)			N.A.
Tachometer (rpm)			Std.
Telephone system (describe)			N.A.
Theft deterrent system			Inside hood release - Std.

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990** Issued **9-15-89** Revised(\*)

## 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 car line

SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	44
-----------	--------------	----

### ØWidth

Tread (front)	W101	1425 (56.1)
Tread (rear)	W102	1415 (55.7)
Vehicle width	W103	1682 (66.8)
Body width at SgRP (front)	W117	1620 (63.8)
Vehicle width (front doors open)	W120	3319 (130.7)
Vehicle width (rear doors open)	W121	3319 (130.7)
Tumble-home (deg.)	W122	21°
Outside mirror width	W410	

### ØLength

Wheelbase	L101	2517 (99.1)
Vehicle length	L103	4146 (163.2)
Overhang (front)	L104	800 (31.5)
Overhang (rear)	L105	829 (32.6)
Upper structure length	L123	2578 (101.5)
Rear wheel CL "X" coordinate	L127	2609 (102.7)

### ØHeight\*

Passenger distribution (front/rear)	PD 1,2,3	2 - Front 3 - Rear
Trunk/cargo load		--
Vehicle height	H101	1346 (53.0)
Cowl point to ground	H114	891 (35.1)
Deck point to ground	H138	841 (33.1)
Rocker panel front to ground	H112	213 (8.4)
Rocker panel rear to ground	H111	226 (8.9)
Windshield slope angle	H122	52.9°
Backlight slope angle	H121	53°

### Ground Clearance

Front bumper to ground	H102	366 (14.4)
Rear bumper to ground	H104	302 (11.9)
Bumper to ground (front at curb mass (wt.))	H103	385 (15.2)
Bumper to ground (rear at curb mass (wt.))	H105	388 (14.3)
Angle of approach (degrees)	H106	20°
Angle of departure (degrees)	H107	21°
Ramp breakover angle (degrees)	H147	15°
Axle differential to ground (front/rear)	H153	N.A.
Min. running ground clearance	H156	118 (4.6)
Location of min. run. ground clearance		Frnt. Susp. C'mbr. Brkt. (L.H.)

\* All vehicle height and ground clearance are made at the Manufacturer's Design Load Weight. Manufacturer's Design Load Weight is defined with indicated passenger distribution and trunk/cargo load, unless otherwise specified. All linear dimensions are in millimeters (inches) unless otherwise noted.

# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued **9-15-89**

Revised(\*)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type

ALL

	SAE Ref. No.	
<b>Ø Front Compartment</b>		
SgRP front, "X" coordinate	L31	1409 (55.5)
Effective head room	H61	967 (38.1)
Max. eff. leg room (accelerator)	L34	1069 (42.1)
SgRP to heel point	H30	240 (9.4)
SgRP to heel point	L53	868 (34.1)
Back angle	L40	26°
Hip angle	L42	97°
Knee angle	L44	126.5°
Foot angle	L46	87°
Design H-point front travel	L17	185 (7.3)
Normal driving & riding seat track trvl.	L23	185 (7.3)
Shoulder room	W3	1314 (51.7)
Hip room	W5	1336 (52.6)
Upper body opening to ground	H50	1239 (48.7)
Steering wheel maximum diameter*	W9	381 (15.0)
Steering wheel angle	H18	25.3°
Accelerator heel pt. to steer. whl. cntr.	L11	514 (20.2)
Accelerator heel pt. to steer. whl. cntr.	H17	620 (24.4)
Undepressed floor covering thickness	H67	25 (1.0)

## Ø Rear Compartment

SgRP couple distance	L50	749 (29.5)
Effective head room	H63	937 (36.9)
Min. effective leg room	L51	846 (33.3)
SgRP (second to heel)	H31	307 (12.1)
Knee clearance	L48	-30 (-1.2)
Shoulder room	W4	1309 (51.5)
Hip room	W6	1178 (46.4)
Upper body opening to ground	H51	1239 (48.7)
Back angle	L41	26°
Hip angle	L43	83.5°
Knee angle	L45	80°
Foot angle	L47	106°
Depressed floor covering thickness	H73	18 (0.7)

## Luggage Compartment

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

## Interior Volumes (EPA Classification)

Vehicle Class		Compact
Interior volume index (cu. ft.)**		100.2
Trunk / cargo index (cu. ft.)		15.6

\* See p. 14

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



# MVMA Specifications

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1990**

Issued

**9-15-89**

Revised(\*)

**METRIC (U.S. Customary)**

**Vehicle Dimensions See Key Sheets for Definitions**

**Body Type**

SAE Ref. No.	Low-Back Bucket	High-Back Bucket
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## Station Wagon - Third Seat

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	
Seat facing direction	SD1	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

## Station Wagon - Cargo Space

Cargo length (open front)	L200	
Cargo length (open second)	L201	
Cargo length (closed front)	L202	
Cargo length (closed second)	L203	
Cargo length at belt (front)	L204	
Cargo length at belt (second)	L205	
Cargo width (wheelhouse)	W201	
Rear opening width at floor	W203	
Opening width at belt	W204	
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 [m <sup>3</sup> (ft. <sup>3</sup> )]	V2	
Hidden cargo volume [m <sup>3</sup> (ft. <sup>3</sup> )]	V4	
Cargo volume index-rear of 2 <sup>nd</sup> -seat	V10	

## Hatchback - Cargo Space

Cargo length at front seatback height	L208	1044 (41.1)	926 (36.5)
Cargo length at floor (front)	L209	1576 (62.0)	1569 (61.8)
Cargo length at second seatback height	L210	419 (16.5)	419 (16.5)
Cargo length at floor (second)	L211	902 (35.5)	902 (35.5)
Front seatback to load floor height	H197	554 (21.8)	636 (25.0)
Second seatback to load floor height	H198	511 (20.1)	511 (20.1)
Cargo volume index[m <sup>3</sup> (ft. <sup>3</sup> )]	V3	0.936 (33.0)	1.03 (36.6)
Hidden cargo volume [m <sup>3</sup> (ft. <sup>3</sup> )]	V4	--	
Cargo volume index-rear of 2 <sup>nd</sup> -seat	V11	15.6	

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METRIC (U.S. Customary)

Vehicle Line **PLYMOUTH HORIZON**

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Body Type

All

## Vehicle Fiducial Marks

Fiducial Mark Number*		Define Coordinate Location
Front		The center of gauge holes located in front longitudinal approximately 658 mm (25.9 in.) from centerline of front wheels.
Rear		The center of gauge holes located in rear longitudinal approximately 3023 mm (119.0 in) from the centerline of front wheels.
Front	W21	414 (16.3)
	L54	750 (29.5)
	H81	-30.7 (-1.2) Bottom surface of Longitudinal
	H161	
	H163	
Rear	W22	502 (19.76)
	L55	3114 (122.6)
	H82	145 (5.7) Bottom Surface of Longitudinal
	H162	
	H164	

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

**METRIC (U.S. Customary)**

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### Vehicle Mass (Weight)

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## MVMA Specifications

**METRIC (U.S. Customary)**

Vehicle Line **PLYMOUTH HORIZON**

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**Estimated**[illegible]

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