

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1998

Manufacturer TOYOTA MOTOR CORPORATION	Vehicle Line TOYOTA SUPRA	
Mailing Address Toyota Motor Sales, U.S.A., Inc. 19001 S. Western Avenue Torrance, CA 90509	Issued Aug., 1997	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

MVMA Specifications

METRIC (U.S. Customary)

Table of Contents

1	Vehicle Models/Origin	Ø Indicates Format Change From Previous Year
2	Power Teams	
3	Engine	
4	Lubrication System	
4	Diesel Information	
5	Cooling System	
6	Fuel System	
7	Vehicle Emission Control	
7	Exhaust System	
8-10	Transmission, Axles and Shafts	
11	Suspension	
12-13	Brakes, Tires and Wheels	
14	Steering	
15-16	Electrical	
17	Body — Miscellaneous Information	
17	Frame	
18	Restraint System	
18	Glass	
18	Headlamps	
19	Climate Control System	
20-21	Convenience Equipment	
21	Trailer Towing	
22-24	Vehicle Dimensions	
25	Vehicle Fiducial Marks	
26	Vehicle Mass (Weight)	
27	Optional Equipment Differential Mass (Weight)	
28-34	Vehicle Dimensions Definitions - Key Sheets	
35	Index	

NOTE:

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·) _____

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/4WD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)	EPA Fuel Economy (City/Hwy)
2JZ-GE, 2-door Lift-back, 4 A/T, RWD		JZA80L-ALPVFA	2/2	125	18/24
2JZ-GE, 2-door Lift-back, 4 A/T, RWD		JZA80L-AJPVFA	2/2	125	18/24
2JZ-GTE, 2-door Lift-back, 6 M/T, RWD		JZA80L-ALFVZA	2/2	125	17/24
2JZ-GTE, 2-door Lift-back, 6 M/T, RWD		JZA80L-AJFVZA	2/2	125	17/24
2JZ-GTE, 2-door Lift-back, 4 A/T, RWD		JZA80L-AJPVZA	2/2	125	19/24

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·)

METRIC(U.S. Customary)

Power Teams

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

		A	B	C	
ENGINE	Engine Code	2JZ-GE	2JZ-GTE	←	
	Displacement Liters(in³)	2.997(183)	2.997(183)	←	
	Induction system (FI, Carb, etc.)	SFI	SFI with turbo	←	
	Compression ratio	10.5	8.5	←	
	SAE Net at RPM	Power kW(bhp)	168(225)/6000	239(320)/5600	←
		Torque N · m(lb.ft.)	298(220)/4000	427(315)/4000	←
Exhaust single, dual		Semi-dual	Semi-dual	←	
TRANS	Transmission/ Transaxle	4A/T	6M/T	4A/T	
	Effective Final Drive/ Axle Ratio(std. first)	4.083	3.133	3.769	

Series Availability		Power Teams(A-B-C-D)	
Model	Code	Standard	Optional
2-door Lift-back,4A/T, RWD	JZA80L-ALPVFA	A	-
2-door Lift-back,4A/T, RWD	JZA80L-AJPVFA	A	-
2-door Lift-back,6M/T, RWD	JZA80L-ALFVZA	B	-
2-door Lift-back,6M/T, RWD	JZA80L-AJFVZA	B	-
2-door Lift-back,4A/T, RWD	JZA80L-AJPVZA	C	-

MVMA Specifications

Vehicle Line **TOYOTA SUPRA**

Model Year **1998**

Issued **Aug., 1997**

Revised(•)

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	Inline, front, longitudinal, DOHC, pentroof	
Manufacturer	TOYOTA MOTOR CORPORATION	
No. of cylinders	6	
Bore	86.0	
Stroke	86.0	
Bore spacing(C/L to C/L)	93.0	
Cylinder block material & mass kg(lbs.)(machined)	Cast iron, 58.7	
Cylinder block deck height	219.0	
Cylinder block length	615.5	
Deck clearance (minimum) (above or below block)	0	
Cylinder head material & mass kg(lbs.)	Aluminum alloy, 19.6	
Cylinder head volume cm ³ (inches ³)	41.6	44.9
Cylinder liner material	N.A.	
Head gasket thickness (compressed)	0.4	1.35
Minimum combustion chamber total volume cm ³ (inches ³)	52.2	66.5
Cyl. no. system (front to rear)*	L. Bank	1-2-3-4-5-6
	R. Bank	-
Firing order	1-5-3-6-2-4	
Intake manifold material & mass kg(lbs.)**	Aluminum alloy, 8.5	Aluminum alloy, 6.0
Exhaust manifold material & mass kg(lbs.)**	Stainless steel, 13.4	Cast steel, 4.7
Knock sensor (number & location)	2, cylinder block	
Fuel required unleaded, diesel, etc.	Unleaded premium gasoline required	
Fuel antiknock index (R + M) + 2	91	
Engine mounts	Quantity	Fr.=2, Rr.=1
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Elastomeric
	Added isolation (sub-frame, crossmember, etc.)	Crossmember, Support member
Total dressed engine mass(wt) dry***	211	A/T:237, M/T:252

Engine - Pistons

Material & mass, g (weight, oz)-piston only	Aluminum alloy, 358	Aluminum alloy, 369
---	---------------------	---------------------

Engine - Camshaft

Location	Cylinder head	
Material & mass kg (weight, lbs.)	Cast iron, 3.5/3.5	Cast iron, 3.3/3.3
Drive type	Chain / belt	Timing belt
	Width / pitch	25.4/8.0

* 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: *1=91(96 RON) or higher is recommended

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(•) _____

METRIC(U.S. Customary)

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2JZ-GE

2JZ-GTE

Engine - Valve System

Hydraulic lifters (std., opt., n.a.)	N.A.
Valves	Number intake/exhaust 12/12
	Head O.D. intake/exhaust 33.5/29.0

Engine - Connecting Rods

Material & mass kg.,(weight,lbs.)*	Forged steel, 0.65	Forged steel, 0.75
Length(axes C/L to C/L)	142.0	

Engine - Crankshaft

Material & mass kg.,(weight,lbs.)*	Forged steel, 28
End thrust taken by bearing(no.)	No.4
Length & number of main bearings	701, 7
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	380/2000	290/2000
Type oil intake(floating,stationary)	Stationary	
Oil filter system(full flow,part,other)	Full flow	
Capacity of oil case,less filter-refill-L(qt.)	4.9	4.7

Engine - Diesel Information

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

Engine - Intake System

Turbo charger-manufacturer	N.A.	TOYOTA MOTOR CORPORATION
Super charger-manufacturer	N.A.	
Intercooler	N.A.	Air cooled furnace brazed aluminum

*Finished State

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(·)

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

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)		108	
Circulation thermostat	Type(choke, bypass)	Bypass	
	Starts to open at °C (°F)	82	
Water pump	Type(centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	26 L/min.	36 L/min.
	Number of pumps	1	
	Drive(V-belt, other)	V-belt	
	Bearing type	Roller ball	
	Impeller material	Resin	
	Housing material	Aluminum alloy	
By-pass recirculation type(inter., ext.)		External	
Cooling system capacity	With heater-L(qt.)	A/T=8.3	M/T=8.9, A/T=8.8
	With air conditioner-L(qt.)	A/T=8.3	M/T=8.9, A/T=8.8
	Opt.equipment specify-L(qt.)	N.A.	
Water jackets full length of cyl.(yes,no)		Yes	
Water all around cylinder(yes,no)		No	
Water jackets open at head face(yes,no)		No	
Radiator core	Std., A/C, HD	Std.	
	Type(cross-flow, etc.)	Vertical flow	
	Construction(fin & tube mechanical, braze, etc.)	Corrugated fin, soldered	
	Material, mass kg(wgt., lbs.)	Aluminum, A/T=4.2	Aluminum alloy, M/T=4.0, A/T=4.4
	Width	737	
	Height	399	
	Thickness	A/T=27	27
	Fins per inch	A/T=14.5	20
Radiator end tank material		Resin	
Fan	Std., elec., opt.	Std.	Std.=Main, Electric=Sub(A/T only)
	Number of blades & type (flex, solid, material)	7, flex, plastics	7, flex, plastic(main)
	Number & location(front, rear of radiator)	1, rear of radiator	3, rear of radiator(M/T, A/T) 1, front of radiator (A/T only)
	Diameter & projected width	430/79	430/68(main)
	Ratio(fan to crankshaft rev.)	1.25	1.25(main)
	Fan cutout type	Fluid coupling	Fluid coupling(main)
	Drive type(direct, remote)	V-belt direct	V-belt direct(main)
	RPM at idle(elec.)	-	2500(sub)
	Motor rating(wattage/elec.)	-	40(sub)
	Motor switch(type & location/elec.)	-	Thermo switch at water outlet (Sub)
	Switch point(temp./pressure/elec.)	-	
	Fan shroud(material)	Resin	Resin

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(•)

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

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

Induction type: Carburetor, fuel injection system, etc.		SFI	
Manufacturer		DENSO	
Carburetor no. of barrels		N.A.	
Idle A/F mix.		Preset at manufacturer	
Fuel injection	Point of injection (no.)	6	
	Constant, pulse, flow	Pulse flow	
	Control (electronic, mech.)	Electronic	
	System pressure kPa (psi)	324	250
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	Preset-not adjustable	
	Automatic	Preset-not adjustable	
Intake manifold heat control (exhaust or water thermostatic or fixed)		N.A.	
Air cleaner type		Paper element type	
Fuel filter (type/location)		Paper element type/under floor.	
Fuel pump	Type (elec. or mech.)	Electric	
	Location (eng., tank)	In tank	
	Pressure range kPa (psi)	324	353
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	Minimum 40 at 324	Minimum 180 at 353

Fuel Tank

Capacity refill L (gallons)		70	
Location (describe)		Underside of trunk floor	
Attachment		Bands and Bolts	
Material & Mass kg (weight lbs.)		High density polyethylene	
Filler pipe	Location & material	Right quarter panel, high density polyethylene	
	Connection to tank	As one	
Fuel line (material)		Steel	
Fuel hose (material)		Rubber	
Return line (material)		N.A.	Steel
Vapor line (material)		Steel	
Extended range tank	Opt., n.a.	-	
	Capacity L (gallons)	-	
	Location & material	-	
	Attachment	-	
Auxiliary tank	Opt., n.a.	-	
	Capacity L (gallons)	-	
	Location & material	-	
	Attachment	-	
	Selector switch or valve	-	
	Separate fill	-	

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(·)

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

Vehicle Emission Control

Exhaust Emission Control	Type(air injection, engine modifications, other)		SFI + HO ₂ S + TWC	SFI + CAC + EGR+ HO ₂ S + TC + 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)	Controlled flow	
		Exhaust source	Cylinder head	
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake manifold	Surge tank
	Catalytic Converter	Type	TWC	TWC + TWC
		Number of	2	1 + 1
		Location(s)	Exhaust manifold	Under floor/Exhaust manifold
		Volume L (in ³)	0.863	1.164/1.335
		Substrate type	Metal foil	
		Noble metal type	Pt, Rh, Pd	Pt, Rh
		Noble metal concentration(g/cm ³)	Pt:1.29, Rh:1.53, Pd:0.35	Pt:1.57, Rh:0.29/Pt:2.00, Rh:0.53
	Crankcase Emission Control	Type(ventilates to atmosphere, induction system, other)		Induction system closed type
Energy source(manifold vacuum, carburetor, other)		Manifold vacuum		
Discharges to(intake manifold, other)		To intake manifold	To surge tank	
Air inlet(breather cap, other)		From air cleaner	From air inlet tube	
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister	
		Carburetor	N.A.	
	Vapor storage provision		Charcoal canister	
Electronic system	Closed loop(yes/no)		Yes	
	Open loop(yes/no)		No	

Engine - Exhaust System

Type(single, single with cross-over, dual, other)		Semi dual		
Muffler no. & type (reverse flow, straight thru, separate resonator)Material & Mass kg(weight lbs.)		1:reverse flow, 3:straight thru Stainless steel 2.6/2.6/6.1/1.8	1:reverse flow Stainless steel 6.8	
Resonator no. & type		N.A.		
Exhaust pipe	Branch o.d., wall thickness		N.A.	
	Main o.d., wall thickness		48.6/65, 1.5	75, 1.5
	Material & Mass kg (weight lbs.)		Stainless steel 7.0	Stainless steel, 4.4/7.8
Inter- mediate pipe	o.d. & wall thickness		70/54, 1.2	
	Material & Mass kg (weight lbs.)		Stainless steel, 10.4	Stainless steel, 5.8
Tail pipe	o.d. & wall thickness		48.6/75, 1.2	54/75, 1.2
	Material & Mass kg (weight lbs.)		Stainless steel, 7.7	Stainless steel, 8.2

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·) _____

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

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

Manual 4-speed(manufacturer/country)	-	-
Manual 5-speed(manufacturer/country)	-	-
Manual 6-speed(manufacturer/country)	-	GETRAG/GERMANY
Automatic(manufacturer/country)	AISIN A.W./JAPAN	AISIN A.W./JAPAN
Automatic overdrive(manufacturer/country)	-	-

Manual Transmission/Transaxle

Number of forward speeds	-	6
Gear ratios	1st	3.827
	2nd	2.360
	3rd	1.685
	4th	1.312
	5th	1.000
	6th	0.793
	Reverse	3.280
Synchronous meshing(specify gears)	-	All including reverse
Shift lever location	-	Floor
Trans.case mat'l. & mass kg(lbs)*	-	Aluminum die cast, 5l(Dry)
Lubricant	Capacity L(pt.)	1.8
	Type recommended	DEXRON II

Clutch(Manual Transmission)

Clutch manufacturer	-	AISIN SEIKI
Clutch type(dry, wet;single, multiple disc)	-	Single dry plate, Diaphragm
Linkage(hydraulic, cable, rod, lever, other)	-	Hydraulic
Max.pedal effort(nom. spring load)N(lbs)	Depressed	140
	Released	100
Assist(spring, power/percent, nominal)	-	20
Type pressure plate springs	-	Diaphragm spring
Total spring load(nominal) N (lbs)	-	10400
Clutch facing	Facing mfg. & material coding	AKEBONO BRAKE
	Facing material & construction	Semi-mould
	Rivets per facing	32
	Outside x inside dia.(nominal)	250 x 150
	Total eff.area cm ² (in. ²)	314
	Thickness(pressure plate side/fly wheel side)	4.0
	Rivet depth(pressure plate side/fly wheel side)	1.6/1.6
	Engagement cushion method	Wave spring segments
Release bearing type & method lub.	-	Ball bearing with permanent lubrication
Torsional damping method,springs,hysteresis	-	Dual mass flywheel

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA
 Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S. Customary)

Engine Description Engine Code	2JZ-GE	2JZ-GTE
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Automatic Transmission/Transaxle

Trade Name		A340E	
Type and special features(describe)		2-mode, 4-speed electronically controlled planetary gear train with lock-up clutch torque converter	
Shift mechanics			
Gear selector	Location(column, floor, other)		
	Ltr./No. designation(e.g. PRND21)		
	Shift interlock(yes, no, describe)		
Gear ratios	1st	2.804	
	2nd	1.531	
	3rd	1.000	
	4th	0.705	
	Reverse	2.393	
	Final drive ratio		
Max.upshift vehicle speed-drive range km/h(mph)			
Max.upshift engine speed RPM			
Max. kickdown speed-drive range km/h(mph)			
Min. overdrive speed km/h(mph)			
Torque converter	Type	N.A.	←
	Torus design	N.A.	←
	Number of elements	3 elements	←
	Max. ratio at stall	1.9	2.0
	Type of cooling(air,liquid)	Liquid	←
	Nominal diameter	254	272
	Capacity factor "k"		
Pump type			
Lubricant	Capacity refill L(pt.)		
	Type recommended	ATF "TYPE T-IV"	ATF "TYPE T-IV"
Oil cooler(std.,opt.,N.A.,internal,external,air,liquid)			
Transmission mass kg(lbs) & case material**		Aluminum die cast	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)	-	-

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

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

MVMA Specifications

Vehicle Line **TOYOTA SUPRA**

Model Year **1998** Issued **Aug., 1997** Revised(·)

METRIC(U.S. Customary)

Engine Description
Engine Code

2JZ-GE

2JZ-GTE

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

Axle Ratio and Tooth Combination for Top Gear			M/T=3.133, A/T=3.769
Axle ratio(or overall top gear ratio)		4.083	
Ring gear o.d.		205.0	M/T=222.0, A/T=205.0
No. of teeth	Pinion	12	M/T=15, A/T=13
	Ring gear	49	M/T=47, A/T=49

Rear Axle Unit

Description		Under floor integral	
Limited slip differential(type)		Opt.=TORSEN	M/T=Std.(TORSEN), A/T=Opt.(TORSEN)
Drive pinion	Type	Hypoid	
	Offset.	28.00	M/T=33.00, A/T=28.00
No.of differential pinions		Std.=2, Opt.=8	M/T=6, A/T(Std.=2, Opt.=8)
Pinion/differential	Adjustment(shim, etc.)	Shim/Shim	
	Bearing adjustment	Collapsible tube/shim	
Driving wheel bearing(type)		Double row angular contact ball bearing	
Lubricant	Capacity L(pt.)	1.35	
	Type recommended	API GL-5	

Propeller Shaft - Rear Wheel Drive

Manufacturer Type(straight tube,tube-in-tube, internal-external damper, etc.)			TOYOTA MOTOR CORPORATION Front=Straight tube, Rear=Straight tube	
Outer diam.x length"x wall thickness	Manual 4-speed transmission		-	
	Manual 5-speed transmission		-	
	Manual 6-speed transmission		-	Front=60.5 x 538 Rear =60.5 x 583
	Overdrive		-	
	Automatic transmission		Front=60.5 x 446 Rear =60.5 x 569	Front=60.5 x 495 Rear =60.5 x 606
Inter- mediate bearing	Type(plain, anti-friction)		Ball bearing	
	Lubrication(fitting, prepack)		Prepack	
Slip yoke	Type		Involute spline	
	Number of teeth		23	27
	Spline o.d.		30.48	29.07
Universal joints	Make and mfg. no.	Front	No.1, 2 Joint=TOYOTA MOTOR CORPORATION	
		Rear	No.3 Joint=TOYO	
	Number used		3	
	Type (ball and trunnion, cross)		No.1, 2 joint=Hook's joint No.3 joint=Flexible coupling	
	Rear attach(u-bolt, clamp, etc)		Bolts and nuts	
	Bearing	Type(plain, anti-friction)	Anti-friction (Needle roller bearing)	
		Lubrication (fitting, prepack)	Prepack	
Drive taken through(torque tube, arms or springs)			Control arm	
Torque taken through(torque tube, arms or springs)			Control arm	

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·)

METRIC(U.S. Customary)

Model Code/Description And/Or
Engine Code/Description

2JZ-GE

2JZ-GTE

Suspension - General Including Electronic Controls

Car leveling	Standard/optional/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.)		-
	S e n s o r s	Lateral acceleration	-
		Deceleration	-
		Acceleration	-
		Road surface	-
Shock absorber (front & rear)	Type	Tube, double acting	
	Make	KAYABA/TOKIKO	M/T=KAYABA, A/T=TOKIKO
	Piston diameter	30.0	M/T=30, AT=40
	Rod diameter	12.5	

Suspension - Front

Type and description		Double wishbone	
Travel	Full jounce(define load condition)	80	
	Full rebound	95	
Spring	Type(coil,leaf,other & material)	Coil, alloy steel	
	Insulators(type & material)	Top only, rubber	
	Size(Leaf:length & width;Coil:design height & i.d.;Bar:length & diameter)	Left=299 x 96, Right=297 x 96	M/T(Left=304 x 96, Right=302 x 96), A/T(Left=302 x 96, Right=299 x 96)
	Spring rate[N/mm (lb./in.)]	65	71
	Rate at wheel[N/mm (lb./in.)]	27	29
Stabilizer	Type(link, linkless, frameless)	Link, frameless	
	Material & O.D. bar/tube, wall thickness	Steel, 29	Steel, 30

Suspension - Rear

Type and description		Double wishbone	
Travel	Full jounce(define load condition)	85	
	Full rebound	100	
Spring	Type(coil, leaf, other & material)	Coil, alloy steel	
	Size(Leaf:length & width;Coil:design height & i.d.;Bar:length & diameter)	326.5 x 98.5	M/T=337.5 x 98.5, A/T=333 x 98.5
	Spring rate[N/mm (lb./in.)]	32	
	Rate at wheel[N/mm (lb./in.)]	22	
	Insulators(type & material)	Top only, rubber	
	If leaf	No of leaves	N.A.
		Shackle(comp.or tens.)	N.A.
Stabilizer	Type(link, linkless, frameless)	Link, frameless	
	Material & O.D. bar/tube,wall thickness	Steel, 19.1	
Track bar(type)		N.A.	

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised()

METRIC(U.S. Customary)

Model Code/Description And/Or
Engine Code/Description

2JZ-GE

2JZ-GTE

Brakes - Service

Description			Four-wheel hydraulic actuation with front and rear circuits		
Manufacturer and brake type(std., opt., n.a.)	Front(disc or drum)		AKEBONO, disc, std.		SUMITOMO, disc, std.
	Rear(disc or drum)		AISIN disc, std.		SUMITOMO, disc, std.
Valving type(proportion, delay, metering, other)			P & B valve		
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.		All
	Type(engine or brake intervention)		-		Engine
Anti-lock device	Front/rear(std., opt., n.a.)		Front and rear, std.		
	Manufacturer		DENSO		
	Type(electronic, mech.)		Electronic		
	Number sensors or circuits		4		
	Number anti-lock hydraulic circuits		3		4
	Integral or add-on system		Add-on		
	Yaw control(yes, no)		Yes		
	Hydraulic power source (elec., vac. mtr., pwr. strg.)		Electric motor		
Effective area cm ² (in. ²) *			288		336
Gross Lining area cm ² (in. ²) **(F/R)			241/132		262/143
Swept area cm ² (in. ²) *** (F/R)			1651/1246		1947/1674
Rotor	Outer working diameter	F/R	294/305		320/321
	Inner working diameter	F/R	184/231		201/223
	Thickness	F/R	32/16		30/16
	Material & type(vented/solid)	F/R	Cast iron, vented/vented		
Drum	Diameter & width	F/R	-		
	Type and material	F/R	-		
Wheel cylinder bore			44.45 x 2/42.86		42.85 x 4/40.45 x 2
Master cylinder	Bore/stroke	F/R	25.4/18.0/25.4/12.0		26.99/16.6/26.99/12.0
Pedal arc ratio			3.27		
Line pressure at 445 N(100 lb.) pedal load[kPa(psi)]			10500		9850
Lining clearance		F/R	Self adjust/Self adjust		
Brake lining	Front wheel	Bonded or riveted(rivets/seg.)		Bonded	
		Rivet size		-	
		Manufacturer		SUMITOMO, AISIN CHEMICAL, NISSINBO, AKEBONO	
		Lining code*****		-	
		Material		Molded resin	
		****	Primary or out-board	123 x 55 x 11	117 x 59.5 x 12
		Size	Secondary or in-board	123 x 55 x 11	117 x 59.5 x 12
		Shoe thickness(no lining)		6.0	5.0
	Rear wheel	Bonded or riveted(rivets/seg.)		Bonded	
		Manufacturer		SUMITOMO, AISIN CHEMICAL, NISSINBO, AKEBONO	
		Lining code*****		-	
		Material		Molded resin	
		****	Primary or out-board	104 x 37 x 10	80 x 49 x 11
		Size	Secondary or in-board	104 x 37 x 10	80 x 49 x 11
		Shoe thickness(no lining)		5.5	5.0

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

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

****Size for drum brakes includes length x width x thickness. *****Manufacturer I.D., catalog for formulation designation and coefficient of friction classification.

MVMA Specifications

Vehicle Line **TOYOTA SUPRA**

Model Year **1998** Issued **Aug., 1997** Revised()

METRIC(U.S. Customary)

Model Code/Description And/Or
Engine Code/Description

2JZ-GE

2JZ-GTE

Tires And Wheels(Standard)

Tires	Size(service description)		Front=225/50R16, Rear=245/45R16	Front=235/45ZR17, Rear=255/40ZR17
	Type(bias, radial, steel, nylon, etc.)		Radial, steel & nylon	
	Inflation pressure(cold) for recommended max.vehicle load	Front kPa(psi)	230	
		Rear kPa(psi)	230	
Wheels	Rev./mile-at 70 km/h(45 mph)		Front=843, Rear=851	Front=821, Rear=832
	Type & material		Aluminum	
	Rim(size & flange type)		Front=16 x 8JJ, Rear=16 x 9JJ	Front=17 x 8JJ, Rear=17 x 9.5JJ
	Wheel offset		50	
	Attachment	Type(bolt or stud & nut)	Nut	
		Circle diameter	114.3	
Spare			5-M12 x 1.5	
	Tire and wheel		Tire: T145/70R17 Wheel:17 x 4T	
	Storage position & location (describe)		Flat in trunk room	

Tires And Wheels(Optional)

Tire size(service description)	N.A.
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)	-
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		Drums built in rear disc rotor
If separate from service brakes	Type(internal or external)	Internal
	Drum diameter	190.0
	Lining size(length x width x thickness)	181 x 25 x 2.5

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·) _____

METRIC(U.S. Customary)

Model Code/Description And/Or
Engine Code/Description

2JZ-GE	2JZ-GTE
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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	Tilt			
	Manufacturer	TOYOTA MOTOR CORPORATION			
	(std., opt., n.a.)	Std.			
Wheel diameter** (W9)SAE J1100	Manual	N.A.			
	Power	370			
Turning diameter m(ft.)	Outside front	Wall to wall(l. & r.)	11.5		
		Curb to curb(l. & r.)	10.9		
	Inside rear	Wall to wall(l. & r.)	6.2		
		Curb to curb(l. & r.)	6.6		
Scrub Radius*		8	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 CORPORATION		
	Gear	Type	Rack & pinion.		
		Ratios	Gear	∞	
			Overall	17.5	
	Pump(drive)		V-ribbed belt		
	No. wheel turns(stop to stop)		3.0		
Linkage	Type		Tie-rod directly attached torack end		
	Location(front or rear of wheels, other)		Front of wheels		
	Tie rods(ones or two)		2		
Steering axis	Inclination at camber(deg.)		9°15'	9°25'	
	Bearings (type)	Upper	Ball joint		
		Lower	Ball joint		
		Thrust	N.A.		
	Steering spindle/knuckle & joint type		Ball joint		

*The horizontal distance in the front elevation between wheel centerline and kingpin(ball joint) axis at ground
**See Page 23.

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(·)

METRIC(U.S. Customary)

Model Code/Description And/Or
Engine Code/Description

2JZ-GE

2JZ-GTE

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster(deg.)	3°20' ±45'	3°25' ±45'
		Camber(deg.)	-15' ±45'	-25' ±45'
		Toe-in outside track-mm(in.)	0±2	0±2
	Service reset*	Caster(deg.)	3°20' ±45'	3°30' ±45'
		Camber(deg.)	-15' ±45'	-25' ±45'
		Toe-in-mm(in.)	0±2	0±2
	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°25' ±45'	-1°25' ±45'
		Toe-in outside track-mm(in.)	3±2	3±2
	Service reset*	Camber(deg.)	-1°25' ±45'	-1°25' ±45'
		Toe-in-mm(in.)	3±2	3±2
	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.)	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		No
Charge indicator	Type	Telltale lamp
	Warning device(light, audible)	Light
Temperature indicator	Type	Electric gauge
	Warning device(light, audible)	N.A.
Oil pressure indicator	Type	Telltale lamp
	Warning device(light, audible)	Light
Fuel indicator	Type	Electric gauge
	Warning device(light, audible)	Light
Wind-shield wiper	Type(standard)	Electric 2 speed with adjustable intermittent and mist operation
	Type(optional)	-
	Blade length	LH=525, RH=475
	Swept area cm ² (in. ²)	6771
Wind-shield washer	Type(standard)	Electric motor
	Type(optional)	-
	Fluid level indicator (light, audible)	No
Rear window wiper,wiper/washer(std.,opt.,n.a.)		Std.
Horn	Type	Electric vibration
	Number used	2
Other		-

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·)

METRIC(U.S. Customary)

Engine Code/Description

2JZ-GE

2JZ-GTE

Electrical - Supply System

Battery	Manufacturer	MATSUSHITA	
	Model, std.,(opt.)	M/T=75D26L, A/T=80D26L	
	Voltage	12V, 90	
	Amps at 0°F cold crank	M/T=490, A/T=582	
	Minutes-reserve capacity	M/T=123, A/T=133	
	Amps/hrs.-20hr. rate	65	
	Location	Left front of engine compartment	
Alternator	Manufacturer	DENSO	
	Rating(idle/max. rpm)	12V, 80A	M/T=12V, 90A, A/T=12V, 100A
	Ratio(alt.crank/rev.)	1:2.52	M/T=1:2.52, A/T=1:2.32
	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)	1.4	
Motor drive	Engagement type	Solenoid shift	
	Pinion engages from(front, rear)	Front	

Electrical - Ignition System

Type	Electronic(std., opt., n.a.)	Std.	N.A.
	Other(specify)	N.A.	TDI
Coil	Manufacturer	DENSO	
	Model	N.A.	
	Current	Engine stopped-A	0
		Engine idling-A	0.8
Spark plug	Manufacturer	DENSO, NGK SPARK PLUG	
	Model	DENSO=PK16TR11, NGK=BKR5EKP11	DENSO=PK20R11, NGK=BKR6EP11
	Thread(mm)	14	
	Tightening torque N·m(lb.-ft.)	17.7	
	Gap	1.1	
	Number per cylinder	1	
Distributor	Manufacturer	N.A.	
	Model	N.A.	

Electrical - Suppression

Locations & type	Distributor rotor	Ceramic tipped rotor	N.A.
	High tension cord	High resistance high tension cord	N.A.
	Spark plug	High resistance spark plug	

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S. Customary)

Model Code/Description

All models

Body

Structure	Unitized body structure
Bumper system front-rear	Both=Urethane fascia, energy absorber and reinforcement
Anti-corrosion treatment	Extensive use of galvanealed steel sheet, PVC sealer, full dip pretreatment, cathodic ED, PVC undercoat and anti-chipping coat(anti-chipping PVC coating, soft-chipping primer)

Body - Miscellaneous Information

Type of finish(lacquer, enamel, other)		Enamel
Hood	Material & mass	Aluminum alloy, 12kg
	Hinge location(front, rear)	Rear
	Type(counterbalance, prop)	Prop
	Release control(internal, external)	Internal
Trunk lid	Material & mass	-
	Type(counterbalance, other)	-
	Internal release control(elec., mech., n.a.)	-
Hatch-back lid	Material & mass	Steel, 25kg
	Type(counterbalance, other)	Gas props
	Internal release control(elec., mech., n.a.)	Mech.
Tailgate	Material & mass	-
	Type(drop, lift, door)	-
	Internal release control(elec., mech., n.a.)	-
Vent window control(crank, friction, pivot, power)	Front	N.A.
	Rear	N.A.
Window regulator type (cable, tape, flex drive, etc.)	Front	Cable
	Rear	N.A.
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Separate, spring + panel + form pad
	Rear	Bench, wire + form pad
	3rd seat	-
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Spring + form pad
	Rear	Form pad
	3rd seat	-

Frame

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

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S. Customary)

Model Code/Description

All models

Restraint System

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

Glass	SAE Ref.No.	
Windshield glass exposed surface area cm ² (in. ²)	S1	8980
Side glass exposed surface area cm ² (in. ²) -total 2-sides	S2	7010
Backlight glass exposed surface area cm ² (in. ²)	S3	8480
Total glass exposed surface area cm ² (in. ²)	S4	24470
Windshield glass(type/thickness)		Curved, laminated, 4.7
Side glass(type/thickness)		Curved, tempered, door=5, other=3.1
Backlight glass(type/thickness)		Curved, tempered, 3.5
Tinted(yes/no, location)		Yes, windshield glass
Solar control(yes/no, coated/batched, location)		Yes, batched, windshield, side and backlight glasses

Headlamps

Description(sealed beam, halogen, replaceable bulb, etc.)	Replaceable bulb, halogen
Shape	Aerodynamic-flush mounted
Lo-beam type(2A1, 2B1, 2C1, etc.)	N.A.
Quantity	2
Hi-beam type(1A1, 2A1, 1C1, 2C1, etc.)	N.A.
Quantity	2

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(·)

METRIC(U.S. Customary)

Engine Code/Description

All models

Climate Control System

Air conditioning(std., opt., man., auto.)

Std.=manual, auto.

Condenser	Type	Multi flow type
	Eff. face area(sq. mm.)	231210
	Fins per inch	Pitch=3.75mm
Evaporator	Type	Drawn cup type
	Eff. face area(sq. mm.)	61509
	Fins per inch	Pitch=4.5mm
Heater core	Material	Aluminum
	Eff. face area(sq. mm.)	31200
	Fins per inch	Pitch=2.2mm
Compressor	Type	10PA17H
	Displacement(cc.)	170
	Manufacturer	DENSO
	A/C pulley ratio	1.115
Accumulator	Type	N.A.
	Height(mm.)	-
	Diameter(mm.)	-
Receiver	Type	Normal
	Height(mm.)	187
	Diameter(mm.)	60
Refrigerant control(CCOT, TVS, etc.)		-
Heater water valve(yes/no)		Yes
Refrigerant(R-12, R-134a, etc.)		R-134a
Charge level(lbs. -oz.)		700g
Cold engine lockout switch(yes/no)		-
Wide open throttle cutout switch(yes/no)		-

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998

Issued Aug., 1997

Revised(•) _____

METRIC(U.S. Customary)

Model Code/Description

2JZ-GE, Normal roof

Others

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

Clock(digital, analog)		Std. digital	
Compass/thermometer		N.A.	
Console(floor, overhead)		Std. floor	
Defroster, electric windshield		N.A.	
Defroster, electric backlight		Electric backlight	
Electronic	Diagnostic monitor(integrated, individual)	-	
	Instrument cluster(list instruments)	-	
	Keyless entry	N.A.	
	Tripminder(avg.spd.,fuel)	-	
	Voice alert(list items)	-	
	Other	-	
Fuel door lock(remote, key, electric)		Remote control	
Lamps	Auto head on/off delay, dimming	N.A.	
	Cornering	N.A.	
	Courtesy(map, reading)	Std.	
	Door lock, ignition	N.A.(Door lock), Std.(ignition)	
	Engine compartment	N.A.	
	Fog	Std.	
	Glove compartment	Std.	
	Trunk	Std.	
	Illuminated entry system (list lamps, activation)	N.A.	
	Other	-	
Mirrors	Day/night(auto, man.)	Manual	
	L.H.(remote, power, heated)	Remote, power, heated	Remote, power
	R.H.(convex, remote, power, heated)	Remote, power, heated	Remote, power
	Visor vanity(RH/LH, illuminated)	RH only, no illumination	
Navigation system(describe)		-	
Parking brake-auto release(warning light)		-	

MVMA Specifications

Vehicle Line TOYOTA SUPRA
 Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S. Customary)

Model Code/Description

All models

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

Power equipment	Deck lid(release, pull down)		-
	Door locks(manual, automatic, describe system)		Manual
	Seats	2-4-6 way, etc.	N.A., 4 way (leather, LH)
		Reclining(R.H., L.H.)	N.A., LH (leather)
		Memory(R.H.,L.H.,preset recline)	N.A.
		Support(lumbar, hip, thigh, etc.)	N.A.
		Heated(R.H., L.H., other)	Opt.(leather):LH and RH
	Side windows		
	Vent windows		N.A.
	Rear windows		N.A.
Radio systems	Antenne(location, whip, w/shield, power)		Std.=Auto-antenna, Opt.=Auto-antenna at RH quarter and rear glass-antenna
	Standard	AM,FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM, ETR, CD-6 speakers
	Optional		AM/FM, ETR, tape, CD theft deterrent, equalizer-7 speakers
	Speaker(number, location)		Std.=6, front doors + quarter trims + inst-panel tweeters Opt.=7, front doors + quarter trims + inst-panel tweeters + woofer on deck
	Roof: open air or fixed(flip-up, sliding, "T")		Fixed or Detachable (sport roof)
Speed control device		Std.	
Speed warning device(light, buzzer, etc.)		N.A.	
Tachometer(rpm)		8000	
Telephone system(describe)		N.A.	
Theft deterrent system		Std.	

Trailer Towing

Towing capable	Yes/No	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	No

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S.Customary)

Vehicle Dimensions See Key Sheets for definitions

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each vehicle line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Model Code/Description

SAE
Ref.
No.

All models

Width

Tread(front)	W101	1520
Tread(rear)	W102	1525
Vehicle width	W103	1810
Body width at Sg RP(front)	W117	1784
Vehicle width(front doors open)	W120	3762
Vehicle width(rear doors open)	W121	No rear doors
Tumble-home(degrees)	W122	33.5°
Outside mirror width	W410	1987.5

Length

Wheelbase	L101	2550
Vehicle length	L103	4515
Overhang(front)	L104	950
Overhang(rear)	L105	1015
Upper structure length	L123	2565
Rear wheel C/L "X" coordinate	L127	2550

Height**

Passenger distribution(front/rear)	PD1,2,3	• •
Trunk/cargo load		• •
Vehicle height	H101	1265
Cowl point to ground	H114	890
Deck point to ground	H138	975
Rocker panel-front to ground	H112	185
Rocker panel-rear to ground	H111	180
Windshield slope angle(degrees)	H122	65.0°
Backlight slope angle(degrees)	H121	75.5°

Ground Clearance**

Front bumper to ground	H102	160
Rear bumper to ground	H104	280
Bumper to ground front at curb mass(wt.)	H103	170
Bumper to ground rear at curb mass(wt.)	H105	290
Angle of approach(degrees)	H106	13°
Angle of departure(degrees)	H107	17°
Ramp breakover angle(degrees)	H147	12°
Axle differential to ground(front/rear)	H153	165
Min.running ground clearance	H156	120
Location of min. run. grd. clear.		Exhaust pipe

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

MVMA Specifications

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised()

METRIC(U.S.Customary)

Vehicle Dimensions See Key Sheets for definitions

Model Code/Description

SAE
Ref.
No.

All models

Front Compartment

SgRP front, "X" coordinate	L31	1578
Effective head room	H61	Standard roof=953.2, Sport roof=946.8
Max. eff. leg room(accelerator)	L34	1117
SgRP to heel point	H30	161.5
SgRP to heel point	L53	861.2
Back angle(degrees)	L40	25
Hip angle(degrees)	L42	99.2
Knee angle(degrees)	L44	141.2
Foot angle(degrees)	L46	87
Design H-point front travel	L17	238.2
Normal driving & riding seat track trvl.	L23	238.2
Shoulder room	W3	1376.3
Hip room	W5	1440.7
***Upper body opening to ground	H50	1154.2
Steering wheel maximum diameter*	W9	370
Steering wheel angle(degrees)	H18	17.0°
Accel. heel pt. to steer. whl. cntr	L11	484
Accel. heel pt. to steer. whl. cntr	H17	562
Undepressed floor covering thickness	H67	21.0

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	517
Effective head room	H63	834.5
Min. effective leg room	L51	605.1
SgRP(second to heel)	H31	239.3
Knee clearance	L48	-213.2
Shoulder room	W4	1113.2
Hip room	W6	1080.0
***Upper body opening to ground	H51	1146.1
Back angle(degrees)	L41	27
Hip angle(degrees)	L43	70.8
Knee angle(degrees)	L45	45.1
Foot angle(degrees)	L47	97.8
Depressed floor covering thickness	H73	34.5

Luggage Compartment

Usable luggage capacity L(cu. ft.)	V1	-
***Liftover height	H185	880

Interior Volumes(EPA Classification)

Vehicle class	Mini-compact
Interior volume index including trunk/cargo(cu. ft.)**	Standard roof=79.5, Sport roof=79.3
Trunk/cargo index(cu. ft.)	10.1

*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

Vehicle Line TOYOTA SUPRA

Model Year 1998 Issued Aug., 1997 Revised()

METRIC(U.S.Customary)

Vehicle Dimensions See Key Sheets for definitions

Model Code/Description

SAE
Ref.
No.

All models

Station Wagon/MPV* -Third Seat

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

Station Wagon/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 seatback height	L208	1048.8
Cargo length at floor(front)	L209	1279.7
Cargo length at second seatback height	L210	716.2
Cargo length at floor(second)	L211	950.2
Front seatback to load floor height	H197	387.5
Second seatback to load floor height	H198	307.3
Cargo volume index m ³ (ft. ³)	V3	502.2
Hidden cargo volume index m ³ (ft. ³)	V4	0
Cargo volume index-rear of 2-seat	V11	285.0

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

*MPV-Multipurpose Vehicle

--EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications

Vehicle Line TOYOTA SUPRA
 Model Year 1998 Issued Aug., 1997 Revised(•) _____

METRIC(U.S. Customary)

Model Code/Description All models

Vehicle Fiducial Marks

Fiducial Mark Number	Define Coordinate Location
Front(1)	
Front(2)	Center of front semi-circular knotch in rocker panel flange for front jack-up point
Rear(1)	
Rear(2)	Center of back-most semi-circular knotch in rocker panel flange for rear jack-up point
Note: Provide 3 of 4 Fiducial Mark Locations	
Front	W21** Standard roof = $W6 + 89.4$, sport roof = $W6 + 90.4$
	L54** $L15 + 30.5$
	H81** $H9 + 71.5$
	... H181** 175
	... H183** 165
Rear	W22** Standard roof = $W7 + 15.7$, sport roof = $W7 + 14.4$
	L55** $L29 + 30.5$
	H82** $H9 + 61.9$
	... H182** 165
	... H184** 155

*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 Line _____
Model Year 1998

Issued Aug., 1997 Revised(·)

Page 26

METRIC(U.S. Customary)

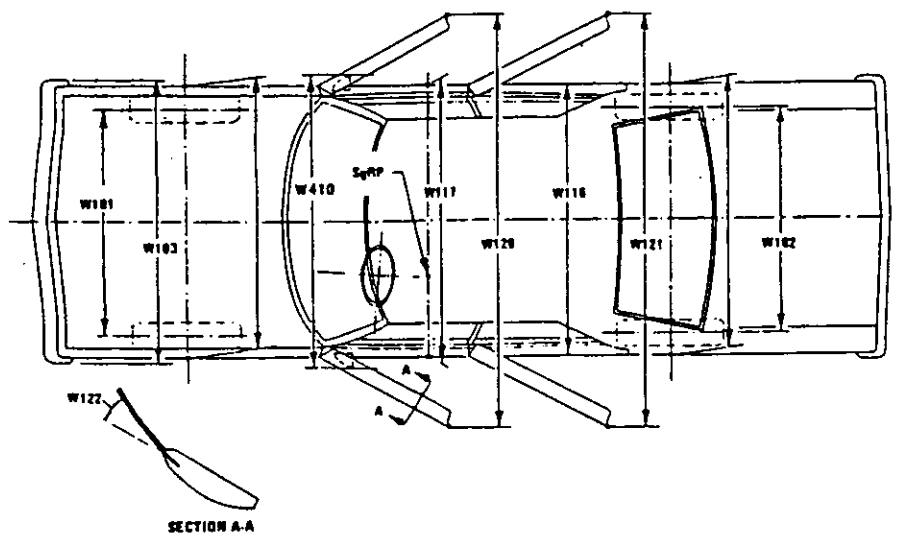
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* Also see Engine-General Section for dressed engine mass(weight).

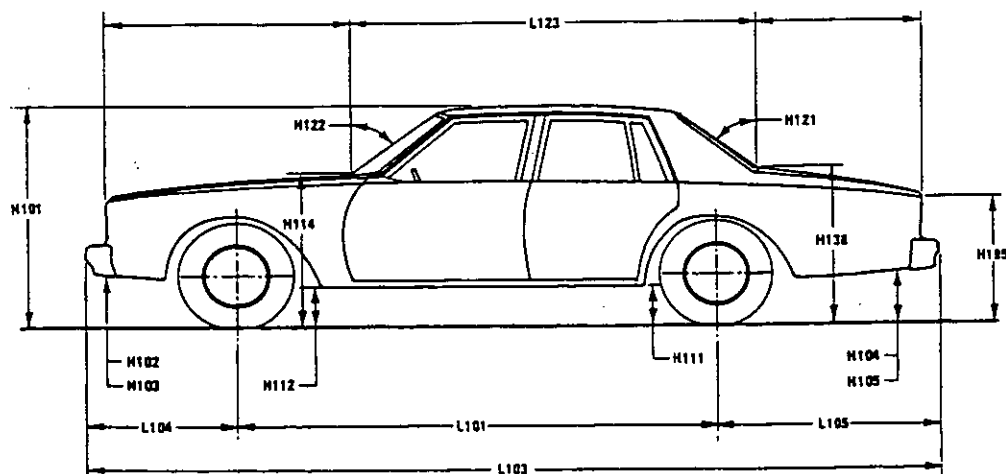
MVMA Specifications
METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions – Key Sheet

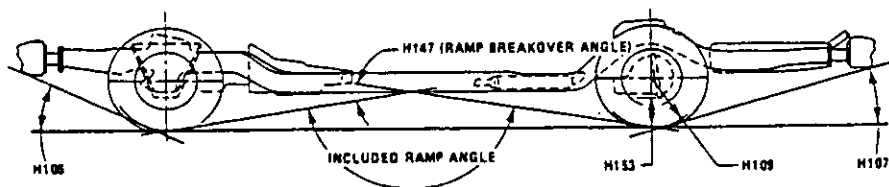
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Exterior Length & Height



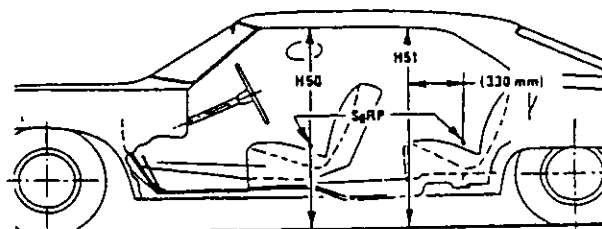
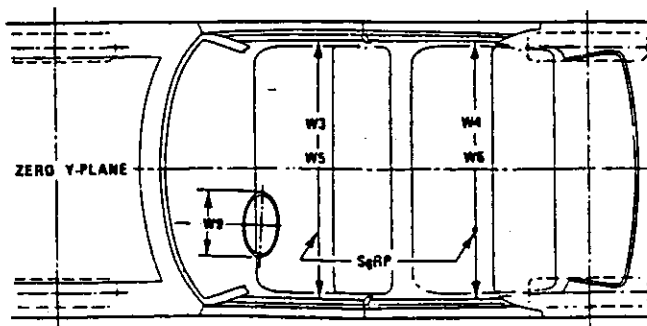
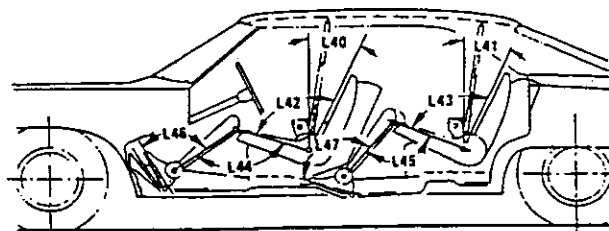
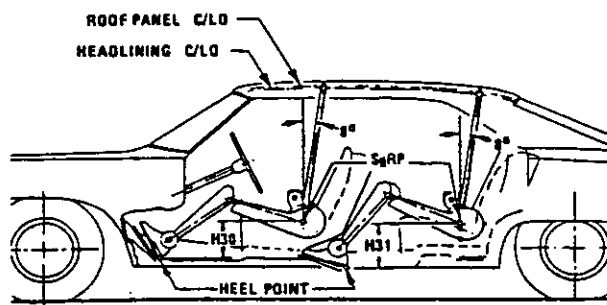
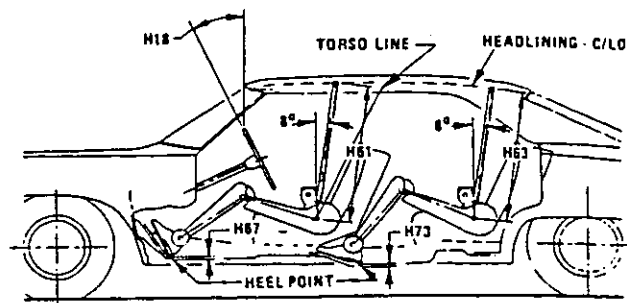
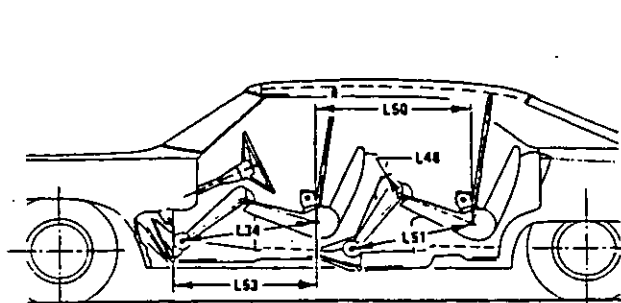
Exterior Ground Clearance



MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet

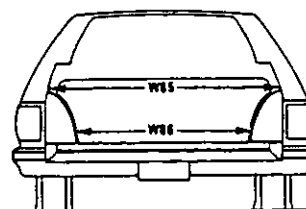
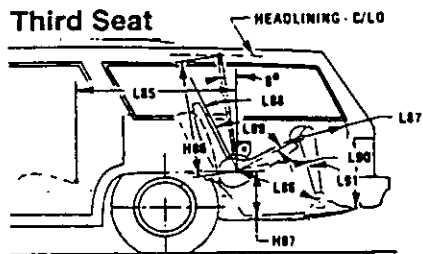


MVMA Specifications

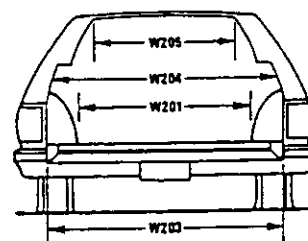
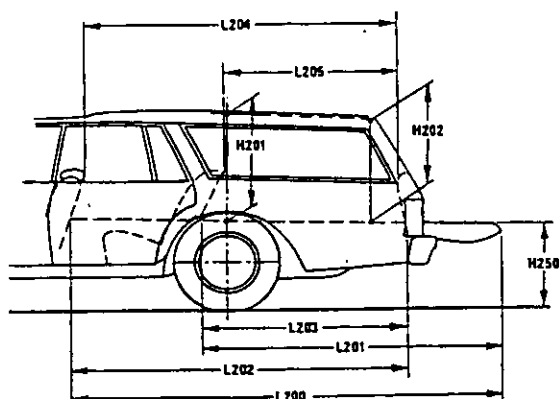
METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet

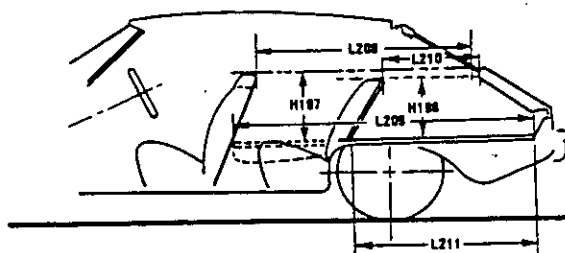
Third Seat



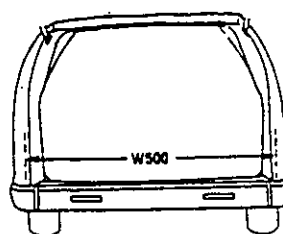
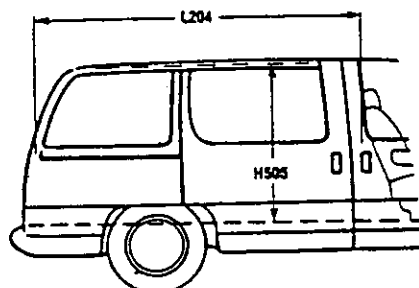
Cargo Space



Station Wagon



Hatchback



Multipurpose Vehicle

MVMA Specifications

METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –

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

Width Dimensions

- W101 TREAD – FRONT. The dimension measured between the tire centerlines at the ground.
- W102 TREAD – REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.
- W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.
- W117 BODY WIDTH AT SgRP – FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.
- W120 VEHICLE WIDTH – FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.
- W121 VEHICLE WIDTH – REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.
- W122 TUMBLE – HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.
- W410 OUTSIDE MIRROR WIDTH. The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" plane.

Length Dimensions

- L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.
- L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.
- L104 OVERHAND – FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.
- L105 OVERHANG – REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

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

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

Height Dimensions

- H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.
- H111 ROCKER PANEL – REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.
- H112 ROCKER PANEL – FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.
- H114 COWL POINT TO GROUND. Measured at zero "Y" plane.
- H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.
- H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield arc running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.
- H138 DECK POINT TO GROUND. Measured at zero "Y" plane.
- H109 STATIC LOAD – TIRE RADIUS – REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

Ground Clearance Dimensions

- H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.
- H103 FRONT BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H102.
- H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.
- H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.
- H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.
- H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point 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.

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

Glass Areas

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

Fiducial Mark Dimensions

Fiducial Mark - Number 1

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

Fiducial Mark - Number 2

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

Front Compartment Dimensions

- L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.
- L17 DESIGN H-POINT - FRONT TRAVEL. The dimension measured horizontally between the design H-point - front in the foremost and rearmost seat track positions. (See SAE J1100)
- L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100).
- L31 SgRP - FRONT. "X" COORDINATED.
- L34 MAXIMUM EFFECTIVE LEG ROOM - ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP - front plus 254 mm (10.0 in.) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.
- L-40 BACK ANGLE - FRONT. The angle measured between a vertical line through the SgRP - front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.
- L-42 HIP ANGLE - FRONT. The angle measured between torso line and thigh centerline.
- L44 KNEE ANGLE - FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.
- L46 FOOT ANGLE - FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.
- L53 SgRP - FRONT TO HEEL. The dimension measured horizontally from the SgRP - front to the accelerator heel point.
- W3 SHOULDER ROOM - FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP - front at height between the belt line and 254 mm (10.0 in.) above the SgRP - front, excluding the door assist strap and attaching parts.

- W5 HIP ROOM - FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP - front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP - front and 76 mm (3.0 in.) fore and aft of the SgRP - front.
- W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.
- H7 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP - front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.
- H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
- H30 SgRP - FRONT TO HEEL. The dimension measured vertically from the SgRP - front to the accelerator heel point.
- H50 UPPER BODY OPENING TO GROUND - FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP - front "X" plane.
- H61 EFFECTIVE HEAD ROOM - FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP - front to the headlining plus 102 mm (4.0 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 HIP ANGLE - SECOND. The angle measured between torso line and thigh centerline.
- L45 KNEE ANGLE - SECOND. The angle measured between thigh centerline and lower leg centerline.
- L47 FOOT ANGLE - SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).
- L48 KNEE CLEARANCE - SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).
- L50 SgRP COUPLE DISTANCE - SECOND. The dimension measured horizontally from the driver SgRP - front to the SgRP - second.
- L51 MINIMUM EFFECTIVE LEG ROOM - SECOND. The dimension measured along a line from the ankle pivot center to the SgRP - second plus 254 mm (10.0 in.).
- W4 SHOULDER ROOM - SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP - second at height between 254-406 mm (10.0-16.0 in.) above the SgRP - second, excluding the door assist straps and attaching parts.
- W6 HIP ROOM - SECOND. Measured in the same manner as W5.
- H31 SgRP - SECOND TO HEEL. The dimension measured vertically from the SgRP - second to the two dimensional device heel point on the depressed floor covering.
- H51 UPPER BODY OPENING TO GROUND - SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP - second.
- H63 EFFECTIVE HEAD ROOM - SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).
- H73 FLOOR COVERING - DEPRESSED - SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.

MVMA Specifications

METRIC (U.S. Customary)

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 wheelhoussings 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.

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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:

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

Measured in mm:

$$\frac{L506 \times W505 \times H503}{10^9} = \text{m}^3 \text{ (cubic meter)}$$

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 electronically adjusted seats, see the manufacturer's specifications for Design "H" Point).

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

L209 CARGO LENGTH AT FLOOR – FRONT. 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 half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "X" plane.

L211 CARGO LENGTH AT FLOOR – SECOND 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.

Measured in inches:

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

Measured in mm:

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

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.

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

Measured in inches:

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

Measured in mm:

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

MVMA Specifications

METRIC (U.S. Customary)

Index

Subject	Page No.
Alternator	16
Axle Drive, Front, Rear, All Four	2, 9, 10
Axle Shafts	10
Battery	18
Body and Miscellaneous Information	17
Brakes - Parking Service	12, 13
Camber	15
Camshaft	3
Capacities	
Cooling System	5
Fuel Tank	6
Lubricants	
Engine Crankcase	4
Transmission / Transaxle	8, 9
Rear Axle	10
Carburetor	2, 6
Caster	15
Climate Control System	19
Clutch - Pedal Operated	8
Coil, Ignition	16
Connecting Rods	4
Convenience Equipment	20-21
Cooling System	5
Crankshaft	4
Cylinders and Cylinder Head	3
Diesel Information	4
Dimension Definitions	
Key Sheet - Exterior	28, 31, 32
Key Sheet - Interior	29, 30, 32, 33, 34
Electrical System	15, 16
Emission Controls	7
Engine - General	
Bore, Stroke, Type	3
Compression Ratio	2
Displacement	2, 3
Firing Order, Cylinder Numbering	3
General Information, Power & Torque	2
Intake System	4
Power Teams	2
Exhaust System	7
Equipment Availability, Convenience	20
Fan, Cooling	5
Filters - Engine Oil, Fuel System	4
Four Wheel Drive	10
Frame	17
Front Suspension	11
Front Wheel Drive Unit	10
Fuel Economy, EPA	1
Fuel Injection	6
Fuel System	6
Fuel Tank	6
Glass	18
Headlamps	18
Headroom - Body	23, 24
Heights	22
Horns	15
Horsepower - Brake	2
Ignition System	16
Inflation - Tires	13
Interior Volumes	23
Instruments	15
Legroom	23, 24
Lengths	22
Leveling, Suspension	11
Lifters, Valve	4
Linings - Clutch, Brake	8, 12
Lubrication - Engine Transmission / Transaxle	4, 8, 9
Luggage Compartment	23
Models	1
Motor Starting	16
Muffler	7
Origin	1

Subject	Page No.
Passenger Capacity	1
Passenger Mass Distribution	26
Pistons	3
Power Brakes	12
Power, Engine	2
Power Steering	14
Power Teams	2
Propeller Shaft	10
Pumps - Fuel	6
Water	5
Radiator - Cap, Hoses, Core	5
Ratios - Axle, Transaxle	2, 9, 10
Compression	2
Steering	14
Transmission / Transaxle	2, 8, 9
Rear Axle	2, 10
Regulator - Alternator	16
Restraint System	18
Rims	13
Rods - Connecting	4
Scrub Radius	14
Seats	17
Shock Absorbers, Front & Rear	11
Spark Plugs	16
Speedometer	15
Springs - Front & Rear Suspension	11
Stabilizer (Sway Bar) - Front & Rear	11
Starting System	16
Steering	14
Suppression - Ignition, Radio	16
Suspension - Front & Rear	11
Tail Pipe	7
Theft Protection	21
Thermostat, Cooling	5
Tires	13
Toe-In	15
Torque Converter	9
Torque - Engine	2, 8, 9
Trailer Towing	21
Transaxle	9
Transmission - Types	2, 8, 9
Transmission - Automatic	2, 9
Transmission - Manual	2, 8
Transmission - Ratios	2, 8, 9
Tread	22
Trunk Cargo Load	1
Trunk Luggage Capacity	23
Turning Diameter	14
Unitized Construction	18
Universal Joints, Propeller Shaft	10
Valve System	4
Vehicle Dimensions	
Width	22
Length	22
Height	22
Ground Clearance	22
Front Compartment	23
Rear Compartment	23
Luggage Compartment	23
Station Wagon - Third Seat	24
Station Wagon - Cargo Space	24
Hatchback - Cargo Space	24
Fiducial Marks	25
Voltage Regulator	16
Water Pump	5
Weights	26, 27
Wheel Alignment	15
Wheelbase	22
Wheels & Tires	13
Wheel Spindle	14
Widths	22
Windshield	18
Windshield Wiper and Washer	15