

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC(U.S. Customary)

Passenger Car

1987

Manufacturer Toyota Motor Corporation	Car Line CELICA	
Mailing Address Toyota Motor Sales, U. S. A., Inc. 2055 West 190th Street Torrance, California 90504	Issued 1987	Revised

Questions concerning these specifications should be directed to the manufacturer whose address is shown above.

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

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Motor Vehicle Manufacturers Association
of the United States, Inc.

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

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NOTE:

1. This form uses both SI metric units and U.S. Customary units. The metric unit of measure is presented first, and the U.S. Customary unit follows in parentheses.
2. **UNLESS OTHERWISE INDICATED:**
 - a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
 - b. Nominal design dimensions are used throughout these specifications.
 - c. All linear dimensions are in millimeters (inches), and all mass (weight) specifications are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of completion and are subject to change without notice by the manufacturer.
4. Additional Car and Body Dimensions (based in part on SAE J1100 "Motor Vehicle Dimensions") may be available from the manufacturer.

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Car Models

Model Description & Drive (FWD/RWD)	Introduction Date	Make, Car Line, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)
Celica ST Sport Coupe		ST162L-BCMSKA	2/2	56 kg
Celica ST Sport Coupe		ST162L-BCPSKA	2/2	56 kg
Celica GT Sport Coupe		ST162L-BCMVK	2/2	56 kg
Celica GT Sport Coupe		ST162L-BCPVKA	2/2	56 kg
Celica GT-S Sport Coupe		ST162L-BCMVFA	2/2	56 kg
Celica GT-S Sport Coupe		ST162L-BCPVFA	2/2	56 kg
Celica GT Sport Liftback		ST162L-BLMVKA	2/2	56 kg
Celica GT Sport Liftback		ST162L-BLPVKA	2/2	56 kg
Celica GT-S Sport Liftback		ST162L-BLMVFA	2/2	56 kg

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Power Teams (Indicate whether standard or optional)

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

SERIES AVAILABILITY	ENGINE					E x h a u s t S/D	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Displ. Liters (in ³)	Carb. (Barrels, FI, etc.)	Compr. Ratio	SAE Net at RPM				
				Power kW (bhp)	Torque N • m (lb. ft.)			
	L			kW/ rpm	N.m/ rpm			
ST162L-BCMSKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	5 M/T	3.736
ST162L-BCPSKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	4 A/T	3.736
ST162L-BCMVKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	5 M/T	3.736
ST162L-BCPVKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	4 A/T	3.736
ST162L-BCMVF A	1.998	FI	9.2	101/ 6000	170/ 4800	*	5 M/T	4.176
ST162L-BCPVFA	1.998	FI	9.2	101/ 6000	170/ 4800	*	4 A/T	3.944
ST162L-BLMVKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	5 M/T	3.736
ST162L-BLPVKA	1.998	FI	9.3	86/ 5200	168/ 4400	S	4 A/T	3.736
ST162L-BLMVFA	1.998	FI	9.2	101/ 6000	170/ 4800	*	5 M/T	4.176

* Semi dual

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Engine Description/Carb.
Engine Code

3S-FE, 3S-GE

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)	Inline, front, transverse, DOHC, pent roof
Manufacturer	TOYOTA MOTOR CORPORATION
No. of cylinders	4
Bore	86.0 mm
Stroke	86.0 mm
Bore spacing (C/L to C/L)	93.5-96.5-93.5 mm
Cylinder block material & mass kg (lbs.) (machined)	Gray cast iron, 34.6 kg
Cylinder block deck height	216.0 mm
Cylinder block length	
Deck clearance (minimum) (above or below block)	3S-FE: 0.40 mm, 3S-GE: 0.10 mm
Cylinder head material & mass kg (lbs.)	3S-FE: Aluminum alloy 12.1 kg, 3S-GE: Aluminum alloy 12.7 kg
Cylinder head volume (cm ³)	3S-FE: 38.5 cm ³ , 3S-GE: 50.8 cm ³
Cylinder liner material	
Head gasket thickness (compressed)	1.20 mm
Minimum combustion chamber total volume (cm ³)	3S-FE: 60.19 cm ³ , 3S-GE: 60.84 cm ³
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 kg
Exhaust manifold material & mass (kg (lbs.))**	3S-FE: Alloy cast iron 5.8 kg, 3S-GE: Alloy cast iron 7.7 kg
Recommended fuel (leaded, unleaded, diesel)	Unleaded
Fuel antiknock index (R + M) 2	87
Total dressed engine mass (wt) dry***	* 3S-FE: 133/125, 3S-GE: 139/131

Engine - Pistons

* MT/AT

Material & mass, g (weight, oz.) - piston only	3S-FE: Aluminum alloy 378 g, 3S-GE: Aluminum alloy 372 g
--	--

Engine - Camshaft

Location	Over cylinder head
Material & mass kg (weight, lbs.)	3S-FE: Alloy cast iron, * 2.1/1.8 kg 3S-GE: Alloy cast iron, * 1.56/1.56 kg
Drive type	Chain / belt
	Width / pitch mm
	3S-FE: Belt, gear, 3S-GE: Belt 3S-FE: Belt 26.7/8.0, gear 14.0/1.9, 3S-GE: 25.4/8.0

* IN/EX

* Rear of engine - drive takeoff. View from drive takeoff end to determine left & right side of engine.

** Finished state.

*** Dressed engine mass (weight) includes the following:

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Engine - Valve System

Hydraulic lifters (std., opt., NA)	N.A.
Valves	Number intake / exhaust
	Head O.D. intake / exhaust

8/8

3S-FE: 32/27 mm, 3S-GE: 33.5/29 mm

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))	3S-FE: Sintered alloy 0.665 kg, 3S-GE: Steel 0.755 kg
---------------------------------------	---

Engine - Crankshaft

Material & mass (kg., (weight, lbs.))	3S-FE: Spheroidal graphite cast iron 16.4 kg, 3S-GE: Steel 16.8 kg
End thrust taken by bearing (no.)	No. 3
Number of main bearings	5
Seal (material, one, two piece design, etc.)	Front
	Rear

ACM one piece

Si, one piece

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	343 kPa/2500 rpm
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full flow
Capacity of cr/case, less filter-refill-L. (qt.)	3S-FE: 3.7L, 3S-GE: 3.6L

Engine - Diesel Information

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

Engine - Intake System

Turbo charger - manufacturer	N.A.
Super charger - manufacturer	N.A.
Charge cooler	N.A.

*Finished State

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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 kPa
Circulation thermostat	Type (choke, bypass)
	Bypass
Starts to open at °C (°F)	82°C
Water pump	Type (centrifugal, other)
	Centrifugal
	GPM 1000 pump rpm
	-
	Number of pumps
	1
	Drive (V-belt, other)
Timing belt	Sealed oil roller ball
	Bearing type
	Steel
	Housing material
	Aluminum alloy
Bypass recirculation (type (inter., ext.))	Ext.
Cooling system capacity	With heater-L (qt.)
	3S-FE (M/T): 6.4L 3S-FE (A/T): 6.3L 3S-GE: 7.0L
	With air cond.-L (qt.)
N.A.	Opt. equipment (specify-L (qt.))
	N.A.
Water jackets full length of cyl. (yes, no)	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, brazed, etc.)
	Corrugated fin
	Material, mass (kg (wgt. lbs.))
	Copper alloy, M/T: 3.5 kg A/T: 4.0 kg
	Width
668 mm	Height
	325 mm
	Thickness
	16 mm
Fins per inch	M/T: 16. A/T: 20
Radiator end tank material	Plastic
Fan	Std., elec., opt.
	Elec.
	Number of blades & type (flex, solid, material)
	4, solid
	Diameter & projected width
	M/T: 300. 34 mm A/T: 300. 47 mm
	Ratio (fan to crankshaft rev.)
	-
	Fan cutout type
	-
	Drive type (direct, remote)
	-
RPM at idle (elec.)	M/T: 1900, 3S-GE (A/T): 2100, 3S-FE (A/T): 2.50
Motor rating (wattage) (elec.)	M/T: 45W, A/T: 80W
Motor switch (type & location) (elec.)	Temperature controlled, water inlet
Switch point (temp., pressure) (elec.)	Water temperature, 90°C
Fan shroud (material)	Cold rolled steel sheet

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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		-
Carburetor	Choke (type)	-
	Idle spd.-rpm (spec. neutral or drive and propens if used)	Manual
		Automatic
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))	3S-FE: 284 kPa, 3S-GE: 250 kPa
Intake manifold heat control (exhaust or water thermostatic or fixed)		N.A.
Air cleaner type	Standard	Dry 1, without hot air intake
	Optional	N.A.
Fuel pump	Type (elec. or mech.)	Electro magnetic
	Location (eng., tank)	In fuel tank
	Pressure range (kPa (psi))	3S-FE: 284 kPa, 3S-GE: 250 kPa

Fuel Tank

Capacity (refill L (gallons))		60L
Location (describe)		Rear part under floor
Attachment		Band
Material & Mass (kg (weight lbs))		Steel plate
Filler pipe	Location & material	Left rear quarter, steel pipe
	Connection to tank	Screw tightening
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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Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		EFI/O ₂ S/EGR/TWC	EFI/O ₂ S/EGR/TWC
	Air Injection	Pump or pulse	N.A.	N.A.
		Driven by	N.A.	N.A.
		Air distribution (head, manifold, etc.)	N.A.	N.A.
		Point of entry	N.A.	N.A.
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back pressure controlled	Back pressure controlled
		Exhaust source	#4 Cylinder head Ex. port	#1Ex mani port
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake manifold	Intake manifold
	Catalytic Converter	Type	-	3 way
		Number of	-	1
		Location(s)	-	Forward under floor area
		Volume [L (in ³)]	-	1.7L
		Substrate type	-	Monolith
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Sealed	Sealed
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum	Manifold vacuum
	Discharges (to intake manifold, other)		Intake manifold	Intake manifold
	Air inlet (breather cap, other)		N.A.	N.A.
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister	Canister
		Carburetor	N.A.	N.A.
	Vapor storage provision		Canister	Canister
Electronic system	Closed loop (yes/no)		Yes	Yes
	Open loop (yes/no)		No	No

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single	Semi dual
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass (kg (weight lbs))		Reverse flow 1 Straight flow 2	Reverse flow 1 Straight flow 1
Resonator no. & type		N.A.	N.A.
Exhaust pipe	Branch o.d., wall thickness	mm N.A.	ø42.7, t1.5
	Main o.d., wall thickness	mm ø50.8, t1.5	ø50.8, t1.2, t1.5
	Material & Mass (kg (weight lbs))	kg Stainless steel, 1.6	Stainless steel, 0.9 1.1
Inter- mediate pipe	o.d. & wall thickness	mm ø48.6, t1.5, t2.0, t1.2	ø48.6, t2.0, t1.2
	Material & Mass (kg (weight lbs))	kg -	Al coated steel 2.6, 0.5
Tail pipe	o.d. & wall thickness	mm ø54, t1.2	ø42.7, t1.2
	Material & Mass (kg (weight lbs))	kg Al coated steel, 0.3	Stainless steel, 0.2

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Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	
Manual 4-speed (std., opt., n.a.) (mfr.)	
Manual 5-speed (std., opt., n.a.) (mfr.)	
Manual overdrive (std., opt., n.a.) (mfr.)	
Automatic (std., opt., n.a.) (mfr.)	
Automatic overdrive (std., opt., n.a.) (mfr.)	

Manual Transmission/Transaxle

Number of forward speeds		5	
Transmission ratios	In first	3.285	
	In second	2.041	
	In third	1.322	
	In fourth	1.028	
	In fifth	0.820	
	In overdrive	-	
	In reverse	3.153	
Synchronous meshing (specify gears)		All forward gears	
Shift lever location		Floor	
Lubricant	Capacity [L (pt.)]		2.6L
	Type recommended		ATF DEXRON II
	SAE viscosity number	Summer	-
		Winter	-
		Extreme cold	-

Clutch (Manual Transmission)

Make, type, engagement (describe) - (hydraulic, cable, rod)		AISIN SEIKI, single dry plate
Assist (yes, no / percent)		N.A.
Type pressure plate springs		Diaphragm spring
Total spring load [N (lb.)]		3S-FE: 4168N, 3S-GE: 4413N
No. of clutch driven discs		1
Clutch facing	Material	Semi-mold
	Manufacturer	AISHIN KAKO
	Part number	3S-FE: 31256-20060, 3S-GE: 31256-35040
	Rivets/plate	16
	Rivet size	Ø4 mm
	Outside & inside dia.	Ø224 x Ø150 mm
	Total eff. area [cm ² (in. ²)]	217 cm ²
	Thickness	3.5 mm
Engagement cushion method		Cushion spring
Release bearing	Type & method of lubrication	Single row ball bearing, sealed grease
Torsional damping	Method: springs, friction material	Rubber

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Automatic Transmission/Transaxle

Trade name	A140L	A140E
Type and special features (describe)	Hydraulic controlled planetary gear	Electronic controlled planetary gear
Selector	Location Floor	Floor
	Ltr./No. designation P R N D 2 L	P R N D 2 L
Gear ratios	1st	2.810
	2nd	1.549
	3rd	1.000
	4th	0.706
	Reverse	2.296
Max. upshift speed - drive range (km/h (mph))	1-2: 53, 2-3: 96, 3-4: 29	*1-2: 52/63, 2-3: 101/114, 3-4: 155/182
Max. kickdown speed - drive range (km/h (mph))	2-1: 44, 3-2: 93, 4-3: 18	*2-1: 45/45, 3-2: 95/109, 4-3: 147/174
Min. overdrive speed (km/h (mph))	18 km/h	22 km/h
Torque converter	Number of elements	3
	Max. ratio at stall	1.920
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	ø254 mm
Lubricant	Capacity (refill L (pt.))	6.0L
	Type Recommended	ATF D II
Oil cooler (std., opt., NA, internal, external, air, liquid)	N.A.	N.A.

Axle or Front Wheel Drive Unit * Normal/Power

Type (front, rear)	Front	Front
Description	Helical gear	Helical gear
Limited slip differential (type)	-	-
Drive pinion offset	-	-
Drive pinion (type)	* -/Helical gear	* -/Helical gear
No. of differential pinions	2	2
Pinion / differential adjustment (shim, other)	-	-
Pinion / differential bearing adjustment (shim, other)	* -/Collapsible sleeve	* -/Collapsible sleeve
Driving wheel bearing (type)	Double row angular ball bearing	Double row angular ball bearing
Lubricant	Capacity (L (pt.))	2.6L/1.6L
	Type recommended	ATF DEXRON II / ATF DEXRON II
	SAE viscosity number	- / -
	Summer	-
	Winter	-
	Extreme cold	- / -

Axle or Transaxle Ratio and Tooth Combinations * Manual transmission/Automatic transmission (See "Power Teams" for axle ratio usage.)

Axle ratio (or overall top gear ratio)	3.736/3.736	* 4.176/3.944
No. of teeth	Pinion	19/19
	Ring gear or gear	71/71
Ring gear o.d.	-	-
Transaxle	Transfer gear ratio	-
	Final drive ratio	-

* Manual transmission/Automatic transmission

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Axle Shafts - Front Wheel Drive

Manufacturer and number used			2	2	
Type (straight, solid bar, tubular, etc.)		Left	Solid bar	Solid bar	
		Right	Solid bar	Solid bar	
Outer diam. x length* x wall thickness	Manual transmission	Left	27 x 364.9 mm	27 x 368.6 mm	
		Right	27 x 364.9 mm	27 x 368.6 mm	
	Automatic transmission	Left	22.8 x 364.9 mm	23 x 368.6 mm	
		Right	22.8 x 364.9 mm	23 x 368.6 mm	
	Optional transmission	Left			
		Right			
Spline yoke	Type		-	-	
	Number of teeth		-	-	
	Spline o.d.		-	-	
Universal joints	Make and mtg. no.		Inner	TOYOTA 43403 - 32011	NTN TOYO BEARING 43040 - 32010
			Outer	TOYOTA 43405 - 32012	NTN TOYO BEARING 43405 - 32020
	Number used		4	4	
	Type, size, plunge		Inner	Tripot plunging	Double offset, plunging
			Outer	Rzeppa, fixed	Rzeppa, fixed
	Attach (u-bolt, clamp, etc.)		Snap ring	Snap ring	
	Bearing	Type (plain, anti-friction)	Ball bearing	Ball bearing	
		Lubrication (fitting, prepack)	Grease	Grease	
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.

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Propeller Shaft – Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			
Outer diam. x length* x wall thickness	Manual 3-speed trans.		
	Manual 4-speed trans.		
	Manual 5-speed trans.		
	Overdrive		
	Automatic transmission		
Inter- mediate bearing	Type (plain, anti-friction)		
	Lubrication (fitting, prepack)		
Slip yoke	Type		
	Number of teeth		
	Spline o.d.		
Universal joints	Make and mtg. no.	Front Rear	
	Number used		
	Type (ball and trunnion, cross)		
	Rear attach (u-bolt, clamp, etc.)		
	Bearing	Type (plain, anti-friction)	
		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 rear attachment.

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Body Type And/Or
Engine Displacement

Coupe	Liftback
-------	----------

Suspension - General

Car leveling	Std./opt./n.a.	N.A.	N.A.
	Type (air, hyd., etc.)	N.A.	N.A.
	Manual/auto. controlled	N.A.	N.A.
Provision for brake dip control		-	-
Provision for accel. squat control		-	-
Provisions for car jacking		-	-
Shock absorber (front & rear)	Type	Twin tube	Twin tube
	Make	F/R TOYOTA/KAYABA, TOKIKO	TOYOTA/KAYABA, TOKIKO
	Piston diameter	ø32 mm	ø32 mm
	Rod diameter	ø22 mm	ø22 mm

Suspension - Front

Type and description		MacPherson strut	MacPherson strut
Travel	Full jounce	80 mm	80 mm
	Full rebound	90 mm	90 mm
Spring	Type (coil, leaf, other) & material	Coil, SUP7NV or SUP12V	Coil, SUP7NV or SUP12V
	Insulators (type & material)	UPR & LWR	UPR & LWR
	*1	ST: 389x127.4/397.5x127.3 GT: 369x127.3x/376.5x127.2 GT-S: 376.5x127.2/384x127.1	GT: 369x127.3/376.5x127.2 GT-S: 376.5x127.2
	Size (coil design height & i.d., bar length x dia.)		
	Spring rate (N/mm (lb./in.))	ST: 17.6 N/mm, GT, GT-S: 19.6 N/mm	19.6 N/mm
	Rate at wheel (N/mm (lb./in.))	ST: 16.6 N/mm, GT, GT-S: 18.4 N/mm	18.4 N/mm
Stabilizer	Type (link, linkless, frameless)	Link	Link
	Material & bar diameter	*2 STKM15A ø25.4x3.0/S45C or S48C ø24	STKM15A ø25.4x3.0/S45C or S48C ø24

Suspension - Rear

Type and description		MacPherson strut	MacPherson strut
Travel	Full jounce	85 mm	85 mm
	Full rebound	100 mm	100 mm
Spring	Type (coil, leaf, other) & material	Coil, SUP7 or SUP7NV	Coil, SUP7 or SUP7NV
	Size (length x width, coil design height & i.d., bar length & dia.)	ST: 325x(ø88.5~118.5)mm GT: 338.5x(ø88.5~118.5)mm GT-S: 324.5x(ø88.3~118.3)mm	GT: 338.5x(ø88.5~118.5)mm GT-S: 334x(ø88.2~118.2)mm
	Spring rate (N/mm (lb./in.))	ST: 19.6 GT: 18.6 GT-S: 20.6 N/mm	GT: 18.6 GT-S: 20.6 N/mm
	Rate at wheel (N/mm (lb./in.))	ST: 18.5 GT: 17.6 GT-S: 19.4 N/mm	GT: 17.6 GT-S: 19.4 N/mm
	Insulators (type & material)	UPR & LWR	UPR & LWR
	If leaf	No. of leaves	-
		Shackle (comp. or tens.)	-
Stabilizer	Type (link, linkless, frameless)	Link	Link
	Material & bar diameter	SUP6 ø13	SUP6 ø13
Track bar (type)		N.A.	N.A.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line CELICA

Model Year 1987

Issued _____

Revised (e) _____

Body Type And/Or
Engine Displacement

3S-FE

3S-GE

Brakes - Service

Description		-	-
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Disc, Std.	Disc, Std.
	Rear (disc or drum)	Drum, Std.	Disc, Std.
Self-adjusting (std., opt., n.a.)		Std.	Std.
Special valving	Type (proportion, delay, metering, other)	P valve	P valve
Power brake (std., opt., n.a.)		Std.	Std.
Booster type (remote, integral, vac., hyd., etc.)			
Vacuum source (inline, pump, etc.)		N.A.	N.A.
Vacuum reservoir (volume in. ³)		N.A.	N.A.
Vacuum pump-type (elec. gear driven, belt driven, if other so state)		N.A.	N.A.
Anti-lock device type (std., opt., n.a.) (F/R)		N.A./N.A.	N.A./N.A.
Effective area (cm ² (in. ²))*		F/R 172/268 cm ²	172/128 cm ²
Gross lining area (cm ² (in. ²))* (F/R)		172/268 cm ²	172/128 cm ²
Swept area (cm ² (in. ²))* (F/R)		1070/440 cm ²	1152/1019 cm ²
Rotor	Outerworking diameter	F/R 243/- mm	258/269 mm
	Inner working diameter	F/R 147/- mm	162/193 mm
	Thickness	F/R 22/- mm	22/10 mm
	Material & type (vented/solid)	F/R Cast iron ventilated/-	Cast iron ventilated/Cast iron solid
Drum	Diameter & width	F/R - /200 mm	-
	Type and material	F/R - /Cast iron	-
Wheel cylinder bore		F/R 54.00/19.05 mm	54.00/31.75 mm
Master cylinder	Bore/stroke	F/R 23.81/14.00 mm	23.81/14.00 mm
Pedal arc ratio		4.112	4.112
Line pressure at 445 N(100 lb.) pedal load (kPa (psi))		11200 kPa	11200 kPa
Lining clearance		F/R Self adjusting	Self adjusting
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)	Bonded
		Rivet size	-
		Manufacturer	AKEBONO
		Lining code*****	-
		Material	Resin molded
		**** Primary or out-board	104 x 44 x 10 mm
		Size Secondary or in-board	104 x 44 x 10 mm
		Shoe thickness (no lining)	5.0 mm
	Rear wheel	Bonded or riveted (rivets/seg.)	Bonded
		Manufacturer	NISHINBO
		Lining Code*****	-
		Material	Resin molded
		**** Primary or out-board	192 x 35 x 4 mm
		Size Secondary or in-board	192 x 35 x 4 mm
		Shoe thickness (no lining)	1.6 mm
			5.0 mm

*Excludes rivet holes, grooves, chamfers, etc.

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

***Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)
(Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by PI/2 for each brake.)

****Size for drum brakes includes length x width x thickness.

*****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line CELICA
Model Year 1987 Issued _____ Revised (e) _____

Body Type And/Or
Engine Displacement

ST	GT	GT-S
----	----	------

Tires And Wheels (Standard)

Tires	Size (load range, ply)	165SR13	185/70SR13	205/60R14 87H
	Type (bias, radial, etc.)	Radial ply	Radial ply	Radial ply
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	210 kPa	190 kPa
		Rear (kPa (psi))	180 kPa	180 kPa
	Rev. mile-at 70 km/h (45 mph)	895	892	886
Wheels	Type & material	Steel	Steel	Aluminum
	Rim (size & flange type)	5-J x 13	5.5-J x 13	6-JJ x 14
	Wheel offset	45 mm	39 mm	39 mm
	Attachment	Type (bolt or stud)	Nut	Nut
		Circle diameter	100.0 mm	100.0 mm
Spare	Tire and wheel (same, if other describe)	Number & size	4-M12 x 1.5	5-M12 x 1.5
		4-M12 x 1.5	4-M12 x 1.5	5-M12 x 1.5
	Storage position & location (describe)	Luggage	Luggage	Luggage

Tires And Wheels (Optional)

Size (load range, ply)	185/70SR13	185/70SR13	-
Type (bias, radial, etc.)	Radial ply	Radial ply	-
Wheel (type & material)	Steel	Aluminum	-
Rim (size, flange type and offset)	5.5-J x 13	5.5-J x 13	-
Size (load range, ply)			-
Type (bias, radial, etc.)			-
Wheel (type & material)			-
Rim (size, flange type and offset)			-
Size (load range, ply)			-
Type (bias, radial, etc.)			-
Wheel (type & material)			-
Rim (size, flange type and offset)			-
Size (load range, ply)			-
Type (bias, radial, etc.)			-
Wheel (type & material)			-
Rim (size, flange type and offset)			-
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	185/70SR13 x 5.5-J	-	-

Brakes - Parking

Type of control	-	-	-
Location of control	-	-	-
Operates on	-	-	-
If separate from service brakes	Type (internal or external)	-	Drum in Disc
	Drum diameter	-	170 mm
	Lining size (length x width x thickness)	-	163 x 30 x 2 mm

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line CELICA

Model Year 1987

Issued _____

Revised (e) _____

Body Type And/Or
Engine Displacement

Coupe

Liftback

Steering

Manual (std., opt., n.a.)				N.A.		N.A.		
Power (std., opt., n.a.)				Std.		Std.		
Adjustable steering wheel/column (tilt, telescope, other)		Type (Std.)	*1 Convex/Tilt/Tilt & Telescopic			*2 Tilt/Tilt & Telescopic		
		Manufacturer						
		(Opt.)	*3 Tilt/Tilt & Telescopic			GT: Tilt & Telescopic		
Wheel diameter** (W9) SAE J1100		Manual	N.A.			N.A.		
		Power	*1 380 mm/380 mm/382 mm			*2 380 mm/382 mm		
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	11.8 mm			11.8 mm		
		Curb to curb (l. & r.)	10.8 mm			10.8 mm		
	Inside rear	Wall to wall (l. & r.)	6.4 mm			6.4 mm		
		Curb to curb (l. & r.)	6.6 mm			6.6 mm		
Scrub Radius*								
Manual	Gear	Type	-			-		
		Manufacturer	-			-		
		Ratios	Gear	-			-	
			Overall	-			-	
	No. wheel turns (stop to stop)		-			-		
Power	Type (coaxial, linkage, etc.)		Hydraulic integral			Hydraulic integral		
	Manufacturer		TOYOTA			TOYOTA		
	Gear	Type	Rack & pinion			Rack & pinion		
		Ratios	Gear	∞			∞	
			Overall	*1 16.8/16.81/16.81			16.81	
	Pump (drive)		Poly V-belt			Poly V-belt		
	No. wheel turns (stop to stop)		2.78			2.78		
Linkage	Type		-			-		
	Location (front or rear of wheels, other)		-			-		
	Tie rods (one or two)		-			-		
	Inclination at camber (deg.)		13°30'			13°30'		
Steering axis	Bearings (type)	Upper	Ball bearing			Ball bearing		
		Lower	Ball joint			Ball joint		
		Thrust	N.A.			N.A.		
		Steering spindle & joint type						
Wheel spindle/hub	Diameter	Inner bearing	38.0 mm			38.0 mm		
		Outer bearing	74.0 mm			74.0 mm		
	Thread (size)		M19 x 1.5 mm			M19 x 1.5 mm		
	Bearing (type)		Double row angular bearing			Double row angular bearing		

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

**See Page 21. *1 ST/GT/GT-S, *2 GT/GT-S, *3 ST/GT

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line CELICA
 Model Year 1987 Issued _____ Revised (e) _____

Engine Description/Carb.
 Engine Code

3S-FE, 3S-GE

Electrical - Supply System

Battery	Manufacturer *	G. Y. K. N. F. (G.Y.K)
	Model, std., (opt.)	55D23L [Opt. 32C24L]
	Voltage	12V, 66 plates (12V, 54 plated)
	Amps at 0°F cold crank	356A (238A)
	Minutes-reserve capacity	99 (57)
	Amp/hrs. - 20 hr. rate	60 (40)
	Location	Engine compartment left front
Alternator	Manufacturer	
	Rating	3S-FE: AC, 70A 3S-GE: AC, 60A
	Ratio (alt. crank/rev.)	3S-FE 2.55: 1 3S-GE: 2.36: 1
	Optional (type & rating)	-
Regulator	Type	IC

Electrical - Starting System

Start, motor	Current drain at 0°F	-
Motor drive	Engagement type	Shift
	Pinion engages from (front, rear)	3S-FE: Left 3S-GE: Right

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	Std.
	Other (specify)	N.A.
Coil	Make	NIPPON DENSO
	Model	-
	Current	Engine stopped - A
		0 A
Spark plug	Current	Engine idling - A
		0.1 A
	Make	NIPPON DENSO, NIHON TOKUSHU TOGYO
	Model *	3S-FE: 016R-U11/BCPR5EY11 3S-GE: P016R/BCPR5EP11
	Thread (mm)	M14 x 19.0 mm
	Tightening torque (N·m (lb. ft))	17.7 N·m
	Gap	1.1 mm
Distributor	Number per cylinder	1
	Make	NIPPON DENSO
	Model	-

Electrical - Suppression

* NIPPON DENSO/NIHON TOKUSHU TOGYO

Locations & type	Resistive spark plug Resistive high-tension cord Frame spray coating rotor distributor
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MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line CELICA

Model Year 1987

Issued

Revised (e)

Body Type

All models

Body

Structure

Bumper system
front - rear

Bar Material & Mass
Reinforcement
Material & Mas

* Urethane 3.6 kg/4.2 kg (Liftback: 4.0 kg)

* Steel 9.0 kg/10.7 kg (Liftback: 12.3 kg)

Anti-corrosion treatment

Body - Miscellaneous information

* Fr./Rr.

Type of finish (lacquer, enamel, other)

Acryl

Hood

Hinge location (front, rear)

Rear

Type (counterbalance, prop)

Prop

Release control (internal, external)

Internal

Trunk lid

Type (counterbalance, other)

Counterbalance

Internal release control (elec., mech., n.a.)

Mechanical

Hatch-back lid

Type (counterbalance, other)

Internal release control (elec., mech., n.a.)

Station wagon

Vent window control (crank, friction, pivot, power)

Front

Rear

Seat cushion type
(e.g., 60/40, bucket, bench, wire, foam etc.)

Front

Spring + foampad

Rear

Wireframe + foampad

3rd seat

-

Seat back type
(e.g., 60/40, bucket, bench, wire, foam etc.)

Front

Spring + foampad

Rear

Board + foampad (ST) Panelframe + foampad

3rd seat

-

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line CELICA
 Model Year 1987 Issued _____ Revised (e) _____

Body Type

All models

Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	3-point, 2-point, Fr: ELR, Rr: ALR
	Location	3-point: Front seat 2-point: Rear seat
Passive seat belts	Standard/optional	N.A.
	Power/manual	N.A.
	2 or 3 point	N.A.
	Knee barrier belt	N.A.

Frame

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

Glass	SAE Ref. No.	
Windshield glass exposed surface area (cm ² (in. ²))	S1	* 8681/8681 cm ²
Side glass exposed surface area (cm ² (in. ²)) - total 2-sides	S2	* 7669/8951 cm ²
Backlight glass exposed surface area (cm ² (in. ²))	S3	* 7362/7360 cm ²
Total glass exposed surface area (cm ² (in. ²))	S4	* 23712/24992 cm ²
Windshield glass (type)		Laminated tinted curved glass
Side glass (type)		Tempered curved glass
Backlight glass (type)		Tempered curved glass

* Coupe/Liftback

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line CERICA
 Model Year 1987 Issued _____ Revised (●) _____

Body Type

All models

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

Air conditioning (manual, auto, temp control)		Opt.
Clock (digital, analog)		Std.
Compass / thermometer		
Console (floor, overhead)		
Defroster, elec. backlight		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)		
Lamps	Auto head on / off delay, dimming	
	Cornering	N.A.
	Courtesy (map, reading)	Std.
	Door lock, ignition	ST: N.A. GT, GT-S: Std.
	Engine compartment	
	Fog	
	Glove compartment	Std.
	Trunk	
	Other	
Mirrors	Day/night (auto, man.)	
	L.H. (remote, power, heated)	
	R. H. (convex, remote, power, heated)	
	Visor vanity (RH: LH, illuminated)	
Parking brake-auto release (warning light)		
Power equipment	Door locks - deck lid - specify	
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hsp, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)	N.A.
	Side windows	ST: N.A. GT, GT-S: Opt.
	Vent windows	
	Rear window	
Radio systems	Antenna (location, whip, w/shield, power)	ST: Opt. GT,GT-S: Std.
	AM, FM, stereo, tape, CB	Std. AM/FM ETR 4SP
	Speaker (number, location) Premium sound	ST: N.A. GT, GT-S: Opt. AM/FM ETR W/CST W/A.F.
Roof open air, fixed (flip-up, sliding, "T")		
Speed control device		Opt.
Speed warning device (light, buzzer, etc.)		N.A.
Tachometer (rpm)		
Telephone system - mobile		
Theft protection-type		Steering lock

MVMA Specifications Form

Passenger Car

Car Line CELICA
Model Year 1987 Issued _____ Revised (e) _____

METRIC (U.S. Customary) Car and Body 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 car line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	Coupe	Liftback
Width			
Tread (front)	W101	*1 ST: 1460/1470 mm, GT, GT-S: 1470 mm	1470 mm
Tread (rear)	W102	*1 ST: 1425/1435 mm, GT, GT-S: 1435 mm	1435 mm
Vehicle width	W103	*2 ST: 1690/1710 mm, GT, GT-S: 1710 mm	1710 mm
Body width at Sq RP (front)	W117	1661.6 mm	1661.6 mm
Vehicle width (front doors open)	W120	3763.6 mm	3763.6 mm
Vehicle width (rear doors open)	W121	-	-
Front fender overall width	W106	1684.4 mm	1684.4 mm
Rear fender overall width	W107	1688 mm	1689 mm
Turn-in angle (deg.)	W122	30°	30°

*1: 165SR13/185/70SR13 *2 W/OP. MLDG/W/MLDG

Length			
Wheelbase	L101	2525 mm	2525 mm
Vehicle length	L103	4410 mm	4365 mm
Overhang (front)	L104	960 mm	960 mm
Overhang (rear)	L105	925 mm	880 mm
Upper structure length	L123	2369.8 mm	2663.6 mm
Rear wheel C.L. "X" coordinate	L127	2520 mm	2520 mm
Cowl point "X" coordinate	L125	404.9 mm	404.9 mm
Front end length at centerline	L126	1208.3 mm	1208.3 mm
Rear end length at centerline	L129	556 mm	194 mm

Height*

Passenger distribution (front/rear)	PD1.2.3	Fr: 2, Rr: 1	Fr: 2, Rr: 1
Trunk cargo load		0 mm	0 mm
Vehicle height	H101	1265 mm	1265 mm
Cowl point to ground	H114	900 mm	900 mm
Deck point to ground	H138	915 mm	905 mm
Rocker panel-front to ground	H112	195 mm	195 mm
Bottom of door closed-front to grd.	H133	285 mm	285 mm
Rocker panel-rear to ground	H111	190 mm	190 mm
Bottom of door closed-rear to grd.	H135	-	-
Windshield slope angle	H122	61.9°	61.9°
Backlight slope angle	H121	57.3°	69.1°

Ground Clearance*

Front bumper to ground	H102	395 mm	395 mm
Rear bumper to ground	H104	350 mm	355 mm
Bumper to ground (front at curb mass (wt.))	H103	405 mm	405 mm
Bumper to ground (rear at curb mass (wt.))	H105	390 mm	395 mm
Angle of approach (degrees)	H106	14.5°	14.5°
Angle of departure (degrees)	H107	16.5°	16°
Ramp breakover angle (degrees)	H147	12.5°	12.5°
Axle differential to ground (front/rear)	H153	-	-
Min. running ground clearance	H156	135 mm	135 mm
Location of min. run. grd. clear.		Sub muffler	Sub muffler

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

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line CELICA

Model Year 1987

Issued _____

Revised (•) _____

Body Type

SAE Ref. No.	Coupe	Liftback
--------------	-------	----------

Front Compartment

Sg RP front, "X" coordinate	L31	1382 mm	1382 mm
Effective head room	H61	960 mm (927 mm, with sunroof)	960 mm (927 mm, with sunroof)
Max. eff. leg room (accelerator)	L34	1129 mm	1129 mm
Sg RP to heel point	H30	203 mm	203 mm
Sg RP to heel point	L53	960 mm	960 mm
Back angle	L40	25°	25°
Hip angle	L42	104°	104°
Knee angle	L44	147°	147°
Foot angle	L46	87°	87°
Design H-point front travel	L17	240 mm	240 mm
Normal driving & riding seat track trvl.	L23	240 mm	240 mm
Shoulder room	W3	1323 mm	1323 mm
Hip room	W5	1298 mm	1298 mm
Upper body opening to ground	H50	1162 mm	1162 mm
Steering wheel maximum diameter*	W9		
Steering wheel angle	H18	19.8°	
Accel. heel pt. to steer. whl. cntr	L11	-	-
Accel. heel pt. to steer. whl. cntr	H17	-	-
Steering wheel to C/L of thigh	H13	-	-
Steering wheel torso clearance	L7	-	-
Headlining to roof panel (front)	H37	6 mm	6 mm
Undepressed floor covering thickness	H67	M/T: 27 mm, A/T: 37 mm	M/T: 27 mm, A/T: 37 mm

Rear Compartment

Sg RP Point couple distance	L50	633 mm	633 mm
Effective head room	H63	862.5 mm	862.5 mm
Min. effective leg room	L51	709 mm	709 mm
Sg RP (second to heel)	H31	264 mm	264 mm
Knee clearance	L48	ST, GT: -126 mm, GT-S: -133 mm	GT: -126 mm, GT-S: -133 mm
Compartment room	L3	ST, GT: 568 mm, GT-S: 565 mm	GT: 568 mm, GT-S: 565 mm
Shoulder room	W4	1294 mm	1294 mm
Hip room	W6	1220 mm	1220 mm
Upper body opening to ground	H51	-	-
Back angle	L41	27°	27°
Hip angle	L43	81°	81°
Knee angle	L45	60°	60°
Foot angle	L47	99°	99°
Headlining to roof panel (second)	H38	6 mm	6 mm
Depressed floor covering thickness	H73	M/T 10.5 mm, A/T: 15.5 mm	M/T: 10.5 mm, A/T: 15.5 mm

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	338L	-
Liftover height	H195	795 mm	810 mm

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)			
Interior volume index (cu. ft.)			
Trunk/cargo index (cu. ft.)			

* See page 14.

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

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line CELICA

Model Year 1987

Issued

Revised (e)

Body Type

SAE
Ref.
No.

Coupe

Liftback

Station Wagon - Third Seat

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

Station Wagon - Cargo Space

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

Hatchback - Cargo Space

Cargo length at front seatback height	L206	-	GT: 1280 GT-S: 1391
Cargo length at floor (front)	L209	-	GT: 1479 GT-S: 1472
Cargo length at second seatback height	L210	-	461
Cargo length at floor (second)	L211	-	947
Front seatback to load floor height	H197	-	GT: 400, GT-S: 339
Second seatback to load floor height	H198	-	498
Cargo volume index (m ³ (ft. ³))	V3	-	GT: 0.714 GT-S: 0.628
Hidden cargo volume (m ³ (ft. ³))	V4	-	0.445
Cargo volume index-rear of 2-seat	V11	-	0.445

Aerodynamics*

Wheel lip to ground, front		
Wheel lip to ground, rear		
Frontal area (m ² (ft. ²))		
Drag coefficient (Cd)		

* EPA Loaded Vehicle Weight, Loading Conditions

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

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line CELICA
 Model Year 1987 Issued _____ Revised (•) _____

Body Type

All models

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
Front	Flange part front end location for jack-up under rocker.
Rear	Flange part rear end location for jack-up under rocker.
Fiducial Mark Number	
Front	W21 W6 + 63 mm
	L54 L15 + 55 (+7) mm
	H81 H10 - 15 mm
	H161 200 mm
	H163 180 mm
Rear	W22 W6 + 70 mm
	L55 L30 + 54 (+7) mm
	H82 H10 - 15 mm
	H162 Coupe: 210 mm, Liftback: 200 mm
	H164 180 mm

* Reference - SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.
 All linear dimensions are in millimeters (inches).

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line CELICA
 Model Year 1987 Issued _____ Revised (•) _____

Body Type

Coupe	Liftback
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Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (SAE - H127)	Highest**	720 mm	720 mm
		Lowest	-	-
	Taillamp (SAE - H128)	Highest**	715 mm	750 mm
		Lowest	-	-
	Sidemarker	Front	480 mm	480 mm
		Rear	530 mm	745 mm
Distance from C/L of car to center of bulb	Headlamp	Inside	-	-
		Outside**	532 mm	532 mm
	Taillamp	Inside	360 mm	455 mm
		Outside**	520 mm	620 mm
	Directional	Front	707 mm	707 mm
		Rear	635 mm	695 mm
Halogen headlamp (std., opt., n.a.)	Lo beam			
	Hi beam			
	Replaceable bulb			
	Shape			
Headlamp other than above	Lo beam			
	Hi beam			
	Replaceable			
	Shape			
	Type			

* Measured at curb mass (weight).

** If single lamps are used enter here.

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

MVMA Specifications Form

Passenger Car

Car Line CELICA
Model Year 1987 Issued _____ Revised (e) _____

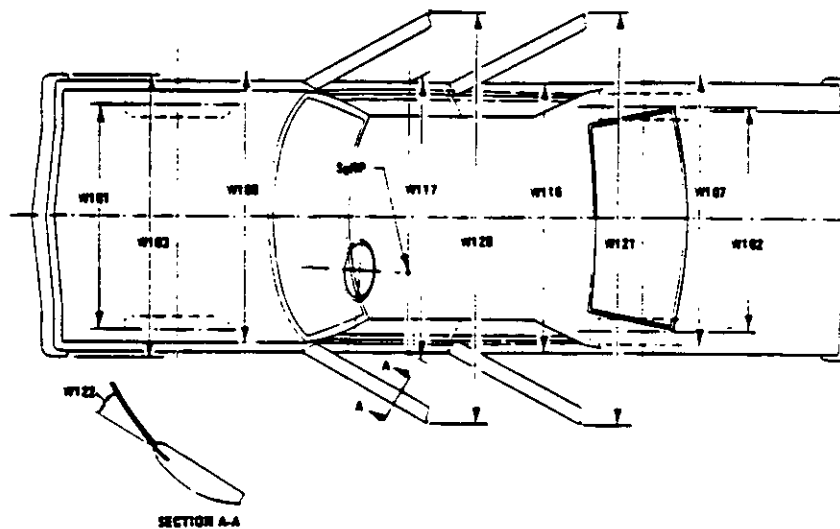
METRIC (U.S. Customary)[illegible]

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

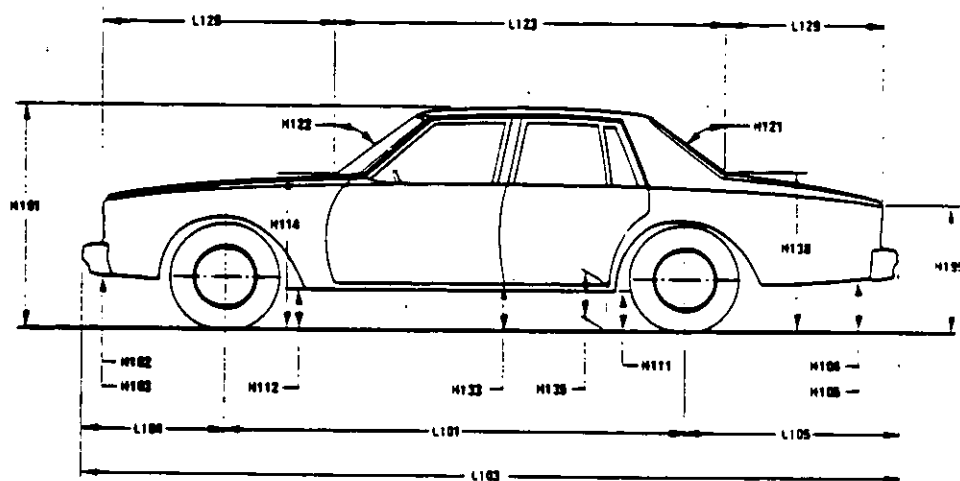
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Exterior Car And Body Dimensions – Key Sheet

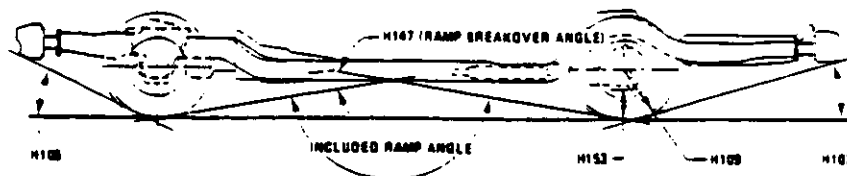
Exterior Width



Exterior Length & Height

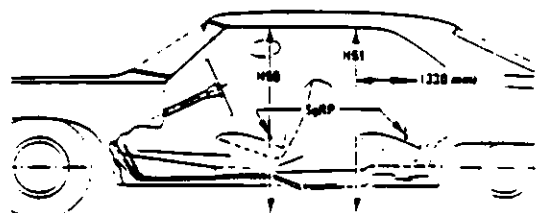
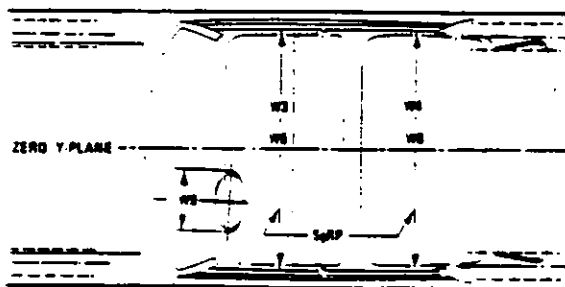
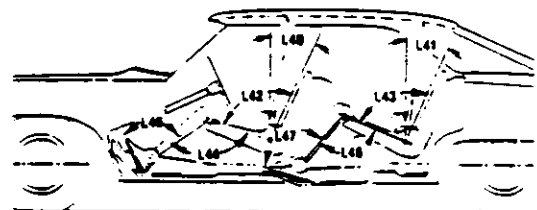
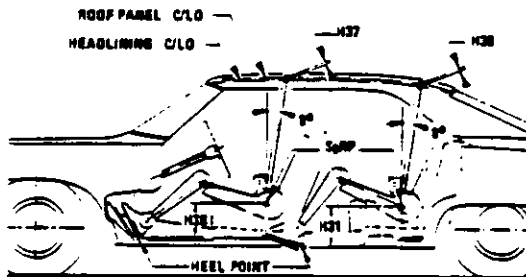
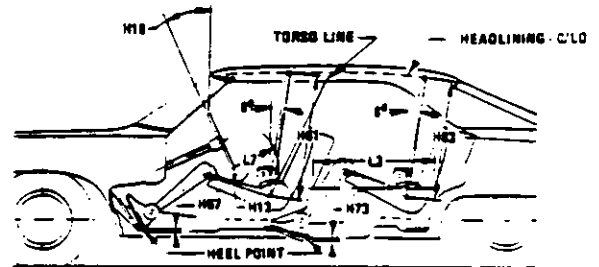
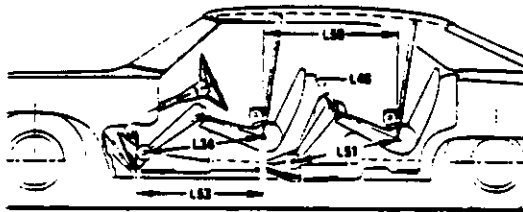


Exterior Ground Clearance



MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

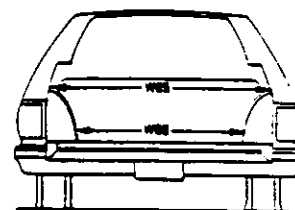
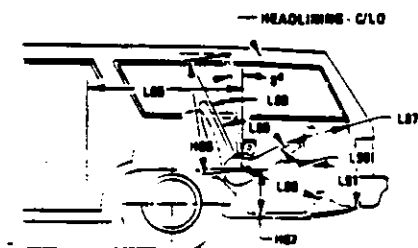
Interior Car And Body Dimensions – Key Sheet



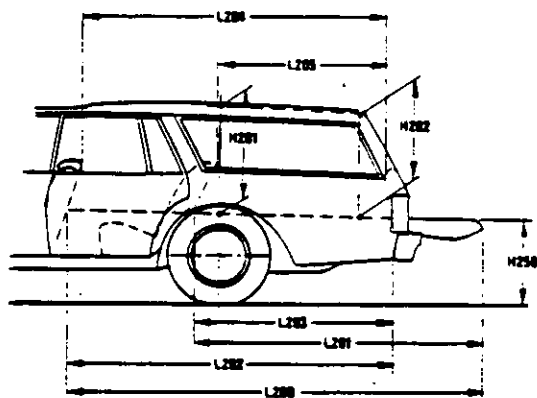
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Interior Car And Body Dimensions – Key Sheet

Third Seat



Cargo Space



MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Exterior Car 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.
- W106 FRONT FENDER WIDTH. The dimension measured between the widest points at the front wheel centerline, excluding moldings.
- W107 REAR FENDER WIDTH. The dimension measured between the widest points at the rear wheel centerline, excluding moldings.
- 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.

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 OVERHANG—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.
- L125 COWL POINT "X" COORDINATE.
- L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and/or grills are integrated with the profile, measurement is made at the foremost point of front end contour.
- 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.
- L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point of the body sheet metal at the zero "Y" plane, excluding ornamentation or bumpers.

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.
- H127 HEADLAMP TO GROUND—CURB MASS (WT.). The dimension measured vertically from the centerline of the lowest headlamp lens to ground.
- H128 TAILLAMP TO GROUND—CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.
- H133 BOTTOM OF DOOR CLOSED—FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.
- H135 BOTTOM OF DOOR CLOSED—REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.
- 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.

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Interior Car And Body Dimensions - Key Sheet

Dimensions Definitions

- 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 of 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.

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.
- H181 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.
- H182 Height "Z" coordinate to ground at curb weight.
- H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

- L7 STEERING WHEEL TORSO CLEARANCE. The minimum dimension measured in the side view from the rearmost edge of the steering wheel, with front wheels in the straight ahead position, to the torso line.
- 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 LEVEL. 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.
- L40 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.
- L42 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 non-vertically 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 75 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.
- H13 STEERING WHEEL TO CENTERLINE OF THIGH. The minimum dimension measured from the bottom of steering wheel, with front wheels in the straight position, to the thigh centerline.
- H17 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.
- H37 HEADLINING TO ROOF PANEL-FRONT. The dimension measured from the intersection of the headlining and the extended effective head room line normal to the sheet metal.
- 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 (4.0 in.).
- 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.
- PD1 PASSENGER DISTRIBUTION-FRONT.

Rear Compartment Dimensions

- L3 COMPARTMENT ROOM-SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Interior Car And Body Dimensions - Key Sheet

Dimensions Definitions

- 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 254mm (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.
- H38 HEADLINING TO ROOF PANEL-SECOND. The dimension measured from the intersection of the headlining and the extended effective head room line normally to the roof sheet metal.
- 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.
- P02 PASSENGER DISTRIBUTION-SECOND.

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.
- H195 LIFTOVER HEIGHT. The dimension measured vertically from the luggage compartment lower opening at the zero "Y" plane to ground.

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The interior volume index estimates 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 51mm (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
- P03 PASSENGER DIRECTION-THIRD.
- 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 undeepressed floor covering to the rearmost point on the undeepressed 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 undeepressed floor covering to the rearmost point on the undeepressed 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 undeepressed floor covering to the rearmost point on the undeepressed 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 undeepressed floor covering to the rearmost point on the undeepressed 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 back 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 wheelhouseings at floor level. For any vehicle not trimmed, measure to the sheet metal.

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

Interior Car And Body Dimensions – Key Sheet

Dimensions Definitions

- 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:

$$\frac{W4 \times H201 \times L204}{1728} = \text{ft}^3$$
 Measured in mm:

$$\frac{W4 \times H201 \times L204}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- 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.
- V5 TRUCKS AND MPV'S WITH OPEN AREA.**
Measured in inches:

$$\frac{L508 \times W500 \times H503}{1728} = \text{ft}^3$$
 Measured in mm:

$$\frac{L508 \times W500 \times H503}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V6 TRUCKS AND MPV'S WITH CLOSED AREA.**
Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = \text{ft}^3$$
 Measured in mm:

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

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = \text{ft}^3$$
 Measured in mm:

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

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 electrically 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 "Y" 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 seat back to the undepressed floor covering.
- V3 HATCHBACK.**
Measured in inches:

$$\frac{L208 + L209}{2} \times W4 \times H197 = \text{ft}^3$$
 Measured in mm:

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

$$\frac{L210 + L211}{2} \times W4 \times H198 = \text{ft}^3$$
 Measured in mm:

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

MVMA Specifications Form

Passenger Car

METRIC (U.S. Customary)

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