MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1990

Manufacturer	Vehicle Line	
TOYOTA MOTOR CORPORATION	CELICA	
Mailing Address		
Toyota Motor Sales, U.S.A., Inc. 19001 S. Western Avenue Torrance, CA 90509	Issued 1989	Revised

Direct questions concerning these specifications to the manufacturer listed above.

The information contained herein is prepared, distributed by, and is solely the responsibility of the vehicle manufacturing company to whose products it relates. This suggested specification form was developed by the vehicle manufacturing companies under the auspices of the Motor Vehicle Manufacturers Association of the United States, Inc.

The General Specifications herein are those in effect at date of compilation and are subject to change without notice or incurring obligation by the manufacturer.

Motor Vehicle Manufacturers Association of the United States, Inc.

Forms Provided by Technical Affairs Division

FORM MVMA-90

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.

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Vehicle Origin

Design & development (company)	Toyota Motor Corporation
Where built (country)	Japan
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)
CELICA				
3S-GTE, Liftback wide, 5M/T, 4WD		ST185L-BLMVZA	2/2	57
5S-FE, Liftback wide, 4A/T, FWD		ST184L-BLPVKA	2/2	57
5S-FE, Liftback wide, 5M/T, FWD	GT-S	ST184L-BLMVKA	2/2	57
5S-FE, Liftback, 4A/T, FWD		ST184L-BLPGKA	2/2	57
5S-FE, Liftback, 5M/T, FWD	GT	ST184L-BLMGKA	2/2	57
5S-FE, Coupe, 4A/T, FWD		ST184L-BCPGKA	2/2	57
5S-FE, Coupe, 5M/T, FWD	GT	ST184L-BCMGKA	2/2	57
4A-FE, Coupe, 4A/T, FWD		AT180L-BCPSKA	2/2	57
4A-FE, Coupe, 5M/T, FWD		AT180L-BCMSKA	2/2	57

* 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		3S-GTE	5S-FE	5S-FE		4A-FE	
	Displacement Liters (in³)		2.0	2.164	2.164		1.587	
	Induction system (FI, Carb, etc.)		F.I. turbo	F.I.	F.I.		F.I.	
	Compression ratio		8.8	9.5	9.5		9.5	
	SAE Net at RPM	Power kW (bhp)	149.2	97/5400 (130)	97/5400 (130)		76/5800 (Cal.) 77/6000 (Fed.)	
		Torque N · m (lb. ft.)	271.2	190/4400 (140)	190/4400 (140)		137/4800 (Cal.) 138/3200 (Fed.)	
	Exhaust single, dual		Single	Single	Single		Single (Cal.) Semi dual (Fed.)	
TRANS	Transmission/ Transaxle		5 M/T	4 A/T	5 M/T		4 A/T	5 M/T
	Axle Ratio (std. first)		4.285	3.034	3.944	3.736	3.034	4.312
					C1	C2	D1	D2

Series Availability		Power Teams (A - B - C - D)	
Model	Code	Standard	Optional
3S-GTE, L/B wide, 5M/T, 4WD	ST185L-BLMVZA	A	-
5S-FE, L/B wide, 4A/T, FWD	ST184L-BLPVKA	B	-
5S-FE, L/B wide, 5M/T, FWD	ST184L-BLMVKA	C1	-
5S-FE, L/B, 4A/T, FWD	ST184L-BLPGKA	B	-
5S-FE, L/B, 5M/T, FWD	ST184L-BLMGKA	C2	-
5S-FE, Coupe, 4A/T, FWD	ST184L-BCPGKA	B	-
5S-FE, Coupe, 5M/T, FWD	ST184L-BCMGKA	C2	-
4A-FE, Coupe, 4A/T, FWD	AT180L-BCPSKA	D1	-
4A-FE, Coupe, 5M/T, FWD	AT180L-BCMSKA	D	-

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Engine Description / Engine Code	5S-FE	4A-FE	3S-GTE
ENGINE – GENERAL			
Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	In-line, Front, Transverse, DOHC, Pentroof		
Manufacturer	TOYOTA MOTOR CORPORATION		
No. of cylinders	4		
Bore	87.0	81.0	86.0
Stroke	91.0	77.0	86.0
Bore spacing (C / L to C / L)	93.5-96.5-93.5	88.0	93.5(#1-2, #3-4), 96.5(#2-3)
Cylinder block material & mass kg (lbs.) (machined)	Gray cast iron, 42.0(5S-FE), 36(4A-FE)		FC23, 36.3
Cylinder block deck height	216.0	191.0	216.0
Cylinder block length	409.5	391.5	-
Deck clearance (minimum) (above or below block)	0.4	0.0	0.1
Cylinder head material & mass kg (lbs.)	Aluminum alloy 12.3(5S-FE), 9.3(4A-FE), 12.1(3S-GTE)		
Cylinder head volume (cm^3)	38.5	30.2	50.8
Cylinder liner material	N.A.		-
Head gasket thickness (compressed)	1.20		1.25
Minimum combustion chamber total volume (cm^3)	63.6	46.7	64.1
Cyl. no. system (front to rear)*	1-2-3-4		
Firing order	1-3-4-2		
Intake manifold material & mass [kg (lbs.)]**	Aluminum alloy 4.1(5S-FE), 3.2(4A-FE), 4.1(3S-GTE)		
Exhaust manifold material & mass [kg (lbs.)]**	Spheroidal graphite cast iron 6.9(5S-FE), 4.0(4A-FE)		Cast steel
Fuel required unleaded, diesel, etc.	Unleaded		Unleaded Premium Gasoline only
Fuel antiknock index (R + M) ÷ 2	87		91
Engine mounts – Quantity			
Engine mounts – Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)			
Engine mounts – Added isolation (sub-frame, crossmember, etc.)			
Total dressed engine mass (wt) dry*** kg	M/T 139*1, 138*2, A/T 130	M/T 119, A/T 111	170

*1: Liftback wide *2: Others

Engine – Pistons			
Material & mass, g (weight, oz.) - piston only	Aluminum alloy 354(5S-FE), 293(4A-FE), 393(3S-GTE)		
Engine – Camshaft			
Location	Over cylinder head		
Material & mass kg (weight, lbs.)	Alloy cast iron In.: 2.1, Ex.: 1.6	Gray cast iron In.: 1.8, Ex.: 1.9	Cast iron 1.7x2
Drive type – Chain / belt	Belt, gear	Belt	
Drive type – Width / pitch mm	Belt 26.7/8.0, Gear 14/1.9*	19.1/9.525	25.4/8.0

*: Module

* 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		5S-FE	4A-FE	3S-GTE
Engine – Valve System				
Hydraulic lifters (std., opt., NA)		N.A.		
Valves	Number intake / exhaust	8/8		
	Head O.D. intake / exhaust	32/27	30/24.5	33.5/29.0
Engine – Connecting Rods				
Material & mass (kg., (weight, lbs.))*		Alloy steel, 0.69	Carbon steel, 0.460	Steel, 0.77
Length (axes ⅛ to ⅛) mm		–		
Engine – Crankshaft				
Material & mass (kg., (weight, lbs.))*		Alloy steel, 19.4	Spheroidal Cast Iron, 10.8	Steel, 18.6
End thrust taken by bearing (no.)		No.3	#3	3
Length & number of main bearings		5	5	5
Seal (material, one, two piece design, etc.)	Front	Fluoroethylene, one piece	ACM, One piece	Fluoroethylene Rubber, One piece
	Rear	Si, One piece		Fluoroethylene Rubber, One piece
Engine – Lubrication System				
Normal oil pressure (kPa (psi) at engine rpm)		343/2500	235/2000	275/2500
Type oil intake (floating, stationary)		Stationary		
Oil filter system (full flow, part, other)		Full flow		
Capacity of c/case, less filter-refill-L (qt.)		3.7	3.0	3.6
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.	TOYOTA
Super charger - manufacturer		–	N.A.	–
Intercooler		–	N.A.	Air cooled

* Finished State

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Engine Description / Engine Code		5S-FE	4A-FE	3S-GTE
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	88
Circulation thermostat	Type (choke, bypass)	By-pass		
	Starts to open at °C (°F)	82		
Water pump	Type (centrifugal, other)	Centrifugal		
	GPM 1000 pump rpm L/sec	0.54	0.38	0.6
	Number of pumps	1		
	Drive (V-belt, other)	Timing belt	Vribbed belt	Timing belt
	Bearing type	Sealed oil ball bearing		
	Impeller material	Steel		SUS
	Housing material	Aluminum Alloy		
By-pass recirculation [type (inter., ext.)]		Engine block external	External	
Cooling system capacity	With heater – L(qt.)	See below	M/T 5.2, A/T 5.6	6.0(without charge cooler)
	With air conditioner – L(qt.)	Same as above		
	Opt. equipment [specify – L(qt.)]	N.A.		
Water jackets full length of cyl. (yes, no)		No	Yes	No
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.)	Tube & corrugated fin braze	Corrugated fin	
	Material, mass [kg (wgt., lbs.)]	All copper alloy A/T, L/B wide=4.8, Others=3.6	M/T=3.5, A/T=5.0	4.85
	Width	699	699.2	
	Height	325		
	Thickness	16	M/T 16, A/T 27	27
	Fins per inch	23	M/T 20, A/T 16	17
Radiator end tank material		Plastic		
Fan	Std., elec., opt.	Electric		
	Number of blades & type (flex, solid, material)	4, solid		
	Diameter & projected width	300	300 x 88	300 x 55
	Ratio (fan to crankshaft rev.)	-	N.A.	-
	Fan cutout type	-	Thermo Switch	-
	Drive type (direct, remote)	Motor		
	RPM at idle (elec.)	2180		2050
	Motor rating (wattage) (elec.)	80		
	Motor switch (type & location) (elec.)	All=temp. control, Rad.	Thermo Housing	Radiator
	Switch point (temp., pressure) (elec.)	Water Temp. 90°C		
	Fan shroud (material)	Cold rolled steel sheet		

M/T: Liftback Wide=6.3
Others =6.2
A/T: Liftback wide=6.6
Others =6.1

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Engine – Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Fuel injection		
Manufacturer		Nippondenso Co. Ltd.		-
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		250
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	N.A. (ISC)	800 rpm	-
	Automatic	N.A. (ISC)	800 rpm	-
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.)	Electronic		Electro magnetic
	Location (eng., tank)	In fuel tank		
	Pressure range (kPa (psi))	284		250
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	-		

Fuel Tank

Capacity (refill L (gallons))		60	68
Location (describe)		Under rear seat floor	
Attachment		Banded	
Material & Mass (kg (weight lbs.))		Steel plate	
Filler pipe	Location & material	Rear quarter left side, Steel pipe	
	Connection to tank	Screw tightening	
Fuel line (material)		Steel pipe	
Fuel hose (material)		Rubber hose	
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	5S-FE	4A-FE	3S-GTE

Vehicle Emission Control

			5S-FE	4A-FE	3S-GTE
Exhaust Emission Control	Type (air injection, engine modifications, other)		MPI/EGR/O_2S/TWC	EGR/O_2S/TWC	EFI/O_2S/EGR/TWC
	Air Injection	Pump or pulse	-		
		Driven by	-		
		Air distribution (head, manifold, etc.)	-		
		Point of entry	-		
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back pressure controlled	Ex. Back pressure & Electronic	Back pressure controlled
		Exhaust source Point of exhaust injection (spacer, carburetor, manifold, other)	Cylinder Head Ex #4 port In. manifold	Cylinder Head In. manifold	Cylinder Head #4 port Intake manifold
	Catalytic Converter	Type	3 way		
		Number of	1		
		Location(s)	Fed. Cal. Ex Manifold Forward under floor area*1		
		Volume (L (in³))	Fed=1.3 Cal=0.5	1.7	0.5
		Substrate type	Monolith*1		
		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	Manifold vacuum Crankcase Press.	Manifold vacuum
	Discharges (to intake manifold, other		Intake manifold		
	Air inlet (breather cap, other)		N.A.	Air filter	N.A.
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Charcoal canister		
		Carburetor	N.A.		
	Vapor storage provision		Charcoal canister		
Electronic system	Closed loop (yes/no)		Yes		
	Open loop (yes/no)		No		

Engine – Exhaust System

			5S-FE	4A-FE	3S-GTE
Type (single, single with cross-over, dual, other)			Single	Fed=semidual Cal=single	Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]			1, Reverse flow		
Resonator no. & type			1, Straight flow		2, Straight flow
Exhaust pipe	Branch o.d., wall thickness		-	Fed=38.1, 1.5 Cal=-	-
	Main o.d., wall thickness		48.6, 1.5	42.7, 1.5	65.0 2.0/1.5 60.5 1.5
	Material & Mass (kg (weight lbs)]	*	Fed=1.6 Cal=2.4	Fed=1.7 Cal=1.8	1.3/0.7 2.5
Intermediate pipe	o.d. & wall thickness		48.6, 2.0 1.2	42.7 2.0 1.2	60.5 1.5
	Material & Mass (kg (weight lbs)]	*	Fed=2.8, 0.7 Cal=1.8, 0.5	1.6 0.5	1.8
Tail pipe	o.d. & wall thickness		L/B wide=42.7, 1.0 Others=54.0, 1.0	48.6 1.2	42.7 1.2 54.0 1.5
	Material & Mass (kg (weight lbs)]	*	0.2	0.2	0.2 0.1

Material=stainless steel

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

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

Manual Transmission/Transaxle

Number of forward speeds		5		
Gear ratios	1st	3.285	3.166	3.384
	2nd	2.041	1.904	1.913
	3rd	1.322	1.31[illegible]	1.333
	4th	1.028	0.96[illegible]	0.972
	5th	0.820	0.815	0.731
	Reverse	3.153	3.250	3.545
Synchronous meshing (specify gears)		All forward gears		
Shift lever location		Floor		
Trans. case mat'l. & mass kg (lbs)*		-		
Lubricant	Capacity (L (pt.))	2.6		5.2
	Type recommended	ATF Dexron II	API GL-4	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, new) N (lbs)	Depressed	-		
	Released	-		
Assist (spring, power/percent, nominal)		Turnover	N.A.	Turnoder
Type pressure plate springs		Diaphragm spring		
Total spring load (nominal, new) N (lbs)		4900	3920	7350
Clutch facing	Facing mfgr. & material coding	31256-35040	31256-12100	31256-30190
	Facing material & construction	Semi-mold		
	Rivets per facing	16		
	Outside x inside dia. (nominal)	224 x 150	212 x 140	236 x 150
	Total eff. area (cm^2(in.^{2}))	217	199	260
	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 / Engine Code	5S-FE Liftback Wide	5S-FE Others	4A-FE

∅ Automatic Transmission/Transaxle

Trade Name		A241E	A241L	A243L
Type and special features (describe)		Electronic controlled planetary gear	Hydraulic controlled planetary gear	
Gear selector	Location (column, floor, other)	Floor		
	Ltr./No. designation (e.g. PRND21)	PRND2L		
	Shift interlock (yes, no, describe)	–		
Gear ratios	1st	3.643		4.005
	2nd	2.008		2.208
	3rd	1.296		1.425
	4th	0.892		0.981
	Reverse	2.977		3.272
Max. upshift speed - drive range [km/h (mph)]		(A)	(B)	(C)
Max. kickdown speed - drive range [km/h (mph)]		(D)	(E)	(F)
Min. overdrive speed [km/h (mph)]		21/21*1	21	24
Torque converter	Number of elements	3 elements, 1 step, 2 phases		
	Max. ratio at stall	2.1	2.0	2.3
	Type of cooling (air, liquid)	Water cooled		
	Nominal diameter	241		230
	Capacity factor "K"*	–		
Lubricant	Capacity [refill L(pt.)]	8.0		7.7
	Type recommended	ATF DII		
Oil cooler (std., opt., N.A., internal, external, air, liquid)		–		
Transmission mass [kg (lbs)] & case material **		–		

*1: Normal/Power

∅ All Wheel / 4 Wheel Drive

Description & type (part-time, full-time, 2/4 shift while moving, mechanical, elect., chain/gear, etc.)		Full-time
Transfer case	Manufacturer and model	
	Type and location	Integral and coaxial with front drive unit
Low-range gear ratio		–
System disconnect (describe)		
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	Bevel gear with viscous coupling
	Torque split (% front/rear)	

	1 → 2	2 → 3	3 → 4
(A)	Normal 54, Power 54	Normal 102, Power 102	Normal 137, Power 137
(B)	51	94	30 *
(C)	51	93	31 *
	2 → 1	3 → 2	4 → 3
(D)	Normal 45, Power 45	Normal 94, Power 99	Normal 131, Power 131
(E)	41	91	21 *
(F)	41	90	24 *

* Input speed ÷ $\sqrt{\text{torque}}$

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

*: Throttle closed

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Engine Description / Engine Code	5S-FE	4A-FE	3S-GTE Front	3S-GTE Rear

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

Effective final drive ratio (or overall top gear ratio)			3.634	3.736	3.944	4.312	4.285
Transfer ratio and method (chain, gear, etc.)							
Front drive unit	Ring gear o.d.		-	-	-	-	-
	No. of teeth	Pinion	29	19	18	16	14
		Ring gear	88	71	71	69	60

Front Drive Unit

Description (integral to trans., etc.)		Integral to transaxle
Limited slip differential (type)		-
Drive pinion	Type	Helical gear
	Offset	-
No. of differential pinions		FWD=2, 4WD=4
Pinion / differential	Adjustment (shim, etc.)	-
	Bearing adjustment	-
Driving wheel bearing (type)		
Lubricant	Capacity [L (pt.)]	Shared with transaxle
	Type recommended	

Axle Shafts – Front Wheel Drive

Manufacturer and number used			2		2 (front)	2 (rear)
Type (straight, solid bar, tubular, etc.)		Left	Solid bar			
		Right	Solid bar			
Outer diam. x length* x wall thickness	Manual transaxle	Left mm	23.5 x 362.0	22.3 x 354.1	28.5 x 393.2	27 x 495.1
		Right mm	23.5 x 362.0	26 x 668.6	28.5 x 393.2	27 x 495.1
	Automatic transaxle	Left	23.5 x 362.0	22.8 x 352.0	-	-
		Right	23.5 x 362.0	26 x 655.5	-	-
	Optional transaxle	Left	-			
		Right	-			
Slip yoke	Type		-			
	Number of teeth		-			
	Spline o.d.		-			
Universal joints	Make and mfg. no.	Inner	43030-20040	43403-12040(M/T) 43030-20020(A/T)	43409-17010	42360-30011
		Outer	43403-20030(Std.) 43403-20040(Opt.)	43403-12031(M/T) 43403-12013(A/T)	43403-17030(Std.) 43403-20040(Opt.)	43403-30011(Std.) 43403-30010(Opt.)
	Number used		4		4	4
	Type, size, plunge	Inner	Tripod, Plunging		Cross groove plunging	Tripod, Plunging
		Outer	Rzeppa, Fixed			
	Attach (u-bolt, clamp, etc)		Snap ring			
	Bearing: Type (plain, anti-friction)		Ball bearing	-		
	Bearing: Lubrication (fitting, prepack)		Grease	-		
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 attachment.

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	3S-GTE

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

Axle ratio (or overall top gear ratio)		–
Ring gear o.d.		170
No. of teeth	Pinion	–
	Ring gear	–

∅ Rear Axle Unit

Description		Underfloor integral
Limited slip differential (type)		Std.=N.A., Opt.="Torsen" diff.
Drive pinion	Type	Hypoid gear
	Offset	31.75
No. of differential pinions		Std.=2, Opt.=6
Pinion / differential	Adjustment (shim, etc.)	Shim / (Shim)
	Bearing adjustment	Collapsible sleeve / (Shim)
Driving wheel bearing (type)		
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, Tubular
Outer diam. x length* x wall thickness	Manual 3-speed transmission		–
	Manual 4-speed transmission		–
	Manual 5-speed transmission mm		No.1: 75x585x71.8 No.3: 65x671x61.8 No.2: 65x582x61.8
	Overdrive		–
	Automatic transmission		–
Inter-mediate bearing	Type (plain, anti-friction)		Ball bearing
	Lubrication (fitting, prepack)		Sealed grease
Slip yoke	Type		–
	Number of teeth		–
	Spline o.d.		–
Universal joints	Make and mfg. no.	Front	TOYOTA MOTOR CORPORATION, CENTER: *1
		Rear	TOYOTA MOTOR CORPORATION
	Number used		4
	Type (ball and trunnion, cross)		No.1, No.2, No.4: Hook's universal joint, No.3: Cross groove joint
	Rear attach (u-bolt, clamp, etc)		Flange
	Bearing: Type (plain, anti-friction)		Needle roller bearing
	Bearing: Lubrication (fitting, prepack)		Sealed grease
Drive taken through (torque tube, arms or springs)			Arms
Torque taken through (torque tube, arms or springs)			Arms

*1: LOHR & BROMKAMP GMDH 37360-20010

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

MVMA Specifications

Vehicle Line CELICA
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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	AT180		ST184				ST185
	M/T	A/T	M/T	A/T	Wide M/T	Wide A/T	

Suspension – General Including Electronic Controls

Car leveling	Standard/optional/not avail.	–
	Manual/automatic control	–
	Type (air/hydraulic)	–
	Primary/assist spring	–
	Rear only/4 wheel leveling	–
	Single/dual rate spring	–
	Single/dual ride heights	–
	Provision for jacking	
Shock absorber damping controls	Standard/option/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 F/R	TOYOTA/ST185=KAYABA, AT180, ST184=KAYABA or TOKIKO
	Piston diameter	32
	Rod diameter	32

Suspension – Front

Type and description		MacPherson strut						
Travel*	Full jounce	70						
	Full rebound	90						
Spring	Type (coil, leaf, other) & material	Coil spring, SUP7NV or SUP12						
	Insulators (type & material)	UPR & LWR						
	Size (coil design height & i.d.)	See the table on next page						
	Spring rate [N/mm (lb./in.)]	19.6		20.6		23.5		24.5
	Rate at wheel [N/mm (lb./in.)]	18.2		19.2		21.9		22.8
Stabilizer	Type (link, linkless, frameless)	Link						
	Material & bar diameter *	24	25			26	25	

*Material=S45C or S48C

Suspension – Rear

Type and description		MacPherson strut								
Travel*	Full jounce	85								
	Full rebound	100								
Spring	Type (coil, leaf, other) & material	Coil spring, SUP7 or SUP12								
	Size (length x width, coil design height & i.d.)	See the table on next page								
	Spring rate [N/mm (lb./in.)]	19.6		20.6		23.5		25.5		
	Rate at wheel [N/mm (lb./in.)]	18.5		19.4		22.0		24.0		
	Insulators (type & material)	–								
	If leaf: No. of leaves	–								
	If leaf: Shackle (comp. or tens.)	–								
Stabilizer	Type (link, linkless, frameless)	Link								
	Material & bar diameter *	14	16		17	16		17	18 (SUP6)	
Track bar (type)		–								

*Material=SUP6 or SUP9

* Define load condition:

Spring size (Front)

AT180	M/T	346.7 x (117.6 - 137.6), 346.7 x (117.4 - 137.4)
	A/T	354.2 x (117.5 - 137.5), 354 x (117.3 - 137.3)
ST184	M/T	352.2 x (117.3 - 137.3), 352 x (117.1 - 137.1)
	A/T	C/P: 359.7 x (119.2 - 139.2), 359.5 x (117 - 137) L/B: 359.7 x (111.2 - 131.2), 359.5 x (117 - 137)
	Wide M/T	329.2 x (117.2 - 137.2), 329 x (117 - 137)
	Wide A/T	335.7 x (117.1 - 137.1), 335.5 x (116.8 - 136.8)
ST185	M/T	352.7 x (116.5 - 136.5), 352.5 x (116.3 - 136.3)

Spring size (Rear)

AT180	M/T	320.0 x (88.6 - 118.6), 320.0 x (89.0 - 118.6)
	A/T	320.0 x (88.6 - 118.6), 320.0 x (89.0 - 118.6)
ST184	M/T	C/P: 319.5 x (88.4 - 118.4), 319.5 x (89.7 - 118.4) L/B: 326.5 x (88.3 - 118.3), 326.5 x (89.0 - 118.3)
	A/T	C/P: 319.5 x (88.4 - 118.4), 319.5 x (89.7 - 118.4) L/B: 326.5 x (88.3 - 118.3), 326.5 x (89.0 - 118.3)
	Wide M/T	317.5 x (87.9 - 117.9), 317.5 x (89.0 - 117.9)
	Wide A/T	317.5 x (87.9 - 117.9), 317.5 x (89.0 - 117.9)
ST185	M/T	321.0 x (87.4 - 117.4), 321.0 x (89.0 - 117.4)

MVMA Specifications

Vehicle Line CELICA
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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement			AT180	ST184		ST185
				Liftback Wide	Others	
Brakes – Service						
Description			–			
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Disc			
	Rear (disc or drum)		Drum	Disc	Drum	Disc
Valving type (proportion, delay, metering, other)			P valve			
Power brake (std., opt., n.a.)			Std.			
Booster type (remote, integral, vac., hyd., etc.)			Direct vacuum			
Vacuum	Source (inline, pump, etc.)		Engine			
	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.	Opt.	N.A.	Opt.
	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. stg.)		–			
Effective area [cm²(in.²)]*		Fr./Rr.	140/268	184/128	184/268	184/128
Gross Lining area [cm²(in.²)]**(F/R)			168/268	193/128	193/268	193/128
Swept area [cm²(in.²)]***(F/R)			1084/440	1303/1021	1303/440	1452/1119
Rotor	Outerworking diameter	F/R	238/–	255/269	255/–	277/288
	Inner working diameter	F/R	142/–	147/193	147/–	147/193
	Thickness	F/R	22/–	22/10	22/–	25/10
	Material & type (vented/solid)	F/R	Cast iron, ventilated/–	Cast iron ventilated/Solid	Cast iron, ventilated/–	Cast iron ventilated/Solid
Drum	Diameter & width	F/R	–		–/200	–
	Type and material	F/R	–		–/Cast iron	–
Wheel cylinder bore		F/R	54.00/19.05	57.22/31.75	57.22/19.05	57.22/34.93
Master cylinder	Bore/stroke		22.22/14	23.81/14		
Pedal arc ratio			4.11			
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]			12700	13300		12400
Lining clearance		F/R	Self adjusting			
Brake lining – Front wheel	Bonded or riveted (rivets/seg.)		Bonded			
	Rivet size		–			
	Manufacturer		AKEBONO, AISIN, SUMITOMO, NISHINBO			
	Lining code*****		–			
	Material		Resin mold			
	**** Primary or out-board		103 x 44 x 10	104 x 51 x 10		
	Size Secondary or in-board		103 x 44 x 10	104 x 51 x 10		
	Shoe thickness (no lining)		5.5			
Brake lining – Rear wheel	Bonded or riveted (rivets/seg.)		Bonded			
	Manufacturer		AKEBONO, AISIN, SUMITOMO, NISHINBO			
	Lining code*****		–			
	Material		Resin mold			
	**** Primary or out-board		192 x 35 x 4	95 x 34 x 10	192 x 35 x 4	95 x 34 x 10
	Size Secondary or in-board		192 x 35 x 4	95 x 34 x 10	192 x 35 x 4	95 x 34 x 10
	Shoe thickness (no lining)		1.6	5.0	1.6	5.0

* 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

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	AT180	ST184 Other than left	ST184 Liftback Wide	ST185

Tires And Wheels (Standard)

Tires	Size (load range, ply)		165SR13	185/65 R14 55S P185/65R14*	215/50R 15 88V	
	Type (bias, radial, steel, nylon, etc.)		Radial	*Michelin only		
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	30	32	30	32
		Rear [kPa (psi)]	29		28	30
	Rev./mile-at 70 km/h (45 mph)		895		889	
Wheels	Type & material		Full drop center rim, Steel		Full drop center rim, Alumi-	
	Rim (size & flange type)		13 x 5J	14 x 6JJ	15 x 61/2JJ	num
	Wheel offset		45		39	
	Attachment	Type (bolt or stud)	Nut			
		Circle diameter	100.0			
		Number & size	4, M12x1.5	5, M12x1.5		
Spare	Tire and wheel		T125/70D14, 14x4T	Same as above	215/5DR1588D, Steel	
	Storage position & location (describe)		Trunk room			

Tires And Wheels (Optional)

Tire size (load range, ply)		185/65 R14 85S P185/65R14		
radial, steel, nylon, etc.)		Radial		
Wheel (type & material)		Aluminum		
Rim (size, flange type and offset)		14 x 6JJ		
Tire size (load range, ply)				
Type (bias, radial, steel, nylon, etc.)				
Wheel (type & material)				
Rim (size, flange type and offset)				
Tire size (load range, ply)				
Type (bias, radial, steel, nylon, etc.)				
Wheel (type & material)				
Rim (size, flange type and offset)				
Tire size (load range, ply)				
Type (bias, radial, steel, nylon, etc.)				
Wheel (type & material)				
Rim (size, flange type and offset)				
Spare tire and wheel size (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)				

Brakes – Parking

Type of control		Manual	
Location of control		Over floor tunnel	
Operates on		Rear wheels	
If separate from service brakes	Type (internal or external)		Drum in Disk
	Drum diameter		170
	Lining size (length x width x thickness)		163 x 30 x 2

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (-)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	AT180	ST184	ST185

Steering

Manual (std., opt., n.a.)					N.A.		
Power (std., opt., n.a.)					Std.		
Adjustable steering wheel/column (tilt, telescope, other)			Type		Tilt	Tilt, Auto tilt	Auto tilt
			Manufacturer				
			(std., opt., n.a.)		Opt.	Std. Opt.	Std.
Wheel diameter** (W9) SAE J1100			Manual		-		
			Power		380		
Turning diameter m (ft.)	Outside front		Wall to wall (l. & r.)		11.7 m		
			Curb to curb (l. & r.)		11 m		
	Inside rear		Wall to wall (l. & r.)		6.6 m		
			Curb to curb (l. & r.)		6.8 m		
Scrub Radius*							
Manual	Gear		Type		-		
			Manufacturer		-		
		Ratios		Gear	-		
				Overall	-		
	No. wheel turns (stop to stop)				-		
Power	Type (coaxial, elec., hyd., etc.)				Hydraulic, integral		
	Manufacturer				Toyota Motor Corporation		
	Gear		Type		Rack and pinion		
		Ratios		Gear	∞		
				Overall	16.8		
	Pump (drive)				V belt		
	No. wheel turns (stop to stop)				2.73		
Linkage	Type				-		
	Location (front or rear of wheels, other)				-		
	Tie rods (one or two)				-		
Steering axis	Inclination at camber (deg.)				14°15'		
	Bearings (type)		Upper		Ball bearing		
			Lower		Ball joint		
			Thrust		N.A.		
Steering spindle/knuckle & joint type							
Wheel spindle/hub	Diameter		Inner bearing		38.0		
			Outer bearing		74.0		
	Thread (size)				M1.9 x 1.5		
	Bearing (type)				Double row angular bearing		

* The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
** See Page 22.

MVMA Specifications

Vehicle Line CELICA
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METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	All models

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	1°00' ± 45'
		Camber (deg.)	-10' ± 45'
		Toe-in (outside track-mm (in.))	0 ± 2
	Service reset*	Caster	1°00' ± 30'
		Camber	-10' ± 30'
		Toe-in	0 ± 1
	Periodic M.V. inspection	Caster	1°00' ± 45'
		Camber	-10' ± 45'
		Toe-in	0 ± 2
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-45' ± 45'
		Toe-in (outside track-mm (in.))	5 ± 1
	Service reset*	Camber	-45' ± 30'
		Toe-in	5 ± 1
	Periodic M.V. inspection	Camber	-45' ± 45'
		Toe-in	5 ± 1

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

Electrical – Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Analog
	Trip odometer (std., opt., n.a.)	Std.
EGR maintenance indicator		N.A.
Charge indicator	Type	Liftback wide = Electric gauge, Others = Lamp
	Warning device (light, audible)	Lamp
Temperature indicator	Type	Electric gauge
	Warning device (light, audible)	N.A.
Oil pressure indicator	Type	Electric
	Warning device (light, audible)	Lamp
Fuel indicator	Type	Electric gauge
	Warning device (light, audible)	Lamp
Windshield wiper	Type (standard)	Motor, 3-step
	Type (optional)	-
	Blade length	Std. body, Dr: 500 Pa: 450, Wide body, Dr: 500 Pa: 475
	Swept area (cm^2/($in.^2$))	Std. body, 6320 , Wide body, 6380
Windshield washer	Type (standard)	Std. body, Motor , Wide body, Motor
	Type (optional)	-
	Fluid level indicator (light, audible)	-
Rear window wiper, wiper/washer (std., opt., n.a.)		-
Horn	Type	Electronic, disc
	Number used	2
Other		

MVMA Specifications

Vehicle Line CELICA
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METRIC (U.S. Customary)

Engine Description / Engine Code	5S-FE	4A-FE	3S-GTE

Electrical – Supply System

Battery	Manufacturer	GYKNF(GYKF)		GYKNF
	Model, std., (opt.)	55D23L(32C24L)		55D23L
	Voltage	12		
	Amps at 0°F cold crank	356(238)		356
	Minutes-reserve capacity	99(57)		99
	Amps/hrs.-20 hr. rate	60(40)		60
	Location	Engine compartment, front left		
Alternator	Manufacturer	NIPPONDENSO		
	Rating (idle/max. rpm)	70	M/T=70, A/T=80	80
	Ratio (alt. crank/rev.)	M/T=2.36, A/T=2.08	2.54	2.26
	Output at idle (rpm, park)	–		
	Optional (type & rating)	–		
Regulator	Type	IC		

Electrical – Starting System

Motor	Manufacturer	NIPPONDENSO
	Current drain _____ °F	–
	Power rating [kw (hp)]	–
Motor drive	Engagement type	–
	Pinion engages from (front, rear)	–

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		Std.		
	Other (specify)		N.A.		
Coil	Manufacturer		Nippondenso Co., Ltd.		
	Model		–		
	Current	Engine stopped – A	0		
		Engine idling – A	0.8	0.7	0.8
Spark plug	Manufacturer		Nippondenso Co., Ltd. NGK Spark Plug Co., Ltd.		
	Model		Q16R-11, BCPR5EY	ND: K16R-U11, NGK: BKR5EYA-11	PK20R8, BKR6EP8
	Thread (mm)		M14 x 19.0		
	Tightening torque [N-m (lb. ft)]		17.7		
	Gap		1.1	0.8	
	Number per cylinder		1		
Distributor	Manufacturer		Nippondenso Co., Ltd.		
	Model		N.A.		

Electrical – Suppression

Locations & type	·Resistive spark plug ·Resistive cord ·Flame spray coated rotor	·Resistive spark plug ·Resistive cord	·Resistive spark plug ·Resistive cord ·Flame spray coated rotor

MVMA Specifications

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METRIC (U.S. Customary)

Body Type	Coupe	Liftback	Liftback Wide	4WD Liftback

Body

Structure			–			
Bumper system front - rear	Bar material*1 and mass kg	Front	5.8			6.3
		Rear	8.6			
	Reinforcement*2 material and mass kg	Front	4.8	4.7	4.6	
		Rear	10.7	10.2		10.8
Anti-corrosion treatment			–			

*1: Urethane *2: Steel

Body – Miscellaneous Information

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

MVMA Specifications

Vehicle Line CELICA
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METRIC (U.S. Customary)

Body Type	Coupe	Liftback

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard / optional	First seat	Standard, 3-point with retractor(ELR)	-	Standard, 3-point with retractor(ELR)
		Second seat	Standard, 3-point with retractor(ELR)	-	Standard, 3-point with retractor(ELR)
		Third seat	-	-	-
Passive	Type & description (air bag, motorized - 2-point belt, fixed belt, knee bolster, manual - lap belt) Standard / optional	First seat	N.A.	-	N.A.
		Second seat	N.A.	-	N.A.
		Third seat	-	-	-

Glass	SAE Ref. No.		
Windshield glass exposed surface area [cm^2($in.^2$)]	S1	6740	
Side glass exposed surface area [cm^2($in.^2$)] - total 2-sides	S2	6698	6682
Backlight glass exposed surface area [cm^2($in.^2$)]	S3	6438	7595
Total glass exposed surface area [cm^2($in.^2$)]	S4	19876	21017
Windshield glass (type)		Tinted, laminated (curved)	
Side glass (type)		Tempered (curved)	
Backlight glass (type)		Tempered (curved)	

Headlamps

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

Frame

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

MVMA Specifications

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METRIC (U.S. Customary)

Body Type

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

Air conditioning (manual, auto, temp control)		
Clock (digital, analog)		Std.
Compass / thermometer		–
Console (floor, overhead)		–
Defroster, elec. backlight		
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)		
Lamps	Auto head on / off delay, dimming	–
	Cornering	N.A.
	Courtesy (map, reading)	Std. N.A. (ST) Map lamp: Opt. (Sun roof)
	Door lock, ignition	Std. (GT, GT-S, All Trac.) N.A. (ST)
	Engine compartment	
	Fog	–
	Glove compartment	Std.
	Trunk	Std.
	Illuminated entry system (list lamps, activation)	–
	Other	Dome lamp: Std.
Mirrors	Day / night (auto, man.)	–
	L.H. (remote, power, heated)	–
	R.H. (convex, remote, power, heated)	–
	Visor vanity (RH / LH, illuminated)	–
Navigation system (describe)		–
Parking brake-auto release (warning light)		–

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (•) _____

METRIC (U.S. Customary)

Engine Description / Engine Code	AT180	AT184		AT185
		Other	Liftback wide	

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.	N.A.		Opt. 4-way		
	Seats: Reclining (R.H., L.H.)					
	Seats: Memory (R.H., L.H., present, recline)					
	Seats: Lumbar, hip, thigh, support					
	Seats: Heated (R.H., L.H., other)					
	Side windows	N.A.	Opt.		Std.	
	Vent windows	N.A.				
	Rear windows	N.A.				
Radio systems	Antenna (location, whip, w / shield, power)					
	Standard: AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM ETR 4SP		AM/FM ETR 6SP W/Cassette		
	Optional: AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM ETR 6SP W/Cassette W/AF	AM/FM ETR 10SP W/Cassette W/AF CD Player			
	Speaker (number, location)	Rear speaker: Std.				
Roof: open air or fixed (flip-up, sliding, "T")		Sun roof (tilt and slide): Opt.				
Speed control device		N.A.	Opt.			
Speed warning device (light, buzzer, etc.)						
Tachometer (rpm)						
Telephone system (describe)						
Theft deterrent system						

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 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	Liftback	Liftback Wide	4WD Liftback
∅ Width					
Tread (front)	W101	1470		1480	
Tread (rear)	W102	1435		1445	
Vehicle width	W103	ST: 1690, 1705(w/mold) GT: 1705	1705	1745	
Body width at Sg RP (front)	W117	1683.4			
Vehicle width (front doors open)	W120	3800.0			
Vehicle width (rear doors open)	W121	-			
Tumble-home (deg.)	W122	32.9			
Outside mirror width	W410				
∅ Length					
Wheelbase	L101	2525			
Vehicle length	L103	4470	4410	4420	
Overhang (front)	L104	995			
Overhang (rear)	L105	950	890	900	
Upper structure length	L123	2447.5	2658.7		
Rear wheel C/L "X" coordinate	L127	2517.0			
∅ Height*					
Passenger distribution (front/rear)	PD1,2,3	2/1			
Trunk/cargo load		0			
Vehicle height	H101	1285	1280		1285
Cowl point to ground	H114	885			
Deck point to ground	H138	960			965
Rocker panel-front to ground	H112	165			170
Rocker panel-rear to ground	H111	175			180
Windshield slope angle	H122	62.9			
Backlight slope angle	H121	63.9	71.6		
Ground Clearance*					
Front bumper to ground	H102	385			390
Rear bumper to ground	H104	330			
Bumper to ground [front at curb mass (wt.)]	H103	405			
Bumper to ground [rear at curb mass (wt.)]	H105	350			
Angle of approach (degrees)	H106	13.5			
Angle of departure (degrees)	H107	17.5, 17 (GT)	17		18.5
Ramp breakover angle (degrees)	H147	15			
Axle differential to ground (front/rear)	H153	-			
Min. running round clearance	H156	130			
Location of min. run. grd. clear.		FR LWR Cross member			

* All vehicle height and ground clearances are measured at the Manufacturer's Design Load Weight.
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load, unless otherwise specified.
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (•)

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

Body Type	SAE Ref. No.	Coupe	Liftback
Front Compartment			
SgRP front, "X" coordinate	L31	1382	
Effective head room	H61	(2N)	
Max. eff. leg room (accelerator)	L34	1090	
SgRP to heel point	H30	203	
SgRP to heel point	L53	901	
Back angle	L40	25°	
Hip angle	L42	98°	
Knee angle	L44	132°	
Foot angle	L46	87°	
Design H-point front travel	L17	238	
Normal driving & riding seat track trvl.	L23	238	
Shoulder room	W3	1320	
Hip room	W5	1324	
Upper body opening to ground	H50	1174	1170
Steering wheel maximum diameter*	W9	-	
Steering wheel angle	H18	-	
Accel. heil pt. to steer. whl. cntr	L11	-	
Accel. heel pt. to steer. whl. cntr	H17	-	
Undepressed floor covering thickness	H67	15	
Rear Compartment			
SgRP point couple distance	L50	633	
Effective head room	H63	876.8 (883.6)	838.3(842.1), 872.1(877.0)
Min. effective leg room	L51		
SgRP (second to heel)	H31		
Knee clearance	L48		
Shoulder room	W4	1249	
Hip room	W6	1212	
Upper body opening to ground	H51		
Back angle	L41	27°	23°
Hip angle	L43	75°	71°
Knee angle	L45	56°	
Foot angle	L47	91°	
Depressed floor covering thickness	H73	11.5	
Luggage Compartment			
Usable luggage capacity [L (cu. ft.)]	V1		
Liftover height	H195	832	4WD=851, others 848
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.

( ): Sun roof

MVMA Specifications

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (-)

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

Body Type	SAE Ref. No.	Liftback	
		Models except 4WD	4WD
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	L88	–	
Hip angle	L89	–	
Knee angle	L90	–	
Foot angle	L91	–	
Station Wagon – Cargo Space			
Cargo length (open front)	L200	–	
Cargo length (open second)	L201	–	
Cargo length (closed front)	L202	–	
Cargo length (closed second)	L203	–	
Cargo length at belt (front)	L204	–	
Cargo length at belt (second)	L205	–	
Cargo width (wheelhouse)	W201	–	
Rear opening width at floor	W203	–	
Opening width at belt	W204	–	
Min. rear opening width above belt	W205	–	
Cargo height	H201	–	
Rear opening height	H202	–	
Tailgate to ground height	H250	–	
Front seat back to load floor height	H197	–	
Cargo volume index [m^3($ft.^3$)]	V2	–	
Hidden cargo volume index [m^3($ft.^3$)]	V4	–	
Cargo volume index-rear of 2-seat	V10	–	
Hatchback – Cargo Space			
Cargo length at front seatback height	L208	1397	–
Cargo length at floor (front)	L209	1548	–
Cargo length at second seatback height	L210	707(371.5)	371.5
Cargo length at floor (second)	L211	923(942)	898.5
Front seatback to load floor height	H197	380	–
Second seatback to load floor height	H198	408(504.5)	419.5
Cargo volume index [m^3($ft.^3$)]	V3	0.699 m^3	
Hidden cargo volume index [m^3($ft.^3$)]	V4	0.415 m^3	
Cargo volume index-rear of 2-seat	V11	0.415	

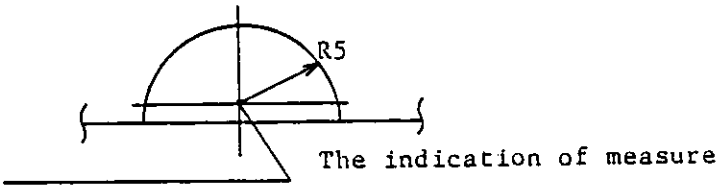
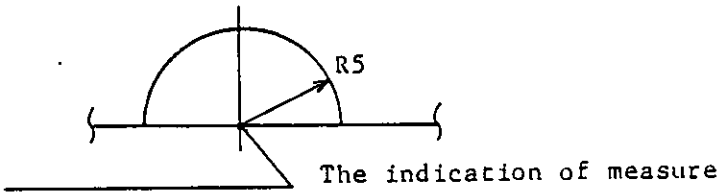
MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (-)

Body Type All models

Vehicle Fiducial Marks

Fiducial Mark Number*		Define Coordinate Location
Front		Front round notches in rocker panels for front jack-up point.  The indication of measure
Rear		Backmost round notches in rocker panel flanges for rear jack-up points.  The indication of measure
Front	W21*	W6 + 71.8 mm
	L54*	115 + 58(+6.5) mm
	H81*	1110 - 23 mm
	H161*	191 mm
	H163*	171 mm, 174 mm=4WD
Rear	W22*	W6 + 72.8 mm
	L55*	130 + 49(+6.5) mm
	H82*	1110 - 25 mm
	H162*	200 mm
	H164*	180 mm, 183 mm=4WD

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

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line CELICA

Model Year 1990 Issued Aug., '89 Revised (·) _____

Code	Model	Vehicle Mass (weight)							
		CURB MASS, kg. (lb.)*			% PASS MASS DISTRIBUTION				
					Pass in Front		Pass in Rear		
		Front	Rear	Total	Front	Rear	Front	Rear	ETWC** Code
AT180L-BCMSKA		714	420	1134	45.0	55.0	20.0	80.0	
AT180L-BCPSKA		737	420	1157	45.0	55.0	20.0	80.0	
ST184L-BCMGKA		778	435	1213	45.0	55.0	20.0	80.0	
ST184L-BCPGKA		801	435	1236	45.0	55.0	20.0	80.0	
ST184L-BLMGKA		778	445	1223	45.0	55.0	20.0	80.0	
ST184L-BLPGKA		801	445	1246	45.0	55.0	20.0	80.0	
ST184L-BLMVKA		798	474	1272	45.0	55.0	20.0	80.0	
ST184L-BLPVKA		821	474	1295	45.0	55.0	20.0	80.0	
ST185L-BLMV2A		885	599	1484	45.0	55.0	20.3	79.7	

* 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) Calculation (Kg. (lbs.)

Shipping Mass (weight) = Curb Weight Less:

ST185 = 45 kg

Others = 39 kg

1210.7 = 2663.54

LIST AT 2660 LBS

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line CELICA
Model Year 1990 Issued Aug., '89 Revised (•) _____

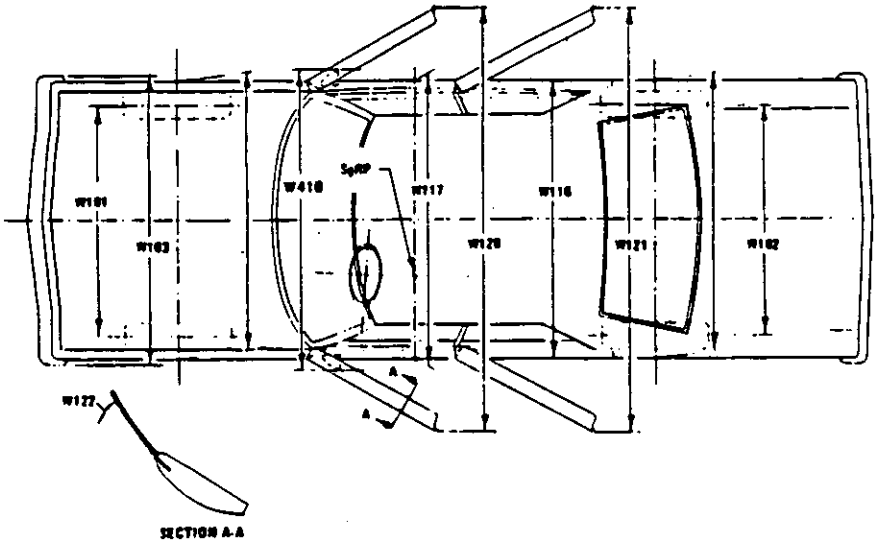
Optional Equipment Differential Mass (weight)*

Code	Equipment	MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
	Air conditioner			22.3	All models
	Sun roof			17.2	All models
	ABS			12.8	Liftback Wide
	10 speaker audio			9.8	Liftback Wide
	10 speaker audio			8.2	Liftback, Coupe
	Auto drive			3.6	Liftback, Coupe Liftback Wide

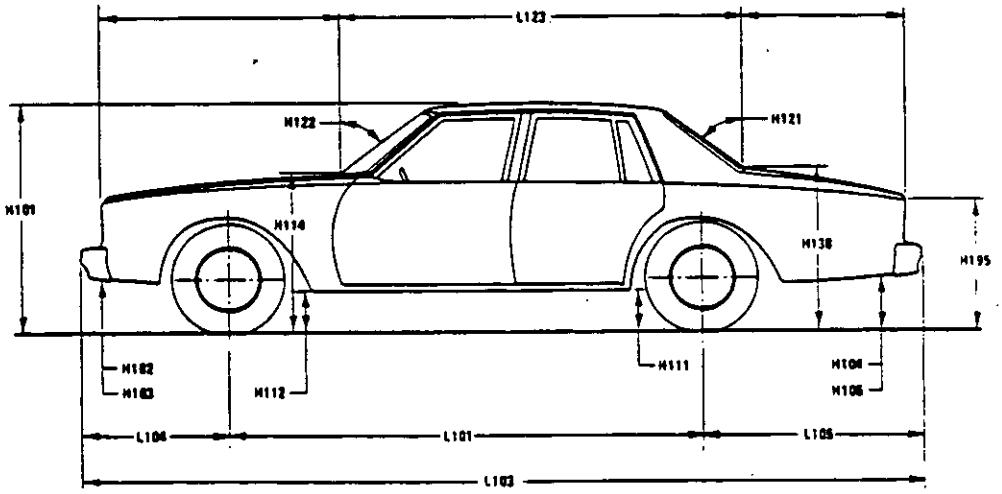
* Also see Engine - General Section for dressed engine mass (weight).

Exterior Vehicle And Body Dimensions – Key Sheet

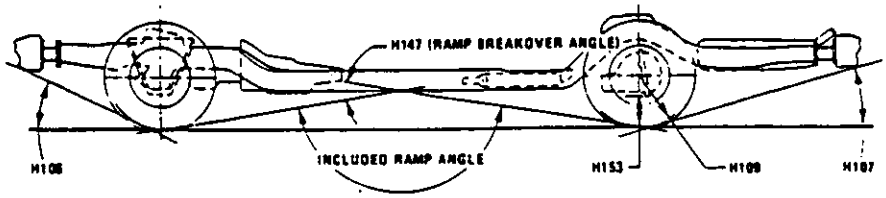
Exterior Width



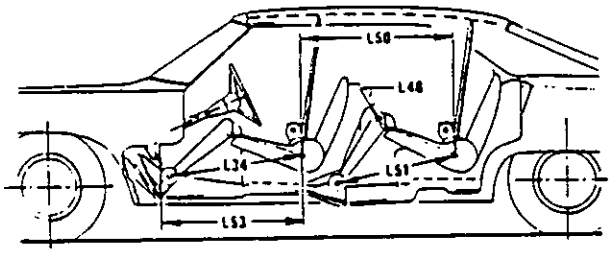
Exterior Length & Height

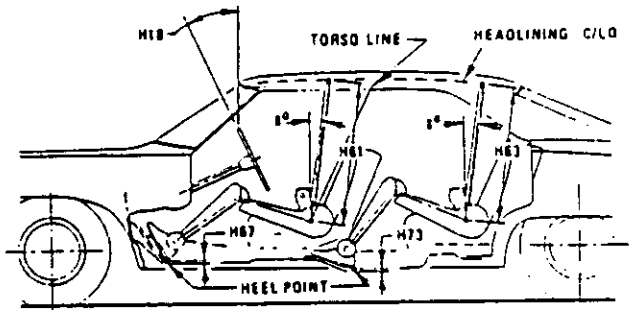


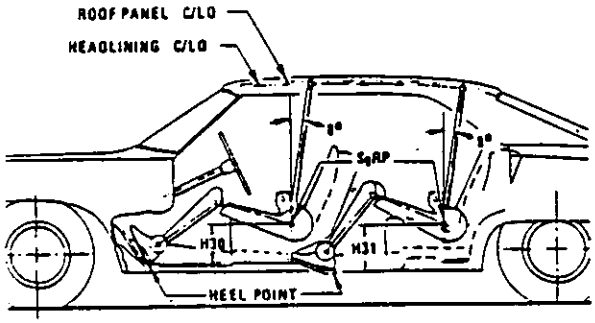
Exterior Ground Clearance

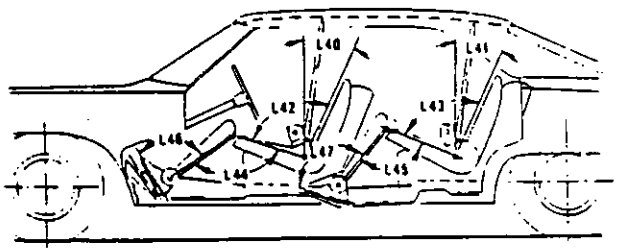


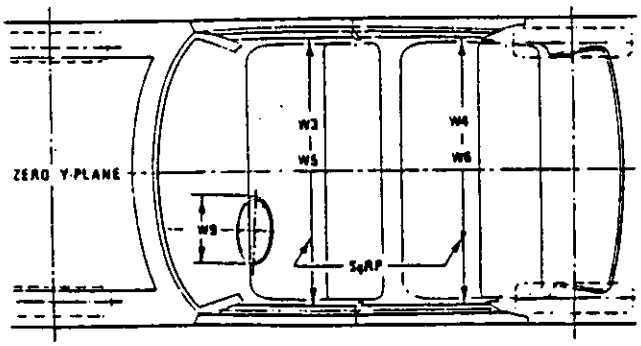
Interior Vehicle And Body Dimensions – Key Sheet

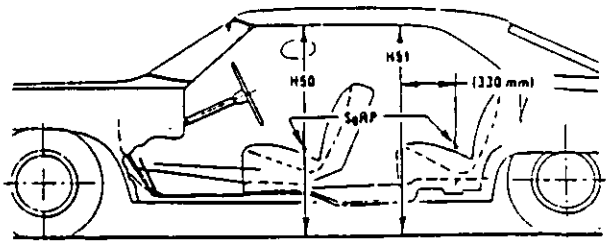




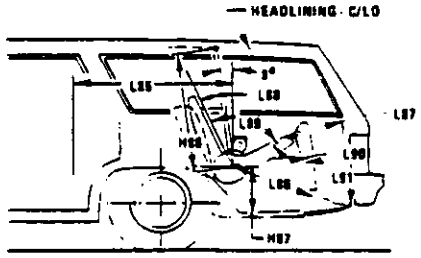


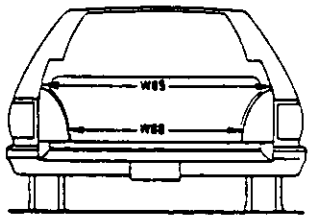




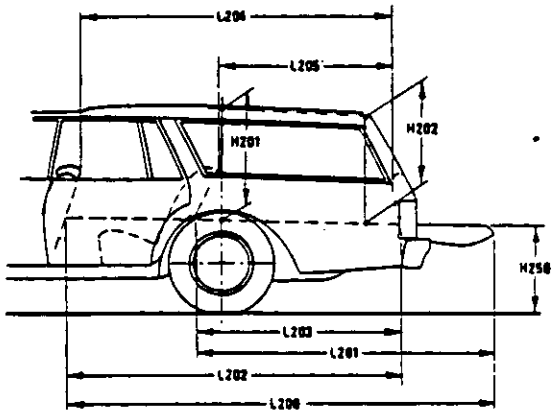


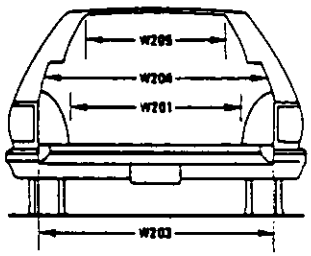
Third Seat



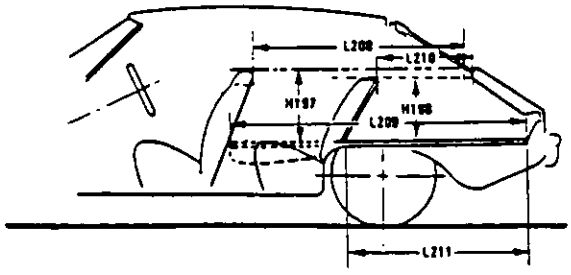


Cargo Space





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.

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 EFFECITVE 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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