

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1989

Manufacturer CHRYSLER MOTORS CORPORATION	Vehicle Line PLYMOUTH HORIZON	
Mailing Address DETROIT, MICHIGAN 48288	Issued 9-30-88	Revised

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.

MVMA

Motor Vehicle Manufacturers Association
of the United States, Inc.

Blank Forms Provided by Technical Affairs Division

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 Form

Vehicle Line PLYMOUTH HORIZONModel Year 1989 Issued 9-30-88 Revised (●) _____

METRIC (U.S. Customary)

Ø 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

Ø Vehicle Models

Model Description & Drive (FWD/RWD/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	Sept. 1988	ZE44	5(2/3)	52(115)

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

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Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised (●)

METRIC (U.S. Customary)**Power Teams** (Indicate whether standard or optional)

Power Teams (Indicate whether standard or optional)
SAE J1349 Net bhp (brake horsepower) and net torque corrected to 25°C (77 °F) and 100 kPa (29.61 in. Hg) atmospheric pressure.

[illegible]

*Single/dual

(a) Overall top gear ratio

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised (●)

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

**2.2L (135.0 in³)
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 39.51 (87.1)	
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 ³)	48.5 to 51.5	
Cylinder liner material	N.A.	
Head gasket thickness (compressed)	1.78 (.070)	
Minimum combustion chamber total volume (cm ³)	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 2.58 (5.7)	
Exhaust manifold material & mass [kg (lbs.)]**	Cast Iron 6.23 (13.7)	
Fuel required, unleaded, diesel, etc.	Unleaded regular	
Fuel antiknock index (R + M) ÷ 2	87 or higher	
Engine mounts	Ø 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***	141.68 (312.4)	

Engine - Pistons

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

Engine - Camshaft

Location	Overhead
Material & mass kg (weight, lbs.)	Post-hardened nodular iron 2.92 (6.4)
Drive type	Chain/belt
	Width/pitch
	Belt 23.8/9.52 (0.937/0.375)

* 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 FormVehicle Line **PLYMOUTH HORIZON**Model Year **1989**Issued **9-30-88**

Revised (e)

METRIC (U.S. Customary)

Engine Description/Carb.

Engine Code

**2.2L (135.0in³)
EFI, EDF****Engine - Valve System**

Hydraulic lifters (std., opt., n.a.)

Std.

Valves

Number intake/exhaust

4/4

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 ø to ø) mm

151 (5.94)

Engine - Crankshaft

Material & Mass (kg., (weight lbs.))*

Nodular iron 15.19 (33.5)

End thrust taken by bearing (no.)

Three

Length & number of main bearings

479 (18.9) / 5

Seal (material, one,

Front

One piece

two piece design, etc.)

Rear

One piece

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

Type

nozzle

Opening pres. (kPa (psi))

Pre-chamber design

Fuel inj.

Manufacturer

pump

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

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METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

2.2L (135.0 in ³) 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	Type (choke, bypass)	Choke, Pellet Operated	
thermostat	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.)	8.5(9.0)	
	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	A/C
	Type (cross-flow, etc.)	Cross Flow	
	Construction (fin & tube mechanical, braze, etc.)	Tube & fin, mechanical, 2-row, 2-Pass	Tube & Fin Spacer, Soldered, 1 Row
	Material, mass [kg (wgt.lbs.)] (a)	aluminum, 2.09 (4.6) man./2.29 (5.1) auto.	Copper/Brass, 3.7 (8.2) ,man./4.27 (9.4) auto.
	Width	440(17.32)	454(17.87)
	Height	322(12.68)	387.6(15.26)
	Thickness	34(1.34)	17.8(0.7)
	Fins per inch	14.5	15 Man. / 21 Auto.
	Radiator end tank material	Nylon 66	Brass
Fan	Std., elec., opt.	Electric	
	Number of blades & type (flex, solid, material)	4-Blade Plastic	2-Blade Metal
	Diameter & projected width	320 (12.6) / 30 (1.2)	360(14.2) / 46(1.8)
	Ratio (fan to crankshaft rev.)	--	
	Fan cutout type	Electric Motor	
	Drive type (direct, remote)	--	
	RPM at idle (elec.)	1885	1720
	Motor, rating (wattage) (elec.)	110	130
	Motor switch (type & location) (elec.)	Thermistor, Water Box & AC clutch	
	Switch point (temp., pressure) (elec.)	93°C (200°F)	(b)
	Fan shroud (material)	Metal	

(a) Mass (weight) shown is for assembly as purchased.
(b) 99°C(210°F) < 40 mph; 110°C(230°F) > 40 mph

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised (●)

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

**2.2L (135.0 in³)
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.		Electronic fuel injection
Manufacturer		Bosch/Holley
Ø Carburetor no. of barrels		--
Idle A/F mix.		--
Fuel Injection	Point of injection	Throttle body (1)
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	Electronic
	System pressure [kPa (psi)]	100 (14.5)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	850
	Automatic	850 / Neutral
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water
Air cleaner type		Oil wetted paper element
Fuel filter (type/location)		Paper element; Stainless steel canister; Inline underbody
Ø Fuel pump Ø	Type (elec. or mech.)	Electric
	Location (eng., tank)	In fuel tank
	Pressure range [kPa (psi)]	N.A.
	Flow rate at regulated pressure (L (gal) / hr @ kPa (psi))	77-154 (20-41) @ 12V & 15psi

Fuel Tank

Capacity refill L (gallons)		49 (13)
Location (describe)		Forward of axle
Attachment		Galvanized or terne plated strap to floor pan
Material & Mass [kg (weight lbs.)]		Terne plated steel 9.34 (20.6)
Filler pipe	Location & material	Right rear quarter panel, lead dipped steel tube
	Connection to tank	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		

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METRIC (U.S. Customary)

Engine Description/Carb.

Engine Code

2.2L (135.0in³)

EFI, EDF

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		exhaust gas recirc., eng. mod's, catalytic converter (Aspirator added, 49 states with manual trans. only)
	Air injection	Pump or pulse	pulse (Aspirator added, 49 states with manual transmission only)
		Driven by	exhaust pressure (Aspirator added, 49 states with manual transmission only)
		Air distribution (head, manifold, etc.)	source - air cleaner
		Point of entry	single point (Aspirator added, 49 states with manual transmission only)
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	catalytic converter (Aspirator added, 49 states with manual transmission only)
		Exhaust source	exhaust back pressure-controlled flow
		Point of exhaust injection (spacer, carburetor, manifold, other)	exhaust manifold branch
	Catalytic Converter		intake manifold
		Type	3 - Way (3 Way + oxidation, 49 states with manual transmission only)
		Number of	one
		Location(s)	below exhaust manifold
		Volume [L(in. ³)]	1.23 + 0.9 (75 + 55) (a)
		Substrate type	monolithic
Crankcase Emission Control	Noble metal type		1.23L & 0.9L: Platinum / Rhodium; 0.74L: platinum / Palladium
			1.23L: 0.0006 / 0.00009
	Noble metal concentration (g/cm ³)		0.9L: 0.0006 / 0.00007 - 0.74L: 0.00085
	Type (ventilates to atmosphere, induction system, other)		closed induction system
	Energy source (manifold vacuum, carburetor, other)		manifold vacuum
	Discharges (to intake manifold, other)		throttle body
	Air inlet (breather cap, other)		air cleaner
	Evaporative emission control	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.)]		tri-flow stainless steel 5.51 (12.1) - includes tail-pipe below
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.)]	stainless steel 6.21 (13.7) (Includes 1.90kg(4.18lbs) substrate and mat mount)
Intermediate pipe	o. d., & wall thickness	47.8 x 1.2 (1.88 x 0.047)
	Material & mass [kg. (weight lbs.)]	stainless steel 2.14 (4.7)
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) 1.23 + 0.74 (75 + 45) 3wc oxid., 49 states with manual transmission

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METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

**2.2L (135.0 in³) / 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
Gear ratios	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.)*		319 Aluminum Die Cast 43.64 (96.2)
Lubricant	Capacity (L (pt.))	2.3L (4.81pt.)
	Type recommended	API SF/CC SAE 5W-30
Ø		

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. spring load, new) N (lbs.)	Depressed	80 (18)
	Released	120 (27)
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Belleville
Total spring load (nominal, new) N (lbs.)		4400 (989)
Clutch facing	Facing mfg. & material coding	Textar 314
	Facing material & construction	Woven Asbestos
	Rivets per facing	16
	Outside x inside dia. (nominal)	215 x 154 (8.46 x 6.06)
	Total eff. area (cm ² (in ²))	353.6 (54.8)
	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

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

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METRIC (U.S. Customary)

Engine Description/Carb.

Engine Code

**2.2L (135.0 in³)/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
Selector	Location	Floor mounted
	Ltr./No. designation	PRND21
Gear ratios	1st	2.69
	2nd	1.55
	3rd	1.00
	4th	--
	Reverse	2.10
Max. upshift speed-drive range [km/h (mph)]		109 (68)
Max. kickdown speed-drive range [km/h (mph)]		103 (64)
Min. overdrive speed [km/h (mph)]		--
Torque converter	Number of elements	Three
	Max. ratio at stall	2.00:1
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	241 (9.5)
Ø	Capacity factor "K"*	210
Lubricant	Capacity [refill L (pt.)]	8.40 (17.75) (a)
	Type recommended	Mopar ATF Plus (Auto. trans. fluid - Type 7176) (b)
Oil cooler (std,opt,n.a.,internal,external,air,liquid)		Standard / in radiator, liquid--w/AC; external, air--w/o AC
Ø Transmission case material & mass kg. (lbs.)**		Die Cast Aluminum 57.35 (126.4)

Axle or Front Wheel Drive Unit

Type (front, rear)		Front
Description		Transaxle
Limited slip differential (type)		N.A.
Drive pinion offset		--
Drive pinion (type)		Helical
No. of differential pinions		Two
Pinion/differential adjustment(shim, other)		
Pinion/differential bearing adjustment(shim, other)		Shim
Driving wheel bearing		Double row ball
Lubricant	Capacity [L (pt.)]	See transaxle
	Type recommended	See transaxle

Axle or Transaxle Ratio and Tooth Combinations

Axle ratio (or overall top gear ratio)		2.55 (manual trans.)	2.78 (auto. trans.)
No. of teeth	Pinion	9	20
	Ring gear or gear	57	61
Ring gear o.d.		198.05 (7.80)	187.4 (7.38)
Transaxle	Transfer gear ratio	--	0.91
	Final drive ratio	3.56	3.05

* Input speed ÷ √torque

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

(a) Torque converter, Transmission and Differential

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

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Engine Description/Carb.

Engine Code

**2.2L (135.0 in³)
EFI, EDF**

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)		--	

Ø All Wheel / 4 Wheel Drive

Description and type (part time, full time, 2/4 shift while moving, mechanical, elect., chain/gear, etc.)		
Transfer case	Manufacturer	
	Type	
	Model	
Low range gear ratio		
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	
	Torque split (% front/rear)	

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

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METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

All
SDA

Ø 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	
	Provision for jacking	
Shock absorber damping controls	Standard / optional / not avail.	
	Manual / automatic control	
	Number of damping rates	
	Type of actuation (manual / electric motor / air, etc.)	
	<u>sensors</u>	
	Lateral acceleration	
	Deceleration	
	Acceleration	
Shock absorber (front & rear)	Road surface	
	Type	
	Make	
	Piston diameter	
	Rod diameter	

Direct - Hydraulic

Front: Monroe or Delco Rear: Maremont

Front: 32 (1.26) Rear: 25.4 (1.0)

Front: 20 (0.79) Rear: 11.1 (0.44)

Ø Suspension - Front

Type & description		
Travel*	Full jounce	Iso-strut
	Full rebound	75.2 (2.96)
		98.8 (3.89)
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.)
	Spring rate [N/mm (lb./in.)]	210 x 152 I.D. (8.27 x 6.0 I.D.) @ Curb
	Rate at wheel [N/mm (lb./in.)]	14.9 (85)
Stabilizer	Type (link, linkless, frameless)	18.4 (105)
	Material & bar diameter	Linkless
		AISI 1090 Spring steel 25.4 (1.00)

Ø Suspension - Rear

Type & description		
Travel*	Full jounce	Semi-independent trailing arm type
	Full rebound	62 (2.44)
		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.)	Design height: 240 / I.D.: 85 / Wire diameter: 10.4
	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	--
Track bar (type)		None

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

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989**

Issued **9-30-88**

Revised (#)

METRIC (U.S. Customary)

Body Type And Or
Engine Displacement

All

Ø 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.)		Intake manifold	
	Reservoir (volume in. ³) 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 ² (in. ²)]* (F/R)			391 (60.6)	
Gross lining area [cm ² (in. ²)]**(F/R)			417.58 (64.73)	
Swept area [cm ² (in. ²)]*** (F/R)			1302.97 (201.96)	
Rotor	Outerworking diameter	F/R	Front: 228 (8.98)	
	Inner working diameter	F/R	Front: 153 (6.02)	
	Thickness	F/R	Front: 12.64 (0.498)	
	Material Type (vented/solid)	F/R	Front: damped cast iron, solid	
Drum	Diameter & Width	F/R	Rear: 200 (7.87) x 37.62 (1.48)	
	Type & Material	F/R	Rear: Cast composite	
Wheel cylinder bore			Front: 54 (2.13); Rear: 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 x 12.34 (6.18 x 0.486)
		Size	Secondary or inboard	3987 x 12.34 (6.18 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 Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised (•) _____

METRIC (U.S. Customary)

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 & stud)	Stud
		Circle diameter	100 (3.94)
		Number & size	4 - M12 x 1.5mm
Spare	Tire and wheel		P165/75 D 13 Low mileage spare
	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)	--	
		--	

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised(*)

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

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	Gear	32.3 mm / Rev.
		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	Gear	40.7 mm / Rev.
		Overall		18.0:1
	Pump (drive)			Pulley and belt, off crankshaft
	no. wheel turns (stop to stop)			2.88
Type			Rack & Pinion (Rod & ball directly attached to gear)	
Linkage	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		--
	Tread (size)			M22 x 1.5
	Bearing (typt)			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 Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** 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° ± 0.5°
		Toe-in	+ 0.1° toe-in ± 0.3° (a)
	Periodic M.V. inspection	Caster	--
		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	--
		Toe-in	--

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

Electrical - Instruments and Equipment

Speed-ometer	Type (Analog, digital, std., opt.)	Magnetic torque drive
	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	Magnetic gage
	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 ² (in ²)]	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 Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised(*)

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

**2.2L (135.0in³)
EFI, EDF**

Electrical - Supply System

Battery	Manufacturer	Delco, Exide, Johnson Controls
	Model, std., (opt.)	GRP 34
	Voltage	12V
	Amps at 0°F cold crank	430
	Minutes-reserve capacity	100
	Amp/hrs. - 20 hr. rate	No rating
	Location	Left front fender side shield
Alternator	Manufacturer	Nippondenso
	Rating (idle/max. rpm)	90 HS
	Ratio (alt. crank/rev.)	2.7:1
	Output at idle (rpm, park)	40 A
	Optional (type & rating)	--
Regulator	Type	Engine control computer

Electrical - Starting System

Start, motor	Current drain at 0°F	200 - 250 A
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	Make	UTC	Prestolite	Diamond
	Model	5226865	5227372	5227252
	Current	3.0 A (for 3 seconds)		
		1.9 A		
	Engine idling - A			
Spark plug	Make	Champion		
	Model	RN12YC		
	Thread (mm)	14 mm		
	Tightening torque [N-m (lb,ft)]	28 (20)		
	Gap	0.9mm (0.035in)		
	Number per cylinder	One		
Distributor	Make	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 Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised(•) _____

METRIC (U.S. Customary)

Body Type

All

Body

Structure

Ø

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

Ø 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
	Release control (internal, external)	Internal
Trunk lid	Material & mass	--
	Type (counterbalance, other)	--
	Internal release control (elec., mech., n.a.)	--
Hatch-back lid	Material & mass	9.44 (20.8)
	Type (counterbalance, other)	Gas pressurized struts
	Internal release control (elec., mech., n.a.)	--
Tailgate	Material & mass	--
	Type (drop, lift, door)	--
	Internal release control (elec., mech., n.a.)	--
Vent window control (crank, friction, pivot, power)	Front	None
	Rear	None
Window Regulator type (cable, tape, flex, drive, etc.)	Front	
	Rear	
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
	3rd seat	--
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - Full foam
	Rear	Bench - Full Foam
	3rd seat	--

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989**

Issued **9-30-88**

Revised (●)

METRIC (U.S. Customary)

Body Type

All

Ø 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 belt Std.	Lap belt Std.	Lap 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			
	Standard/Optional	Second seat			
		Third seat			

Glass		SAE Ref. No.	24 - 2 Door	44 - 4 Door
Windshield glass exposed surface area [cm ² (in ²)]		S1	7746 (1203)	
Side glass exposed surface area [cm ² (in ²)] - total 2 sides		S2	10488 (1626)	
Backlight glass exposed surface area [cm ² (in ²)]		S3	6803 (1054)	
Total glass exposed surface area [cm ² (in ²)]		S4	25055 (3883)	
Windshield glass (type)			Laminated safety glass	
Side glass (type)			Heat treated safety glass	
Backlight glass (type)			Heat treated safety glass	

Ø 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 Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989**

Issued **9-30-88**

Revised (●)

METRIC (U.S. Customary)

Body Type

All

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

Ø Air conditioning (manual, auto. temp control)

Manual - Opt.

Clock (digital, analog)

Digital (In radio) - Std.

Compass/thermometer

N.A.

Console (floor, overhead)

Forward floor - Opt.

Defroster, elec. backlight

Std.

Diagnostic monitor (integrated, individual)

Integrated - Std.

Instrument cluster (list instruments)

N.A.

Keyless entry

N.A.

Electronic Tripminder (avg. spd., fuel)

N.A.

Voice alert (list items)

N.A.

Other

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.

Lamps

Fog

N.A.

Glove compartment

N.A.

Trunk

Std.

Illuminated entry system

N.A.

(list lamps, activation)

N.A.

Ø

Other

Dome - Std.

Day / night (auto. man.)

Manual - Std.

L.H. (remote, power, heated)

Remote - Std.

Mirrors

R.H. (convex, remote, power, heated)

N.A.

Visor vanity (RH/LH, illuminated)

RH - Std.

Ø Navigation system (describe)

N.A.

Parking brake-auto release (warning light)

Warning light - Std. / Auto release - N.A.

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised (●)

METRIC (U.S. Customary)

Body Type

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.)	Dual manual recliners - Std.
		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, compact disc, graphic equalizer, theft deterrent, radio prep pkg., headphone jacks, etc.	
	Opt.		AM/FM/MX Electronically tuned radio with digital clock AM/FM/MX/Cassette ETR with digital clock
	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, Glove box lock - Std.

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** 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
-----------	--------------	----

Width

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)
Front fender overall width	W106	1599 (63.0)
Rear fender overall width	W107	1584 (62.4)
Tumble-home (deg.)	W122	21°

Length

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 C/L "X" coordinate	L127	2609 (102.7)
Cowl point "X" coordinate	L125	534 (21.0)
Front end length at centerline	L126	1242 (48.9)
Rear end length at centerline	L129	326 (12.8)

Height*

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)
Bottom of door closed front to ground	H133	269 (10.6)
Rocker panel rear to ground	H111	226 (8.9)
Bottom of door closed rear to ground	H135	257 (10.5)
Windshield slope angle	H122	54°
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		Frt. Susp. C'mbr. Brkt. (L.H.)

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

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised(*)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for Definitions

Body Type

SAE
Ref.
No.

All
Lo-Back Bucket

Front Compartment

SqRP front, "X" coordinate	L31	1409 (55.5)
Effective head room	H61	967 (38.1)
Max. eff. leg room (accelerator)	L34	1069 (42.1)
SqRP to heel point	H30	240 (9.4)
SqRP 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	191 (7.5)
Normal driving & riding seat track trvl.	L23	191 (7.5)
Shoulder room	W3	1314 (51.7)
Hip room	W5	1336 (52.2)
Upper body opening to ground	H50	1237 (48.7)
Steering wheel maximum diameter*	W9	381 (15.0)
Steering wheel angle	H18	25°
Accel. heel pt. to steering wheel center	L11	486 (19.1)
Accel. heel pt. to steering wheel center	H17	603 (23.7)
Steering wheel to C/L of thigh	H13	74.5 (2.9)
Steering wheel torso clearance	L7	357 (14.0)
Headlining to roof panel	H37	17 (0.7)
Undepressed floor covering thickness	H67	25 (1.0)

Rear Compartment

SqRP Point couple distance	L50	749 (29.5)
Effective head room	H63	937 (36.9)
Min. effective leg room	L51	846 (33.3)
SqRP (second to heel)	H31	307 (12.1)
Knee clearance	L48	-30 (-1.2)
Compartment room	L3	628 (24.7)
Shoulder room	W4	1309 (51.5)
Hip room	W6	1178 (46.4)
Upper body opening to ground	H51	1227 (48.3)
Back angle	L41	26°
Hip angle	L43	83.5°
Knee angle	L45	80°
Foot angle	L47	106°
Headlining to roof panel (second)	H38	18 (0.7)
Depressed floor covering thickness	H73	18 (0.7)

Luggage Compartment

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

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)		Compact
Interior volume index (cu. ft.)		100.2
Trunk/cargo index (cu. ft.)		15.6

* See Page 14

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989** Issued **9-30-88** Revised(*)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for Definitions

Body Type	SAE Ref. No.	Low-Back Bucket	High-Back Bucket
-----------	--------------	-----------------	------------------

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 ³ (ft. ³)]	V2	
Hidden cargo volume [m ³ (ft. ³)]	V4	
Cargo volume index-rear of 2 nd -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 ³ (ft. ³)]	V3	0.936 (33.0)	1.03 (36.6)
Hidden cargo volume [m ³ (ft. ³)]	V4	--	--
Cargo volume index-rear of 2 nd -seat	V11	15.6	

Aerodynamics*

Wheel lip to ground, front	
Wheel lip to ground, rear	
Frontal area [m ² (ft. ²)]	
Drag coefficient (Cd)	

*EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989**

Issued

9-30-88

Revised(*)

METRIC (U.S. Customary)

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.

Fiducial
Mark
Number

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.

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year	1989	Issued	9-30-88	Revised(●)
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METRIC (U.S. Customary)

Estimated

Vehicle Mass (Weight)

[illegible]

SHIPPING MASS (weight) = Curb Weight Less Kg. (lbs.) 30 kg (66 lbs)

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

****ETWC - Equivalent Test Weight Class - U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.**

NA - Not Applicable - applies to model/series combinations not requiring testing.

MVMA Specifications Form

Vehicle Line **PLYMOUTH HORIZON**

Model Year **1989**

Issued **9-30-88**

Revised(●)

METRIC (U.S. Customary)

Estimated[illegible]

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