

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U. S. Customary)

1995

Manufacturer Mazda Motor Corporation	Vehicle Line Mazda MX-5	
Mailing Address 3-1 Shinchi Fuchu-cho Aki-gun Hiroshima, Japan	Issued Jan. 1995	Revised

Direct questions concerning these specifications to the manufacturer listed above.

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AAMA

American Automobile Manufacturers Association
Forms Provided by Technical Affairs Division

1995 MY MAZDA MX-5

Power Teams

			A	B	C	D
ENGINE	Engine Code		BPD	←		
	Displacement (Liters)		1.839 L	←		
	Induction system (FI, Carb, etc.)		EGI	←		
	Compression ratio		9.0	←		
	SAE Net at RPM	Power kW (bhp)	128 HP @6500 rpm	←		
		Torque N-m (lb. ft.)	110 lb-ft @5000 rpm	←		
	Exhaust (single, dual)		Single	←		
TRANS	Transmission / Transaxle		5 MT	4 AT		
	Effective Final Drive / Axle Ratio		4.100	←		

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MVMA Specifications

1995 MY MAZDA MX-5

Engine CORD / Description	BPD (1.8 L)
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Engine — Valve System

Hydraulic lifters (std., opt., n.a.)	Standard
Valves	2 / 2
Head O.D. Intake / exhaust	33 / 28

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.)*	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 to 392 @ 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.)	3.6

Engine — Diesel Information

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

Engine — Intake System

Turbo charger - manufacturer	N/A
Super charger - manufacturer	N/A
Intercooler	N/A

* Finished State

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Engine Cord / Description

BPD (1.8 L)

Engine — Fuel System

Induction type	Electric fuel injection system	
Manufacturer	Nippon denso	
Carburetor no. of barrels	N/A	
Idle A/F mix.	14.7	
Fuel injection	Point of injection (no.)	4
	Constant, pulse, flow	Pulse (sequential)
	Control (electronic, mech.)	Elec.
	System pressure kPa (psi)	284
Idle speed - rpm	Manual	850 rpm, Neutral
	Automatic	800 rpm, P & N range
Intake manifold heat control	N/A	
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 (max.)
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	80 L/hr (min.) @ 294 kPa

Fuel Tank

Capacity refill L (gallons)	48 L	
Location (describe)	Behind front seat	
Attachment	Bolt	
Material & Mass kg (weight lbs.)	Steel	
Filler pipe	Location & material	Left side of 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.	N/A
	Capacity L (gallons)	N/A
	Location & material	N/A
	Attachment	N/A
Auxiliary tank	Opt., n.a.	N/A
	Capacity L (gallons)	N/A
	Location & material	N/A
	Attachment	N/A
	Selector switch or valve	N/A
	separate fill	N/A

MVMA Specifications

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Engine CORD / Description

BPD (1.8 L)

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

Manual 4-speed (manufacturer/country)	N/A
Manual 5-speed (manufacturer/country)	Standard
Manual 6-speed (manufacturer/country)	N/A
Automatic (manufacturer/country)	N/A
Automatic overdrive (manufacturer/country)	Standard

Manual Transmission/Transaxle

Number of forward speeds		5
Gear ratios	1st	3.136
	2nd	1.888
	3rd	1.330
	4th	1.000
	5th	0.814
	6th	-
	Reverse	3.758
Synchronous meshing (specify gears)		All forward gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		-
Lubricant	Capacity L (pt.)	2
	Type recommended	Mazda gear oil 75W - 90

Clutch (Manual Transmission)

Clutch manufacturer	Daikin Manufacturing co.	
Clutch type (dry, wet; single, multiple disc)	Single dry plate	
Linkage (hydraulic, cable, rod, lever, other)	Hydraulic	
Max. pedal effort N (lbs)	Depressed	-
	Released	-
Assist (spring, power/percent, nominal)	-	
Type pressure plate springs	Diaphragm	
Total spring load (nominal) N (lbs)	-	
Clutch facing	Facing mat'l. & material coding	Valeo
	Facing material & construction	Semimold
	Rivets per facing	-
	Outside x inside dia. (nominal)	215 x 150
	Total eff. area cm2 (in.2)	181
	Thickness (pressure plate side/fly wheel side)	3.8 / 3.5
	Rivet depth (pressure plate side/fly wheel side)	-
	Engagement cushion method	Cushion spring
Release bearing type & method lub	Ball bearing	
Torsional damping method springs hysteresis	Coil spring	

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

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Engine Code / Description

BPD (1.8 L)

Axle Ratio and Tooth Combinations

Axle ratio (or overall top gear ratio)		4.100
Ring gear o.d.		182.88
No. of teeth	Pinion	10
	Ring gear	41

Rear Axle Unit

Description		Hypoid gear
Limited slip differential (type)		Normal diff. or Torsen type (MT), Normal diff. (AT)
Drive pinion	Type	Hypoid gear
	Offset	35
No. of differential pinions		2 or 6 (MT), 2 (AT)
Pinion / differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Collapsible
Driving wheel bearing (type)		-
Lubricant	Capacity L (pt.)	1
	Type recommended	GL - 5

Propeller Shaft — Rear Wheel Drive

Manufacturer/Type		Straight tube
Outer diam. x length* x wall thickness	Manual 4-speed transmission	N/A
	Manual 5-speed transmission	60.5 x 816 x 1.8
	Manual 6-speed transmission	N/A
	Overdrive	N/A
	Automatic transmission	60.5 x 816 x 18
Intermediate bearing	Type (plain, anti-friction)	-
	Lubrication (liting, prepack)	-
Sip yoke	Type	Spline
	Number of teeth	22
	Spline o.d.	25.189
Universal joints	Make and mfg. no.	Front
		Rear
	M002 25 060	
	2	
	Number used	
	Type (ball and trunnion, cross)	
	Hooks joint	
Rear attach (u-bolt, clamp, etc.)	Flange	
	Needle	
	Sealed grease	
Bearing	Type	Arms
	Lubrication	Arms
Drive taken through (torque tube arms or springs)		Arms
Torque taken through (torque tube arms or springs)		Arms

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

MVMA Specifications

1995 MY MAZDA MX-5

Model or Engine Code / Description

All models

Brakes — Service

Brakes — Service			4 wheel hydraulic actuated system	
Description				
Manufacturer and brake type (std., opt., n.a.)		Front (disc or drum)	Disc (ventilated)	
		Rear (disc or drum)	Disc (solid)	
Valving type (proportion, delay, metering, other)			Proportion	
Power brake (std., opt., n.a.)			Std.	
Booster type (remote, integral, vac., hyd., etc.)			Vacuum	
Vacuum	Source (inline, pump, etc.)		-	
	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.)		Opt. (4 wheel ABS)	
	Manufacturer		-	
	Type (electronic, mech.)		Electronic	
	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 cm2 (in.2)*			-	
Gross Lining area cm2 (in.2)** (F/R)			-	
Swept area cm2 (in.2)*** (F/R)			-	
Rotor	Outer working diameter	F/R	-	
	Inner working diameter	F/R	-	
	Thickness	F/R	-	
	Material & type (vented/solid)	F/R	N/A	
Drum	Diameter & width	F/R	N/A	
	Type and material	F/R	N/A	
Wheel cylinder bore			51.1 mm / 31.75 mm	
Master cylinder	Bore/stroke	F/R	Bore : 7 / 8 in., Stroke : 15 mm / 15 mm	
Pedal arc ratio			4.1	
Line pressure at 445 N(100 lb.) pedal load (kPa (psi))			-	
Lining clearance			All self-adjusting	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded
		Rivet size		-
		Manufacturer		SEI
		Lining code*****		M9228
		Material		-
		****	Primary or out-board	-
		Size	Secondary or in-board	-
		Shoe thickness (no lining)		-
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded
		Manufacturer		NBK
		Lining code*****		D6223
		Material		-
		****	Primary or out-board	-
		Size	Secondary or in-board	-
		Shoe thickness (no lining)		-

* Excludes 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: Squar 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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Model or Engine Code / Description

All models

Steering

Steering				Std.
Manual (std., opt., n.a.)				Opt.
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		N/A
		Manufacturer		N/A
		(std, opt., n.a.)		N/A
Wheel diameter** (W9) SAE J1100		Manual		-
		Power		-
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		-
		Curb to curb (l. & r.)		-
	Inside rear	Wall to wall (l. & r.)		-
		Curb to curb (l. & r.)		-
Steering Radius*				-
Manual	Gear	Type		Rack & Pinion
		Manufacturer		Nippon seiko
		Ratios	Gear	-
			Overall	-
	No. wheel turns (stop to stop)		-	
Power	Type (coaxial, elec., hyd., etc.)		Hyd.	
	Manufacturer		Jidosha kiki	
	Gear	Type		-
		Ratios	Gear	-
			Overall	-
	Pump (drive)		-	
	No. wheel turns (stop to stop)		-	
Linkage	Type		-	
	Location (front or rear of wheels, other)		Front	
	Tie rods (one or two)		2	
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.

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Model or Engine Cord / Description

All models

Electrical - Supply System

Battery	Manufacturer	Matsushita
	Model, std., (opt.)	S46A24LS
	Voltage	12 V
	Amps at 0 °F cold crank	-
	Minutes-reserve capacity	-
	Amps/hrs.-20 hr. rate	38
	Location	Trunk room
Alternator	Manufacturer	Mitsubishi
	Rating (idle/max. rpm)	12V - 65 A (MT), 12 V - 70 A (AT)
	Ratio (alt. crank/rev.)	2.64
	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)	0.95 (MT) , 1.4 (AT)
Motor drive	Engagement type	-
	Pinion engages from (front, rear)	-

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)		-
	Other (specify)		-
Coil	Manufacturer		Hanshin
	Model		-
	Current	Engine stopped - A	-
		Engine idling - A	-
Spark plug	Manufacturer		NGK, Nippon denso
	Model		BKR6E-11, BKR5E-11, K20PR-U11, K16PR-U11
	Thread (mm)		M14 x 1.25
	Tightening torque N·m (lb·ft.)		15 to 23
	Gap		1.0 to 1.1 mm
	Number per cylinder		-
Distributor	Manufacturer		-
	Model		-

Electrical - Suppression

Locations & type	High tension cord & spark plug
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Model or Engine Code / Description

All models

Restraint System

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

Glass	SAE Ref. No.	
Windshield glass exposed surface area cm2	S1	-
Side glass exposed surface area cm2 - total 2-sides	S2	-
Backlight glass exposed surface area cm2	S3	-
Total glass exposed surface area cm2	S4	-
Windshield glass (type / thickness)		Laminated/4.7 mm
Side glass (type / thickness)		Tempered/4.0 mm
Backlight glass (type / thickness)		Plastic/1.0 mm
Tinted (yes / no, location)		No
Solar control (yes / no, coated / batched, location)		No

Headlamps

Description (sealed beam, halogen, replaceable bulb, etc.)	Halogen Sealed Beam
Shape	Circular
Lo-beam type (2A1, 2B1, 2C1, etc.)	2Di
Quantity	2
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	2Di
Quantity	2

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Model or Engine Code / Description

All models

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

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

MVMA Specifications

1995 MY MAZDA MX-5

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 or Engine Code / Description

All models

Width	SAE Ref. No.	
Tread (front)	W101	1410
Tread (rear)	W102	1428
Vehicle width	W103	1676
Body width at Sg RP (front)	W117	-
Vehicle width (front doors open)	W120	-
Vehicle width (rear doors open)	W121	-
Tumble-home (degrees)	W122	-
Outside mirror width	W410	-

Length		
Wheelbase	L101	2266
Vehicle length	L103	3948
Overhang (front)	L104	-
Overhang (rear)	L105	-
Upper structure length	L123	-
Rear wheel C/L "X" coordinate	L127	-

Height*		
Passenger distribution (front/rear)	PD1,2,3	2/0
Trunk/cargo load		-
Vehicle height	H101	1224
Cowl point to ground	H114	-
Deck point to ground	H138	-
Rocker panel-front to ground	H112	-
Rocker panel-rear to ground	H111	-
Windshield slope angle (degrees)	H122	-
Backlight slope angle (degrees)	H121	-

Ground Clearance*		
Front bumper to ground	H102	-
Rear bumper to ground	H104	-
Bumper to ground front at curb mass (wt.)	H103	-
Bumper to ground rear at curb mass (wt.)	H105	-
Angle of approach (degrees)	H106	-
Angle of departure (degrees)	H107	-
Ramp breakover angle (degrees)	H147	-
Axle differential to ground front/rear	H153	-
Min. running ground clearance	H156	-
Location of min. run gnd clear		-

*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

1995 MY MAZDA MX-5

Vehicle Dimensions

See Key Sheets for definitions

Model Code / Description

All models

Station Wagon/MPV* - Third Seat	SAE Ref. No.	
Seat facing direction	SD1	N/A
SgRP couple distance	L85	N/A
Shoulder room	W85	N/A
Hip room	W86	N/A
Effective leg room	L86	N/A
Effective head room	H86	N/A
SgRP to heel point	H87	N/A
Knee clearance	L87	N/A
Back angle (degrees)	L88	N/A
Hip angle (degrees)	L89	N/A
Knee angle (degrees)	L90	N/A
Foot angle (degrees)	L91	N/A

Station Wagon/MPV* - Cargo Space

Cargo length (open front)	L200	N/A
Cargo length (open second)	L201	N/A
Cargo length (closed front)	L202	N/A
Cargo length (closed second)	L203	N/A
Cargo length at belt (front)	L204	N/A
Cargo length at belt (second)	L205	N/A
Cargo width (wheelhouse)	W201	N/A
Rear opening width at floor	W203	N/A
Opening width at belt	W204	N/A
Min. rear opening width above belt	W205	N/A
Cargo height	H201	N/A
Rear opening height	H202	N/A
Tailgate to ground height	H250	N/A
Front seat back to load floor height	H197	N/A
Cargo volume index m3(ft.3)	V2	N/A
Hidden cargo volume index m3(ft.3)	V4	N/A
Cargo volume index-rear of 2-seat	V10	N/A
Cargo volume index*	V6	N/A
Cargo width at floor*	W500	N/A
Maximum cargo height*	H505	N/A

Hatchback - Cargo Space

Cargo length at front seatback height	L208	N/A
Cargo length at floor (front)	L209	N/A
Cargo length at second seatback height	L210	N/A
Cargo length at floor (second)	L211	N/A
Front seatback to load floor height	H197	N/A
Second seatback to load floor height	H198	N/A
Cargo volume index m3(ft.3)	V3	N/A
Hidden cargo volume index m3(ft.3)	V4	N/A
Cargo volume index-rear of 2-seat	V11	N/A

All linear dimensions are in millimeters (inches) unless otherwise noted.

*MPV - Multipurpose Vehicle

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