MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1991

Manufacturer	Vehicle Line
TOYOTA MOTOR CORPORATION NEW UNITED MOTOR MANUFACTURING, INC. TOYOTA MOTOR MANUFACTURING, CANADA	TOYOTA COROLLA
Mailing Address TOYOTA MOTOR SALES, U.S.A., INC. 19001 S. Western Avenue Torrance, CA 90509	Issued: July, 1990 / 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

FORM MVMA-91

MVMA Specifications

METRIC (U.S. Customary)

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∅ **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 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

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Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July, 1990 Revised (*)

Vehicle Origin

Design & development (company)	Toyota Motor Corporation
Where built (country)	Japan, U.S.A. and Canada
Authorized U.S. sales marketing representative	Toyota Motor Sales, U.S.A., Inc.

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)	EPA Fuel Economy (City/Hwy)
4-door Sedan, FWD					
LE grade, 4A-FE,	4A/T	AE92L-AEPNKA	2/3	45	
		AE92L-DEPNKA	2/3	45	
	5M/T	AE92L-AEMNKA	2/3	45	
		AE92L-DEMNKA	2/3	45	
DLX grade, 4A-FE,	3A/T	AE92L-AEHDKA	2/3	45	
		AE92L-DEHDKA	2/3	45	
	5M/T	AE92L-AEMDKA	2/3	45	
		AE92L-DEMDKA	2/3	45	
STD grade, 4A-FE,	3A/T	AE92L-AEHRKA	2/3	45	
		AE92L-DEHRKA	2/3	45	
	5M/T	AE92L-AEMRKA	2/3	45	
		AE92L-DEMRKA	2/3	45	
5-door Wagon, FWD					
DLX grade, 4A-FE,	3A/T	AE92L-AWHDKA	2/3	45	
	5M/T	AE92L-AWMDKA	2/3	45	
5-door Wagon, 4WD					
DLX grade, 4A-FE,	4A/T	AE95L-CWPDKA	2/3	45	
	5M/T	AE95L-CWMDKA	2/3	45	
2-door Coupe, FWD					
GT-S grade, 4A-GE,	5M/T	AE92L-ACMVFA	2/2	45	
SR5 grade, 4A-FE,	4A/T	AE92L-ACPXKA	2/2	45	
	5M/T	AE92L-ACMXKA	2/2	45	
DLX grade, 4A-FE,	3A/T	AE92L-ACHDKA	2/2	45	
	5M/T	AE92L-ACMDKA	2/2	45	

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

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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		4A-FE		4A-FE	4A-FE		4A-GE
	Displacement Liters (in³)		1.587		1.587	1.587		1.587
	Induction system (FI, Carb, etc.)		Fuel Injection		Fuel Injection	Fuel Injection		Fuel Injection
	Compression ratio		9.5		9.5	9.5		10.3
	SAE Net at RPM	Power kW (bhp)	76/5800		76/5800	76/5800		97(130)/6800
		Torque N•m (lb. ft.)	137/4800		137/4800	137/4800		142(105)/6000
	Exhaust single, dual		Single		Single	Single		Single
TRANS	Transmission/ Transaxle		5M/T		3A/T	4A/T		5M/T
	Axle Ratio (std, first)		3.722	4.562	3.526	2.962	3.034	4.312
			A1	A2	B	C1	C2	D

Series Availability — Power Teams (A - B - C - D)

Model	Code	Standard	Optional
4-door Sedan, FWD, 4A/T	AE92L-A(D)EPNKA	C1	N.A.
4-door Sedan, FWD, 3A/T	AE92L-A(D)EHDKA	B	N.A.
4-door Sedan, FWD, 3A/T	AE92L-A(D)EHRKA	B	N.A.
4-door Sedan, FWD, 5M/T	AE92L-A(D)EMNKA	A1	N.A.
4-door Sedan, FWD, 5M/T	AE92L-A(D)EMDKA	A1	N.A.
4-door Sedan, FWD, 5M/T	AE92L-A(D)EMRKA	A1	N.A.
5-door Wagon, FWD, 3A/T	AE92L-AWHDKA	B	N.A.
5-door Wagon, FWD, 5M/T	AE92L-AWMDKA	A1	N.A.
5-door Wagon, 4WD, 4A/T	AE95L-CWPDKA	C2	N.A.
5-door Wagon, 4WD, 5M/T	AE95L-CWMDKA	A2	N.A.
2-door Coupe, FWD, 5M/T,GT-S	AE92L-ACMVFA	D	N.A.
2-door Coupe, FWD, 4A/T	AE92L-ACPXKA	C1	N.A.
2-door Coupe, FWD, 3A/T	AE92L-ACHDKA	B	N.A.
2-door Coupe, FWD, 5M/T,SR5	AE92L-ACMXKA	A1	N.A.
2-door Coupe, FWD, 5M/T,DLX	AE92L-ACMDKA	A1	N.A.

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Engine Description / Engine Code		4A-GE	4A-FE

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		In-line, front, transversely mounted, DOHC, pent roof	
Manufacturer		Toyota Motor Corporation	
No. of cylinders		4	
Bore		81.0	
Stroke		77.0	
Bore spacing (C / L to C / L)		87.5	
Cylinder block material & mass kg (lbs.) (machined)		Cast iron, 31.3	Grey cast iron, 36
Cylinder block deck height		191.0	
Cylinder block length		391.5	
Deck clearance (minimum) (above or below block)		0.0	
Cylinder head material & mass kg (lbs.)		Aluminum alloy, 11.1	Aluminum alloy, 9.3
Cylinder head volume cm^3 ($inches^3$)		36.0	30.2
Cylinder liner material		N.A.	
Head gasket thickness (compressed)		1.20	
Minimum combustion chamber total volume cm^3 ($inches^3$)		47.2	46.7
Cyl. no. system (front to rear)*	L. Bank	1-2-3-4	
	R. Bank		
Firing order		1-3-4-2	
Intake manifold material & mass kg (lbs.)**		Aluminum alloy, 3.5	Aluminum alloy, 2.7(Fed.), 3.2(Cal.), 3.8(AE95)
Exhaust manifold material & mass kg (lbs.)**		Spherical graphite cast iron, 6.0(4A-GE), 4.0(4A-FE)	
Knock sensor (yes / no)		Yes(4A-GE)	
Fuel required unleaded, diesel, etc.		Unleaded	
Fuel antiknock index (R + M) ÷ 2		91	87
Engine mounts	Quantity	-	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	-	
	Added isolation (sub-frame, crossmember, etc.)	-	
Total dressed engine mass (wt) dry***		4A-GE=123, 4A-FE=M/T 118(Fed.), 119 (Cal., AE95), A/T 110 (Fed.), 111 (Cal., AE95)	

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum alloy, 321	Aluminum alloy, 293

Engine – Camshaft

Location		Over cylinder head	
Material & mass kg (weight, lbs.)		Alloy cast iron No.1, No.2=1.7	Grey cast iron Intake=1.8, Exhaust=1.9
Drive type	Chain / belt	Belt drive	
	Width / pitch	19.1/9.5	19.1/9.525

* 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 Description / Engine Code		4A-GE	4A-FE

Engine – Valve System

Hydraulic lifters (std., opt., n.a.)		N.A.	
Valves	Number intake - exhaust	8/8	
	Head O.D. intake - exhaust	30.5/25.5	30/24.5

Engine – Connecting Rods

Material & mass kg., (weight, lbs.)*		Carbon steel, 0.545	Carbon steel, 0.460
Length (axes C.L to C.L)		–	

Engine – Crankshaft

Material & mass kg., (weight, lbs.)*		Carbon steel, 12.4	Spheroidal graphite cast iron, 10.
End thrust taken by bearing (no.)		No.3	
Length & number of main bearings		20.0, 5	
Seal (material, one, two piece design, etc.)	Front	Acrylate, 1 piece	
	Rear	Silicone, 1 piece	

Engine – Lubrication System

Normal oil pressure kPa (psi) at engine rpm		392/6000	235/2000
Type oil intake (floating, stationary)		Stationary	
Oil filter system (full flow, part, other)		Full flow	
Capacity of c.case, less filter-refill-L (qt.)		3.4	3.0

Engine – Diesel Information

Diesel engine manufacturer		–
Glow plug, current drain at 0°F		–
Injector nozzle	Type	–
	Opening pressure kPa (psi)	–
Pre-chamber design		–
Fuel injection 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

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

* Finished State

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Engine Description / Engine Code			4A-GE	4A-FE
Engine – Cooling System				
Coolant recovery system (std., opt., n.a.)			Std.	
Coolant fill location (rad., bottle)			Radiator	
Radiator cap relief valve pressure kPa (psi)			88	88.3
Circulation thermostat	Type (choke, bypass)		Bypass	
	Starts to open at °C (°F)		82	
Water pump	Type (centrifugal, other)		Centrifugal	
	GPM 1000 pump rpm		0.50	0.38
	Number of pumps		1	
	Drive (V-belt, other)		V-ribbed belt	
	Bearing type		Sealed, roller and ball bearing	Sealed
	Impeller material		Stainless steel	Steel
	Housing material		Aluminum alloy	
By-pass recirculation type (inter., ext.)			External	
Cooling system capacity	With heater – L(qt.)		4A-GE=6.0, 4A-FE=M/T 5.6, 6.2(AE95), A/T 5.3(3A/T), 5.8(4A/T), 6.1(AE95)	
	With air conditioner – L(qt.)		6.0	
	Opt. equipment specify – L(qt.)		N.A.	
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.)		Vertical flow	
	Construction (fin & tube mechanical, braze, etc.)		Corrugated fin	
	Material, mass kg (wgt., lbs.)		Brass and copper, 4A-GE=3.4,4A-FE=M/T 3.6, 5.19(AE95), A/T 3.9(3A/T), 5.4(4A/T), 5.83(AE	
	Width		668	
	Height		325	
	Thickness		16	16(M/T, 3A/T), 32(4A/T, AE9
	Fins per inch		4A-GE=17, 4A-FE=23(M/T, 3A/T), 17(4A/T), AE95=17(M/T), 20(A/T)	
Radiator end tank material			Resin	
Fan	Std., elec., opt.		Electric	
	Number of blades & type (flex, solid, material)		4, solid, resin	4, solid
	Diameter & projected width		300 x 88.0	300x88.0, AE95=300x88.0 (M/T), 300x100.0(A/
	Ratio (fan to crankshaft rev.)		–	
	Fan cutout type		–	Thermo switch
	Drive type (direct, remote)		–	Motor
	RPM at idle (elec.)		4A-GE=2100, 4A-FE=1900(M/T, 4A/T), 2100(3A/T), AE95=2100(M/T), 2050(A/T)	
	Motor rating (wattage/elec.)		80	80, AE95=80(M/T), 120(A/T)
	Motor switch (type & location/elec.)		Water temperature switch, water inlet	
	Switch point (temp./pressure/elec.)		90	
	Fan shroud (material)		Resin	

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Engine Description / Engine Code		4A-GE	4A-FE

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 system	
Manufacturer		AISAN	NIPPONDENSO
Carburetor no. of barrels		–	
Idle A.F mix.		Preset at manufacturer	
Fuel injection	Point of injection (no.)	4	
	Constant, pulse, flow	Pulse	
	Control (electronic, mech.)	Electronic	
	System pressure kPa (psi)	284	
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	800	700(Fed.), 800(Cal., AE95)
	Automatic	800	700(Fed.), 800(Cal., AE95)
Intake manifold heat control (exhaust or water thermostatic or fixed)		N.A.	
Air cleaner type		Dry type, 1 element	
Fuel filter (type/location)		–	
Fuel pump	Type (elec. or mech.)	Electromagnetic	Electric
	Location (eng., tank)	In fuel tank	
	Pressure range kPa (psi)	284	
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	–	

Fuel Tank

Capacity refill L (gallons)		50
Location (describe)		Under rear floor
Attachment		Banded
Material & Mass kg (weight lbs.)		Steel sheet
Filler pipe	Location & material	Left, wheel house, steel pipe
	Connection to tank	Rubber hose, N.A. for AE95
Fuel line (material)		Steel pipe
Fuel hose (material)		Rubber
Return line (material)		Steel pipe
Vapor line (material)		Steel pipe
Extended range tank	Opt., n.a.	N.A.
	Capacity L (gallons)	–
	Location & material	–
	Attachment	–
Auxiliary tank	Opt., n.a.	N.A.
	Capacity L (gallons)	–
	Location & material	–
	Attachment	–
	Selector switch or valve	–
	Separate fill	–

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Engine Description / Engine Code	4A-GE	4A-FE

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		EGR/O2S/TWC	O2S/TWC (Fed.) EGR/O2S/TWC(Cal., AE95)
	Air Injection	Pump or pulse	-	
		Driven by	-	
		Air distribution (head, manifold, etc.)	-	
		Point of entry	-	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Exhaust back pressure control	N.A. (Fed.) Exhaust back pressure control(Cal., AE
		Exhaust source Point of exhaust injection (spacer, carburetor, manifold, other)	Exhaust manifold Intake manifold	N.A.(Fed.), Cylinder head(Cal., AE9 N.A.(Fed.), Intake manifold(Cal., A
	Catalytic Converter	Type	3-way	
		Number of	1	
		Location(s)	Forward under floor area	
		Volume L (in³)	1.3	1.3, 1.7(AE95)
		Substrate type	Monolith	
		Noble metal type	-	
		Noble metal concentration (g/cm³)	-	
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Closed	
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum crankcase pressure	
	Discharges to (intake manifold, other)		Intake manifold	
	Air inlet (breather cap, other)		Throttle body	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	
	Open loop (yes/no)		No	

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Semi-dual	Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass kg (weight lbs)		2, straight flow 1, reverse flow	1, straight flow 1, reverse flow
Resonator no. & type		-	
Exhaust pipe	Branch o.d., wall thickness	42.7/1.5	-
	Main o.d., wall thickness	4A-GE=48.6/1.5, 4A-FE=42.7/1.5, AE95=42.7/2.0, 1.5	
	Material & Mass kg (weight lbs)	Stainless steel, 4A-GE=1.8, 4A-FE=1.3, AE95=0.6, 1.4	
Intermediate pipe	o.d. & wall thickness	4A-GE=48.6/1.5, 1.2, 4A-FE=48.6/1.5, 42.7/1.5, 42.7/1.2, AE95=42.7/1.5	
	Material & Mass kg (weight lbs)	Stainless steel, 4A-GE=2.8, 0.5, 4A-FE=0.3, 2.9, 0.4, AE95=2.5	
Tail pipe	o.d. & wall thickness	35/1.2	42.7/1.2, 48.6/1.2(AE95)
	Material & Mass kg (weight lbs)	Stainless steel, 0.6	Stainless steel, 0.4

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Engine Description / Engine Code	FWD		4WD
	4A-GE	4A-FE	

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

Manual 3-speed (manufacturer/country)	N.A.	N.A.	N.A.
Manual 4-speed (manufacturer/country)	N.A.	N.A.	N.A.
Manual 5-speed (manufacturer/country)	Std.	Std.	Std.
Automatic (manufacturer/country)	N.A.	Std.	N.A.
Automatic overdrive (manufacturer/country)	N.A.	Std.	Std.

Manual Transmission/Transaxle

Number of forward speeds		5		
Gear ratios	1st	3.166	3.545	3.833
	2nd	1.904		2.045
	3rd	1.310		1.333
	4th	0.969		0.918
	5th	0.815		0.775
	Reverse	3.250		3.583
Synchronous meshing (specify gears)		All forward gears		
Shift lever location		Floor		
Trans. case mat'l. & mass kg (lbs)*		-		
Lubricant	Capacity L (pt.)	2.6		5.0
	Type recommended	Multipurpose API GL-4		Multipurpose API GL-5

Clutch (Manual Transmission)

Clutch manufacturer		AISIN		
Clutch type (dry, wet; single, multiple disc)		Dry, Single		
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)		4410	3920	3920
Clutch facing	Facing mfgr. & material coding	AISIN, 31256-17020	NISSINBO 31256-12090	AISIN, 31256-35040
	Facing material & construction	Semi-mold		
	Rivets per facing	16		
	Outside x inside dia. (nominal)	212 x 140	200 x 140	224 x 150
	Total eff. area $cm^2(in.^2)$	199	160	217
	Thickness (pressure plate side/fly wheel side)	3.5		
	Rivet depth (pressure plate side/fly wheel side)	-		
	Engagement cushion method	Cushion spring		
Release bearing type & method lub.		Single row ball bearing, sealed grease		
Torsional damping method, springs, hysteresis		Rubber		

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

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Engine Description	FWD		4WD
Engine Code	3A/T	4A/T	

Automatic Transmission/Transaxle

Trade Name		A131L	A240L	A241H
Type and special features (describe)		Hydraulic control, planetary gear, with lock-up clutch		
Gear selector	Location (column, floor, other)	Floor		
	Ltr.-No. designation (e.g. PRND21)	PRND2L		
	Shift interlock (yes, no, describe)	-		
Gear ratios	1st	2.810	3.643	
	2nd	1.549	2.008	
	3rd	1.000	1.296	
	4th	-	0.892	
	Reverse	2.296	2.977	
Max. upshift speed - drive range km/h (mph)		1 to 2=61, 2 to 3=110	1 to 2=53, 2 to 3=98	1 to 2=61, 2 to 3=105
Max. kickdown speed - drive range km/h (mph)		2 to 1=43, 3 to 2=106	2 to 1=39, 3 to 2=94	2 to 1=44, 3 to 2=104
Min. overdrive speed km/h (mph)		-	22	15
Torque converter	Number of elements	3-element, 1-step, 2-phase		
	Max. ratio at stall	2.300	2.550	2.300
	Type of cooling (air, liquid)	Water-cooled		
	Nominal diameter	230		
	Capacity factor "K"*	-		
Lubricant	Capacity refill L (pt.)	2.5[5.5]	3.1[7.2(with diff.)]	3.1[8.2(with diff.)]
	Type recommended	ATF DII		TOYOTA ATF TYPE T
Oil cooler (std., opt., N.A., internal, external, air, liquid)		N.A.		Std.
Transmission mass kg (lbs) & case material**		-		

[ ]= dry fill

All Wheel / 4 Wheel Drive

Description & type (part-time, full-time, 2/4 shift while moving, mechanical, elect., chain/gear, etc.)		Fill time	
Transfer case	Manufacturer and model	TOYOTA	
	Type and location	Integral and co-axial with front diff.	
Low-range gear ratio		-	-
System disconnect (describe)		-	-
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	Bevel	Bevel with hydraulic controll mutiple clutch
	Torque split (% front/rear)	50/50	50/50
		5M/T	4A/T

* Input speed - Torque

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

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Engine Description
Engine Code

All models

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

Effective final drive ratio (or overall top gear ratio)			4.312	3.722	4.562	3.526	2.962	3.034
Transfer ratio and method (chain, gear, etc.)			–	–	–	–	–	–
Front drive unit	Ring gear o.d.		–	–	–	–	–	–
	No. of teeth	Pinion	16	18	16	19	27	29
		Ring gear	69	67	73	67	80	88

Front Drive Unit

Description (integral to trans., etc.)		Integral to transaxle
Limited slip differential (type)		N.A.
Drive pinion	Type	Helical
	Offset	–
No. of differential pinions		FWD: 2, 4WD: 4
Pinion differential	Adjustment (shim, etc.)	–
	Bearing adjustment	Collapisible Sleeve
Driving wheel bearing (type)		Double row angular ball bearing
Lubricant	Capacity L (pt.)	M/T=2.6, 3A/T=1.4, 4A/T=shared with trans. 4WD 5.0
	Type recommended	M/T=API GL-4, 4WD M/T=API GL-5, A/T=TOYOTA ATF TYPE T, others=ATF "DEXRON" II

Axle Shafts – Front Wheel Drive

			4A-GE	4A-FE(2WD)	4A-FE(4WD)
Manufacturer and number used			2		
Type (straight, solid bar, tubular, etc.)		Left	Solid shaft		
		Right	Solid shaft		
Outer diam. x length* x wall thickness	Manual transaxle	Left	22.8 x 340.1	22.3 x 341.0	22.8 x 332.0
		Right	26.0 x 655.5	26.0 x 655.5	22.8 x 332.0
	Automatic transaxle	Left	–	22.3 x 341.0	22.8 x 332.0
		Right	–	26.0 x 655.5	22.8 x 332.0
	Optional transaxle	Left	–		
		Right	–		
Slip yoke	Type		–		
	Number of teeth		–		
	Spline o.d.		–		
Universal joints	Make and mfg. no.	Inner	Toyota,43403-12040	Toyota,43403-12040	Toyota, 43403-12050(RH) 43403-12060(LH)
		Outer	Toyota,43405-32013	Toyota,43405-12021	Toyota,43405-32013
	Number used		4		
	Type, size, plunge	Inner	Tripot (plunging)		
		Outer	Pzeppa (fixed)		
	Attach (u-bolt, clamp, etc)		Snap ring		
	Bearing: Type (plain, anti-friction)		–		
	Bearing: Lubrication (fitting, 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 TOYOTA COROLLA
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METRIC (U.S. Customary)

Engine Description **Engine Code**	4WD

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

Axle ratio (or overall top gear ratio)		2.928
Ring gear o.d.		170.5
No. of teeth	Pinion	14
	Ring gear	41

Rear Axle Unit

Description		Banjo, semi-floating
Limited slip differential (type)		N.A.
Drive pinion	Type	Hypoid
	Offset	31.75
No. of differential pinions		2
Pinion / differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Collapsible Sleeve
Driving wheel bearing (type)		Double row angular ball bearing, prepacked
Lubricant	Capacity L (pt.)	1.1
	Type recommended	Hypoid gear oil API GL-5

Propeller Shaft – Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			No.1:inner damper, No.2, No.3:hollow tube
Outer diam. x length* x wall thickness	Manual 3-speed transmission		–
	Manual 4-speed transmission		–
	Manual 5-speed transmission		No.1:75 x 560 x 1.6, No.2:65 x 550 x 1.6 No.3:75 x 675.5 x 1.6
	Overdrive		–
	Automatic transmission		Same as above
Intermediate bearing	Type (plain, anti-friction)		Ball bearing
	Lubrication (fitting, prepack)		Grease, sealed type
Slip yoke	Type		Spline
	Number of teeth		21
	Spline o.d.		27.9
Universal joints	Make and mfg. no.	~~Front~~=	Toyota 37402-12010, 37411-14010
		~~Rear~~=	LÖBRO 37360-12010
	Number used		4
	Type (ball and trunnion, cross)		Hooks, cross groove
	Rear attach (u-bolt, clamp, etc)		Flange
	Bearing: Type (plain, anti-friction)		Anti-friction
	Bearing: Lubrication (fitting, prepack)		Grease, sealed type
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 rear attachment.

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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	4WD(Wagon)	4A-FE	4A-FE (SR5)	4A-GE

Suspension – General Including Electronic Controls

Car leveling	Standard/optional/not avail.	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/option/not avail.	Not avail	
	Manual automatic control	–	
	Number of damping rates	–	
	Type of actuation (manual/ electric motor/air, etc.)	–	
	sensors: Lateral acceleration	–	
	sensors: Deceleration	–	
	sensors: Acceleration	–	
	sensors: Road surface	–	
Shock absorber (front & rear)	Type	Double-acting hydraulic telescopic	
	Make	Fr.:Toyota Rr.:Kayaba or Tokico	
	Piston diameter Fr/Rr	32/25	30.2/25 / 30.2/30 / 32/30
	Rod diameter Fr/Rr	22/12.5	20/18 / 20/20 / 22/20

Suspension – Front

Type and description		MacPherson strut			
Travel*	Full jounce	80	80	80	80
	Full rebound	74	85	85	82
Spring	Type (coil, leaf, other & material)	Coil spring, SUP7NV or SUP12V			
	Insulators (type & material)	UPR and LWR, rubber			
	Size (coil design height & i.d.)	Appears on next page			
	Spring rate N/mm (lb./in.)	24.5	18.6	18.6	21.6
	Rate at wheel N/mm (lb./in)	26.5	20.6	20.6	23.5
Stablizer	Type (link, linkless, frameless)	Link	–	–	Link
	Material & bar diameter	STKM15A or ASB25N,25	–	–	STKM15A,25.4

Suspension – Rear

Type and description		Trailing, rigid	MacPherson strut		
Travel*	Full jounce	90	85	85	85
	Full rebound	100	95	95	83
Spring	Type (coil, leaf, other & material)	Coil spring, SUP7NV or SUP12V	Coil spring, SUP7		
	Size (length x width, coil design height & i.d.)	Appears on next page			
	Spring rate N/mm (lb./in.)	21.6	18.6	16.7	21.6
	Rate at wheel N/mm (lb./in.)	23.5	20.6	20.6	23.5
	Insulators (type & material)	UPR and LWR, rubber			
	If leaf: No. of leaves	–			
	If leaf: Shackle (comp. or tens.)	–			
Stabilizer	Type (link, linkless, frameless)	Link	–	Link	Link
	Material & bar diameter	S45C or S48C,17	–	SUP6, 14	
Track bar (type)		–			

* Define load condition:

		4A-GE	4A-FE (R, D grade)	4A-FE (N, X grade)	4WD (wagon)
Front spring					
RH	Std.	340.0 x 127.5	356.5 x 127.8	356.5 x 127.8 364.5 x 127.6	339.0 x 126.9 345.0 x 126.8
	Opt. (w/air conditioner)	346.5 x 127.3	364.5 x 127.6	364.5 x 127.6 372.5 x 127.5	345.0 x 126.8 351.0 x 126.7
LH	Std.	346.5 x 127.3	364.5 x 127.6	364.5 x 127.6 372.5 x 127.5	345.0 x 126.8 351.0 x 126.7
	Opt. (w/air conditioner)	353.5 x 127.2	372.5 x 127.5	372.5 x 127.5 380.5 x 127.4	351.0 x 126.7 357.0 x 126.6

Upper tier: M/T Lower tier: A/T

	Coupe (D grade)	Coupe (X grade)	Coupe (V grade)	Wagon	4WD (wagon)
Rear spring					
Std.	325.5 x (88.8-118.8)	341.5 x (88.9-118.9)	319.5 x (88.3-118.3)	331.0 x (88.6-118.6)	366.0 x 107.5

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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement

Brakes – Service

			4A-GE	4A-FE(2WD)	4A-FE(4WD)
Description			–		
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Std. disc		
	Rear (disc or drum)		Std. drum		
Valving type (proportion, delay, metering, other)			Proportioning valve		
Power brake (std., opt., n.a.)			Std.		
Booster type (remote, integral, vac., hyd., etc.)			Direct vacuum		
Vacuum	Source (inline, pump, etc.)		N.A.		
	Reservoir (volume in.³)		N.A.		
	Pump-type (elec. gear driven, belt driven)		N.A.		
Traction control	Operational speed range		–		
	Type engine intervention (electronic, mech.)		–		
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 cm²(in.²)*			Fr/Rr:164/132	164/232	164/268
Gross Lining area cm²(in.²)**(F:R)			164/132	164/232	164/268
Swept area cm²(in.²)***(F/R)			1190/923	1049/377	1049/440
Rotor	Outerworking diameter	F:R	258/242	238/N.A.	238/N.A.
	Inner working diameter	F:R	162/166	142/N.A.	142/N.A.
	Thickness	F:R	22.0/9.0	18.0/N.A.	18.0/N.A.
	Material & type (vented/solid)	F/R	Cast iron, vented/solid	Cast iron, vented/N.A.	Cast iron, vented/N.A.
Drum	Diameter & width	F:R	N.A./N.A.	N.A./200.0	N.A./200.0
	Type and material	F/R	N.A./N.A.	N.A/Cast iron	N.A./Cast iron
Wheel cylinder bore		F/R	54.0/30.16	51.10/17.46	54.0/19.05
Master cylinder	Bore/stroke		22.22/14.00	20.64/14.00	22.22/14.00
Pedal arc ratio			4.15		
Line pressure at 445 N(100 lb.) pedal load kPa (psi)		1	10785	11121	10785
Lining clearance		F/R	Self adjusting	/ Self adjusting	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)	Bonded		
		Rivet size	–		
		Manufacturer	Bendix, Sumitomo, Nisshinbo, Akebono, Aisin		
		Lining code*****	–		
		Material	Resin molded		
		**** Primary or out-board	102 x 42 x 10		
		Size Secondary or in-board	102 x 42 x 10		
		Shoe thickness (no lining)	5.0		
	Rear wheel	Bonded or riveted (rivets/seg.)	Bonded		
		Manufacturer	Nisshinbo, Akebono		
		Lining code*****	–		
		Material	Resin molded		
		**** Primary or out-board	95 x 34 x 10	192 x 30 x 4	192 x 35 x 4
		Size Secondary or in-board	95 x 34 x 10	192 x 30 x 4	192 x 35 x 4
		Shoe thickness (no lining)	5.5	1.6	1.6

* 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 for formulation designation and coefficient of friction classification.

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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	FWD all R grade	FWD all D.N.X grade	FWD V grade	4WD

Tires And Wheels (Standard)

Tires	Size (load range, ply)		155SR13	175/70SR13	185/60R14 82H	165SR13
	Type (bias, radial, steel, nylon, etc.)		Radial			
	Inflation pressure (cold) for recommended max. vehicle load	Front kPa (psi)	193		179	193*1 221*2
		Rear kPa (psi)	193		179	193*1 221*2
	Rev. mile-at 70 km/h (45 mph)		913	910	916	896
Wheels	Type & material		Full drop center rim, steel			
	Rim (size & flange type)		13 x 5J		14 x 5.5JJ	13 x 5J
	Wheel offset		45		39	45
	Attachment	Type (bolt or stud)	Nut			
		Circle diameter	100			
		Number & size	4.12 dia., 1.5 pitch			
Spare	Tire and wheel		T115/70D14, 14 x 4T			T135/70D15, 15 x 4T
	Storage position & location (describe)		Trunk room			

*1 3 persons *2 Full loaded

Tires And Wheels (Optional)

Tire size (load range, ply)	P155/80R13	P175/70R13	185/60R14 82H	-
Type (bias, radial, steel, nylon, etc.)	Radial			-
Wheel (type & material)	Steel			-
Rim (size, flange type and offset)	13 x 5J		14 x 5.5JJ	-
Tire size (load range, ply)			185/60R14 82H	-
Type (bias, radial, steel, nylon, etc.)			Radial	-
Wheel (type & material)			Aluminum	-
Rim (size, flange type and offset)		(N & X grade)	14 x 5.5JJ	-
Tire size (load range, ply)		P175/70R13		
Type (bias, radial, steel, nylon, etc.)		Radial		
Wheel (type & material)		Steel		
Rim (size, flange type and offset)		13 x 5J		
Tire size (load range, ply)		175/70 SR13 P175/70R13		
Type (bias, radial, steel, nylon, etc.)		Radial		
Wheel (type & material)		Aluminum		
Rim (size, flange type and offset)		13 x 5J		
Spare tire and wheel size (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	The same			

Brakes – Parking

		Coupe V grade	All others
Type of control		Manual	
Location of control		On floor tunnel	
Operates on		Rear disc rotor	Rear brake drum
If separate from service brakes	Type (internal or external)	N.A.	
	Drum diameter	N.A.	
	Lining size (length x width x thickness)	N.A.	

MVMA Specifications

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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	4A-GE	FWD, 4A-FE	4WD, Wagon

Steering

Manual (std., opt., n.a.)				N.A.	Std.(except N grade), N.A.(N grade)		Std.
Power (std., opt., n.a.)				Std.	Std.(N grade), Opt.(except N grade)		Opt.
Adjustable steering wheel/column (tilt, telescope, other)		Type		Tilt			
		Manufacturer		–			
		(std., opt., n.a.)		Std.	Opt.		Opt.
Wheel diameter** (W9) SAE J1100		Manual		384	380		380
		Power		384	380		380
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		10.8	M/S 10.6	P/S 10.8	10.8
		Curb to curb (l. & r.)		9.8	9.6	9.8	9.8
	Inside rear	Wall to wall (l. & r.)		5.5	5.2	5.4	5.2
		Curb to curb (l. & r.)		5.7	5.4	5.6	5.4
Scrub Radius*							
Manual	Gear	Type		–	Rack and pinion		
		Manufacturer		–	Toyota Motor Corporation		
		Ratios	Gear	–	∞		
			Overall	–	24.1		21.9-24.6
	No. wheel turns (stop to stop)			–	4.3		4.2
Power	Type (coaxial, elec., hyd., etc.)			Integral			
	Manufacturer			Toyota	Toyota/Koyo		Toyota
	Gear	Type		Rack and pinion			
		Ratios	Gear	∞			
			Overall	19.1	19.1/18.7		19.1
	Pump (drive)			V-ribbed belt			
	No. wheel turns (stop to stop)			3.4	3.4/3.3		3.4
Linkage	Type			Ackerman			
	Location (front or rear of wheels, other)			Rear of wheels			
	Tie rods (one or two)			2			
Steering axis	Inclination at camber (deg.)			12°50'	12°40', 12°45' (coupe)		12°05'
	Bearings (type)	Upper		Ball bearing			
		Lower		Ball joint			
		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 22.

∅ MVMA Specifications

Vehicle Line TOYOTA COROLLA
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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	4A-GE	FWD 4A-FE Sedan, Wagon	FWD 4A-FE Coupe	4WD, Wagon

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	1°20'±45'	1°20'±45'	1°25'±45'	1°15'±45'
		Camber (deg.)	-0°15'±30'	-0°10'±30'		0°10'±30'
		Toe-in outside track-mm (in.)	1±4			
	Service reset*	Caster (deg.)	1°20'±30'	1°20'±30'	1°25'±30'	1°15'±30'
		Camber (deg.)	-0°15'±30'	-0°10'±30'		0°10'±30'
		Toe-in - mm (in.)	1±1			
	Penodic M.V. inspection	Caster (deg.)	1°20'±45'	1°20'±45'	1°25'±45'	1°15'±45'
		Camber (deg.)	-0°15'±45'	-0°10'±45'		0°10'±30'
		Toe-in - mm (in.)	1±4			
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-0°40'±45'	-0°35'±45'	-0°40'±45'	0
		Toe-in outside track-mm (in.)	4±4			0
	Service reset*	Camber (deg.)	-0°40'±30'	-0°35'±30'	-0°40'±30'	0
		Toe-in - mm (in.)	4±2			0
	Penodic M.V. inspection	Camber (deg.)	-0°40'±45'	-0°35'±45'	-0°40'±45'	0
		Toe-in - mm (in.)	4±4			0

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

∅ Electrical – Instruments and Equipment

			Coupe	Sedan	Wagon
Speed-ometer	Type (analog, digital, std., opt.)		Analog, round		
	Trip odometer (std., opt., n.a.)		Std.		
Head-up display	Standard, optional, not available		-		
	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		Warning lamp	Electric	
	Warning device (light, audible)		Light		
Temperature indicator	Type		Analog	Electric	
	Warning device (light, audible)		N.A.		
Oil pressure indicator	Type		Warning lamp	Electric	
	Warning device (light, audible)		Light		
Fuel indicator	Type		Analog	Electric	
	Warning device (light, audible)		Warning lamp	Light	
Wind-shield wiper	Type (standard)		*1	Motor, 3-step, Motor, 2-step (N grade)	
	Type (optional)		*2	Motor, 3-step	
	Blade length		Driver's side: 500, passenger's side: 450		
	Swept area cm²(in.²)		6581	6430	6430 (FWD), 6510 (4WD)
Wind-shield washer	Type (standard)		Motor		
	Type (optional)		-		
	Fluid level indicator (light, audible)		-		
Rear window wiper, wiper/washer (std., opt., n.a.)			N.A.		
Horn	Type		Electric, disc type		
	Number used		1		
Other			V grade Voltmeter Analog		

*1 Motor, 2-step, w/mist wiper, Motor, 3-step (V grade)
*2 Motor, 3-step, Motor, 3-step, variable (D grade, A/T)

MVMA Specifications

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METRIC (U.S. Customary)

Engine Description / Engine Code	All model

Electrical – Supply System

Battery	Manufacturer	–	
	Model, std., (opt.)	50D20L	Opt: 55D23L
	Voltage	12V	12V
	Amps at 0°F cold crank	270A	310A
	Minutes-reserve capacity	75	90
	Amps/hrs.-20 hr. rate	50AH	60AH
	Location	Left front in engine compartment	
Alternator	Manufacturer	–	
	Rating (idle/max. rpm)	70A	
	Ratio (alt. crank/rev.)	2.36	
	Output at idle (rpm, park)	–	
	Optional (type & rating)	–	
Regulator	Type	IC type (voltage control)	

Electrical – Starting System

Motor	Manufacturer	–
	Current drain _____ °C(°F)	–
	Power rating kw (hp)	–
Motor drive	Engagement type	Shift type
	Pinion engages from (front, rear)	Right

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		Std.
	Other (specify)		N.A.
Coil	Manufacturer		Nippondenso
	Model		–
	Current	Engine stopped – A	–
		Engine idling – A	–
Spark plug	Manufacturer		Nippondenso, NGK
	Model		4A-GE: PK20R8, BKR6EP8, 4A-FE: Q16R-U, BCPR-5EY
	Thread (mm)		M14-19.0
	Tightening torque N-m (lb. ft)		17.7
	Gap		0.8
	Number per cylinder		1
Distributor	Manufacturer		Nippondenso
	Model		–

Electrical – Suppression

Locations & type	Distributor with flame spray coated rotor Resistive cord, resistive spark plug

MVMA Specifications

Vehicle Line TOYOTA COROLLA
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METRIC (U.S. Customary)

Body Type		Coupe	Sedan	Wagon
Body				
Structure		Monocoque		
Bumper system front - rear	Bar material and mass Fr./Rr.	Urethane 4.6/6.5	Urethane 4.8/5.8 (STD)	Urethane 5.1/4.2
	Reinforcement material and mass Fr./Rr.	Steel 10.0/13.9	Steel 9.3/12.5 (STD)	Steel 9.2/9.3
Anti-corrosion treatment		-		

Body – Miscellaneous Information

Type of finish (lacquer, enamel, other)		Acryl resin paint		
Hood	Material & mass	-		
	Hinge location (front, rear)	Rear		
	Type (counterbalance, prop)	Prop		
	Release control (internal, external)	Internal		
Trunk lid	Material & mass	-		
	Type (counterbalance, other)	Counter balance		
	Internal release control (elec., mech., n.a.)	Mechanical	Mechanical, N.A.(STD)	N.A.
Hatch-back lid	Material & mass	-		
	Type (counterbalance, other)	-		
	Internal release control (elec., mech., n.a.)	-		
Tailgate	Material & mass	-		
	Type (drop, lift, door)	Lift		
	Internal release control (elec., mech., n.a.)	Mechanical		
Vent window control (crank, friction, pivot, power)	Front	-		
	Rear	-		
Window regulator type (cable, tape, flex drive, etc.)	Front	-		
	Rear	-		
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Spring frame+foam pad	Panel frame+foam pad(2WD) / Panel frame+spring+foam pad (4WD)	
	Rear	Wire frame + foam pad		
	3rd seat	-		
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Spring frame+foam pad	Pipe frame + spring + foam pad	
	Rear	*1	*2	Panel frame+foam pa
	3rd seat	-		

*1: Bord frame + foam pad (DLX,SR5)
Panel frame + foam pad (Opt. for SR5, GT-S)
*2: Wire frame + foam pad (DLX, STD)
Panel frame + foam pad (LE)

MVMA Specifications

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METRIC (U.S. Customary)

Body Type	Coupe	Sedan	Wagon

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard optional: Standard	First seat	Coupe 3 point, ELR	-	3 point, ELR
		Second seat	Sedan and wagon 3 point, ELR	2 point, manual adj.	3 point, ELR
		Third seat	-	-	-
Passive	Type & description (air bag, motorized - 2-point belt, fixed belt, knee bolster, manual - lap belt) Standard / optional: Standard	First seat	All automatic 2 point, manual lap, knee bolster	-	Same as left
		Second seat	-	-	-
		Third seat	-	-	-

Glass	SAE Ref. No.			
Windshield glass exposed surface area $cm^2(in.^2)$	S1	8935	8712	8712, 8729(4WD)
Side glass exposed surface area $cm^2(in.^2)$ - total 2-sides	S2	8580	10060	13814, 14384(4WD)
Backlight glass exposed surface area $cm^2(in.^2)$	S3	7160	7156	4242, 3776 (4WD)
Total glass exposed surface area $cm^2(in.^2)$	S4	24675	25928	26768, 26889 (4WD)
Windshield glass (type)		Laminated, curved		
Side glass (type)		Tempered, curved		
Backlight glass (type)		Tempered, curved		

Headlamps	Coupe	Sedan, Wagon
Description (sealed beam, halogen, replaceable bulb, etc.)	Retractable type * Semi-sealed beam, Halogen bulb	Semi-sealed beam, Halogen bulb
Shape	Square 2	-
Lo-beam type (2A1, 2B1, 2C1, etc.	-	
Quantity	-	
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	-	
Quantity	-	

* X and V grade only

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Monocock

MVMA Specifications

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July,1990 Revised (•)

METRIC (U.S. Customary)

Body Type	Coupe	Sedan	Wagon

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

Air conditioning (manual, auto. temp control)		Opt. manual, temp control		
Clock (digital, analog)	Digital	Srd.(V grd.), Opt.(other)	Std.(N grd.), Opt.(D grd.), N.A.(R grd.)	
Compass thermometer		–		
Console (floor, overhead)		Std. for all, floor		
Defroster, elec. backlight		Std.	Opt.(R grd.), Std.(others)	Std.
Electronic	Diagnostic monitor (integrated, individual)	–		
	Instrument cluster (list instruments)	–		
	Keyless entry	–		
	Tripminder (avg. spd., fuel)	–		
	Voice alert (list items)	–		
	Other	–		
Fuel door lock (remote, key, electric)		Remote		
Lamps	Auto head on / off delay, dimming	–		
	Cornering	N.A.		
	Courtesy (map, reading)	Opt., map (except R grade)		
	Door lock, ignition	N.A.		
	Engine compartment	N.A.		
	Fog	N.A.		
	Glove compartment	N.A.		
	Trunk	N.A.	Std,(N grade)	Std.(4WD)
	Illuminated entry system (list lamps, activation)	–		
	Other	–		
Mirrors	Day / night (auto. man.)	Manual		
	L.H. (remote, power, heated)	Remote, power or manual		
	R.H. (convex, remote, power, heated)	Convex, remote power		
	Visor vanity (RH / LH, illuminated)	–		
Navigation system (describe)		–		
Parking brake-auto release (warning light)		Waring light		

MVMA Specifications

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July, 1990 Revised (•)

METRIC (U.S. Customary)

Body Type	Coupe	Sedan	Wagon

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

Power equipment	Deck lid (release, pull down)		–
	Door locks (manual, automatic, describe system)		–
	Seats	2 - 4 - 6 way, etc.	–
		Reclining (R.H., L.H.)	Front seat back; Yes, both
		Memory (R.H., L.H., preset recline)	–
		Support (lumbar, hip, thigh, etc.)	–
		Heated (R.H., L.H., other)	–
	Side windows		N.A.(D grd.), Opt.(others) | Opt.(N grd.), N.A.(others) | N.A.
	Vent windows		N.A.
	Rear windows		N.A.
Radio systems	Antenna (location, whip, w shield, power)		Whip, sedan & FWD wagon: A pillar, Coupe and 4WD wagon: Roof
	Standard	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM MPX ETR(V and N grade)
	Optional		w/o casset -AM/FM radio (FWD wagon) -AM/FM MPX ETR (R and D grd. for sedan and 4WD wagon) w/casset -AM/FM MPX ETR (All model)
	Speaker (number, location)		Rear seat speaker: Std. (N, V grd.) Opt. (D. R grd.)
Roof: open air or fixed (flip-up, sliding, "T")			Sun roof (Opt: All model except 2WD wagon & R grade)
Speed control device			N.A. (R grd.), Opt. (others)
Speed warning device (light, buzzer, etc.)			N.A.
Tachometer (rpm)			Std, opt or N.A. depending on grade
Telephone system (describe)			–
Theft deterrent system			Steering lock

∅ Trailer Towing

Towing capable	Yes 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.

MVMA Specifications

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July,1990 Revised (•) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each vehicle 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.	Coupe	Sedan	2WD Wagon	4WD Wagon
Width					
Tread (front)	W101	1445(V grd.), 1430(others)	1430	1430	1440
Tread (rear)	W102	1425(V grd.), 1410(others)	1410	1410	1380
Vehicle width	W103	1665	1655	1655	1655
Body width at Sg RP (front)	W117	1656	1615	1615	1635
Vehicle width (front doors open)	W120	3905	3325	3325	3325
Vehicle width (rear doors open)	W121	–	3195	3195	3215
Tumble-home (degrees)	W122	28.2°	24°	24°	24°
Outside mirror width	W410				
Length					
Wheelbase	L101	2430			
Vehicle length	L103	4375	4325	4355	4370
Overhang (front)	L104	925	875	875	875
Overhang (rear)	L105	1020	1020	1050	1065
Upper structure length	L123	2486	2560	2960	2990
Rear wheel C L "X" coordinate	L127	2430	2430	2430	2430
Height **					
Passenger distribution (front:rear)	PD1.2.3	2/1	**		
Trunk/cargo load **		0	0	105.4	0
Vehicle height	H101	1260	1330	1385	1415 (1440)
Cowl point to ground	H114	850	875	875	900
Deck point to ground	H138	910	935		
Rocker panel-front to ground	H112	180			205
Rocker panel-rear to ground	H111	185			210
Windshield slope angle (degrees)	H122	61.9°	59°	59°	59°
Backlight slope angle (degrees)	H121	61.7°	56.5°	34°	20°
Ground Clearance **					
Front bumper to ground	H102	235	235	235	255
Rear bumper to ground	H104	350	310	295	310
Bumper to ground front at curb mass (wt.)	H103	250	250	250	275
Bumper to ground rear at curb mass (wt.)	H105	395	355	340	340
Angle of approach (degrees)	H106	17.0	17.5	17.5	21.5
Angle of departure (degrees)	H107	16.0(V grd.), 15.0(others)	15.0	15.0	15.5
Ramp breakover angle (degrees)	H147	13.0(V grd.), 13.5(others)	13.5	13.5	15.5
Axle differential to ground (front:rear)	H153	–	–	–	150
Min. running ground clearance	H156	135(V grd.), 140(others)	140	140	160
Location of min. run. grd. clear.		Exhaust center pipe			CC_{RO}

*** All Vehicle Height And Ground Clearance Are Made Using EPA Loaded Vehicle Weight, Loading Conditions.*

EPA Loaded Vehicle Weight is the Base Vehicle Weight Plus All Coolant And Fluids Necessary For Operation Plus 100% Of The Fuel Capacity, Plus The Weight Of All Options And Accessories Which Weigh Three Pounds Or More And Which Are Sold On At Least 33% Of The Car Line, Plus Two Occupants.

MVMA Specifications

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July, 1990 Revised (*) _____

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

Body Type		Coupe	Sedan	2WD Wagon	4WD Wagon
Front Compartment	SAE Ref. No.				D: driver P: Passer
SgRP front, "X" coordinate	L31	1360	1325		
Effective head room(w/sun roof)	H61	963(914)	974.5(937)	1005	1030.5(988.5)
Max. eff. leg room (accelerator)	L34	1090	1038		
SgRP to heel point	H30	210.5	267.5		
SgRP to heel point	L53	903	819.5		
Back angle (degrees)	L40	21°			
Hip angle (degrees)	L42	93.5°	90°		
Knee angle (degrees)	L44	132°	118°		
Foot angle (degrees)	L46	87°			
Design H-point front travel	L17	D:208.5, P:193.5	D:209, P:194		D:208.5, P:193.5
Normal driving & riding seat track trvl.	L23	D:208.5, P:193.5	D:209, P:194		D:208.5, P:193.5
Shoulder room	W3	1330.5	1351		
Hip room	W5	1363	1261		
*** Upper body opening to ground	H50	1170	1222.5		1247.5
Steering wheel maximum diameter*	W9	-		380	-
Steering wheel angle (degrees)	H18	-		25.1°	-
Accel. heel pt. to steer. whl. cntr	L11	-		411.9	-
Accel. heel pt. to steer. whl. cntr	H17	-		647.2	-
Undepressed floor covering thickness	H67	16	8		

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) _____ mm Forward And _____ mm Upward of Rearmost Position.

Rear Compartment					
SgRP point couple distance	L50	611	720		
Effective head room(w/sun roof)	H63	896(887.5)	925.5(925.5)	999	999(942.5)
Min. effective leg room	L51	655	803		805
SgRP (second to heel)	H31	254.5	305		290
Knee clearance(opt, V grd.)	L48	-109.5(-129.5)	-15	9	-14
Shoulder room	W4	1297	1339(D grd.), 1328(N grd.), 1363.5(R grd.)		1339
Hip room	W6	1182	1363.5(D grd.), 1272.5(N grd.), 1228.5(R grd.)		1061
*** Upper body opening to ground	H51	1048	1228.5		1253.5
Back angle (degrees)	L41	26°	27°		
Hip angle (degrees)	L43	73.5°	84.5°		83.5°
Knee angle (degrees)	L45	53.5°	73.5°		74.5°
Foot angle (degrees)	L47	104.5°	114°		116°
Depressed floor covering thickness	H73	13	8		

Luggage Compartment					
Usable luggage capacity L (cu. ft.)	V1	330	360	354	275
*** Liftover height	H195	780	595	-	545

Interior Volumes (EPA Classification)		
Vehicle class		-
Interior volume index (cu. ft.)**		-
Trunk / cargo index (cu. ft.)		-

* See page 14.
** Includes passenger and trunk / cargo index - see definition page 32.
All linear dimensions are in millimeters (inches).
*** **EPA Loaded Vehicle Weight, Loading Conditions**

MVMA Specifications

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July, 1990 Revised (*)

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

Body Type	SAE Ref. No.	2WD Wagon	4WD Wagon
Station Wagon – Third Seat			
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 – Cargo Space			
Cargo length (open front)	L200	–	–
Cargo length (open second)	L201	–	–
Cargo length (closed front)	L202	1683	1708
Cargo length (closed second)	L203	947	964.5
Cargo length at belt (front)	L204	1567	1493
Cargo length at belt (second)	L205	735	672.5
Cargo width (wheelhouse)	W201	973	834
Rear opening width at floor	W203	1085	1110
Opening width at belt	W204	1225.5	438.5
Min. rear opening width above belt	W205	803	624.5
Cargo height (w/sun roof)	H201	870.5	830.5 (787)
Rear opening height	H202	803.5	763.5
* Tailgate to ground height	H250		
Front seat back to load floor height	H197	400.5	438.5
Cargo volume index $m^3(ft.^3)$(w/sun roof)	V2	1.827	1.660 (1.573)
Hidden cargo volume index $m^3(ft.^3)$ (w/sun roof)	V4	0.857	0.748 (0.709)
Cargo volume index-rear of 2-seat (w/sun roof)	V10	0.740	0.607 (0.575)
Hatchback – Cargo Space			
Cargo length at front seatback height	L208	–	
Cargo length at floor (front)	L209	–	
Cargo length at second seatback height	L210	–	
Cargo length at floor (second)	L211	–	
Front seatback to load floor height	H197	–	
Second seatback to load floor height	H198	–	
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	–	

* EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line TOYOTA COROLLA
Model Year 1991 Issued July, 1990 Revised (•)

Body Type	Coupe	4WD Wagon	Others

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
Front	Center of installation hole for seat track outer in cross member of front floor (both sides)
Rear	Coupe: Center of installation hole for rear seat belt in center floor (both sides) Others: Installation hole for seat belt anchor in quarter wheelhouse inner (both sides)

Fiducial Mark Number				
Front	W21*	W5+70.5	W5+65	W5+70.5
	L54*	L19+90	L19+82	L19+90
	H81*	H10+73.5	H10+83	H10+73.5
	H161*	290	325	290
**	H163*	260	295	260
Rear	W22*	W5+40	W5+32	W5+70.7
	L55*	L30+20	L31+43.5	L31+25.5
	H82*	H11+4.5	H11+67	H11+88
	H162*	325	420	415
**	H164*	295	380	380

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

All Linear dimensions are in millimeters (inches).

** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line TOYOTA COROLLA

Model Year 1991 Issued July, 1990 Revised (•) _____

Code	Model	Vehicle Mass (weight)					% PASS MASS DISTRIBUTION			
		CURB MASS, kg. (lb.)*			SHIPPING MASS kg(lb)***	ETWC** Code	Pass in Front		Pass in Rear	
		Front	Rear	Total			Front	Rear	Front	Rear
AE92L-ACHDKA		609	429	1038	1006	O	44	56	16	84
AE92L-ACMDKA		602	422	1024	992	O	44	56	16	84
SE92L-ACPXKA		636	431	1067	1035	O	44	56	16	84
AE92L-ACMXKA		611	424	1035	1003	O	44	56	16	84
AE92L-ACMVFA		654	434	1088	1056	P	44	56	16	84
AE92L-A(D)EHRKA		609	424	1033	1001	O	45	55	16	84
AE92L-A(D)EMRKA		598	424	1022	990	O	45	55	16	84
AE92L-A(D)EHDKA		609	429	1038	1006	O	45	55	16	84
AE92L-A(D)EMDKA		598	426	1024	992	O	45	55	16	84
AE92L-A(D)EPNKA		632	435	1067	1035	O	45	55	16	84
AE92L-A(D)EMNKA		600	433	1033	1001	O	45	55	16	84
AE92L-AWHDKA		618	445	1063	1031	O	45	55	16	84
AE92L-AWMDKA		605	438	1043	1011	O	45	55	16	84
AE95L-CWPDKA		679	540	1219	1187	R	45	55	16	84
AE95L-CWMDKA		656	541	1197	1165	R	45	55	16	84

* 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 = 2875	X = 3875	FF = 5750

*** Shipping Mass (weight) = Curb Weight Less: 32 kg

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line TOYOTA COROLLA

Model Year 1991 Issued July, 1990 Revised (•)

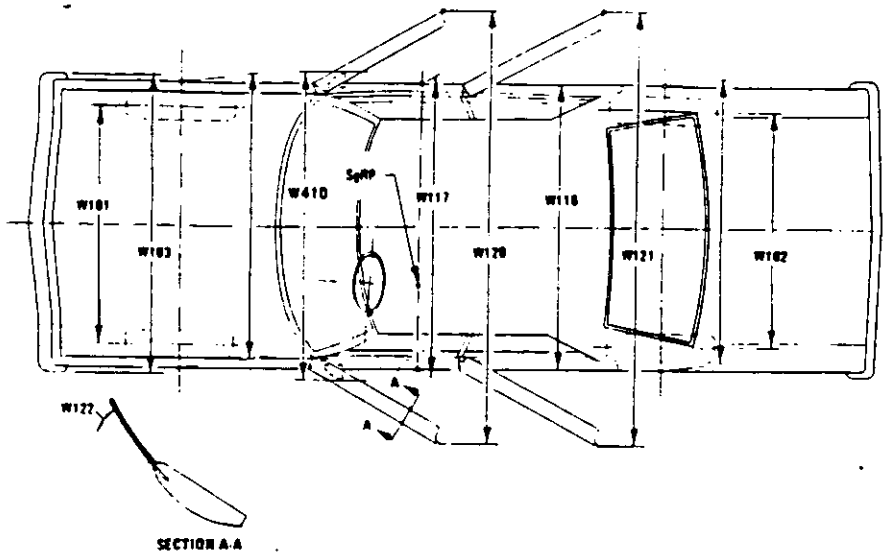
Optional Equipment Differential Mass (weight)*

Code	Equipment	MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
	Air conditioner	21	0	21	
	Power steering	9	0	9	2WD
		9.5	0	9.5	4WD
	Radio and speaker	3.5	1.2	4.7	Coupe, Sedan
		1.0	0.4	1.4	Wagon
		2.5	2.0	4.5	4WD
	Cruise control	2.8	0	2.8	2WD
		2.1	0	2.1	4WD
	Sun roof	5.7	8.5	14.2	Coupe, Sedan
		7.8	11.6	19.4	Wagon (4WD)
	Power window	1.9	4.8	6.7	Sedan, N grd.
		2.3	2.3	4.6	Coupe, X grd., V grd.
	Side mud guard	2.7	2.7	5.4	AE92L-ACMVFA
	Mud guard	0.6	0.7	1.3	All models
	Side protection mouldings	0.6	0.6	1.2	DLX (2WD only)
	Tilt steering	1.3	0	1.3	All but AE92L-ACMVFA
	Battery	2.5	0	2.5	2WD
		3.6	0	3.6	4WD
	Sport seat	1.5	1.9	3.4	AE92L-ACMVFA
	Rear window wiper	-0.2	1.7	1.5	Wagon, D grd.
	Package tray trim	0	2.3	2.3	AE92L-AWMDKA, AWHDKA
	Floor mat	1.8	1.8	3.6	AE95 series

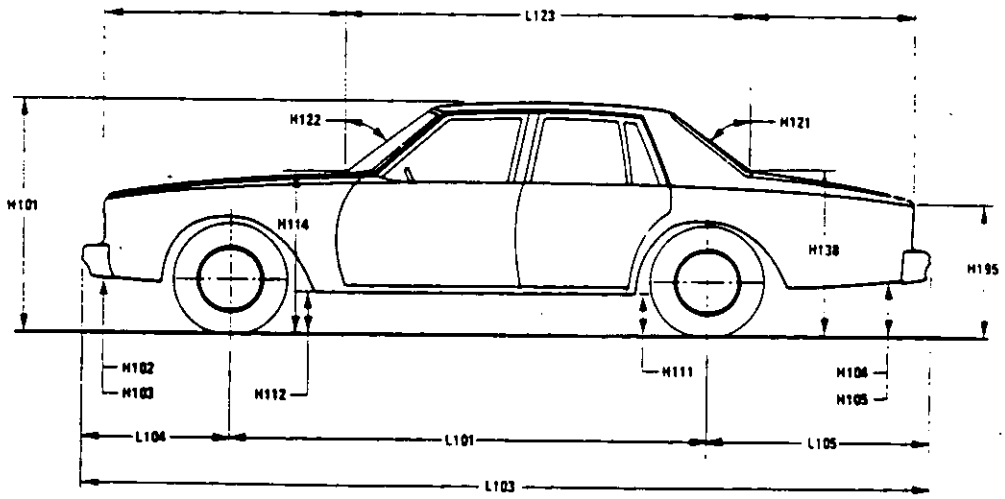
* Also see Engine - General Section for dressed engine mass (weight).

Exterior Vehicle And Body Dimensions – Key Sheet

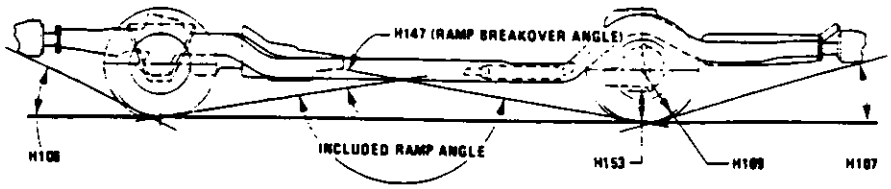
Exterior Width



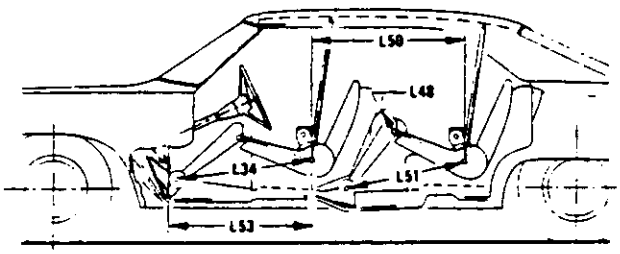
Exterior Length & Height

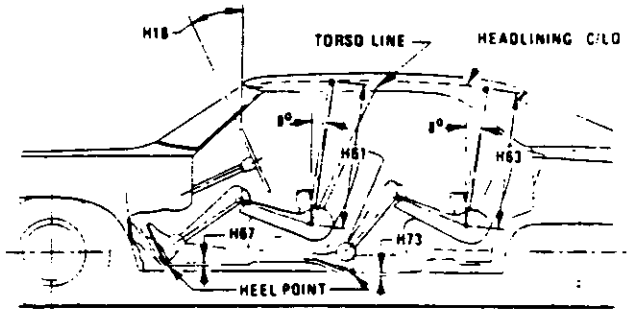


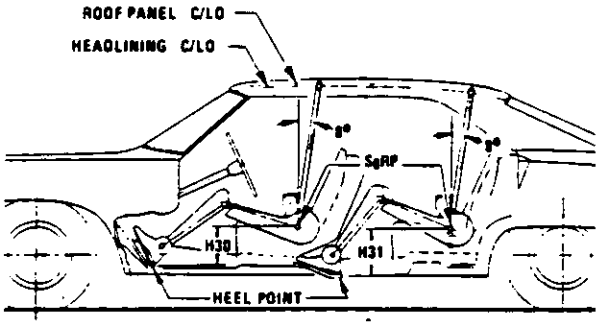
Exterior Ground Clearance

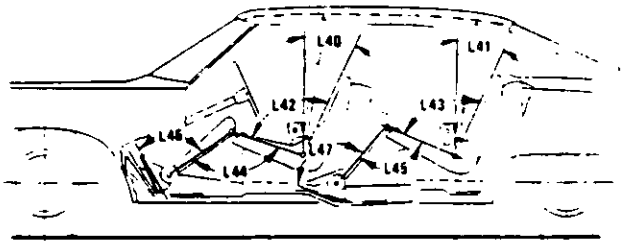


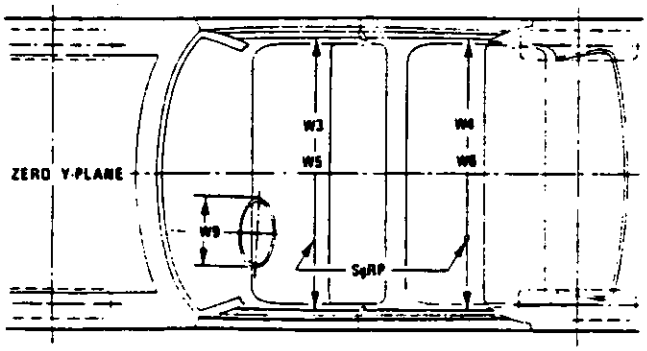
Interior Vehicle And Body Dimensions – Key Sheet

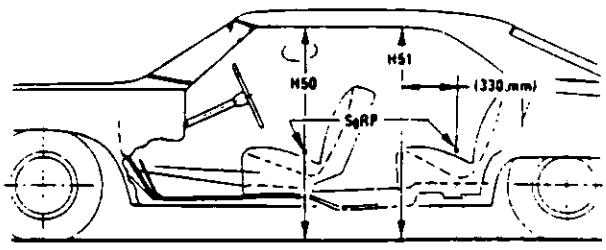






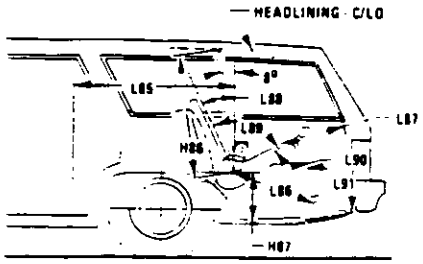


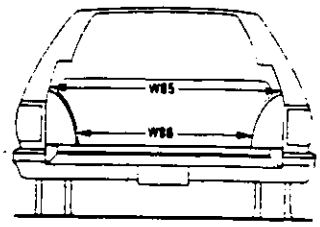




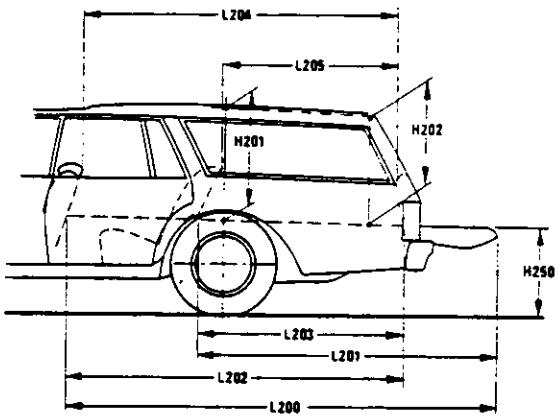
Interior Vehicle And Body Dimensions – Key Sheet

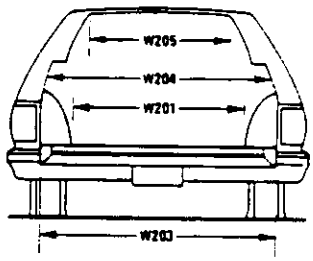
Third Seat



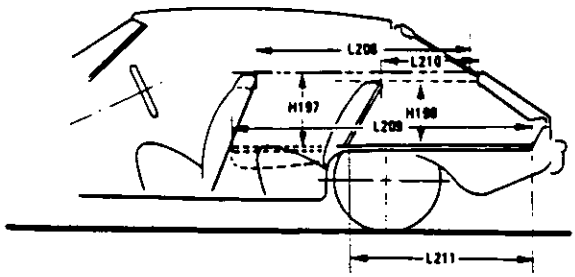


Cargo Space





Station Wagon



Hatchback

Exterior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –
(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle;
(b) Has coordinates established relative to the design vehicle structure;
(c) Simulates the position of the pivot center of the human torso and thigh; and
(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Devices for Use in Defining and Measuring Vehicle Seating Accommodations,".

Width Dimensions

W101 TREAD – FRONT. The dimension measured between the tire centerlines at the ground.

W102 TREAD – REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.

W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.

W117 BODY WIDTH AT SgRP – FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.

W120 VEHICLE WIDTH – FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.

W121 VEHICLE WIDTH – REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.

W122 TUMBLE – HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.

W410 OUTSIDE MIRROR WIDTH: The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" plane.

Length Dimensions

L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.

L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L104 OVERHAND – FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L105 OVERHANG – REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.

L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be the midpoint of the distance between the rear axle centerlines.

Height Dimensions

H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.

H111 ROCKER PANEL – REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.

H112 ROCKER PANEL – FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.

H114 COWL POINT TO GROUND. Measured at zero "Y" plane.

H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.

H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield arc running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.

H138 DECK POINT TO GROUND. Measured at zero "Y" plane.

H109 STATIC LOAD – TIRE RADIUS – REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

Ground Clearance Dimensions

H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.

H103 FRONT BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H102.

H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.

H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.

H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.

H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point structural interference rearward of the rear tire to ground. The limiting component shall be designated.

H147 RAMP BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.

H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.

H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Glass Areas

S1 Windshield area.
S2 Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.
S3 Backlight areas.
S4 Total area. Total of all areas (S1 + S2 + S3).

Fiducial Mark Dimensions

Fiducial Mark – Number 1

L54 "X" coordinate.
W21 "Y" coordinate.
H81 "Z" coordinate.
H161 Height "Z" coordinate to ground at curb weight.
H163 Height "Z" coordinate to ground.

Fiducial Mark – Number 2

L55 "X" coordinate.
W22 "Y" coordinate.
W82 "Z" coordinate.
H162 Height "Z" coordinate to ground at curb weight.
H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.

L17 DESIGN H-POINT – FRONT TRAVEL. The dimension measured horizontally between the design H-point – front in the foremost and rearmost seat track positions. (See SAE J1100)

L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100).

L31 SgRP – FRONT. "X" COORDINATED.

L34 MAXIMUM EFFECTIVE LEG ROOM – ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP – front plus 254 mm (10.0 in.) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.

L-40 BACK ANGLE – FRONT. The angle measured between a vertical line through the SgRP – front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

L-42 HIP ANGLE – FRONT. The angle measured between torso line and thigh centerline.

L44 KNEE ANGLE – FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.

L46 FOOT ANGLE – FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.

L53 SgRP – FRONT TO HEEL. The dimension measured horizontally from the SgRP – front to the accelerator heel point.

W3 SHOULDER ROOM – FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP – front at height between the belt line and 254 mm (10.0 in.) above the SgRP – front, excluding the door assist strap and attaching parts.

W5 HIP ROOM – FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP – front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP – front and 76 mm (3.0 in.) fore and aft of the SgRP – front.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

H7 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP – front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.

H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.

H30 SgRP – FRONT TO HEEL. The dimension measured vertically from the SgRP – front to the accelerator heel point.

H50 UPPER BODY OPENING TO GROUND – FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP – front "X" plane.

H61 EFFECTIVE HEAD ROOM – FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP – front to the headlining plus 102 mm (4.0in.).

H67 FLOOR COVERING THICKNESS – UNDEPRESSED – FRONT. The dimension measured vertically from the surface of the undepressed floor covering to the underbody sheet metal at the accelerator heel point.

Rear Compartment Dimensions

L-41 BACK ANGLE – SECOND. The angle measured between a vertical line through the SgRP – second and the torso line.

L43 HIP ANGLE – SECOND. The angle measured between torso line and thigh centerline.

L45 KNEE ANGLE – SECOND. The angle measured between thigh centerline and lower leg centerline.

L47 FOOT ANGLE – SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).

L48 KNEE CLEARANCE – SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).

L50 SgRP COUPLE DISTANCE – SECOND. The dimension measured horizontally from the driver SgRP – front to the SgRP – second.

L51 MINIMUM EFFECTIVE LEG ROOM – SECOND. The dimension measured along a line from the ankle pivot center to the SgRP – second plus 254 mm (10.0 in.).

W4 SHOULDER ROOM – SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP – second at height between 254-406 mm (10.0-16.0 in.) above the SgRP – second, excluding the door assist straps and attaching parts.

W6 HIP ROOM – SECOND. Measured in the same manner as W5.

H31 SgRP – SECOND TO HEEL. The dimension measured vertically from the SgRP – second to the two dimensional device heel point on the depressed floor covering.

H51 UPPER BODY OPENING TO GROUND – SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP – second.

H63 EFFECTIVE HEAD ROOM – SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).

H73 FLOOR COVERING – DEPRESSED – SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Luggage Compartment Dimensions

V1 USABLE LUGGAGE CAPACITY – Total of volumes of individual pieces of standard luggage set plus H-boxes stowed in the luggage compartment in accordance with the procedure described in paragraph 8.2 of SAE-J1100a.

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The Interior Volume Index estiamtes the space in a car. It is based on four measurements – head room, shoulder room, hip room, and leg room – for the front and rear seats, plus trunk capacity. The Interior Volume Index is an estimate of the size of the passenger compartment.

The Trunk/Cargo Index is an estimate of the size of the trunk/cargo space. In station wagons and hatchbacks it is an estimate of the space behind the second seat.

Station Wagon – Third Seat Dimensions

L85 SgRP COUPLE DISTANCE – THIRD. The dimension measured horizontally from the SgRP – second to the SgRP – third.

L86 EFFECTIVE LEG ROOM – THIRD. The dimension measured along a line from the ankle pivot center to the SgRP – third plus 254 mm (10.0 in.).

L87 KNEE CLEARANCE – THIRD. The minimum dimension from the knee pivot center to the back of second seatback minus a constant of 51 mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.

L88 BACK ANGLE – THIRD. Measured in the same manner as L41.

L89 HIP ANGLE – THIRD. Measured in the same manner as L43.

L90 KNEE ANGLE – THIRD. Measured in the same manner as L45

L91 FOOT ANGLE – THIRD. Measured in the same manner as L47.

W85 SHOULDER ROOM – THIRD. Measured in the same manner as W4.

W86 HIP ROOM – THIRD. Measured in the same manner as W5.

H86 EFFECTIVE HEAD ROOM – THIRD. The dimension, measured along a line 8 deg. from the SgRP – third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).

H87 SgRP – THIRD TO HEEL POINT.

SD1 SEAT FACING DIRECTION – THIRD.

Station Wagon – Cargo Space Dimensions

L200 CARGO LENGTH – OPEN – FRONT. The minimum dimension measured longitudinally from the back of the front seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo surface if the rear closure is a conventional door type tailgate at the zero "Y" plane.

L201 CARGO LENGTH – OPEN – SECOND. The dimension measured longitudinally from the back of the second seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

L202 CARGO LENGTH – CLOSED – FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L203 CARGO LENGTH – CLOSED – SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L204 CARGO LENGTH AT BELT – FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab backpanel at the height of the belt, on the zero "Y" plane.

L205 CARGO LENGTH AT BELT – SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.

W201 CARGO WIDTH – WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measure to the sheet metal.

W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.

W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.

W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.

H197 FRONT SEATBACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinate on the zero "Y" plane.

H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.

H250 TAILGATE TO GROUND CURB MASS (WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.

V2 STATION WAGON

Measured in inches:

$$\frac{W4 \times H201 \times L204}{1728} = ft^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L204}{10^9} = m^3 \text{ (cubic meter)}$$

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

V4 HIDDEN LUGGAGE CAPACITY – REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V5 TRUCKS AND MPV'S WITH OPEN AREA.
Measured in inches:

$$\frac{L506 \times W505 \times H503}{1728} = ft^3$$

Measured in mm:

$$\frac{L506 \times W500 \times H503}{10^9} = m^3 \text{ (cubic meter)}$$

V6 TRUCKS AND MPV'S WITH CLOSED AREA.
Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = ft^3$$

Measured in mm:

$$\frac{L204 \times W500 \times H505}{10^9} = m^3 \text{ (cubic meter)}$$

V8 HIDDEN LUGGAGE CAPACITY – REAR OF SECOND SEAT. The total volume of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the second seat.

V10 STATION WAGON CARGO VOLUME INDEX.
Measured in inches:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = ft^3$$

Measured in mm:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{10^9} = m^3 \text{ (cubic meter)}$$

Hatchback – Cargo Space Dimensions
All hatchback cargo dimensions are to be taken with the front seat in full down and rear position, and the rear seat folded down. The hatchback door is in the closed position. (For electronically adjusted seats, see the manufacturer's specifications for Design "H" Point).

L208 CARGO LENGTH AT FRONT SEATBACK HEIGHT. The minimum horizontal dimension from the "X" plane tangent to the rearmost surface of the driver's seatback to the inside limiting interference of the hatchback door on the vehicle zero "Y" plane.

L209 CARGO LENGTH AT FLOOR – FRONT – HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the front seatback to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

L210 CARGO LENGTH AT SECOND SEATBACK HEIGHT – HATCHBACK. The minimum dimension measured from the "X" plane tangent to the rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "X" plane.

L211 CARGO LENGTH AT FLOOR – SECOND HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the second seatback or load floor panel to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT: The dimension measured vertically from the second seatback to the undepressed floor covering.

V3 HATCHBACK.
Measured in inches:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{10^9} = m^3 \text{ (cubic meter)}$$

V4 HIDDEN LUGGAGE CAPACITY – REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V11 HATCHBACK CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:
Measured in inches:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{10^9} = m^3 \text{ (cubic meter)}$$

MVMA Specifications

METRIC (U.S. Customary)

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