MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

2000

Manufacturer	Vehicle Line	
TOYOTA MOTOR CORPORATION	TOYOTA CELICA	
Mailing Address		
Toyota Motor Sales, U.S.A. , Inc. 19001 S. Western Avenue P.O. Box 2991 Torrance, California 90509-2911	**Issued** Aug., 1999	**Revised**

Direct questions concerning these specifications to the manufacturer listed above.

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

Motor Vehicle Manufacturers Association
of the United States, Inc.

Forms Provided by Technical Affairs Division

FROM MVMA-93

Table of Contents

Ø Indication Format Change Form 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.

METRIC (U.S. Customary)

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)	EPA Fuel Economy (City / Hwy)
1ZZ-FE Engine					
3-dr., Lift back, GT grade, 5 M/T		ZZT230L-BLMSHA	2 / 2		
3-dr., Lift back, GT grade, 4 A/T		ZZT230L-BLPSHA	2 / 2		
2ZZ-GE Engine					
3-dr., Lift back, GT-S grade, 6 M/T		ZZT231L-BLFVFA	2 / 2		
3-dr., Lift back, GT-S grade, 4 A/T		ZZT231L-BLPVFA	2 / 2		

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

Power Teams

SAE J1349 Net bhp(break 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		1ZZ-FE	←	2ZZ-GE	←
	Displacement Liters (in³)		1.794 (109.5)	←	←	
	Induction system (FI, Carb, etc.)		EFI	←	←	
	Compression ratio		10.0	←	11.5	
	SAE Net at RPM	Power kW (bhp)	105 (140) / @6400	←		
		Torque N · m (lb. ft.)	170 (125) / @4200	←		
	Exhaust single, dual					
TRANS	Transmission / Transaxle		5 M/T	4 A/T	6 M/T	4 A/T
	Effective Final Drive/ Axle Ratio (std. first)		4.312		4.529	

Model	Series Availability Code	Power Teams (A-B-C-D) Standard	Optional
1ZZ-FE			
3-dr., Lift back, GT grade, 5 M/T	ZZT230L-BLMSHA	A	
3-dr., Lift back, GT grade, 4 A/T	ZZT230L-BLPSHA	B	
2ZZ-GE			
3-dr., Lift back, GT-S grade, 6 M/T	ZZT231L-BLFVFA	C	
3-dr., Lift back, GT-S grade, 4 A/T	ZZT231L-BLPVFA	D	

METRIC (U.S. Customary)

Engine Description / Engine Code	1ZZ-FE	2ZZ-GE

ENGINE - GENERAL

Type & description (inline, V, angle, flat,location, front, mid, rear, transverse, longitudinal,sohc, dohc, ohv,hemi, wedge, pre-chamber, etc.)		Inline, front, transverse, DOHC, pentroof	
Manufacturer		TOYOTA MOTOR	
No. of cylinders			
Bore		79.0	
Stroke		91.5	
Bore spacing (C/L to C/L)		87.5	
Cylinder block material & mass kg(lbs.)(machined)		Aluminum alloy, 25.5	
Cylinder block deck height		222.42	
Cylinder block length		399.6	
Deck clearance (minimum) (above or below block)		Above, 2.4	
Cylinder head material & mass kg(lbs.)		Aluminum alloy, 10.3	
Cylinder head volume cm^3 ($inches^3$)		35.2	
Cylinder liner material		Cast iron	
Head gasket thickness (compressed)		0.58	
Minimum combustion chamber total volume cm^3 ($inches^3$)		49.8	
Cyl. no. system (front to rear)*		1 - 2 - 3 - 4	
Firing order		1 - 3 - 4 - 2	
Intake manifold material & mass kg(lbs.)**		Resin, 2.6	
Exhaust manifold material & mass kg(lbs.)**		SUS, 2.9	
Knock sensor (number & location)		1, Cylinder block	
Fuel required unleaded, diesel, etc.		Unleaded	
Fuel antiknock index (R + M) ÷ 2		87	
Engine mounts	Quantity	4	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	FR, RR, LH: elastomeric, RH: hydroelastic	
	Added isolation (sub-frame, crossmember, etc.)	FR: center member, RR: sub-frame, LH, RH: side member	
Total dressed engine mass(wt) dry***		5 M/T= 116, 4 A/T= 109	

Engine - Pistons

Material & mass, g(weight, oz.)-piston only		Aluminum alloy, 263	

Engine - Camshaft

Location		Cylinder head	
material & mass kg (weight, lbs.)		Cast iron , IN= 1.6, EX= 1.5	
Drive type	Chain / belt	Chain	
	Width /pitch	12.5 / 8	

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

** Finished state.

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

MVMA Specifications

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Engine Description / Engine Code	1ZZ-FE	2ZZ-GE

Engine - Valve System

Hydraulic lifters (std., opt., n.a.)		N.A.	
Valves	Number intake / exhaust	2 / 2	
	Head O.D. intake / exhaust	32.0 / 27.5	

Engine - Connecting Rods

Material & mass kg., (weight,lbs.)*	Steel, 4.72	
Length (axes C/L to C/L)	146.65	

Engine - Crankshaft

Material & mass kg., (weight,lbs.)*		Steel, 14.3	
End thrust taken by bearing (no.)		No.3	
Length & number of main bearings		460.5, 5	
Seal (material,one,two piece design,etc.)	Front	Synthetic rubber / One piece	
	Rear	Synthetic rubber / One piece	

Engine - Lubrication System

Normal oil pressure kPa (psi) at engine rpm	290 / @5200	
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow,part,other)	Full flow	
Capacity of c/case, less filter-refill-L(qt.)	3.5	

Engine - Diesel Information

N.A.

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

N.A.

Turbo charger - manufacturer	
Super charger - manufacturer	
Intercooler	

* Finished State

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Engine Description / **Engine Code**	1ZZ-FE	2ZZ-GE

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Std.	
Coolant fill location (rad., bottle)		Reservoir tank	
Radiator cap relief valve pressure kPa (psi)		110	
Circulation thermostat	Type (choke, bypass)	By-pass	
	Starts to open at °C(°F)	82.0	
Water pump	Type (centrifugal,other)	Centrifugal	
	GPM 1000 pump rpm	15 L/min.	
	Number of pumps	1	
	Drive (V-belt, other)	V-ribbed belt	
	Bearing type	Double row ball bearing	
	Impeller material	SUS	
	Housing material	Aluminum	
By-pass recirculation type (inter., ext.)		Internal	
Cooling system capacity	With heater - L(qt.)	5 M/T= 5.7, 4 A/T= 5.6	6 M/T= 5.9, 4 A/T= 5.8
	With air conditioner - L(qt.)	5 M/T= 5.7, 4 A/T= 5.6	6 M/T= 5.9, 4 A/T= 5.8
	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)		Yes	
Radiator core	Std., A/C, HD	Std.	
	Type (cross-flow, etc.)	Cross-flow	
	Construction (fin & tube, mechanical, braze, etc.)	Corrugated fin	
	Material, mass kg(wgt., ibs.)	Aluminum, M/T= 2.0, A/T= 2.2	
	Width	650	
	Height	325	
	Thickness	16	
	Fins per inch	Pitch= 2.25mm	
Radiator end tank material		FRP (PA66 w/ glass fiber)	
Fan	Std., elec., opt.	Std.: electric	
	Number of blades & type (flex, solid, material)	w/o A/C: 5, flex, plastics w/ A/C: 5, 7, flex, plastics	
	Number & location (front, rear of radiator)	w/o A/C: 1, rear of radiator w/ A/C: 2, rear of radiator	
	Diameter & projected width	w/o A/C= 280 / 37, w/ A/C= 280 / 37, 300 / 28	
	Ratio (fan to crankshaft rev.)	N.A.	
	Fan cutout type	Temperature controlled	
	Drive type (direct, remote)	Electric motor	
	RPM at idle (elec.)	1160 / 2140	
	Motor rating (wattage/elec.)	w/o A/C= 80, w/ A/C= 80 + 80	
	Motor switch (type & location/elec.)	Thermistor at water outlet	
	Switch point (temp., /pressure/elec.)	96 ℃	
	Fan shroud (material)	FRP (PP w/ glass fiber)	

METRIC (U.S. Customary)

Engine Description / **Engine Code**	1ZZ-FE	2ZZ-GE

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		DENSO	
Carburetor no. of barrels		N.A.	
Idle A/F mix.		Not adjustable	
Fuel injection	Point of injection (no.)	4	
	Constant, pulse, flow	Pulse flow	
	Control (electronic, mech.)	Electronic	
	System pressure kPa(psi)	324	
Idle spd.-rpm(spec. neutral or drive and propane if used)	Manual	700	
	Automatic	650	
Intake manifold heat control (exhaust or water thermostatic or fixed)		N.A.	
Air cleaner type		Paper element type	
Fuel filter (type/location)		Paper element one piece type / In tank	
Fuel pump	Type (elec. or mech.)	Electric	
	Location (eng., tank)	In tank	
	Pressure range kPa(psi)	441~588	
	Flow rate at regulated pressure L(gal)/hr @kPa(psi)	80 @ 250	

Fuel Tank

Capacity refill L (gallons)		50
Location (describe)		Underside of rear seat floor
Attachment		Fastened with bands and bolts
Material & Mass kg (weight lbs.)		Steel
Filler pipe	Location & material	Left quarter panel
	Connection to tank	Rubber hose
Fuel line (material)		Steel, nylon
Fuel hose (material)		Rubber
Return line (material)		N.A.
Vapor line (material)		Nylon
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	—

50

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Engine Description / **Engine Code**	1ZZ-FE	2ZZ-GE

Vehicle Emission Control

Exhaust Emission Control	Type(air injection, engine modifications, other)		EFI, O_2S, TWC		
	Air injection	Pump or pulse	N.A.		
		Driven by	N.A.		
		Air distribution (head, manifold, etc.)	N.A.		
		Point of entry	N.A		
	Exhaust Gas recirculation	Type (controlled flow, open orifice, other)	N.A.		
		Exhaust source	N.A.		
		Point of exhaust injection (spacer, carburetor, manifold, other)	N.A.		
	Catalytic Converter	Type	3 way catalyst		
		Number of	1		
		Location(s)	Under floor		
		Volume L(in³)	1.306		
		Substrate type	Ceramic monolith		
		Noble metal type	Pt, Rh, Pd		
		Noble metal concentration(g/cm³)	Pt= 1.96, Rh= 0.523, Pd= 2.61	Pt= 1.96, Rh= 0.523, Pd=5.23	
Crank-case Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction system close type		
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum		
	Discharges to (intake manifold, other)		To intake manifold		
	Air inlet (breather cap, other)		Throttle body		
Evapora-tive Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister		
		Carburetor	—		
	Vapor storage provision		Charcoal canister		
Electro-nic system	Closed loop (yes/no)		Yes		
	Open loop (yes/no)		No		

Engine - Exhaust System

Type (single, single with cross-over, dual, other)			Single	
Muffler no. & type(reverse flow, straight thru, separate resonator) Material & Mass kg (weight lbs.)			1: straight thru, 2: reverse flow, 3: straight thru Stainless steel, 1= 2.9, 2= 6.6, 3= 1.1	1: straight thru, 2: reverse flow, 3: straight thru Stainless steel, 1= 3.1, 2= 7.9, 3= 1.8
Resonator no. & type			N.A.	
Exhaust pipe	Branch o.d.,wall thickness		N.A.	
	Main o.d.,wall thickness		70.0, t= 1.5	80.0, t= 1.5
	Material & Mass kg (weight lbs.)		Stainless steel, 8.7	Stainless steel, 9.9
Inter-mediate pipe	o.d. & wall thickness		N.A.	
	Material & Mass kg (weight lbs.)		N.A.	
Tail pipe	o.d. & wall thickness		54.0, t= 1.2	
	Material & Mass kg (weight lbs.)		Stainless steel, 9.9	Stainless steel, 11.1

MVMA Specifications

Vehicle Line
Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Engine Description / **Engine Code**	1ZZ-FE	2ZZ-GE

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

Manual 4-speed (manufacturer/country)	—	
Manual 5-speed (manufacturer/country)	TOYOTA MOTOR / JAPAN	—
Manual 6-speed (manufacturer/country)	—	AISIN · AI / JAPAN
Automatic (manufacturer/country)	—	
Automatic overdrive (manufacturer/country)	TOYOTA MOTOR	

Manual Transmission/Transaxle

Number of forward speeds		5	6
Gear ratios	1st	3.166	
	2nd	1.904	2.050
	3rd	1.392	1.481
	4th	1.031	1.166
	5th	0.815	0.916
	6th	—	0.725
	Reverse	3.250	
Synchronous meshing (specify gears)		All forward speeds	
Shift lever location		Floor	
Trans.case mat'l. & mass kg(lbs)*		Aluminum die cast, 36.3 (dry)	Aluminum die cast, 39.5 (dry)
Lubricant	Capacity L(pt.)	1.9	2.3
	Type recommended	GL-4 or GL-5	

Clutch(Manual Transmission)

Clutch manufacturer		AISIN SEIKI	
Clutch type (dry, wet;single, multiple disc)		Single, dry, diaphragm	
Linkage (hydraulic, cable, rod, lever, other)		Hydraulic	
Max.pedal effort (nom. spring load) N (lbs)	Depressed	100	110
	Released	100	110
Assist (spring, power/percent, nominal)		34	31
Type pressure plate springs		Diaphragm spring	
Total spring load (nominal) N (lbs)		4900	5150
Clutch facing	Facing mfgr. & material coding	AISIN CHEMICAL	
	Facing material & construction	Semi-mold	
	Rivets per facing	16	
	Outside x inside dia.(nominal)	212 x 140	
	Total eff. area cm² (in.²)	199	
	Thickness (pressure plate side/fly wheel side)	3.5 / 3.5	
	Rivet depth (pressure plate side/fly wheel side)	1.6 / 1.6	
	Engagement cushion method	Wave spring segments	
Release bearing type & method lub.		Self-centering ball bearing with permanent lubrication	
Torsional damping method, springs, hysteresis		Single-stage torsional rubber	

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

METRIC (U.S. Customary)

Engine Description / **Engine Code**	1ZZ-FE	2ZZ-GE

Automatic Transmission/Transaxle

Trade name		U341E	U240E
Type and special features (describe)		3-mode, 4-speed, electronically controlled planetary gear train with lock-up clutch torque converter	
Shift mechanics		—	
Gear selector	Location (column, floor, other)	Floor	
	Ltr./No. designation (e.g. PRND21)		
	Shift interlock(yes, no, describe)		
Gear ratios	1st	2.847	3.943
	2nd	1.552	2.197
	3rd	1.000	1.413
	4th	0.700	1.020
	Reverse	2.343	3.145
	Final drive ratio		
Max. upshift vehicle speed-drive range km/h (mph)		173	183
Max. upshift engine speed RPM			
Max. kickdown speed-drive range km/h (mph)		165	176
Min. overdrive speed km/h (mph)		35	17
Torque converter	Type	N.A.	
	Torus design	N.A.	
	Number of elements	3 elements	
	Max. ratio at stall	1.8 : 1	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	241	
	Capacity factor "k"*	—	
Pump type			
Lubricant	Capacity refill L(pt.)	2.9	4.1
	Type recommended	TYPE T-Ⅳ	
Oil cooler (std., opt., N.A., internal,external,air,liquid)		Std.: In radiator liquid	
Transmission mass kg(lbs) & case material**		65.2, Aluminum die cast	79.9, Aluminum die cast

All Wheel/4 Wheel Drive

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

* In put speed $\div\sqrt{\text{torque}}$

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

METRIC (U.S. Customary)

Engine Description / Engine Code	1ZZ-FE	2ZZ-GE

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

Effective final drive ratio (or overall top gear ratio)			5 M/T= 4.312	6 M/T= 4.529
Transfer ratio and method (chain, gear, etc.)				
Front drive unit	Ring gear o.d.		—	
	No. of teeth	Pinion	5 M/T= 16	6 M/T= 17
		Ring gear	5 M/T= 69	6 M/T= 77

Front Drive Unit

Description (integral to trans., etc.)			Integral to trans.
Limited slip differential (type)			—
Drive pinion		Type	Helical
		Offset	—
No. of differential pinions			2
Pinion / differential		Adjustment (shim, etc.)	—
		Bearing adjustment	—
Driving wheel bearing (type)			Double row angular contact ball bearing
Lubricant	Capacity L(pt.)		Included in trans.
	Type recommended		Included in trans.

Axle Shafts - Front Wheel Drive

Manufacturer and number used			5 M/T: NTN, 2, 4 A/T: TOYOTA MOTOR, 2	NTN, 2
Type (straight, solid bar, tubular, etc.)		Left	Solid	
		Right	Solid	
Outer diam. x length* x wall thickness	Manual transaxle	Left	24.0 x 371.0	
		Right	24.0 x 371.0	
	Automatic transaxle	Left	22.8 x 372.0	24.0 x 371.0
		Right	22.8 x 372.0	24.0 x 371.0
	Optional transaxle	Left	N.A.	
		Right	N.A.	
Slip yoke	Type		N.A.	
	Number of teeth		N.A.	
	Spline o.d.		N.A.	
Universal joints	Make and mfg. no.	Inner	5 M/T: NTN, 4 A/T: TOYOTA MOTOR	NTN
		Outer	5 M/T: NTN, 4 A/T: TOYOTA MOTOR	NTN
	Number used		4 (=2 each shaft)	
	Type, size, plunge	Inner	5 M/T: Double offset, plunge , 4 A/T: Tripod, plunge	Double offset, plunge
		Outer	Rzeppa, fixed	
	Attach (u-bolt, clamp, etc)		Inner: Spline and snap ring, Outer: Spline and nut	
	Bearing	Type (plain, anti-friction)	Ball bearing	
		Lubrication (fitting, prepack)	Prepack	
Drive taken through (torque tube, arms or springs)			MacPherson strut	
Torque taken through (torque tube, arms or springs)			Engine mounting system	

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

Model Code/Description And/Or Engine Code/Description

ZZT230		ZZT231	
5 M/T	4 A/T	6 M/T	4 A/T

Suspension - General Including Electronic Controls

Car leveling	Standard/option/not avail.					N.A.	
	Manual/automatic control					—	
	Type (air/hydraulic)					—	
	Primary/assist spring					—	
	Rear only/4 wheel leveling					—	
	Single/dual rate spring					—	
	Single/dual ride heights					—	
	Provision for jacking					—	
Shock absorber damping controls	Standard/option/not avail.					N.A.	
	Manual/automatic control					—	
	Number of damping rates					—	
	Type of actuation(manual/electric motor/air, etc.)					—	
	Sensors	Lateral acceleration				—	
		Deceleration				—	
		Acceleration				—	
		Road surface				—	
Shock absorber (front & rear)	Type					Tube, double acting / Tube, double acting	
	Make					TOYOTA MOTOR / KAYABA	
	Piston diameter					32.0 / 25.0	
	Rod diameter					22.0 / 12.5	

Suspension - Front

Type and description		MacPherson strut			
Travel	Full jounce (define load condition)	80			
	Full rebound	90			
Spring	Type (coil, leaf, other & material)	Coil, alloy steel			
	Insulators (type & material)	Upper and lower, rubber			
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	298.5 x (137.7 - 107.6)	305.0 x (137.7 - 107.6)	312.0 x (137.7 - 107.6)	318.5 x (137.7 - 107.6)
	Spring rate [N/mm(lb./in.)]	22.5			
	Rate at wheel [N/mm(lb./in.)]	24.5			
Stabilizer	Type (link, linkless, frameless)	Link			
	Material & O.D. bar/tube, wall thickness	Alloy steel, 22			

Suspension - Rear

Type and description		Double wishbone			
Travel	Full jounce (define load condition)	100			
	Full rebound	110			
Spring	Type (coil, leaf, other & material)	Coil, alloy steel			
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	313.0 x (86.4 - 52.0)			
	Spring rate [N/mm(lb./in.)]	28.0			
	Rate at wheel [N/mm(lb./in.)]	17.1			
	Insulators (type & material)	Upper, rubber			
	If leaf: No. of leaves				
	If leaf: Shackle (comp. or tens.)				
Stabilizer	Type (link, linkless, frameless)	Link			
	Material & O.D. bar/tube, wall thickness	Alloy steel, 17			
Track bar (type)		N.A.			

MVMA Specifications

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Model Code/Description And/Or Engine Code/Description

ZZT230	ZZT231

Brakes - Service

Description				4-wheel hydraulic actuation with diagonal circuits	
Manufacture and brake type (std., opt., n.a.)	Front (disc or drum)			Std.: HOUSEI, disc	Std.: AISIN, disc
	Rear (disc or drum)			Std.: HOUSEI, drum	Std.: SUMITOMO, disc
Valving type (proportion, delay, metering, other)				P valve (w/o ABS), less P valve (w/ ABS)	
Power brake (std., opt., n.a.)				Std.	
Booster type (remote, integral, vac., hyd., etc.)				Integral, vacuum	
Vacuum	Source (inline, pump, etc.)			Inline	
	Reservoir (volume in.³)			N.A.	
	Pump-type (elec., gear driven, belt driven)			N.A.	
Traction assist	Operational speed range			N.A.	
	Type (engine or brake intervention)			N.A.	
Anti-lock device	Front/rear (std., opt., n.a.)			Opt. / Opt.	
	Manufacturer			DENSO	
	Type (electronic, mech.)			Electronic	
	Number sensors or circuits			4	
	Number anti-lock hydraulic circuits			4	
	Integral or add-on system			Add-on	
	Yaw control (yes, no)			Yes	
	Hydraulic power source (elec.,vac. mtr.,pwr. strg.)			Electric	
Effective area cm²(in.²)*				119 / 230	133 / 80
Gross Lining area cm²(in.²)**(F/R)				149 / 230	154 / 80
Swept area cm²(in.²)***(F/R)				1207 / 377	1448 / 1020
Rotor	Outer working diameter		F/R	253 / N.A.	272 / 267
	Inner working diameter		F/R	160 / N.A.	167 / 197
	Thickness		F/R	25 / N.A.	25 / 9
	Material & type (vented/solid)		F/R	Cast iron, Vented / N.A.	Cast iron, Vented / Solid
Drum	Diameter & width		F/R	N.A. / 200 and 300	N.A. / N.A.
	Type and material		F/R	N.A. / Cast iron	N.A. / N.A.
Wheel cylinder bore			F/R	57.22 / 19.05	57.22 / 33.96
Master cylinder	Bore/stroke		F/R	Bore= 20.6 / 22.5, Stroke= 20.6 / 22.5	
Pedal arc ratio				2.53	
Line pressure at 445N(100 lb.) pedal load[kPa(psi)]				9500	
Lining clearance			F/R	Self adjust / Self adjust	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded	
		Rivet size		N.A.	
		Manufacturer		AKEBONO	
		Lining code*****		PA533-EE	
		Material		Molded resin, non-asbestos	
		****	Primary or out-board	91.9 x 45.2 x 11.0	83.0 x 52.5 x 11.5
		Size	Secondary or in-board	91.9 x 45.2 x 11.0	83.0 x 52.5 x 11.5
		Shoe thickness (no lining)		5.5	6
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded	
		Manufacturer		NISSHINBO	AKEBONO
		Lining code*****		LN521-FF	PA544-EE
		Material		Molded resin, non-asbestos	
		****	Primary or out-board	192.0 x 30.0 x 4.0	75.4 x 34.9 x 10.0
		Size	Secondary or in-board	192.0 x 30.0 x 4.0	75.4 x 34.9 x 10.0
		Shoe thickness (no lining)		2	4

* 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.

152

METRIC (U.S. Customary)

Model Code/Description And/Or Engine Code/Description	ZZT230	ZZT231

Tires and Wheels (Standard)

Tires	Size (service description)		195/60R15 88H, P195/60R15 87H	P205/55R15 87V
	Type (bias, radial, steel, nylon, etc.)		Radial / Steel	
	Inflation pressure (cold) for recommended max. vehicle load	Front kPa(psi)	210	220
		Rear kPa(psi)	210	220
	Rev./mile-at 70 km/h (45 mph)		865	874
Wheels	Type & material		Steel	Aluminum
	Rim (size & flange type)		15 x 6.5JJ	
	Wheel offset		39	
	Attachment	Type (bolt or stud & nut)	Stud and nut	
		Circle diameter	100	
		Number & size	5-M12 x 1.5	
Spare	Tire and wheel		T125/70D16, 16 x 4T	
	Storage position & location (describe)		Flat in trunk well	

Tires And Wheels (Optional)

Tire size (service description)	195/60R15 88H, P195/60R15 87H	205/50R16 87V
Type (bias, radial, steel, nylon, etc.)	Radial / Steel	
Wheel (type & material)	Aluminum	
Rim (size, flange type and offset)	15 x 6.5JJ, 39	16 x 6.5JJ, 39
Tire size (service description)	—	
Type (bias, radial, steel, nylon, etc.)	—	
Wheel (type & material)	—	
Rim (size, flange type and offset)	—	
Tire size (service description)	—	
Type (bias, radial, steel, nylon, etc.)	—	
Wheel (type & material)	—	
Rim (size, flange type and offset)	—	
Tire size (service description)	—	
Type (bias, radial, steel, nylon, etc.)	—	
Wheel (type & material)	—	
Rim (size, flange type and offset)	—	
Spare tire and wheel size (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	—	

Brakes - Parking

Type of control		Hand operated	
Location of control		Floor	
Operates on		Rear service brakes	Drums built in rear disc rotor
If separate from service brakes	Type (internal or external)	N.A.	Internal
	Drum diameter	N.A.	173
	Lining size (length x width x thickness)	N.A.	165.0 x 20.0 x 3.5

Model Code/Description And/Or Engine Code/Description	ZZT230	ZZT231

Steering

Manual (std., opt., n.a.)					N.A.	
Power (std., opt., n.a.)					Std.	
Speed-sensitive (std.,opt.,n.a.)					Std.	
4-wheel steering (std.,opt.,n.a.)					N.A	
Adjustable steering wheel/column (tilt, telescope, other)	Type					
	Manufacturer					
	(std., opt., n.a.)					
Wheel diameter** (W9) SAE J1100	Manual					
	Power					
Turning diameter m(ft.)	Outside front	Wall to wall (l. & r.)			11.2	
		Curb to curb (l. & r.)			10.4	
	Inside rear	Wall to wall (l. & r.)			5.8	
		Curb to curb (l. & r.)			6.0	
Scrub Radius*					6	
Manual	Gear	Type			—	
		Manufacturer			—	
		Ratios	Gear		—	
			Overall		—	
	No. wheel turns (stop to stop)				—	
Power	Type (coaxial, elec., hyd., etc.)				Integral, hydraulic	
	Manufacturer				TOYOTA MOTOR	
	Gear	Type			Rack and pinion	
		Ratios	Gear		∞	
			Overall		14.4	
	Pump (drive)				V belt	
	No. wheel turns (stop to stop)				2.90	
Linkage	Type				Tie rod directly attached to rack end	
	Location (front or rear of wheels, other)				Rear of wheels	
	Tie rods (one or two)				Two	
Steering axis	Inclination at camber (deg.)				13° 10'	13° 05', 13° 10' (w/ 205 tire)
	Bearings (type)	Upper			Ball bearing	
		Lower			Ball joint	
		Thrust			N.A.	
Steering spindle/knuckle & joint type					MacPherson strut and ball joint	

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

** See Page 23.

METRIC (U.S. Customary)

Model Code/Description And/Or Engine Code/Description	ZZT230	ZZT231

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	2° 05' ± 45'	2° 00' ± 45'
		Camber(deg.)	-0° 30' ± 45'	-0° 25' ± 45', -0° 30' ± 45' (w/ 205 tire)
		Toe-in outside track-mm (in.)	0 ± 2	
	Service reset*	Caster (deg.)	2° 05' ± 30'	2° 00' ± 30'
		Camber (deg.)	-0° 30' ± 30'	-0° 25' ± 30', -0° 30' ± 30' (w/ 205 tire)
		Toe-in - mm (in.)	0 ± 1	
	Periodic M.V. inspection	Caster (deg.)	N.A.	
		Camber (deg.)	N.A.	
		Toe-in - mm (in.)	N.A.	
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-1° 10' ± 45'	
		Toe-in outside track-mm (in.)	3 ± 2	
	Service reset*	Camber (deg.)	-1° 10' ± 30'	
		Toe-in - mm (in.)	3 ± 1	
	Periodic M.V. inspection	Camber (deg.)	N.A.	
		Toe-in - mm (in.)	N.A.	

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)		Std.: analog	
	Trip odometer (std., opt., n.a.)		Std.	
Head-up display	Standard, optional, not available		N.A.	
	Type	Secondary, opto-electronic	—	
	Speedometer	Digital	—	
	Status / warning indicators	Turn signals, high beam, low fuel, check gauges	—	
	Brightness control	Day / night mode, adjustable	—	
EGR maintenance indicator			—	
Charge indicator	Type		Tell-tale lamp	
	Warning device (light, audible)		Light	
Temperature indicator	Type		Electric gauge	
	Warning device (light, audible)		N.A.	
Oil pressure indicator	Type		Tell-tale lamp	
	Warning device (light, audible)		Light	
Fuel indicator	Type		Electric gauge	
	Warning device (light, audible)		Light	
Windshield wiper	Type (standard)		Electric 2-speed with adjustable intermittent and mist operation	
	Type (optional)		—	
	Blade length		LH= 650, RH=400	
	Swept area cm²(in.²)		7774	
Windshield washer	Type (standard)		Electric motor	
	Type (optional)		—	
	Fluid level indicator (light, audible)		N.A.	
Rear window wiper, wiper/washer (std., opt., n.a.)			Opt.	Std.
Horn	Type		Electrical	
	Number used		2	
Other			—	

Engine Code/Description	1ZZ-FE	2ZZ-GE

Electrical - Supply System

Battery	Manufacturer	MATSUSHITA, FURUKAWA, YUASA
	Model, std., (opt.)	50D20L (55D23L)
	Voltage	12V
	Amps at 0° F cold crank	Std.= 306, Opt.= 356
	Minutes-reserve capacity	Std.= 78, Opt.= 99
	Amps/hrs.-20 hr. rate	Std.= 50, Opt.=60
	Location	Left rear of engine compartment
Alternator	Manufacturer	DENSO
	Rating (idle/max. rpm)	12V-80A
	Ratio (alt. crank/rev.)	1 : 2.364
	Output at idle (rpm, park)	—
	Optional (type & rating)	—
Regulator	Type	IC regulator

Electrical - Starting System

Motor	Manufacturer	DENSO
	Current drain ___° C(° F)	—
	Power rating kw (hp)	Std.=1.2, Opt.= 1.4
Motor drive	Engagement type	Solenoid Shift
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)		Std.	
	Other (specify)		—	
Coil	Manufacturer		DENSO	
	Model		—	
	Current	Engine stopped - A	0	
		Engine idling - A	0.2 x 4	
Spark plug	Manufacturer		DENSO, NGK	
	Model		SK16R11, IFR5A11	
	Thread (mm)		14	
	Tightening torque N · m (lb.-ft.)		18.0	
	Gap		1.1	
	Number per cylinder		1	
Distributor	Manufacturer		N.A.	
	Model		N.A.	

Electrical - Suppression

Location & type	Distributor rotor	—	
	High tension cord	N.A.	
	Spark plug	High resistance spark plug	
	Others	—	

METRIC (U.S. Customary)

Model Code/Description	ZZT230	ZZT231

Body

Structure	
Bumper system front - rear	
Anti-corrosion treatment	Extensive use of galvanealed steel, full dip pretreatment, cathodic ED, PVC sealer, anti-chipping polylefin coat, anti-chipping urethane coat, PVC under coat

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)			Thermosetting amino-alkyd enamel, thermosetting acryiic enamel
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.)		
Hatchback lid	Material & mass		
	Type (counterbalance, other)		Gas prop
	Internal release control (elec., mech., n.a.)		N.A.
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	Cable
		Rear	
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)		Front	Separate: panel frame + spring + foam pad
		Rear	Bench: wire frame + foam pad
		3rd seat	N.A.
Seat back type (e.g., 60/40 bucket, bench, wire, foam, etc.)		Front	Separate: panel frame + spring + foam pad
		Rear	50 / 50 bucket: panel frame + foam pad
		3rd seat	N.A.

Frame

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

MVMA Specifications

Vehicle Line [illegible]
Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Model Code/Description	ZZT230	ZZT231

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt lap belt, etc.) Standard / optional	First seat	Std.: lap and shoulder belt with ELR, pretensioner and force limiter	—	Std.: lap and shoulder be[illegible] ELR and ALR, pre-tensioner and force limiter
		Second seat	Std.: lap and shoulder belt with ELR and ALR	—	Std.: lap and shoulder belt with ELR and ALR
		Third seat	—	—	—
Passive	Type & description (airbag, motorized-2-point belt, fixed belt, knee bolster, manual-lap belt) Standard/ optional	First seat	Std.: airbag and knee panel Opt.: side airbag	—	Std.: airbag and knee panel Opt.: side airbag
		Second seat			
		Third seat			

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

Headlamps

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

METRIC (U.S. Customary)

Engine Code/Description	ALL Models

Climate Control System

Air Conditioning (std., opt., man., auto.)		Man.: Std., Auto.: N.A.
Condenser	Type	Corrugated fin and multi-flow type
	Eff. face area (sq. mm.)	208404 (W x H= 630 x 330.8)
	Fins per inch	0.142 (3.6 mm)
Evaporator	Type	Corrugated fin and plate tube heat exchanger
	Eff. face area (sq. mm.)	54438 (W x H= 253.2 x 215)
	Fins per inch	0.118 (3.0 mm)
Heater core	Material	Aluminum
	Eff. face area (sq. mm.)	30366 (W x H= 216.9 x 140)
	Fins per inch	0.071 (1.8 mm)
Compressor	Type	10S15L
	Displacement (cc.)	167.3
	Manufacturer	DENSO
	A/C pulley ratio	0.93
Accumulator	Type	N.A.
	Height (mm.)	—
	Diameter (mm.)	—
Receiver	Type	N.A.
	Height (mm.)	—
	Diameter (mm.)	—
Refrigerant control (CCOT, TVS, etc.)		—
Heater water valve (yes / no)		No
Refrigerant (R - 12, R - 134a, etc.)		HFC134a
Charge level (lbs. - oz.)		0.948 (430 g)
Cold engine lockout switch (yes / no)		—
Wide open throttle cutout switch (yes / no)		—

MVMA Specifications

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Model Code/Description	ZZT230	ZZT231

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

Clock (digital, analog)		Digital	
Compass / thermometer			
Console (floor, overhead)			
Defroster, electric windshield			
Defroster, electric 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)		Remote	
Lamps	Auto head on / off delay, dimming		
	Cornering		
	Courtesy (map, reading)	Std.	
	Door lock, ignition		
	Engine compartment		
	Fog		
	Glove compartment		
	Trunk	Std.	
	Illuminated entry system (list lamps, activation)	Opt.: Dome lamp is lit by door key unlock (all doors unlocked), Wireless door unlock (all doors unlocked), or door open.	Std.: Dome lamp is lit by door key unlock (all doors unlocked), Wireless door unlock (all doors unlocked), or door open.
	Other		
Mirrors	Day / night (auto, man.)	Std.: manual	
	L.H. (remote, power, heated)	Std.: power	
	R.H. (convex, remote, power, heated)	Std.: convex, power	
	Visor vanity (RH / LH, illuminated)	—	
Navigation system (describe)			
Parking brake-auto release (warning light)		N.A.	

Model Code/Description

ZZT230	ZZT231

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

Power equipment	Deck lid (release, pull down)		N.A.	
	Door locks (manual, automatic, describe system)		Opt.: manual	Std.: manual
	Seats	2 - 4 - 6 way, etc.	N.A.	
		Reclining (R.H., L.H.)	N.A.	
		Memory (R.H., L.H., preset recline)	N.A.	
		Support (lumber, hip, thigh, etc.)	N.A.	
		Heated (R.H., L.H., other)	N.A.	
	Side windows		Opt.	Std.
	Vent windows		—	
	Rear windows		—	
Radio systems	Antenna (location, whip, w / shield, power)		Whip / Rear right side	
	Standard		AM/FM, stereo, tape, CD (6 sp.)	
	Optional	AM,FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM, stereo, tape, CD (8 sp.)	
	Speaker (number, location)		6 sp.: Door; 4 + Rear; 2 8 sp.: Door; 6 + Rear; 2	
Roof: open air or fixed (flip-up, sliding, "T")			Opt.: flip-up / sliding	
Speed control device			Opt.	
Speed warning device (light, buzzer, etc.)			N.A.	
Tachometer (rpm)			8000	9000
Telephone system (describe)			—	
Theft deterrent system			—	

Trailer Towing

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

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

MVMA Specifications

Vehicle Line _____ Model Year 2000 Issued Aug., 1999 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 vehicle line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 " Motor Vehicle Dimensions, unless otherwise specified.

Model Code/Description	SAE Ref. No.	ZZT230	ZZT231
Width			
Tread (front)	W101		
Tread (rear)	W102		
Vehicle width	W103		
Body width at Sg RP (front)	W117		
Vehicle width (front doors open)	W120		
Vehicle width (rear doors open)	W121		
Tumble-home (degrees)	W122		
Outside mirror width	W410	1960	
Length			
Wheelbase	L101		
Vehicle length	L103		
Overhang (front)	L104		
Overhang (rear)	L105		
Upper structure length	L123		
Rear wheel C/L "X" coordinate	L127	2600	
Height**			
Passenger distribution (front/rear)	PD1,2,3		
Trunk/cargo load			
Vehicle height	H101		
Cowl point to ground	H114		
Deck point to ground	H138		
Rocker panel-front to ground	H112		
Rocker panel-rear to ground	H111		
Windshield slope angle(degrees)	H122		
Backlight slope angle(degrees)	H121		
Ground Clearance **			
Front bumper to ground	H102		
Rear bumper to ground	H104		
Bumper to ground front at curb mass (wt.)	H103		
Bumper to ground rear at curb mass (wt.)	H105		
Angle of approach (degrees)	H106		
Angle of departure (degrees)	H107		
Ramp breakover angle (degrees)	H147		
Axle differential to ground (front/rear)	H153		
Min. running ground clearance	H156		
Location of min. run. grd. clear.			

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

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

MVMA Specifications

Vehicle Line TOYOTA CELICA
Model Year 2000 Issued Aug., 1999 Revised(-)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Model Code/Description

Front Compartment	SAE Ref. No.	ZZT230	ZZT231
SgRP front, "X" coordinate	L31	1377.8	
Effective head room	H61	Normal roof= 974.1, Sun roof= 937.5	
Max. eff. leg room (accelerator)	L34	1120.5 (44.1)	
SgRP to heel point	H30	175.1	
SgRP to heel point	L53	949.0	
Back angle (degrees)	L40	25.0	
Hip angle (degrees)	L42	100.8	
Knee angle (degrees)	L44	142.5	
Foot angle (degrees)	L46	87.0	
Design H-point front travel	L17	238.2	
Normal driving & riding seat track trvl.	L23	223.3	
Shoulder room	W3	1335.2	
Hip room	W5	1303.6	
Upper body opening to ground***	H50	1175	1176
Steering wheel maximum diameter*	W9		
Steering wheel angle(degrees)	H18		
Accel. heel pt. to steer. whl. cntr	L11		
Accel. heel pt. to steer. whl. cntr	H17		
Undepressed floor covering thickness	H67	24	

Rear Compartment

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

SgRP point couple distance	L50	660.2
Effective head room	H63	888
Min. effective leg room	L51	683.0 (27)
SgRP (second to heel)	H31	229.2
Knee clearance	L48	-97.5
Shoulder room	W4	1285.7
Hip room	W6	1188
Upper body opening to ground***	H51	—
Back angle (degrees)	L41	25.0
Hip angle (degrees)	L43	73.5
Knee angle (degrees)	L45	60.7
Foot angle (degrees)	L47	102.2
Depressed floor covering thickness	H73	24

Luggage Compartment

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

Interior Volumes (EPA Classification)

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

* See page 14.

** See definition page 33.

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

*** **EPA Loaded Vehicle Weight, Loading Conditions**

MVMA Specifications

Model Year 2000 Issued Aug., 1999 Revised(·)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

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

Station Wagon/MPV* - Cargo Space

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

Hatchback - Cargo Space

Cargo length at front seat back height	L208	1209.4
Cargo length at floor (front)	L209	1415
Cargo length at second seat back height	L210	511
Cargo length at floor (second)	L211	951
Front seat back to load floor height	H197	553.8
Second seat back to load floor height	H198	530.9, 444.9 (*1)
Cargo volume index $m^3(ft.^3)$	V3	0.934
Hidden cargo volume index $m^3(ft.^3)$	V4	0.499, 0.418 (*1)
Cargo volume index-rear of 2-seat	V11	0.199, 0.418 (*1)

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

* MPV-Multipurpose Vehicle

**** EPA Loaded Vehicle Weight, Loading Conditions**

*1: In the case that the spare tire is ground tire.

METRIC (U.S. Customary)

Model Code / Description	ALL Models

Vehicle Fiducial Marks

Fiducial Mark Number *		Define Coordinate Location
Front (1)		
Front (2)		
Rear (1)		
Rear (2)		
Note : Provide 3 of 4 Fiducial Mark Locations		
Front	W21 **	
	L54 **	
	H81 **	
***	H161**	
***	H163**	
Rear	W22**	
	L55**	
	H82**	
***	H162**	
***	H164**	

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

** Reference - SAE Recommended Practice, J1100-Motor Vehicle Dimensions.

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

*** **EPA Loaded Vehicle Weight, Loading Conditions.**

METRIC (U.S. Customary)

		Vehicle Mass (weight)					% PASS MASS DISTRIBUTION			
		CURB MASS, kg. (lb.) *			SHIPPING MASS kg(lb.)	ETWC ** Code	Pass in Front		Pass in Rear	
Code	Model	Front	Rear	Total			Front	Rear	Front	Rear
ZZT230L-BLMSHA										
ZZT230L-BLPSHA										
ZZT231L-BLFVFA										
ZZR231L-BLPVFA										

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

** ETWC - Equivalent Test Weight Class - basis for U.S. Environmental Protection Agency emission certifications. Refer to ETWC code legend below for test weight class.

ETWC LEGEND

A = 1000	I = 2000	Q = 3000	Y = 4000
B = 1125	J = 2125	R = 3125	Z = 4250
C = 1250	K = 2250	S = 3250	AA = 4500
D = 1375	L = 2375	T = 3375	BB = 4750
E = 1500	M = 2500	U = 3500	CC = 5000
F = 1625	N = 2625	V = 3625	DD = 5250
G = 1750	O = 2750	W = 3750	EE = 5500
H = 1875	P = 2875	X = 3875	FF = 5750

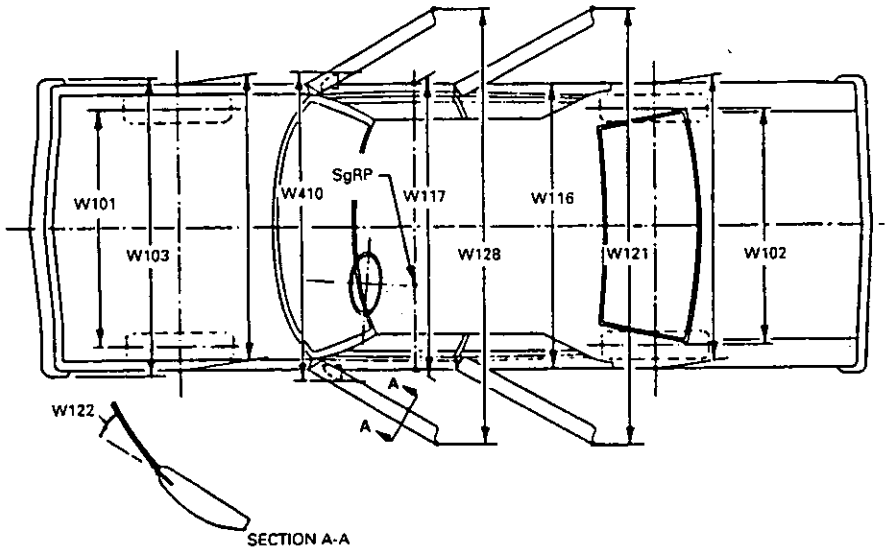
*** Shipping Mass (weight) = Curb Weight Less : kg

METRIC (U.S. Customary)

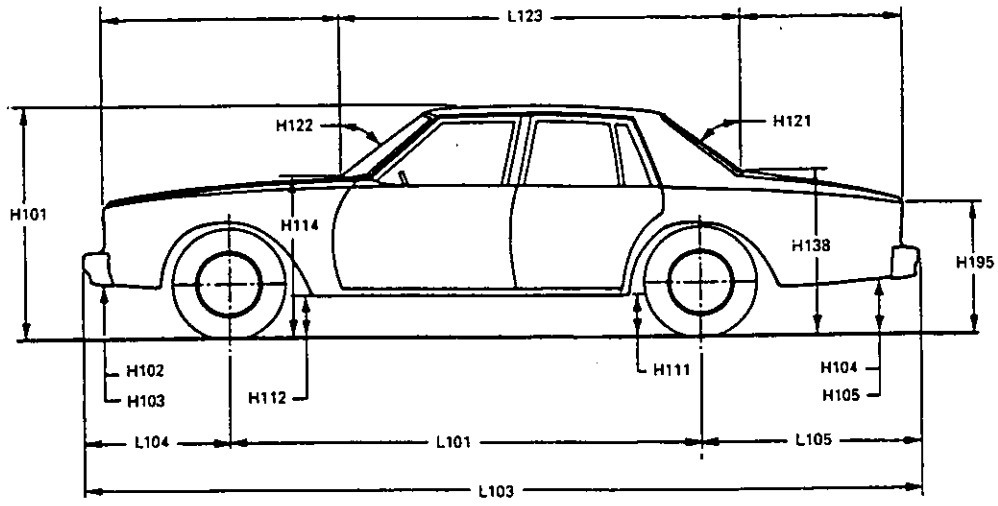
Code	Equipment	Optional Equipment Differential Mass (weight) *			
		MASS, kg. (lb.) *			Remarks Restrictions, Requirements
		Front	Rear	Total	

Exterior Vehicle And Body Dimensions - Key Sheet

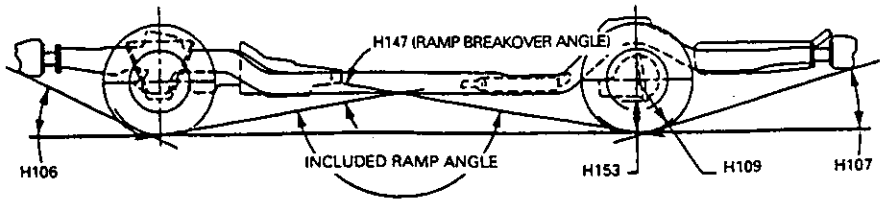
Exterior Width



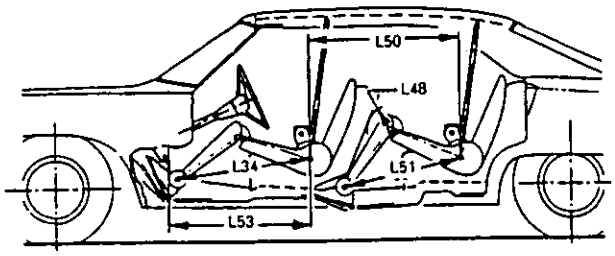
Exterior Length & Height

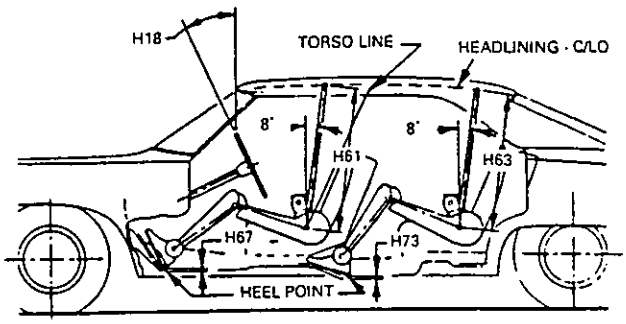


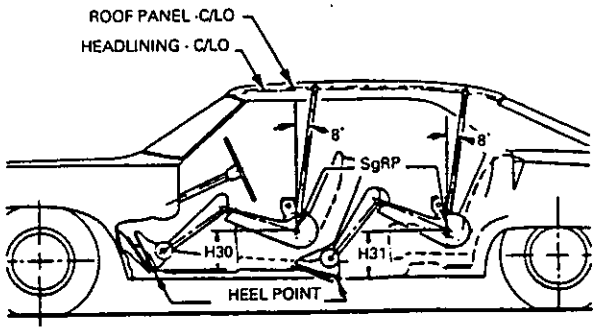
Exterior Ground Clearance

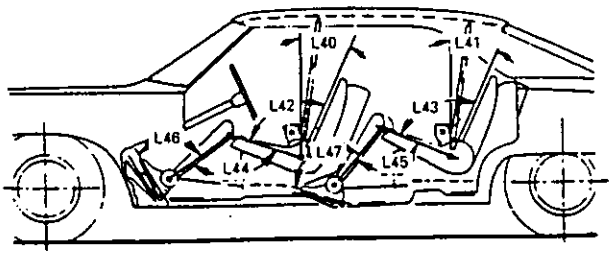


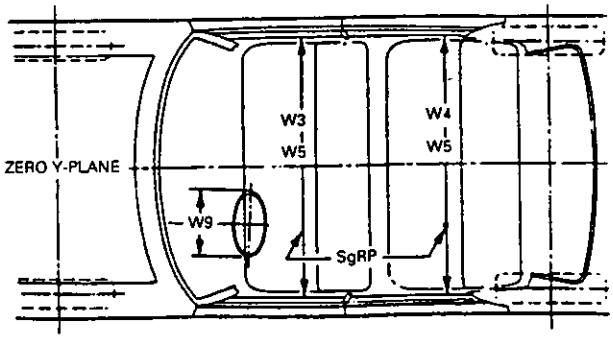
Interior Vehicle And Body Dimensions - Key Sheet

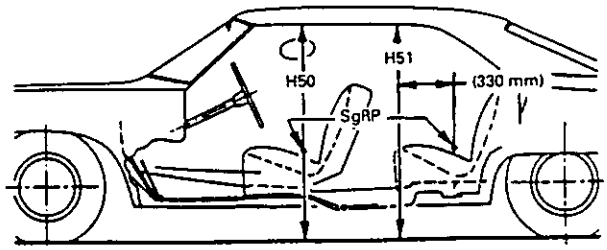






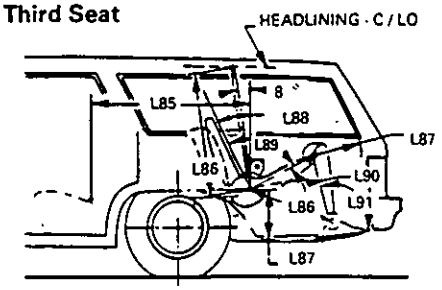


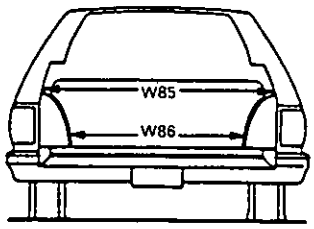




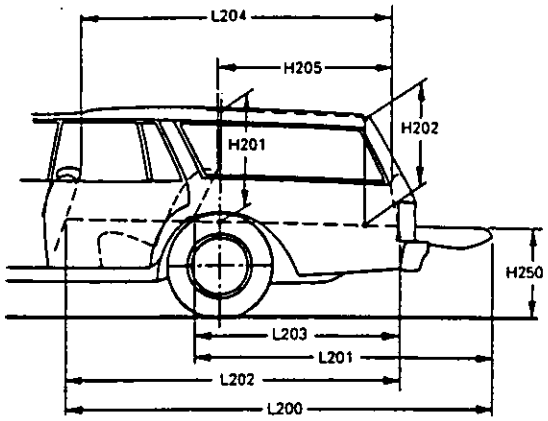
Interior Vehicle And Body Dimensions - Key Sheet

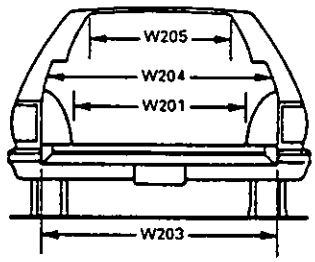
Third Seat



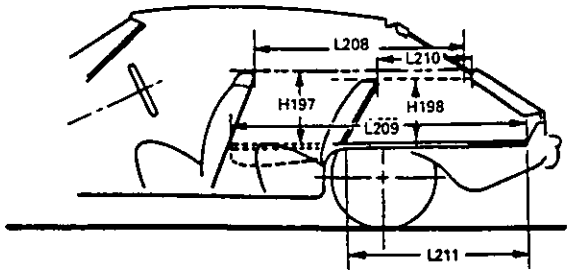


Cargo Space

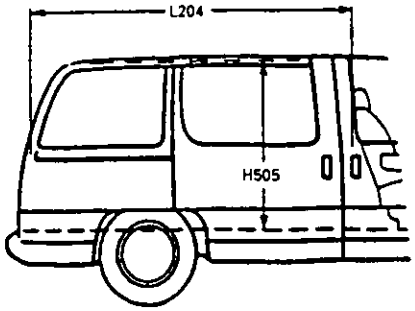


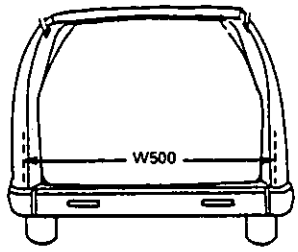


Station Wagon



Hatchback





Multipurpose Vehicle

Interior 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 nub 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 STATICLOAD - TIRERADIUS - 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 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.

Interior Vehicle And Body Dimensions - Key Sheet
Dimensions Definitions

Glass Ares

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 (10.0in.) 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 mm (3.0 in.) above the SgRP-front and 76 mm (3.0 in.) fo and aft of the SgRP-front.
W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.
H7 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP-front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.
H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
H30 SgRP - FRONT TO HEEL. The dimension measured vertically from the SgRP - front to the accelerator heel point.
H50 UPPER BODY OPENING TO GROUND - FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP-front "X" plane.
H61 EFFECTIVE HEAD ROOM - FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP-front to the headlining plus 102 mm (4.0 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.

Rear Compartment Dimensions

L-41 BACK ANGLE - SECOND. The angle measured between a vertical line through the SgRP second and the torso line.
L43 H I P 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 assists traps 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 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 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 / MPV - 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 / MPV - 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.
W500 CARGO WIDTH AT FLOOR. The maximum dimension measured laterally between the limiting interferences at the floor level. This dimension shall include ribs and pillars, but will exclude wheelhouses.
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.
H505 MAXIMUM CARGO HEIGHT. The maximum vertical dimension rear of the front seat from the cargo floor to roof bow or headlining at the zero "Y" plane.

Interior Vehicle And Body Dimensions - Key Sheet
Dimensions Definitions

V2 STATION WAGON
Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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

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 adjus' 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. 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. 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 halt 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 SEATBACK. 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.

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

Measured in inches:

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

Measured in mm:

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

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

(one (1) stand and luggage set) below floor:

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

Measured in inches:
Measured in mm:

MVMA Specifications

METRIC (U.S. Customary)

Index