

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1993

Manufacturer Mazda Motor Corporation	Vehicle Line Mazda 323 / Protegé	
Mailing Address 3-1, Shinchí, Fuchu-cho, Aki-gun, Hiroshima	Issued Dec./1992	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.



Motor Vehicle Manufacturers Association
of the United States, Inc.

Forms Provided by Technical Affairs Division

MVMA Specifications

METRIC (U.S. Customary)

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NOTE:

1. This form uses both SI metric units and U.S. Customary units. The metric unit of measure is presented first, and the U.S. Customary unit follows in parentheses.
2. UNLESS OTHERWISE INDICATED:
 - a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
 - b. Nominal design dimensions are used throughout these specifications.
 - c. All linear dimensions are in millimeters (inches), and all mass (weight) 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 Mazda 323 / Protegé

Model Year 1993 Issued Dec. / 1992 Revised (*)

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Vehicle Origin

Design & development (company)	Mazda Motor Corporation
Where built (country)	Japan
Authorized U.S. sales marketing representative	Mazda Motor of America, Inc.

Vehicle Models

Model Description & Drive (FWD / RWD / AWD / 4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfg's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)	EPA Fuel Economy (City/Hwy)
Mazda 323 (FWD)		3 door Hatchback	2/3	—	B6E 29/37 (5MT) 26/33 (4AT)
Mazda Protegé (FWD)		4 door Sedan	2/3	—	BPE 28/36 (5MT) 24/31 (4AT)
					BPD 25/30 (5MT) 24/29 (4AT)

* FWD - Front Wheel Drive

RWD - Rear Wheel Drive

AWD - All Wheel Drive

4WD - Four Wheel Drive

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Power Teams

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

			A		B		C		D	
E N G I N E	Engine Code		B6E		BPE		BPD			
	Displacement Liters (in ³)		1.597		1.839		1.839			
	Induction system (FI, Carb, etc.)		EFI		EFI		EFI			
	Compression ratio		9.3		8.9		9.0			
	SAE Net at RPM	Power kW (bhp)	82 HP / 5000 rpm		103 HP / 5500 rpm		125 HP / 6500 rpm			
		Torque N·m (lb. ft.)	92 lb-ft / 2500 rpm		111 lb-ft / 4000 rpm		114 lb-ft / 4500 rpm			
Exhaust single, dual		Single		Single		Single				
T R A N S	Transmission/ Transaxle		5MT	4AT	5MT	4AT	5MT	4AT		
	Effective Final Drive/ Axle Ratio (std. first)		3.850	3.736	3.619	3.476	4.105	3.736		

[illegible]

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Engine Description
Engine Code

B6E	BPE	BPD
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ENGINE — GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	SOHC - 8 valve In-line 4 cylinder	SOHC - 16 valve In-line 4 cylinder	DOHC - 16 valve In-line 4 cylinder
Manufacturer	Mazda	←	←
No. of cylinders	4	←	←
Bore	78	83	←
Stroke	83.6	85	←
Bore spacing (C / L to C / L)	86	91	←
Cylinder block material & mass kg (lbs.)(machined)	Cast iron	←	←
Cylinder block deck height	206.5	←	←
Cylinder block length	373.5	393.5	←
Deck clearance (minimum) (above or below block)	—	—	—
Cylinder head material & mass kg (lbs.)	Cast aluminum alloy	←	←
Cylinder head volume cm ³ (inches ³)	36.9	46.58	50.8
Cylinder liner material	—	—	—
Head gasket thickness (compressed)	1.25 mm	0.75 mm	←
Minimum combustion chamber total volume cm ³ (inches ³)	47.45	56.9	57.0
Cyl. no. system (front to rear)*	L. Bank	—	—
	R. Bank	—	—
Firing order	1-3-4-2	←	←
Intake manifold material & mass kg (lbs.)**	Cast aluminum alloy	←	←
Exhaust manifold material & mass kg (lbs.)**	Cast iron	←	←
Knock sensor (number & location)	—	—	—
Fuel required unleaded, diesel, etc.	—	—	—
Fuel anti-fock index (R + M) + 2	—	—	—
Engine mounts	Quantity	—	—
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	—	—
	Added isolation (sub-frame, crossmember, etc.)	—	—
Total dressed engine mass (wt) dry***	—	—	—

Engine — Pistons

Material & mass, g (weight, oz.) - piston only	Cast aluminum alloy 268 g	← 287 g	← 291 g
---	------------------------------	------------	------------

Engine — Camshaft

Location	Over head	←	←
Material & mass kg (weight, lbs.)	Cast iron	←	←
Drive type	Chain / belt	Belt	←
	Width / pitch	22.0 / 8.007	←

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:

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Engine — Valve System

Hydraulic lifters (std., opt., n.a.)	Std.	←	←
Valves	Number intake / exhaust	1/1	2/2
	Head O.D. intake / exhaust	ø38/ø32	ø30/ø25
			ø33/ø28

Engine — Connecting Rods

Material & mass kg., (weight, lbs.)*	Carbon steel	←	←
Length (axes C/L to C/L)	132.9	←	←

Engine — Crankshaft

Material & mass kg., (weight, lbs.)*	Nodular graphite cast iron	←	Carbon steel
End thrust taken by bearing (no.)	2	←	←
Length & number of main bearings	—	—	—
Seal (material, one, two piece design, etc.)	Front	—	—
	Rear	—	—

Engine — Lubrication System

Normal oil pressure kPa (psi) at engine rpm	294 - 392 kPa (3000 rpm)	←	←
Type oil intake (floating, stationary)	Stationary	←	←
Oil filter system (full flow, part, other)	full flow	←	←
Capacity of oil case, less filter-refill-L (qt.)	3.0 L	3.6 L	←

Engine — Diesel Information

Not applicable

Diesel Engine manufacturer	—
Glow plug, current drain at 0°F	—
Injector nozzle	Type
	Opening pressure kPa (psi)
Pre-chamber design	—
Fuel in-jection pump	Manufacturer
	Type
Fuel injection pump drive (belt, chain, gear)	—
Supplementary vacuum source (type)	—
Fuel heater (yes/no)	—
Water separator, description (std., opt.)	—
Turbo manufacturer	—
Oil cooler-type (oil to Engine coolant; oil to ambient air)	—
Oil filter	—

Engine — Intake System

Not applicable

Turbo charger - manufacturer	—
Super charger - manufacturer	—
Intercooler	—

* Finished State

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ENGINE — Cooling System

Coolant recovery system (std., opt., n.a.)		Std.	←	↑
Coolant fill location (rad., bottle)		Rad.	←	↑
Radiator cap relief valve pressure kPa (psi)		74 - 103 kPa	←	↑
Circulation thermostat	Type (choke, bypass)	BYPASS	←	↑
	Starts to open at °C (°F)	Sub: 85°C, Main: 88°C	←	↑
Water pump	Type (centrifugal, other)	Centrifugal	←	↑
	GPM 1000 pump rpm	—	←	↑
	Number of pumps	1	←	↑
	Drive (V-belt, other)	V - belt	←	↑
	Bearing type	Ball bearing	←	↑
	Impeller material	Steel	←	↑
	Housing material	Aluminum	←	↑
By-pass recirculation type (inter., ext.)		Ext.	←	↑
Coolong system capacity	With heater — L(qt.)	MT: 5.0, AT: 6.0	←	↑
	With air conditioner — 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	Std.	←	↑
	Type (cross-flow, etc.)	Down - flow	←	↑
	Construction (fin & tube mechanical, braze, etc.)	Corrugated fin	←	↑
	Material, mass kg (wgt., lbs.)	Aluminum	←	↑
	Width	MT: 568, AT: 647	MT, AT: 647	↑
	Height	MT: 400, AT: 390	MT, AT: 390	↑
	Thickness	MT: 16, AT: 25	←	↑
	Fins per inch	MT: 20.3, AT: 19.5	MT, AT: 19.5	↑
Radiator end tank material		NYLON	←	↑
Fan	Std., elec., opt.	Elec.	←	↑
	Number of blades & type (flex, solid, material)	4	←	↑
	Number & location (front, rear of radiator)			
	Diameter & projected width	320 mm	←	↑
	Ratio (fan to crankshaft rev.)	—	←	↑
	Fan cutout type	—	←	↑
	Drive type (direct, remote)	Motor drive	←	↑
	RPM at idle (elec.)	2050	MT: 2050, AT (Low): 1660 (High): 2200	↑
	Motor rating (wattage/elec.)	80 W	MT: 80W, AT: 160 W	←
	Motor switch (type & location/elec.)	Thermo switch	←	↑
	Switch point (temp./pressure/elec.)	Water temp.	←	↑
	Fan shroud (material)	P - PR	←	↑

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Engine Description
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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	NIPPON DENSO	←	←
Carburetor no. of barrels	NA	←	←
Idle A/F mix.	14.7	←	←
Fuel injection	Point of injection (no.)	4	←
	Constant, pulse, flow	Cal.: Pulse (sequential) Fed.: Pulse (2-group)	Pulse (2-group) ←
	Control (electronic, mech.)	Elec.	←
	System pressure kPa (psi)	284	←
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	750, Neutral	←
	Automatic	750, P-range	←
Intake manifold heat control (exhaust or water thermostatic or fixed)	NA	←	←
Air cleaner type	Wet	←	←
Fuel filter (type/location)	Paper-element	←	←
Fuel pump	Type (elec. or mech.)	Elec.	←
	Location (eng., tank)	Tank	←
	Pressure range kPa (psi)	637 kPa (max) (92.3 psi)	←
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	80 L / Hr (min) @ 294 kPa 21.1 gal / hr (min) @ 42.6 psi	←

Fuel Tank

Capacity refill L (gallons)	50 L (13.2 gallons)	55 L (14.5 gallons)	←
Location (describe)	Under floor of rear seat	←	←
Attachment	Strap	←	←
Material & Mass kg (weight lbs.)	Steel	←	←
Filler pipe	Location & material	Left rear fender	←
	Connection to tank	Rubber hose	←
Fuel line (material)	Steel pipe & Rubber hose	←	←
Fuel hose (material)	Rubber	←	←
Return line (material)	Steel pipe & Rubber hose	←	←
Vapor line (material)	Steel pipe & Rubber hose	←	←
Extended range tank	Opt., n.a.	NA	←
	Capacity L (gallons)	—	—
	Location & material	—	—
	Attachment	—	—
Auxiliary tank	Opt., n.a.	NA	←
	Capacity L (gallons)	—	—
	Location & material	—	—
	Attachment	—	—
	Selector switch or valve separate fill	—	—

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Vehicle Emission Control

Exhaust Emission Control	Type (air injection, Engine modifications, other)		Three way catalyst + Feed back control	←	←
	Air Injection	Pump or pulse	NA	←	←
		Driven by	NA	←	←
		Air distribution (head, manifold, etc.)	NA	←	←
		Point of entry	NA	←	←
	Exhaust Gas	Type (controlled flow, open orifice, other)	NA	←	←
		Exhaust source	NA	←	←
	Recirculation	Point of exhaust injection (spacer, carburetor, manifold, other)	NA	←	←
	Catalytic Converter	Type	TWC	←	←
		Number of	1	←	←
		Location(s)	Under floor	←	←
		Volume L (in ³)	1.6	1.8	←
		Substrate type	Monolith	←	←
		Noble metal type	Rt / Rh = 5 / 1	←	←
		Noble metal concentration (g/cm ³)	0.0016	←	←
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction	←	←
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum	←	←
	Discharges to (intake manifold, other)		Intake manifold	←	←
	Air inlet (breather cap, other)		NA	←	←
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister	←	←
		Carburetor	NA	←	←
	Vapor storage provision		Canister	←	←
Electronic system	Closed loop (yes/no)		Yes	←	←
	Open loop (yes/no)		No	←	←

Engine — Exhaust System

Type (single, single with cross-over, dual, other)		Single	←	←
Muffler no. & type (release flow, straight thru, separate resonator) Material & Mass kg (weight lbs)		1 / Reverse flow	←	←
Resonator no. & type		1 / Expansion	←	1 / Absorption
Exhaust pipe	Branch o.d., wall thickness		—	—
	Main o.d., wall thickness		50.8 X 2.0 mm	←
	Material & Mass kg (weight lbs)		Stainless	←
Inter- mediate pipe	o.d., & wall thickness		42.7X1.6-45X2.0-45X1.6mm	48.6 X 1.6 mm
	Material & Mass kg (weight lbs)		All coated steel	←
Tail pipe	o.d., & wall thickness		38.1 X 1.2 mm	42.7 X 1.2 mm
	Material & Mass kg (weight lbs)		All coated stainless	←

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

Manual 4-speed (manufacturer/country)	NA	←	←
Manual 5-speed (manufacturer/country)	Std.	←	←
Manual 6-speed (manufacturer/country)	NA	←	←
Automatic (manufacturer/country)	NA	←	←
Automatic overdrive (manufacturer/country)	Std.	←	←

Manual Transmission/Transaxle

Number of forward speeds		5	←	←
Gear ratios	1st	3.416	←	3.307
	2nd	1.842	←	1.833
	3rd	1.290	←	1.310
	4th	0.918	←	1.030
	5th	0.731	←	0.795
	6th	—	—	—
	Reverse	3.214	←	3.166
Synchronous meshing (specify gears)		All Forward Gears	←	←
Shift lever location		Floor	←	←
Trans. case matl. & mass kg (lbs)*		Aluminum 11 kg	←	Aluminum
Lubricant	Capacity L (pt.)	2.68	←	3.15
	Type recommended	75W - 90	←	ATF (DEXRON II or M-III)

Clutch (Manual Transmission)

Clutch manufacturer		DAIKIN MFG. CO., LTD	←	—
Clutch type (dry, wet; single, multiple disc)		Dry single plate	←	←
Linkage (hydraulic, cable, rod, lever, other)		Hydraulic	←	←
Max. pedal effort (nom. spring load) N (lbs)	Depressed	—	—	—
	Released	—	—	—
Assist (spring, power/percent, nominal)		—	—	—
Type pressure plate springs		Diaphragm	←	←
Total spring load (nominal) N (lbs)		440 kg	←	392 kg
Clutch facing	Facing mfr. & material coding	VALEO / F202	←	←
	Facing material & construction	Semimold	←	←
	Rivets per facing	16	←	←
	Outside x inside dia. (nominal)	200 X 130	←	225 X 150
	Total eff. area cm ² (in. ²)	181	←	220
	Thickness (pressure plate side/fly wheel side)	3.8 / 3.5	←	←
	Rivet depth (pressure plate side/fly wheel side)	1.7 / 1.4	←	←
	Engagement cushion method	Cushion spring	←	←
Release bearing type & method lub.		Ball bearing & Grease	←	←
Torsional damping method, springs, hysteresis		Rubber	←	←

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

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Automatic Transmission/Transaxle

Trade Name		Transaxle (F4A)	—	—
Type and special features (describe)		Lock-up Torque converter	—	—
Shift mechanics		—	—	—
Gear selector	Location (column, floor, other)	Floor	—	—
	Ltr./No. designation (e.g. PRND21)	PRNDSL	—	—
	Shift interlock (yes, no, describe)	Yes	—	—
Gear ratios	1st	2.800	—	—
	2nd	1.540	—	—
	3rd	1.000	—	—
	4th	0.700	—	—
	Reverse	2.333	—	—
	Final drive ratio	3.736	3.476	3.736
Max. upshift vehicle speed - drive range km/h (mph)		1-2	52-58	56-62
		2-3	92-100	99-107
		3-4	156-166	168-178
Max. upshift Engine speed RPM		—	—	167-177
Max. kickdown speed - drive range km / h (mph)		4-3	142-152	153-163
		3-2	82-90	88-96
		2-1	42-48	42-48
Min. overdrive speed km / h (mph)		25-35	—	—
Torque converter	Type	—	—	—
	Torus design	—	—	—
	Number of elements	3	—	—
	Max. ratio at stall	2.2	2.1	—
	Type of cooling (air, liquid)	Liquid	—	—
	Nominal diameter	236 mm	—	—
	Capacity factor "K"	258	238	—
Pump type		—	—	—
Lubricant	Capacity refill L (pt.)	6.3 L	—	—
	Type recommended	ATF M-III	—	—
Oil cooler (std., opt., N.A., internal, external, air, liquid)		—	—	—
Transmission mass kg (lbs) & case material**		—	—	—

All Wheel / 4 Wheel Drive

(Not applicable)

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.

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Axle Ratio and Tooth Combinations

(See "Power Teams" for axle ratio usage)

Effective final drive ratio (or overall top gear ratio)			4.105 (MT) / 3.736 (AT)	3.619 (MT) / 3.476 (AT)	4.105 (MT) / 3.736 (AT)
Transfer ratio and method (chain, gear, etc.)			—	—	—
Front drive unit	Ring gear o.d.		—	—	—
	No. of teeth	Pinion	19 (MT) / — (AT)	21 (MT) / — (AT)	19 (MT) / — (AT)
		Ring gear	78 (MT) / — (AT)	76 (MT) / — (AT)	78 (MT) / — (AT)

Front Drive Unit

Description (integral to trans., etc.)		Incorporated in transaxle	←	←
Limited slip differential (type)		N.A.	←	←
Drive pinion	Type	—	—	—
	Offset	—	—	—
No. of differential pinions		2	←	←
Pinion / differential	Adjustment (shim, etc.)	—	—	—
	Bearing adjustment	Shim	←	←
Driving wheel bearing (type)		—	—	—
Lubricant	Capacity L (pt.)	—	—	—
	Type recommended	—	—	—

Axle Shafts — Front Wheel Drive

Manufacturer and number used			NTN / 2	NSK / 2	NTN / 2
Type (straight, solid bar, tubular, etc.)		Left	Solid bar	←	←
		Right	Solid bar	←	←
Outer diam. X length* X wall thickness	Manual transaxle	Left	ø 21.5 X 385.2 mm	ø 23 X 382.5 mm	ø 23 X 365.5 mm
		Right	ø 21.5 X 663.7 mm	ø 23 X 668.5 mm	ø 23 X 427.5 mm
	Automatic transaxle	Left	ø 21.5 X 385.2 mm	ø 23 X 382.5 mm	ø 23 X 387 mm
		Right	ø 21.5 X 663.7 mm	ø 23 X 668.5 mm	ø 23 X 427.5 mm
	Optional transaxle	Left	—	—	—
		Right	—	—	—
Slip yoke	Type		—	—	—
	Number of teeth		—	—	—
	Spline o.d.		—	—	—
Universal joints	Make and mfg. no.	Inner	—	—	—
		Outer	—	—	—
	Number used		—	—	—
	Type, size, plunge	Inner	Tripod joint	←	←
		Outer	Ball joint	←	←
	Attach (u-bolt, clamp, etc.)		—	—	—
	Bearing	Type (plain, anti-friction)	—	—	—
		Lubrication (fitting, prepack)	—	—	—
Drive taken through (torque tube, arms or springs)			—	—	—
Drive taken through (torque tube, arms or springs)			—	—	—

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

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METRIC (U.S. Customary)

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B6E	BPE	BPD
-----	-----	-----

Suspension — General Including Electronic Controls

Car leveling	Standard/optional/not avail.	N.A.	←	←
	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/option/not avail.	N.A.	←	←
	Manual/automatic control	—	—	—
	Number of damping rates	—	—	—
	Type of actuation (manual/ electric motor/air, etc.)	—	—	—
	s e n s o r s	—	—	—
	Lateral acceleration	—	—	—
	Deceleration	—	—	—
	Acceleration	—	—	—
Shock absorber (front & rear)	Type	Cylindrical Double-Acting	←	←
	Make	TOKICO, KAYABA	←	←
	Piston diameter	—	←	←
	Rod diameter	ø20	←	←

Suspension — Front

Type and description		Strut	←	←
Travel	Full jounce (define load condition)	85	←	←
	Full rebound	90	←	←
Spring	Type (coil, leaf, other & material)	Coil	←	←
	Insulators (type & material)	—	—	←
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	—	—	—
	Spring rate [N/mm (lb./in.)]	—	—	—
	Rate at wheel [N/mm (lb./in.)]	—	—	—
Stabilizer	Type (link, linkless, frameless)	—	—	—
	Material & O.D. bar/tube, wall thickness	—	Link ø19.1	← ø22

Suspension — Rear

Type and description		Strut	←	←
Travel	Full jounce (define load condition)	100	←	←
	Full rebound	120	←	←
Spring	Type (coil, leaf, other & material)	Coil	←	←
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	—	—	—
	Spring rate [N/mm (lb./in.)]	—	—	—
	Rate at wheel [N/mm (lb./in.)]	—	—	—
	Insulators (type & material)	—	—	—
	If leaf	—	—	—
	No. of leaves Shackle (comp. or tens.)	—	—	—
Stabilizer	Type (link, linkless, frameless)	Link	←	←
	Material & O.D. bar/tube, wall thickness	ø20	ø20	ø21
Track bar (type)		—	—	—

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

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Brakes — Service

Description			Four wheel hydraulic actuated system	←	←	
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Disc (Std.)	←	←	
	Rear (disc or drum)		Drum (Std.)	←	Disc (Std.)	
Valving type (proportion, delay, metering, other)			Proportion	←	←	
Power brake (std., opt., n.a.)			Std.	←	←	
Booster type (remote, integral, vac., hyd., etc.)			Vac.	←	←	
Vacuum	Source (inline, pump, etc.)		Inline	←	←	
	Reservoir (volume in. ³)		—	—	—	
	Pump-type (elec, gear driven, belt driven)		—	—	—	
Traction assist	Operational speed range		—	—	—	
	Type (Engine or brake intervention)		—	—	—	
Anti-lock device	Front / rear (std., opt., n.a.)		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)*			—	—	—	
Gross Lining area cm ² (in. ²)* (F/R)			38 X 4 / 647 X 4	←	43 X 4 / 26 X 4	
Swept area cm ² (in. ²)* (F/R)			501 / 220	←	639 / 432	
Rotor	Outer working diameter	F/R	235 / 200	←	257 / 251	
	Inner working diameter	F/R	144 (in) 146 (out) / N.A.	←	144 (in) 146 (out) / 152	
	Thickness	F/R	22 / N.A.	←	22 / 9	
	Material & type (vented/solid)	F/R	Vented / N.A.	←	Vented / Solid	
Drum	Diameter & width	F/R	N.A. / 200 X 35	←	N.A. / N.A.	
	Type and material	F/R	—	—	N.A.	
Wheel cylinder bore			ø54 / ø17.4	←	ø54 / ø30.2	
Master cylinder	Bore/stroke	F/R	ø22.2 X 30	←	←	
Pedal arc ratio			4.1	←	←	
Line pressure at 445 N(100 lb.) pedal load (kPa (psi))			1.0 X 107	1.0 X 107 (MT) 1.2 X 107 (AT)	←	
Lining clearance		F/R	Self adjusting	←	←	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded	←	←
		Rivet size		—	—	—
		Manufacturer		NIHON BRAKE	←	←
		Linig code*****		JB KC80 FF	←	←
		Material		Resin mold	←	←
		****	Primary or out-board	91.1 X 49 X 10	←	91.1 X 54.5 X 10
		Size	Secondary or in-board	91.1 X 49 X 10	←	91.1 X 54.5 X 10
		Shoe thickness (no lining)		—	—	—
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded	←	←
		Manufacturer		NISSHINBO BRAKE	←	NIHON BRAKE
		Linig code*****		NBK D9067 FF	←	JB ND85 FF
		Material		Resin mold	←	←
		****	Primary or out-board	191.9 X 35 X 4	←	99 X 31.5 X 8
		Size	Secondary or in-board	191.9 X 35 X 4	←	99 X 31.5 X 8
		Shoe thickness (no lining)		—	—	—

* Exclusives rivet holes, grooves, chamfers, etc.

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

*** Total swept area for four brakes. (Drum brake: Widest lining contact width 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 for formulation designation and coefficient of friction classification.

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Tires And Wheels (Standard)

Tires	Size (service description)		P155/80R13 78S	P175/70R13 82S	P185/60R14 82H
	Type (bias, radial, steel, nylon, etc.)		Steel radial	←	←
	Inflation pressure (cold) for recommended max. vehicle load	Front kPa (psi)	216 (32)	←	←
		Rear kPa (psi)	216 (32)	←	←
	Rev./mile-at 70 km/h (45 mph)		—	—	—
Wheels	Type & material		WDC / Steel	Steel, Alloyed	←
	Rim (size & flange type)		13 X 5 J	←	14 X 5 1/2 JJ
	Wheel offset		45 mm	←	←
	Attachment	Type (bolt or stud & nut)	Nut	←	←
		Circle diameter	100	←	←
		Number & size	4	←	←
Spare	Tire and Wheel		T115/70 D14/14X4-T	←	←
	Storage position & location (describe)		In trunk room	←	←

Tires And Wheels (Optional)

Tire size (service description)		P175/70R13 82S	P185/60R14 82H	—
Type (bias, radial, steel, nylon, etc.)		Steel radial	←	—
Wheel (type & material)		Steel, Alloyed	Steel, Alloyed	—
Rim (size, flange type and offset)		13 X 5 J	14 X 5 1/2 JJ	—
Tire size (service description)		—	—	—
Type (bias, radial, steel, nylon, etc.)		—	—	—
Wheel (type & material)		—	—	—
Rim (size, flange type and offset)		—	—	—
Tire size (service description)		—	—	—
Type (bias, radial, steel, nylon, etc.)		—	—	—
Wheel (type & material)		—	—	—
Rim (size, flange type and offset)		—	—	—
Tire size (service description)		—	—	—
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	←	←
Location of control		Between front seats	←	←
Operates on		Rear service brake	←	←
If separate from service brakes	Type (internal or external)	N.A.	←	←
	Drum diameter	N.A.	←	←
	Lining size (length X width X thickness)	N.A.	←	←

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Steering

Manual (std., opt., n.a.)			Std.		
Power (std., opt., n.a.)			Opt.		
Speed-sensitive(std., opt., n.a.)			N.A.		
4-wheel steering (std., opt., n.a.)			N.A.		
Adjustable steering wheel/column (tilt, telescope, other)		Type	Tilt		
		Manufacturer (std., opt., n.a.)	NIHON SEIKO		
Wheel diameter** (W9) SAE J1100		Manual	Opt.		
		Power	ø 370 mm		
			ø 370 mm		
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	—		
		Curb to curb (l. & r.)	9.6 m (3HB) 9.8 m (4NB)		
	Inside rear	Wall to wall (l. & r.)	—		
		Curb to curb (l. & r.)	—		
Scrub Radius*			—		
Manual	Gear	Type	Rack & Pinion		
		Manufacturer		NIPPON SEIKO	
		Ratios	Gear	∞	
		Overall		—	
	No. wheel turns (stop to stop)		4.3		
Power	Type (coaxial, elec., hyd., etc.)		Hyd.		
	Manufacturer		NIHON POWER STEERING		
	Gear	Type	Rack & Pinion		
		Ratios	Gear	∞	
		Overall		16.9	
	Pump (drive)		—		
	No. wheel turns (stop to stop)		3.0		
Linkage	Type		Rack & Pinion		
	Location (front or rear of wheels, other)		rear		
	Tie rods (one or two)		Two		
Steering axis	Inclination at camber (deg.)		—		
	Bearings (type)	Upper	—		
		Lower	—		
		Thrust	—		
Steering spindle/knuckle & joint type			—		

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

** See Page 23.

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Wheel Alignment

Front wheel at curb mass (wt.)	Service cheking	Caster (deg.)	2° 05'
		Camber (deg.)	-0° 05'
		Toe-in outside track-mm (in.)	2
	Service reset*	Caster (deg.)	—
		Camber (deg.)	—
		Toe-in -mm (in.)	—
	Periodic M.V. Inspection	Caster (deg.)	—
		Camber (deg.)	—
		Toe-in -mm (in.)	—
Rear wheel at curb mass (wt.)	Service cheking	Camber (deg.)	-0° 20'
		Toe-in outside track-mm (in.)	2
	Service reset*	Camber (deg.)	—
		Toe-in -mm (in.)	—
	Periodic M.V. Inspection	Camber (deg.)	—
		Toe-in -mm (in.)	—

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

Electrical - Instruments and Equipment

Speed-ometer	Type (analog, digital, std., opt.)	Analog (Std.)
	Trip odometer (std., opt., n.a.)	Std.
Head-up display	Standard, optional, not available	N.A.
	type	Secondary, opto-electronic
	Speedometer	Digital
	Status/warning indicators	Turn signals, high beam, low fuel, check gauges
	Brightness control	Day/night mode, adjustable
	EGR maintenance indicator	N.A.
Charge indicator	Type	N.A.
Temperature indicator	Warning device (light, audible)	Light
Oil pressure indicator	Type	Gauge
Fuel indicator	Warning device (light, audible)	Light
Wind-shield wiper	Type (standard)	N.A.
Wind-shield washer	Type (optional)	2 speed with intermittent
	Blade length	N.A.
	Swept area cm ² (in. ²)	—
	Type (standard)	—
	Type (optional)	—
	Fluid level indicator (light, audible)	—
Rear window wiper, wiper/washer (std., opt., n.a.)		—
Horn	Type	—
	Number used	—
Other		—

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Electrical - Supply System

Battery	Manufacturer	NIHON BATTERY, MATSUSHITA BATTERY	←	←
	Model, std., (opt.)	55D 23L	←	←
	Voltage	12 V	←	←
	Amps at 0 °F cold crank	356 A	←	←
	Minutes-reserve capacity	99 min.	←	←
	Amps/hrs.-20 hr. rate	48 AH	←	←
	Location	Engine room	←	←
Alternator	Manufacturer	mitsubishi	←	←
	Rating (idle/max. rpm)	12V-65A	←	←
	Ratio (alt. crank/rev.)	2.21	←	←
	Output at idle (rpm, park)	—	—	—
	Optional (type & rating)	—	—	—
Regulator	Type	IC-Type	←	←

Electrical - Starting System

Motor	Manufacturer	MITSUBISHI	←	←
	Current drain _____ °C(°F)	—	—	—
	Power rating kw (hp)	0.85	0.95 (MT), 1.4 (AT)	←
Motor drive	Engagement type	Magnetic	←	←
	Pinion engages from (front, rear)	—	—	—

Electrical - Starting System

Type	Electronic (std., opt., n.a.)		Std.	←	←
	Other (specify)		N.A.	N.A.	N.A.
Coil	Manufacturer		HANSHIN, MITSUBISHI	←	←
	Model		—	—	—
	Current	Engine stopped - A	—	—	—
		Engine Idling - A	—	—	—
Spark plug	Manufacturer		NGK, NIPPON DENSO	←	←
	Model		BPR5ES11, BPR6ES11, / W16EXR-U11, W20EXR-U11	BKR5E11, BKR6E11, / K16PR-U11, K20PR-U11	BKR5E11, BKR6E11, BKR7E11 / K16PR-U11, K20PR-U11 K22PR-U11
	Thread (mm)		M14 X 1.25	←	←
	Tightening torque N·m (lb.-ft.)		15 - 23 N·M	←	←
	Gap		1.0 - 1.1 mm	←	←
	Number per cylinder		1	←	←
	Distributor		MITSUBISHI	←	←
	Manufacturer		ESA	←	←
	Model		—	—	—

Electrical - Suppression

Locations & type	High tension cord & spark plug
------------------	--------------------------------

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Body

Structure	Utilized all steel welded body with energy absorbing front and rear structures
Bumper system front - rear	5 mph bumper (front & rear)
Anti-corrosion treatment	Major exterior and structural sheet metal components

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)		Lacquer
Hood	Material & mass	Steel, 11 kg
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Internal
Trunk lid	Material & mass	Steel, 10 kg
	Type (counterbalance, other)	Counterbalance
	Internal release control (elec., mech., n.a.)	Mech.
Hatch-back lid	Material & mass	Steel, 40 kg
	Type (counterbalance, other)	Counterbalance
	Internal release control (elec., mech., n.a.)	Mech.
Tailgate	Material & mass	N.A.
	Type (drop, lift, door)	—
	Internal release control (elec., mech., n.a.)	—
Vent window control (crank, friction, pivot, power)	Front	N.A.
	Rear	N.A.
Window regulator type (cable, tape, flex drive, etc.)	Front	N.A.
	Rear	N.A.
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Bucket
	Rear	Bench
	3rd seat	N.A.
Seat back type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Bucket
	Rear	60 / 40 Split Folding (Protégé : Std., 323 : Opt.)
	3rd seat	N.A.

Frame

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

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Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard / optional	First seat	Lap belt	N.A.	Lap belt
		Second seat	Lap & Shoulder belt	Lap belt	Lap & Shoulder belt
		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	Motorized-2-point belt	N.A.	Motorized-2-point belt
		Second seat	N.A.	N.A.	N.A.
		Third seat	N.A.	N.A.	N.A.

Glass	SAE Ref. No.	
Windshield glass exposed surface area cm ² (in. ²)	S1	—
Side glass exposed surface area cm ² (in. ²) - total 2-sides	S2	—
Backlight glass exposed surface area cm ² (in. ²)	S3	—
Total glass exposed surface area cm ² (in. ²)	S4	—
Windshield glass (type/thickness)		Laminated
Side glass (type/thickness)		Tempered
Backlight glass (type/thickness)		Tempered
Tinted (yes/no, location)		
Solar control (yes/no, coated/batched, location)		

Headlamps

Description (sealed beam, halogen, replaceable bulb, etc.)	Halogen, Replaceable bulb
Shape	Rectangle
Lo-beam type (2A1, 2B1, 2C1, etc.)	HB1
Quantity	2
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	HB1
Quantity	2

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Climate Control System

Air conditioning (std., opt., man., auto.)		Manual (Opt.)
Condenser	Type	Serpentine
	Eff. face area (sq.mm.)	181485 mm ²
	Fins per inch	14
Evaporator	Type	DRON-cup (Laminate evapo.)
	Eff. face area (sq.mm.)	39775 mm ²
	Fins per inch	12
Heater core	Material	Cu
	Eff. face area (sq.mm.)	24990 mm ²
	Fins per inch	28
Compressor	Type	Rotary
	Displacement (cc.)	115 cc.
	Manufacturer	MEI
	A/C pulley ratio	1.083 (B6E, BPE) 0.963 (BPD)
Accumulator	Type	—
	Height (mm.)	—
	Diameter (mm.)	—
Receiver	Type	Cylinder type
	Height (mm.)	145 mm
	Diameter (mm.)	ø63.5 mm
Refrigerant control (CCOT, TVS, etc.)		TVS
Heater water valve (yes/no)		No
Refrigerant (R - 12, R - 134a, etc.)		R-12
Charge level (lbs. - oz.)		1 lbs. - 10.5 oz.
Cold engine lockout switch(yes/no)		No
Wide open throttle cutout switch (yes/no)		—

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

Clock (digital, analog)		Digital (323: Opt., Protegé : Std.)
Compass/thermometer		N.A.
Console (floor, overhead)		Floor (Std.)
Defroster, electric windshield		N.A.
Defroster, electric backlight		Standard
Electronic	Diagnostic monitor (integrated, individual)	N.A.
	Instrument cluster (list instruments)	N.A.
	Keyless entry	N.A.
	Trip/finder (avg. spd., fuel)	N.A.
	Voice alert (list items)	N.A.
	Other	Headlamp on reminder buzzer
Fuel door lock (remote, key, electric)		Remote
Lamps	Auto head on/off delay, dimming	N.A.
	Cornering	N.A.
	Courtesy (map, reading)	Opt.
	Door lock, ignition	Ignition (Opt.)
	Engine compartment	N.A.
	Fog	N.A.
	Glove compartment	Std.
	Trunk	Opt.
	Illuminated entry system (list lamps, activation)	N.A.
	Other	—
Mirrors	Day/night (auto, man.)	Manual
	L.H. (remote, power, heated)	Power (Opt.)
	R.H. (convex, remote, power, heated)	Convex (Std.), Power (Opt.)
	Visor vanity (RH/LH, illuminated)	Opt. / Opt.
Navigation system (describe)		N.A.
Parking brake-auto release (warning light)		N.A.

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

Power equipment	Deck lid (release, pull down)		Cable release (Std.)
	Door locks (manual, automatic, describe sytem)		Optional
	Seats	2 - 4 - 6 way, etc.	N.A.
		Reclining (R.H., L.H.)	N.A.
		Memory (R.H., L.H., preset recline)	N.A.
		Support (lumbar, hip, thigh, etc.)	N.A.
		Heated (R.H., L.H., other)	N.A.
	Side windows		Optional
	Vent windows		N.A.
	Rear windows		N.A.
Radio systems	Antenna (location, whip, w/shield, power)		LH Roof
	Standard		None
	Optional	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM / FM Cassette Stereo Sound System
	Speaker (number, location)		2 : Front door, 2 : Rear Quarter Trim
	Roof: open air or fixed (flip-up, sliding, "T")		Sliding Sunroof (Opt.)
Speed control device		Optional	
Speed warning device (light, buzzer, etc.)		N.A.	
Tachometer (rpm)		323 : Optional, Protegé DX : Opt., Protegé LX : Std.	
Telephone system (describe)		N.A.	
Theft deterrent system		N.A.	

Tailer Towing

Towing capable	Yes/No	No
Engine/transmission/axle	Std/Opt	—
Tow class (I, II, III)*	Std/Opt	—
Max. gross trailer wgt. (lbs.)	Std/Opt	—
Max. trailer tongue load (lbs.)	Std/Opt	—
Towing package available	Yes/No	—

*Class I - 2,000 lbs. Class II - 3,500 lbs. Class III - 5,000 lbs.

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Vehicle Dimensions

See Key Sheets for definitions

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

Model Code/Description	SAE Ref. No.	323	Protegé
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Width

Tread (front)	W101	1435	←
Tread (rear)	W102	1435	←
Vehicle width	W103	1675	←
Body width at Sg RP (front)	W117	1662	1656
Vehicle width (front doors open)	W120	3920	3421
Vehicle width (rear doors open)	W121	N.A.	3430
Tumble-home (degrees)	W122	22.5°	22°
Outside mirror width	W410	—	—

Length

Wheelbase	L101	2450	2500
Vehicle length	L103	4155	4355
Overhang (front)	L104	856	←
Overhang (rear)	L105	851	999
Upper structure length	L123	2737	2602
Rear wheel C/L "X" coordinate	L127	2450	2500

Height*

Passenger distribution (front/rear)	PD1,2,3	2/1	←
Trunk/cargo load		N.A.	N.A.
Vehicle height	H101	1345	1340
Cowl point to ground	H114	889	883
Deck point to ground	H138	856	943
Rocker panel-front to ground	H112	158	←
Rocker panel-rear to ground	H111	158	←
Windshield slope angle (degrees)	H122	58.5°	←
Backlight slope angle (degrees)	H121	58.5°	56°

Ground Clearance*

Front bumper to ground	H102	203	203
Rear bumper to ground	H104	266	←
Bumper to ground front at curb mass (wt.)	H103	—	—
Bumper to ground rear at curb mass (wt.)	H105	—	—
Angle of approach (degrees)	H106	16.5°	16.5°
Angle of departure (degrees)	H107	17°	15°
Ramp breakover angle (degrees)	H147	—	—
Axle differential to ground (front/rear)	H153	—	—
Min. running ground clearance	H156	130	130
Location of min. run. grd. clear.		Eng. Mounting Member	←

*All vehicle height and ground clearances are measured 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

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Model Year 1993

Issued

Dec. / 1992

Revised (*)

METRIC (U.S. Customary)

Vehicle Dimensions

See Key Sheets for definitions

Model Code/Des

SAE
Ref.
No.

323

Protegé

Front Compartment

SgRP front, "X" coordinate	L31	1325	←
Effective head room	H61	N/R 981 / S/R 946	N/R 975 / S/R 938
Max. eff. leg room (accelerator)	L34	1058	←
SgRP to heel point	H30	254	←
SgRP to heel point	L53	850	←
Back angle (degrees)	L40	20°	←
Hip angle (degrees)	L42	90.6°	←
Knee angle (degrees)	L44	123°	←
Foot angle (degrees)	L46	87°	←
Design H-point front travel	L17	220	←
Normal driving & riding seat track trvl.	L23	210	←
Shoulder room	W3	1361	1365
Hip room	W5	1304	1292
Upper body opening to ground	H50	1221	1218
Steering wheel maximum diameter*	W9	370	←
Steering wheel angle (degrees)	H18	23.8°	←
Accel. heel pt. to steer. whl. cntr.	L11	469	←
Accel. heel pt. to steer. whl. cntr.	H17	633	←
Undepressed floor covering thickness	H67	23	←

Rear Compartment

SgRP point couple distance	L50	756	768
Effective head room	H63	N/R 954 / S/R 918	N/R 942 / S/R 919
Min. effective leg room	L51	869	880
SgRP (second to heel)	H31	300	295
Knee clearance	L48	+15	+28
Shoulder room	W4	1356	1364
Hip room	W6	1210	1307
Upper body opening to ground	H51	N.A.	1225
Back angle (degrees)	L41	27°	26°
Hip angle (degrees)	L43	87°	86°
Knee angle (degrees)	L45	84.5°	86.5°
Foot angle (degrees)	L47	121°	123°
Depressed floor covering thickness	H73	10	←

Luggage Compartment

Usable luggage capacity L (cu. ft.)	V1	—	370
Liftover height	H195	—	—

Interior Volumes (EPA Classification)

Vehicle class	—	—
Interior volume index including trunk/cargo (cu. ft.)**	—	—
Trunk/cargo index (cu. ft.)	—	—

*See page 14.

**See definition page 33.

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Station Wagon/MPV*

- Third Seat

(Not applicable)

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

Station Wagon/MPV* - Cargo Space

(Not applicable)

Cargo length (open front)	L200	—	—
Cargo length (open second)	L201	—	—
Cargo length (closed front)	L202	—	—
Cargo length (closed second)	L203	—	—
Cargo length at belt (front)	L204	—	—
Cargo length at belt (second)	L205	—	—
Cargo width (wheelhouse)	W201	—	—
Rear opening width at floor	W203	—	—
Opening width at belt	W204	—	—
Min. rear opening width above belt	W205	—	—
Cargo height	H201	—	—
Rear opening height	H202	—	—
Tailgate to ground height	H250	—	—
Front seat back to load floor height	H197	—	—
Cargo volume index m ³ (ft. ³)	V2	—	—
Hidden cargo volume index m ³ (ft. ³)	V4	—	—
Cargo volume index-rear of 2-seat	V10	—	—
Cargo volume index*	V6	—	—
Cargo width at floor*	W500	—	—
Maximum cargo height*	H505	—	—

Hatchback - Cargo Space

Cargo length at front seatback height	L208	—	—
Cargo length at floor (front)	L209	—	—
Cargo length at second seatback height	L210	443	—
Cargo length at floor (second)	L211	816	—
Front seatback to load floor height	H197	—	—
Second seatback to load floor height	H198	522	—
Cargo volume index m ³ (ft. ³)	V3	—	—
Hidden cargo volume index m ³ (ft. ³)	V4	—	—
Cargo volume index-rear of 2-seat	V11	0.446	—

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*MPV - Multipurpose Vehicle

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Vehicle Fiducial Marks

Fiducial Mark
Number*

Define Coordinate Location

Front(1)

Front(2)

Rear(1)

Rear(2)

Note: Provide
3 of 4
Fiducial mark
Locations

Front	W21**	—	—
	L54**	—	—
	H81**	—	—
	H161**	—	—
	H163**	266	↑
Rear	W22**	—	—
	L55**	—	—
	H82**	—	—
	H162**	266	↑
	H164**	—	—

*Reference - SAE Recommended Practice J182a, Motor Vehicle Fiducial Marks.

**Reference - SAE Recommended Practice J1100 - Motor Vehicle Dimensions.
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[illegible]

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

**ETWC - Equivalent Test Weight Class - basis for U.S. Environmental Protection Agency emission certifications.

Refer to ETWC code legend below for test weight class.

ETWC LEGEND

A	= 1000	I	= 2000	Q	= 3000	Y	= 4000
B	= 1125	J	= 2125	R	= 3125	Z	= 4250
C	= 1250	K	= 2250	S	= 3250	AA	= 4500
D	= 1375	L	= 2375	T	= 3375	BB	= 4750
E	= 1500	M	= 2500	U	= 3500	CC	= 5000
F	= 1625	N	= 2625	V	= 3625	DD	= 5250
G	= 1750	O	= 2750	W	= 3750	EE	= 5500
H	= 1875	P	= 2850	X	= 3875	FF	= 5750

***shipping Mass (weight) = Curb Weight Less:

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