MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1990

Manufacturer	Vehicle Line	
CHRYSLER MOTORS CORPORATION	**PLYMOUTH SUNDANCE**	
Mailing Address		
DETROIT, MICHIGAN 48288	Issued **9-15-89**	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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Ø Indicates Format Change From Previous Year

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

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 (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk Cargo Load - Kilograms (Pounds)
Sundance 2 - Door Hatchback FWD	Sept. 1988	APPH24	5 (2/3)	52 (115)
4 - Door Hatchback FWD		APPH44	5 (2/3)	52 (115)
FWD				

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

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Vehicle Line PLYMOUTH SUNDANCE
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
ENGINE	Engine Code		EDF		EDM		EDT		
	Displacement Liters (in³)		2.2 (135.0)		2.5 (153.0)		2.5 (153.0)		
	Induction system (FI, Carb., etc.)		TBI-EFI		⇐		SMPI Turbo		
	Compression ratio		9.5:1		8.9:1		7.8:1		
	SAE Net at RPM	Power kW (bhp)	69 (93) @ 4800		75 (100) @ 4800		112 (150) @ 4800		
		Torque N•m (lb.-ft.)	165 (122) @ 3200		183 (135) @ 2800		244 (180) @ 2000		
	Exhaust single, dual		single		⇐		⇐		
TRANS	Transmission/ Transaxle		a 5-sp. man	b 3-sp. auto	a 5-sp. man	b 3-sp. auto	a 5-sp. man	b 3-sp. auto.	
	Axle Ratio (std. first) (a)		2.51:1	3.02:1	2.51:1	3.02:1	2.51:1	3.02:1	

Series Availability		Power Teams (A-B-C-D)	
Model	Code	Standard	Optional
Sundance	APPH21, 41	Aa, Ab	Ba, Bb, Ca, Cb

(a) Overall top gear ratio

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Vehicle Line PLYMOUTH SUNDANCE

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

METRIC (U.S. Customary)

Engine Description	**2.5L (153.0 in³)**	**2.5L (153.0 in³)**
Engine Code	**EFI, EDM**	**SMPI Turbo I, EDT**

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, front, transverse	
Manufacturer		Chrysler	
No. of cylinders		4	
Bore		87.5 (3.44)	
Stroke		104.0 (4.09)	
Bore Spacing (C/L to C/L)		96.0 (3.78)	
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron 40.55 (89.4)	
Cylinder block deck height		237.8 (9.36)	
Cylinder block length		418 (16.46)	
Deck clearance (minimum) (above or below block)		0.00	0.1 (0.004) (above)
Cylinder head material & mass kg (lbs.)		Aluminum 9.71 (21.4)	Aluminum 10.66 (23.5)
Cylinder head volume (cm³)		48.94 to 51.94	
Cylinder liner material		N.A.	
Head gasket thickness (compressed)		1.78 (0.070)	
Minimum combustion chamber total volume (cm³)		73.815	92.24
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)	Aluminum 5.67 (12.5)
Exhaust manifold material & mass [kg (lbs.)]**		Cast Iron 6.08 (13.4)	Cast iron 5.17 (11.4)
Fuel required, unleaded, diesel, etc.		Regular unleaded	Premium unleaded
Fuel antiknock index (R + M) ÷ 2		87 octane or higher	recommend 91 or higher accept 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***		153.18 (337.0)	161.36 (355.0)

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum 322 (11.4)	Aluminum 367 (13.0)

Engine - Camshaft

Location		Overhead
Material & mass kg (weight, lbs.)		Post-hardened nodular iron 2.68 (5.9)
Drive type	Chain/belt	Belt
	Width/pitch	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

Vehicle Line **PLYMOUTH SUNDANCE**

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

METRIC (U.S. Customary)

Engine Description	**2.2L (135.0 in³)**
Engine Code	**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 (cm³)		48.5 to 51.5
Cylinder liner material		N.A.
Head gasket thickness (compressed)		1.78 (.070)
Minimum combustion chamber total volume (cm³)		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	Aluminum 445 (15.7)

Engine - Camshaft

Location		Overhead
Material & mass kg (weight, lbs.)		Post-hardened nodular iron 2.68 (5.9)
Drive type	Chain/belt	Belt
	Width/pitch	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

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Engine Description	**2.5L (153.0 in³)**	**2.5L (153.0in³)**
Engine Code	**SMPI, Turbo, EDT**	**EFI, EDM**

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 0.68 (1.5)
Ø Length (axes ¢ to ¢) mm	151 (5.94)

Engine - Crankshaft

Material & Mass [kg., (weight lbs.)]*		High-hardness ductile iron 16.10 (35.4)	Nodular iron 16.04 (35.3)
End thrust taken by bearing (no.)		Three	
Length & number of main bearings		487.1 (19.2) / Five	
Seal (material, one, two piece design, etc.)	Front	Polyacrylic / One piece	
	Rear	Fluorocarbon / One piece	

Engine - Lubrication System

Normal oil pressure [kPa (psi) at eng. rpm]	172-552(25-80) @ 3000 rpm(a)
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

(a) Fully warmed

MVMA Specifications

Vehicle Line **PLYMOUTH SUNDANCE**
Model Year **1990** Issued **9-15-89** Revised (•)

METRIC (U.S. Customary)

Engine Description	**2.2L (135.0in³)**
Engine Code	**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 ¢ to ¢) 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.)	Front	Polyacrylic / One piece
	Rear	Fluorocarbon / 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 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

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•) _____

METRIC (U.S. Customary)

Engine Description	**2.5 L (153.0 IN.^{3}) EFI, EDM**	**2.5L(153.0 in^3)**
Engine Code	**2.2 L (135.0 IN.^{3}) EFI, EDF**	**SMPI Turbo**
		EDT

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard		
Coolant fill location (rad, bottle)		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.)	8.5(9.0)		
	With air cond. - L(qt.)	8.5 (9.0)		
	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	All
	Type (cross-flow, etc.)	Cross Flow		
	Construction (fin & tube mechanical, braze, etc.)	Tube & fin mech. 2-row (b)	Tube & Fin Spacer, Soldered, 1 Row	
	Material, mass [kg (wgt.lbs.)] (a)	aluminum (c)	Copper/Brass 4.12(9.1) Man. / 4.55(10.0) Auto.	
	Width	533(21)		
	Height	377.5(14.86) (d)	387.6(15.26)	
	Thickness	34(1.34) (e)	17.8(0.7)	
	Fins per inch	14.5 (f)	18 Man. / 19Auto.	
Radiator end tank material		Nylon 66		
Fan	Std., elec., opt.	Electric		
	Number of blades & type (flex, solid, material)	2-Blade metal	5-Blade plastic	5-blade plastic
	Diameter & projected width	360(14.2) / 46(1.8)	367(14.4) / 35(1.4)	367 (14.5) / 42(1.65)
	Ratio (fan to crankshaft rev.)	--		
	Fan cutout type	Electric Motor		
	Drive type (direct, remote)	--		
	RPM at idle (elec.)	1150	1800	2150
	Motor rating (wattage) (elec.)	50	130	150
	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		99°C(210°F) < 40 mph; 104°C(220°F) > 40 mph
	Fan shroud (material)	Metal	Plastic	Plastic

(a) Mass (weight) shown is for assembly as purchased.
(b) Optional radiator: Tube & Fin Spacer, Soldered, 1 Row
(c) 3.13(6.9) Man.: 3.55(7.8) Auto.; Optional radiator: copper-brass, 4.2 (9.3)
(d) Optional radiator: 387.6 (15.26)
(e) Optional radiator: 17.8 (0.7)
(f) Optional radiator: 13

MVMA Specifications

Vehicle Line **PLYMOUTH SUNDANCE**

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

METRIC (U.S. Customary)

Engine Description		**2.5L (153.0 in³) TBI-EFI, EDM**	**2.5L (153.0in³)**
Engine Code		**2.2L (135.0 in³) TBI-EFI, EDF**	**SMPI Turbo, EDT**
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	(b)
Carburetor no. of barrels		N.A.	
Idle A/F mix.		N.A.	
Fuel Injection	Point of injection (no.)	Throttle body (1)	Intake ports (4)
	Constant, pulse, flow	Pulse	
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	100 (14.5)	379.6 (55.1)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	850	950
	Automatic	850 / Neutral	900 / Neutral
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water, fixed	None
Air cleaner type		Oil wetted paper element	
Fuel filter (type/location)		Paper element; Stainless steel canister; Inline underbody	
Fuel pump	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))	81-161 (21-42) @ 12V & 15psi	92-180 (24-48) @ 12V & 55psi

Fuel Tank

Capacity refill L (gallons)		53 (14)
Location (describe)		Forward of axle
Attachment		Galvanized or terne plated steel strap to floor pan
Material & Mass [kg (weight lbs.)]		Terne plated steel 10.20 (22.5) (a)
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 (marterial)		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

(b) Holly/Bosch/Seimens Bendix/McGuane

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Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Engine Description	2.2L (135.0in³) TBI-EFI, EDF			
Engine Code	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	aspirator	
	Air injection	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	exhaust 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.³)]	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/cm³)	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 maifold, other)		intake manifold		
	Air inlet (breather cap, other)		air cleaner		
Evaporative emission control	Vapor vented to (crankcase, canister, other)	Fuel tank	canister		
		Carburetor	--		
	Vapor storage provision		canister		
Electronic system	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	N.A.			
	Main o. d. ,wall thickness	50.8 x 1.4 (2.00 x 0.055)			
	Material & mass [kg. (weight lbs.)]	5.70 (12.6) (b)	6.11 (13.5) (b)	5.70 (12.6) (b)	5.83 (12.8) (b)
Intermediate pipe	o. d., & wall thickness	47.8 x 1.2 (1.88 x 0.047)			
	Material & mass [kg. (weight lbs.)]	stainless steel 2.62 (5.8)			
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 SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Engine Description	2.5L (153.0in³) TBI-EFI, EDM			
Engine Code	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	Pump or pulse	aspirator	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	exhaust manifold branch			
		Point of exhaust injection (spacer, carburetor, manifold, other)	intake manifold plenum			
	Catalytic Converter	Type	3-way + oxidation	3-way		
		Number of	one			
		Location(s)	below exhaust manifold			
		Volume [L(in.³)]	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/cm³)	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 maifold, other)		intake manifold			
	Air inlet (breather cap, other)		air cleaner			
Evaporative emission control	Vapor vented to (crankcase, canister, other)	Fuel tank	canister			
		Carburetor	–			
	Vapor storage provision		canister			
Electronic system	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, reverse flow stainless steel 4.94 (10.9) - includes tail-pipe below			
Resonator no. & type		none			
Exhaust pipe	Branch o. d., wall thickness	N.A.			
	Main o. d. ,wall thickness	50.8 x 1.4 (2.00 x 0.055)			
	Material & mass [kg. (weight lbs.)]	5.70 (12.6) (b)	6.11 (13.5) (b)	5.70 (12.6) (b)	5.83 (12.8) (b)
Intermediate pipe	o. d., & wall thickness	47.8 x 1.2 (1.88 x 0.047)			
	Material & mass [kg. (weight lbs.)]	stainless steel 2.62 (5.8)			
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 SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Engine Description			2.5 L (153.0 in³) Turbo, EDT	
Engine Code			49 States	California

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		engine modifications, catalytic converter	engine mod's, catalytic converter, exhaust gas recirculation
	Air injection	Pump or pulse	none	
		Driven by	N.A.	
		Air distribution (head, manifold, etc.)	N.A.	
		Point of entry	N.A.	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	none	exhaust back pressure controlled flow
		Exhaust source	N.A.	turbine housing outlet , above flange
		Point of exhaust injection (spacer, carburetor, manifold, other)	N.A.	intake manifold
	Catalytic Converter	Type	3-way	
		Number of	one	
		Location(s)	under floor	
		Volume [L(in.³)]	1.80 (110)	
		Substrate type	monolithic	
		Noble metal type	Platinum:Rhodium	
		Noble metal concentration (g/cm³)	0.00061:0.00011	0.00061:0.00018
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		closed induction system	
	Energy source (manifold vacuum, carburetor, other)		intake manifold vacuum	
	Discharges (to intake maifold, other)		intake manifold	
	Air inlet (breather cap, other)		air cleaner	
Evaporative emission control	Vapor vented to (crankcase, canister, other)	Fuel tank	canister	
		Carburetor	N.A.	
	Vapor storage provision		canister	
Electronic system	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, reverse flow 409 stainless steel 6.58 (14.5)
Resonator no. & type		none
Exhaust pipe	Branch o. d., wall thickness	N.A.
	Main o. d. ,wall thickness	63.5 x 1.4 (2.5 x 0.055)
	Material & mass [kg. (weight lbs.)]	409 stainless steel 1.96 (4.3)
Intermediate pipe	o. d., & wall thickness	57.2 x 1.4 (2.25 x 0.055)
	Material & mass [kg. (weight lbs.)]	409 stainless steel 6.03 (13.3) (includes catalytic converter)
Tail pipe	o. d., & wall thickness	50.8 x 1.1 (2.0 x 0.043)
	Material & mass [kg. (weight lbs.)]	stainless steel (see muffler assembly)

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised(*)

METRIC (U.S. Customary)

Engine Description	**2.5 L (153.0 in³) / EFI, EDM**	**2.5L (153.0 in³) / TURBO I, SMPI**
Engine Code	**2.2 L (135.0 in³) / EFI, EDF**	**EDT**

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.)*		46.36 (102.0) 380 Aluminum Die Cast
Lubricant	Capacity [L (pt.)]	2.1 (4.3)
	Type recommended	API SF/CC SAE 5W-30

Clutch (Manual Transmission)

Clutch manufacturer		Fichtel & Sachs	
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**	100 (23)	116 (26)
	Released***	112 (25)	125 (28)
Assist (spring, power/percent, nominal)		None	
Type pressure plate springs		Belleville	
Total spring load (nominal, new) N (lbs.)		4700 (1057)	5750 (1292)
Clutch facing	Facing mfgr. & material coding	Valeo F-202	
	Facing material & construction	Fiberglass, Woven	
	Rivets per facing	8	
	Outside x inside dia. (nominal)	228 x 150 (8.98 x 5.91)	
	Total eff. area [cm² (in²)]****	463.13 (71.8)	
	Thickness (pressure plate side/ fly wheel side)	3.4/3.4 (0.13/0.13)	
	Rivet depth (pressure plate side/ fly wheel side)	1.1/1.1 (0.043/0.043) 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.

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Engine Description	**2.5L (153.0 in.³) SMPI Turbo**	**2.5L (153.0 in.³) EFI, EDM**
Engine Code	**EDT**	**2.2 L (153.0 in³), EFI, EDF**

Ø Automatic Transmission/Transaxle

Trade name		Torqueflite	
Type and special features (describe)		Automatically-operated planetary gear transmission and parallel axis final drive	
		Non-lock up torque converter	electronic lock up torque converter
Gear selector	Location (column, floor, other)	Floor	
	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)]		129 (80)	113 (70)
Max. kickdown speed - drive range [km/h (mph)]		119 (74)	105 (65)
Min. overdrive speed [km/h (mph)]		--	
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.00	2.15
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	241 (9.5)	
	Capacity factor "K"	260	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. - liquid, in radiator	
Transmission case material & mass (kg. (lbs.))**		Die cast aluminum - 57.50 (126.5) (b)	

Ø 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

MVMA Specifications

Vehicle Line **PLYMOUTH SUNDANCE**

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

METRIC (U.S. Customary)

Engine Description	**2.2L (135.0 in³) EFI,EDF**	**2.5L (153.0 in³) EFI, EDM**
Engine Code		

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

Effective final drive ratio (or overall top gear ratio)			2.51 (manual)	3.02 (auto.)	2.51 (manual)	3.02 (auto.)
Transfer ratio and method (chain, gear, etc.)			1.06, gear	--	1.06, gear	--
Front drive unit	Ring gear o.d.		197.46 (7.77)	184.5 (7.26)	197.46 (7.77)	184.5 (7.26)
	No. of teeth	Pinion	14	21	14	21
		Ring gear	49	60	49	60

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	(a) Page 10B	(b) Page 10B
		Right	(c) Page 10B	(d) Page 10B
	Automatic transaxle	Left	(a) Page 10B	(b) Page 10B
		Right	(c) Page 10B	(d) Page 10B
	Optional transaxle	Left	--	
		Right	--	
Slip yoke	Type		--	
	Number of teeth		--	
	Spline o.d.		--	
Universal joints	Make and mfg. no.	Inner	(e) Page 10B	GKN-EUR: GI82 or SSG: #19
		Outer	(f) Page 10B	GKN-EUR: 98 LAC or SSG: #23
	Number used		Two	
	Type, size, plunge	Inner	Tripod plunge	
		Outer	Rzeppa - fixed	
	Attach (u-bolt, clamp, etc.)		--	
	Bearing: Type (plain, anti-friction)		--	
	Bearing: 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

Vehicle Line **PLYMOUTH SUNDANCE**
Model Year **1990** Issued **9-15-89** Revised (•)

METRIC (U.S. Customary)

Engine Description	**2.5L (153.0 in³)**
Engine Code	**Turbo I, EDT**

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

Effective final drive ratio (or overall top gear ratio)			2.51 (manual)	3.02 (auto.)
Transfer ratio and method (chain, gear, etc.)			--	1.06, gear
Front drive unit	Ring gear o.d.		197.46 (7.77)	184.5 (7.26)
	No. of teeth	Pinion	14	21
		Ring gear	49	60

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	Solid bar	Tube
Outer diam. x length* x wall thickness	Manual transaxle	Left	(g) page 10B	--
		Right	(g) page 10B	
	Automatic transaxle	Left	--	(g) page 10B
		Right	--	(h) page 10B
	Optional transaxle	Left	--	
		Right	--	
Slip yoke	Type		--	
	Number of teeth		--	
	Spline o.d.		--	
Universal joints	Make and mfg. no.	Inner	GKN-EUR: G182 or SSG: #19	
		Outer	GKN-EUR: 98 LAC or SSG: #23	
	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.

(a) GKN-US: 24.2 x 333.2 (0.95 x 13.12) or SSG: 23.9 x 327.5 (0.94 x 12.89) or GKN-EUR: 22.9 x 334.5 (0.90 x 13.17)
(b) GKN-EUR: 22.9 x 331.4 (0.90 x 13.05) or SSG: 23.9 x 327.5 (0.94 x 12.98) or GKN-EUR: 22.9 x 325.9 (0.94 x 12.83)
(c) GKN-US: 40.5 x 603.3 x 3.72 (1.59 x 23.75 x 0.146) or SSG: 38.0 x 591.1 x 5.0 (1.50 x 23.27 x 0.197) or GKN-EUR: 40.5 x 600.8 x 2.7 (1.59 x 23.65 x 0.10)
(d) GKN-EUR: 40.5 x 597.6 (1.59 x 23.5) or SSG: 38.0 x 591.1 x 5.0 (1.50 x 23.27 x 0.197) or GKN-EUR: 40.5 x 591.6 (1.59 x 23.3)
(e) GKN-EUR: G169 or GKN-US C-2000 or SSG: #19
(f) GKN-EUR: 92 AC or GKN-US: C-2000 or SSG: #23
(g) GKN-EUR: 25.0 x 325.9 (0.98 x 12.83) or SSG: 23.9 x 327.5 (0.94 x 12.98)
(h) GKN-EUR: 40.5 x 591.6 (1.59 x 23.3) or SSG: 38.0 x 591.1 (1.50 x 23.27)

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
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	
	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.)	
	sensors	
	Lateral acceleration	
	Deceleration	
	Acclereration	
	Road surface	
Shock absorber (front & rear)	Type	Direct - Hydraulic
	Make	Monroe
	Piston diameter	Front: 32 (1.26) Rear: 30.2 (1.19)
	Rod diameter	Front: 20 (0.79) Rear: 12.7 (0.50)

Suspension - Front

Type & description		Iso-strut
Travel*	Full jounce	72.9 (2.87)
	Full rebound	100.3 (3.95)
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.)	216 x 152 I.D. (8.5 x 6.0 I.D.)
	Spring rate [N/mm (lb./in.)]	16.7 (95)
	Rate at wheel [N/mm (lb./in.)]	20.2 (115)
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material & bar diameter	AISI 1090 Spring steel 27.0 (1.06)

Suspension - Rear

Type & description			Trailing flex-arm with track bar
Travel*	Full jounce		40 (1.57)
	Full rebound		151 (5.94)
Spring	Type (coil, leaf, other) & material		Coil: AISI 5160 H Chromium steel
	Size (length x width, coil design height & i.d., bar length & dia.)		229 x 102 (9.0 x 4.01)
	Spring rate [N/mm (lb./in.)]		31.5 (180)
	Rate at wheel [N/mm (lb./in.)]		20.2 (115) Curb position
	Insulators (type & material)		Compression: Rubber
	If leaf	No. of leaves	--
		Shackle (comp. or tens.)	--
Stabilizer	Type (link, linkless, frameless)		Frameless ERW Tube
	Material & bar diameter		80 KSI HSLA steel 28.6 (1.13) O.D.
Track bar (type)			Channel

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

MVMA Specifications

Vehicle Line **PLYMOUTH SUNDANCE**
Model Year **1990** Issued **9-15-89** Revised (•)

METRIC (U.S. Customary)

Body Type And / Or Engine Displacement

Standard - 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 or tandem
Vacuum	Source (inline, pump, etc.)		Intake manifold or throttle body
	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)			F: 155.6 (24.12) / R: 242.7 (37.6)
Gross lining area [cm^2(in.^{2})]**(F/R)			F: 180.8 (28.02) / R: 258.1 (40.0)
Swept area [cm^2(in.^{2})]***(F/R)			F: 1385 (214.7) / R: 4119 (63.8)
Rotor	Outer working diameter	F/R	F: 256.0 (10.08)
	Inner working diameter	F/R	F: 160.0 (6.30)
	Thickness	F/R	F: 24.0 (0.945)
	Material Type (vented/solid)	F/R	F: damped cast iron, vented
Drum	Diameter & Width	F/R	R: 200 (7.87) x 37.62 (1.48)
	Type & Material	F/R	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			3.28 : 1
Line pressure at 445 N(100lb.) pedal load [kPa (psi)]			Single: 9584 (1390) Tandem: 12750 (1850)
Lining clearance		F/R	No major adjustment
Brake lining — Front Wheel	Bonded or riveted (rivets/seg.)		Riveted, 6 / 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		136.6 x 47 x 12.1 (5.38 x 1.85 x 0.48)
	Size Secondary or inboard		126.0 x 47 x 13.1 (4.96 x 1.85 x 0.52)
	Shoe thickness (no lining)		Outer: 4.83 (0.190); Inner: 5.68 (0.224)
Brake lining — 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

Vehicle Line **PLYMOUTH SUNDANCE**

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

METRIC (U.S. Customary)

Body Type And / Or Engine Displacement

Optional - 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)		Disc
Valving type (proportion, delay, metering, other)			Dual proportioning valve
Power brake (std., opt., n.a.)			Standard
Booster type (remote, integral, vac., hyd., etc.)			Vacuum, tandem
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)			F: 216.8 (23.60) / R: 115.8 (17.95)
Gross lining area [cm^2(in.^{2})]**(F/R)			F: 261.6 (40.55) / R: 115.8 (17.95)
Swept area [cm^2(in.^{2})]***(F/R)			F: 1597.3 (247.6) / R: 1147.2 (177.82)
Rotor	Outer working diameter	F/R	F: 256.0 (10.08) / R:267.3 (10.52)
	Inner working diameter	F/R	F: 160.0 (6.30) / R:193.5 (7.62)
	Thickness	F/R	F: 24.0 (0.945) / R:22.0 (.866)
	Material Type (vented/solid)	F/R	Damped cast iron, F: vented / R: solid
Drum	Diameter & Width	F/R	N.A.
	Type & Material	F/R	N.A.
Wheel cylinder bore			R: 54.0 (2.13) / R:34.0 (1.34)
Master cylinder	Bore/stroke	F/R	22.22 (0.875) / 32.79 (1.291)
Pedal arc ratio			3.28 : 1
Line pressure at 445 N (100lb.) pedal load [kPa (psi)]			9650 (1400)
Lining clearance		F/R	No major adjustment
Brake lining – Front Wheel	Bonded or riveted (rivets/seg.)		Bonded
	Rivet size		–
	Manufacturer		Friction Products Division
	Lining code *****		FDP-1471-2-EE
	Material		Semi-metallic, non-asbestos
	**** Primary or outboard		5770 mm^2 x 11.34 (8.94 in^2 x 0.446)
	Size Secondary or inboard		4860 mm^2 x 12.34 (7.53 in^2 x 0.486)
	Shoe thickness (no lining)		5.3 (0.209)
Brake lining – Rear Wheel	Bonded or riveted (rivets/seg.)		Bonded
	Manufacturer		Friction Products Division
	Lining code *****		FDP-1471-2-EE
	Material		Semi-metallic, non-asbestos
	**** Primary or outboard		2892 mm^2 x 11.0 (4.48 in^2 x 0.43)
	Size Secondary or inboard		2892 mm^2 x 11.0 (4.48 in^2 x 0.43)
	Shoe thickness (no lining)		4.83 (0.190)

* 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

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	All

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P185/70 R 14, SL
	Type (bias, radial, steel, nylon, etc.)		All season Steel radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	220 (32)
		Rear [kPa (psi)]	220 (32)
	Rev./mile - at 70 km/h (45 mph)		862
Wheels	Type & material		Steel disc
	Rim (size & flange type)		14 x 5.5JJ
	Wheel offset		40 (1.6)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	100 (3.94)
		Number & size	5 - M12 x 1.5
Spare	Tire and wheel		T115/70 D14 compact spare 14 x 4.0 T steel disc wheel
	Storage position & location (describe)		Horizontal - Rear floor pan under cargo floor

Tires And Wheels (Optional)

Tire size (load range, ply)	P185/70 R 14, SL
Type (bias, radial, steel, nylon, etc.)	All season performance steel radial
Wheel (type & material)	Cast aluminum
Rim (size, flange, type and offset)	14 x 6.0, JJ, 40 (1.6)
Tire size (load range, ply)	P185/70 R 14, SL
Type (bias, radial, steel, nylon, etc.)	All- season performance steel radial
Wheel (type & material)	standard
Rim (size, flange type and offset)	--
Tire size (load range, ply)	Standard
Type (bias, radial, steel, nylon, etc.)	--
Wheel (type & material)	Cast aluminum
Rim (size, flange type and offset)	14 x 6.0, JJ, 40 (1.6)
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)	Same as road tire and wheel Storage same as standard

Brakes - Parking

Type of control		Foot operated pedal/hand release lever
Location of control		Lower left end of instrument panel
Operates on		Rear service brake - Std.; "Hat" section of rear disc brake - opt.
If separate from service brakes	Type (internal or external)	Internal - optional
	Drum diameter	170.7 (6.7)
	Lining size (length x width x thickness)	426 x 20 x 5.0 (16.8 x 0.8 x 0.2)

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised(•)

METRIC (U.S. Customary)

Body Type And/ Or Engine Displacement	14" Wheels	15" Wheels

Steering

Manual (std., opt., n.a.)				N.A.	
Power Steering (std., opt., n.a.)				Std.	
Adjustable steering wheel column (tilt, telescope, other)		Type		Tilt	
		Manufacturer		Acustar	
		(Std., opt., n.a.)		Opt.	
Wheel diameter** (W9) SAE J1100		Manual		N.A.	
		Power		381 (15)	
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		--	
		Curb to curb (l. & r.)		10.4 (34.0)	10.9 (35.7)
	Inside rear	Wall to wall (l. & r.)		--	
		Curb to curb (l. & r.)		--	
Scrub Radius*				-7 (-0.28)	
Manual	Gear	Type			
		Manufacturer			
		Ratios	Gear		
			Overall		
	No. wheel turns (stop to stop)				
Power	Type (coaxial, elec., hyd., etc.)			Integral power gear	
	Manufacturer			T.R.W.	
	Gear	Type		Rack & pinion with integral power unit	
		Ratios	Gear	52.3 mm / Rev.	
			Overall	14.2:1	
	Pump (drive)			Pulley and belt, off crankshaft	
	no. wheel turns (stop to stop)			2.42	2.37
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		Ball bearing	
		Lower		Ball joint	
		Thrust		Ball bearing	
Steering spindle & joint type				ISO strut with lower ball joint	
Wheel spindle/hub	Diameter	Inner bearing		76 / 42 (3.0 / 1.05) dia. : 37 / 40 (1.46 / 1.57) 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 SUNDANCE
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° to + 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. in-spection	Caster	Same as Service Checking
		Camber	--
		Toe-in	--
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-1.3° to + 0.3°
		Toe-in [outside track - mm(in)]	0.6° Toe-out to 0.6° Toe-in (a)
	Service reset*	Camber	-0.5° ± 0.8° (shim)
		Toe-in	0° ± 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	Light
	Warning device (light, audible)	--
Fuel indicator	Type	Magnetic gage
	Warning device (light, audible)	Light - Opt. with message center - Std. with turbo
Wind-shield wiper	Type (standard)	Electric 2 speed, non-depressed park
	Type (optional)	Electric 2 speed, intermittent wipe
	Blade length	457 (18)
	Swept area [cm² (in²)]	5658 (877)
Wind-shield washer	Type (standard)	Electric (arm mounted)
	Type (optional)	Opt.
	Fluid level indicator (light, audible)	--
Rear window wiper, wiper/washer (std., opt., n.a.)		N.A.
Horn	Type	Seashell
	Number used	1
Other		

(a) Measurements in degrees, not inches

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised(e)

METRIC (U.S. Customary)

Engine Description	2.2L(135.0 in³) TBI-EFI	2.5L (153.0in³) TBI-EFI
Engine Code	EDF	EDM

Electrical - Supply System

Battery	Manufacturer	GNB, Delco, Exide, Johnson Controls	
	Model, std., (opt.)	GRP 34	
	Voltage	12V	
	Amps at 0°F cold crank	500	
	Minutes-reserve capacity	110	
	Amp/hrs. - 20 hr. rate	66	
	Location	Left front fender side shield	
Alternator	Manufacturer	Nippondenso	Bosch
	Rating (idle/max. rpm)	90 HS	90 RS
	Ratio (alt. crank/rev.)	2.60 : 1	2.53 : 1
	Output at idle (rpm, park)	40 A	40 A
	Optional (type & rating)	none	
Regulator	Type	Engine control computer	

Electrical - Starting System

Motor	Manufacturer	Bosch
	Current drain at 0°F	175 - 225 A
	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		
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)		
	Number per cylinder		One		
Distributor	Manufacturer		Chrysler		
	Model		5226575		

Electrical Suppression

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

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-13-89 Revised(s)

METRIC (U.S. Customary)

Engine Description	**2.5 L (153.0in³) SMPI Turbo**	**2.2 L (135.0 in3) SMPI VNT Turbo**
Engine Code	**EDT**	**EDR**

Electrical - Supply System

Battery	Manufacturer	Delco, Exide, GNB, Johnson Controls		
	Model, std., (opt.)	GRP 34		
	Voltage	12V		
	Amps at 0°F cold crank	500		
	Minutes-reserve capacity	110		
	Amp/hrs. - 20 hr. rate	66		
	Location	Left front corner of engine compartment		
Alternator	Manufacturer	Nippondenso	Bosch	Nippondenso
	Rating (idle/max. rpm)	90 HS	90RS	120 HS
	Ratio (alt. crank/rev.)	2.60:1	2.53:1	2.60:1
	Output at idle (rpm, park)	40 A	40 A	50 A
	Optional (type & rating)	none		
Regulator	Type	Engine control computer		

Electrical - Starting System

Motor	Manufacturer	Bosch	Bosch
	Current drain at 0 °F	175 - 225 A	125 - 175 A
	Power rating [kW (hp)]	1.1 (1.475)	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		
Coil	Manufacturer	UTC	Prestolite	Diamond
	Model	5226865	5227372	5227252
	Current - Engine stopped - A	0.0 A		
	Current - 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)		
	Number per cylinder	One		
Distributor	Manufacturer	Chrysler		
	Model	5226525		

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 SUNDANCE**
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: TPO fascia Ultra high strength steel reinforcement w/elastomeric energy absorbers Rear: TPO fascia Ultra high strength steel reinforcement w/elastomeric energy absorbers
Anti-corrosion treatment	Full immersion zinc phosphate conversion coating Full immersion, high build, epoxy cathodic-electrocoat primer Extensive use of galvanized steel Urethane chip resistant primer on lower exterior surfaces

Body - Miscellaneous Information		
Type of finish (lacquer, enamel, other)		Enamel - Universal base coat / Clear coat
Hood	Material & mass	20.5 (45.3)
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Counterbalance, clockspring
	Release control (internal, external)	Internal
Trunk lid	Material & mass	--
	Type (counterbalance, other)	--
	Internal release control (elec., mech., n.a.)	--
Hatch-back lid	Material & mass	15.7 (34.7)
	Type (counterbalance, other)	Gas pressurized struts
	Internal release control (elec., mech., n.a.)	Mechanical
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	Manual & Electric arm & sector (P-24)
	Rear	Manual arm & sector / Electric - Flex Drive
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - Flex-O-Lator Mat
	Rear	Bench - Full volume Foam
	3rd seat	--
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - Flex-O-Lator Mat
	Rear	Bench - Full volume Foam - Std. 60/40 Full Foam - Opt.
	3rd seat	--

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised (•)

METRIC (U.S. Customary)

Body Type — All

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, Standard/Optional	First seat	Lap & shoulder belt Std.	N.A.	Lap & shoulder belt Std.
		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) Standard/Optional	First seat	Air bag & Knee bolster Std.	N.A.	N.A.
		Second seat	N.A.	N.A.	N.A.
		Third seat	N.A.	N.A.	N.A.

Glass	SAE Ref. No.	24 - 2 Door	44 - 4 Door
Windshield glass exposed surface area [$cm^2(in^2)$]	S1	9064 (1405)	
Side glass exposed surface area [$cm^2(in^2)$] - total 2 sides	S2	9352 (1450)	9952 (1543)
Backlight glass exposed surface area [$cm^2(in^2)$]	S3	6794 (1053)	
Total glass exposed surface area [$cm^2(in^2)$]	S4	25210 (2908)	25810 (3011)
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	Replaceable bulb
	Shape	Aero
	Lo-beam type (2A1, 2B1, 2C1, etc.)	9004
	Quantity	2
	Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	9004
	Quantity	2

Frame

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

MVMA Specifications

Vehicle Line **PLYMOUTH SUNDANCE**
Model Year **1990** Issued **9-15-89** Revised (•)

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) - Std.
Compass/thermometer		N.A.
Console (floor, overhead)		Floor - Mini - Std.; Full - Opt.
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	N.A.
		N.A.
Fuel door lock (remote, key, electric)		N.A.
Lamps	Auto head on / off delay, dimming	N.A.
	Cornering	N.A.
	Courtesy (map, reading)	N.A.
	Door lock, ignition	Door lock - N.A.; Ignition - Std.
	Engine compartment	Opt.
	Fog	Opt.
	Glove compartment	Opt.
	Trunk	Opt.
	Illuminated entry system (list lamps, activation)	N.A.
	Other	Ash receiver - Opt.
Mirrors	Day / night (auto. man.)	Manual - Std.
	L.H. (remote, power, heated)	Remote manual - Std. / Power - Opt.
	R.H. (convex, remote, power, heated)	Remote manual - Std. / Power - Opt.
	Visor vanity (RH/LH, illuminated)	RH/LH Non-illuminated - Std. / RH/LH illuminated - Opt.
Navigation system (describe)		N.A.
Parking brake-auto release (warning light)		N.A.

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
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)		Power manual - Opt.
	Seats	2 - 4 - 6 way, etc.	6- way - Opt.
		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		Opt.
	Vent windows		
	Rear windows		Opt. on 4-door only
Radio systems	Antenna (location, whip, w/shield, power)		Whip - Right front fender - Std.
	Std.		AM/FM/MX/ETR
	Opt.	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep pkg., headphone jacks, etc.	AM stereo/FM/MX/ETR w/Cassette Infinity I - Premium AM stereo/FM/MX w/Cassette
	Speaker (number, location)		2, front doors - Std. 2, front doors / 2, rear shelf - Opt. 2 ea. coaxial, equalized, front doors and rear shelf - Opt. w/ Infinity I
Roof open air fixed (flip-up, sliding, "T")			Flip-up - removable - Opt.
Speed control device			Opt.
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, Anti-theft labels- Std.

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
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 comparitive 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.	24	44
ØWidth			
Tread (front)	W101	1462 (57.6)	
Tread (rear)	W102	1453 (57.2)	
Vehicle width	W103	1710 (67.3)	
Body width at SgRP (front)	W117	1708 (67.2)	
Vehicle width (front doors open)	W120	4074 (160.4)	3431 (135.1)
Vehicle width (rear doors open)	W121		3297 (129.8)
Tumble-home (deg.)	W122	24°	
Outside mirror width	W410		
ØLength			
Wheelbase	L101	2463 (97)	
Vehicle length	L103	4361 (171.7)	
Overhang (front)	L104	974 (38.3)	
Overhang (rear)	L105	924 (36.4)	
Upper structure length	L123	2413 (95)	
Rear wheel C/L "X" coordinate	L127	2552 (100.5)	
ØHeight*			
Passenger distribution (front/rear)	PD 1,2,3	2 - Front 3 - Rear	
Trunk/cargo load		--	
Vehicle height	H101	1336 (52.6)	
Cowl point to ground	H114	927 (36.4)	
Deck point to ground	H138	922 (36.3)	
Rocker panel front to ground	H112	203 (8.0)	
Rocker panel rear to ground	H111	173 (6.8)	
Windshield slope angle	H122	56°	
Backlight slope angle	H121	54°	
Ground Clearance			
Front bumper to ground	H102	246 (9.7)	
Rear bumper to ground	H104	261 (10.3)	
Bumper to ground [front at curb mass (wt.)]	H103	263 (10.4)	
Bumper to ground [rear at curb mass (wt.)]	H105	344 (13.5)	
Angle of approach (degrees)	H106	16°	
Angle of departure (degrees)	H107	16°	
Ramp breakover angle (degrees)	H147	12°	
Axle differential to ground (front/rear)	H153	Front 141 (5.6)	
Min. running ground clearance	H156	117 (4.6)	
Location of min. run. ground clearance		Frt. Susp. C'mbr. Brkt. (left hand side)	

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

METRIC (U.S. Customary)
Vehicle Dimensions See Key Sheets for definitions

Body Type	SAE Ref. No.	24	44
Ø Front Compartment			
SgRP front, "X" coordinate	L31	1398 (55.0)	⇐
Effective head room	H61	973 (38.3)	⇐
Max. eff. leg room (accelerator)	L34	1055 (41.5)	⇐
SgRP to heel point	H30	271 (10.7)	⇐
SgRP to heel point	L53	841 (33.1)	⇐
Back angle	L40	24°	⇐
Hip angle	L42	96°	⇐
Knee angle	L44	123°	⇐
Foot angle	L46	87°	⇐
Design H-point front travel	L17	197 (7.8)	⇐
Normal driving & riding seat track trvl.	L23	178 (7.0)	⇐
Shoulder room	W3	1382 (54.4)	1390 (54.7)
Hip room	W5	1404 (55.3)	1408 (55.4)
Upper body opening to ground	H50	1229 (48.4)	⇐
Steering wheel maximum diameter*	W9	381 (15.0)	⇐
Steering wheel angle	H18	25.8°	⇐
Accelerator heel pt. to steer. whl. cntr.	L11	497 (19.6)	⇐
Accelerator heel pt. to steer. whl. cntr.	H17	637 (25.1)	⇐
Undepressed floor covering thickness	H67	22 (0.9)	⇐
Ø Rear Compartment			
SgRP couple distance	L50	740 (29.1)	⇐
Effective head room	H63	949 (37.4)	⇐
Min. effective leg room	L51	864 (34.0)	⇐
SgRP (second to heel)	H31	281 (11.1)	⇐
Knee clearance	L48	-25 (-1.0)	⇐
Shoulder room	W4	1334 (52.5)	1384 (54.5)
Hip room	W6	1206 (47.5)	1136 (44.7)
Upper body opening to ground	H51	NA	1226 (48.3)
Back angle	L41	25°	⇐
Hip angle	L43	83°	⇐
Knee angle	L45	84°	⇐
Foot angle	L47	119°	⇐
Depressed floor covering thickness	H73	13 (0.5)	⇐

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	NA
Liftover height	H195	751 (29.6)

Interior Volumes (EPA Classification)

Vehicle Class		Compact	⇐
Interior volume index (cu. ft.)**		101.9	101.8
Trunk / cargo index (cu. ft.)		13.2	13.1

* See p. 14
** Includes passenger and trunk / cargo index - see definition page 32.

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised(•)

METRIC (U.S. Customary)
Vehicle Dimensions See Key Sheets for Definitions

Body Type	SAE Ref. No.	24	44

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 2nd-seat	V10		

Hatchback - Cargo Space

Cargo length at front seatback height	L208	928 (36.5)	
Cargo length at floor (front)	L209	1602 (63.1)	
Cargo length at second seatback height	L210	270 (10.6)	
Cargo length at floor (second)	L211	880 (34.6)	
Front seatback to load floor height	H197	560 (22.0)	
Second seatback to load floor height	H198	489 (19.3)	
Cargo volume index($m^3(ft.^3)$)	V3	0.943 (33.29)	0.935 (33.03)
Hidden cargo volume [$m^3(ft.^3)$]	V4		
Cargo volume index-rear of 2nd-seat	V10	0.375 (13.25)	0.372 (13.15)

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 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 836 mm (32.9 in.) from centerline of front wheels.
Rear		The center of gauge holes located in rear longitudinal approximately 3057 mm (120.4 in) from the centerline of front wheels.
Fiducial Mark Number		
Front	W21	433.5 (17.1)
	L54	925 (36.4)
	H81	-9 (-0.35) Bottom surface of Longitudinal
	H161	
	H163	
Rear	W22	527.6 (20.8)
	L55	3146 (123.9)
	H82	235 (9.3) Bottom Surface of Longitudinal
	H162	
	H164	

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

MVMA Specifications

Vehicle Line PLYMOUTH SUNDANCE
Model Year 1990 Issued 9-15-89 Revised(•)

METRIC (U.S. Customary)

Estimated

Vehicle Mass (Weight)

Code	Model	CURB MASS, kg (weight, lb.)*			% PASS. MASS DISTRIBUTION				ETWC** Code
		Front	Rear	Total	Pass. in Front		Pass. in Rear		
					Front	Rear	Front	Rear	
APPH24	Sundance	730	456	1186					
2.2L (135.0 in³)	EDF Engine	(1609)	(1006)	(2615)	49.0	51.0	19.0	81.0	3000
APPH44	Sundance	730	474	1204					3000 - manual
2.2L (135.0 in³)	EDF Engine	(1610)	(1045)	(2655)	49.0	51.0	19.0	81.0	3125 - auto.
APPH24	Sundance								3000 - manual
2.5L (153.0 in³)	EDM Engine	--	--	--	--	--	--	--	3125 - auto.
APPH44	Sundance								
2.5L (153.0 in³)	EDM Engine	--	--	--	--	--	--	--	3125
	All								
2.5L (153.0 in³)	EDT Engine	--	--	--	--	--	--	--	3125

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

**ETWC - Equivalent Test Weight Class - basis for U.S. Environmental Protection Agency emission certification. Refer to ETWC code legeng 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 Weight less:

30 kg. (66 lbs.)

MVMA Specifications

Vehicle Line DODGE SHADOW
Model Year 1990 Issued 9-15-89 Revised(•)

METRIC (U.S. Customary)

Estimated

Optional Equipment Differential Mass (weight)*

Equipment	MASS, kg (weight, lb.)			Remarks
	Front	Rear	Total	
2.5 L (153.0 in.^{3}) Turbo-charged Engine, EDT	19	0	19	
	(42)	0	(42)	
2.5 L (153.0 in^3)Engine, EDM	11	0	11	
	(24)	0	(24)	
2.2 L (135.0 in.^{3}) Turbo-charged Engine, EDR	26	0	26	
	(57)	0	(57)	
Automatic Transmission	16.8	-5.0	11.8	EDF Engine
	(37)	(-11)	(26)	
Automatic Transmission	9.1	-1.4	7.7	EDT Engine
	(20)	(-3)	(17)	
Automatic Transmission	13.1	-0.9	12.2	EDM Engine
	(29)	(-2)	(27)	
Air Conditioning	26.3	-1.8	24.5	
	(58)	(-4)	(54)	
Sunroof	3.2	4.5	7.7	
	(7)	(10)	(17)	
Power Windows	4	3	7	2-Door models with power door locks
	(8)	(7)	(15)	
Power Windows	4	2	6	2-Door models without power door locks
	(8)	(6)	(14)	
Power Windows	5.4	4.5	9.9	4-Door models with power door locks
	(12)	(10)	(22)	
Power Windows	4.1	4.1	8.2	4-Door models without power door locks
	(9)	(9)	(18)	
Conventional Spare Tire	-.9	6.3	5.4	With P185/70R14 Tires Only
	(-2)	(14)	(12)	

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