

SERVICE MANUAL

DATSUN 240Z SPORTS

MODEL S30 SERIES

CHASSIS AND BODY



NISSAN MOTOR CO., LTD.

TOKYO, JAPAN

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DATSUN

240Z SPORTS

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FOREWORD

This service manual has been prepared for the purpose of assisting service personnel of our distributors and dealers in providing effective service and maintenance of the 1972 model S30 series.

Since proper maintenance and service is absolutely essential satisfying our customers, this manual should be read carefully. The following matters should be noted for effective utilization of this manual.

1. Explanations in this manual are mainly concerning the model HLS30-UV (left hand drive) but will easily be referred also to the right hand drive models.
2. Please refer to the following SERVICE MANUALS in addition to this manual for complete details of the car, because this manual describes information concerning the chassis and body only.
 - L20A & L24 ENGINE
 - EMISSION CONTROL SYSTEM for 1972 YEAR MODELS
 - NISSAN AUTOMATIC TRANSMISSION MODEL 3N71B
 - F4W71B RS4W71B TRANSMISSION SERVICE MANUAL
 - R4W71B R3W71B
3. All part names in this manual conform to the DATSUN 240Z SPORTS PARTS CATALOG, and only the genuine service parts listed in this PARTS CATALOG must be used of replacements.
4. All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication approval.
5. It should be emphasized that those who use this manual are responsible for revising the contents according to the SERVICE JOURNAL and SERVICE DATA AND SPECIFICATIONS issued by the factory, which carry the latest factory approved servicing methods.
6. Rights for alternation of specifications and methods at any time are reserved.

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GI

SECTION GI

GENERAL INFORMATION

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GENERAL INFORMATION

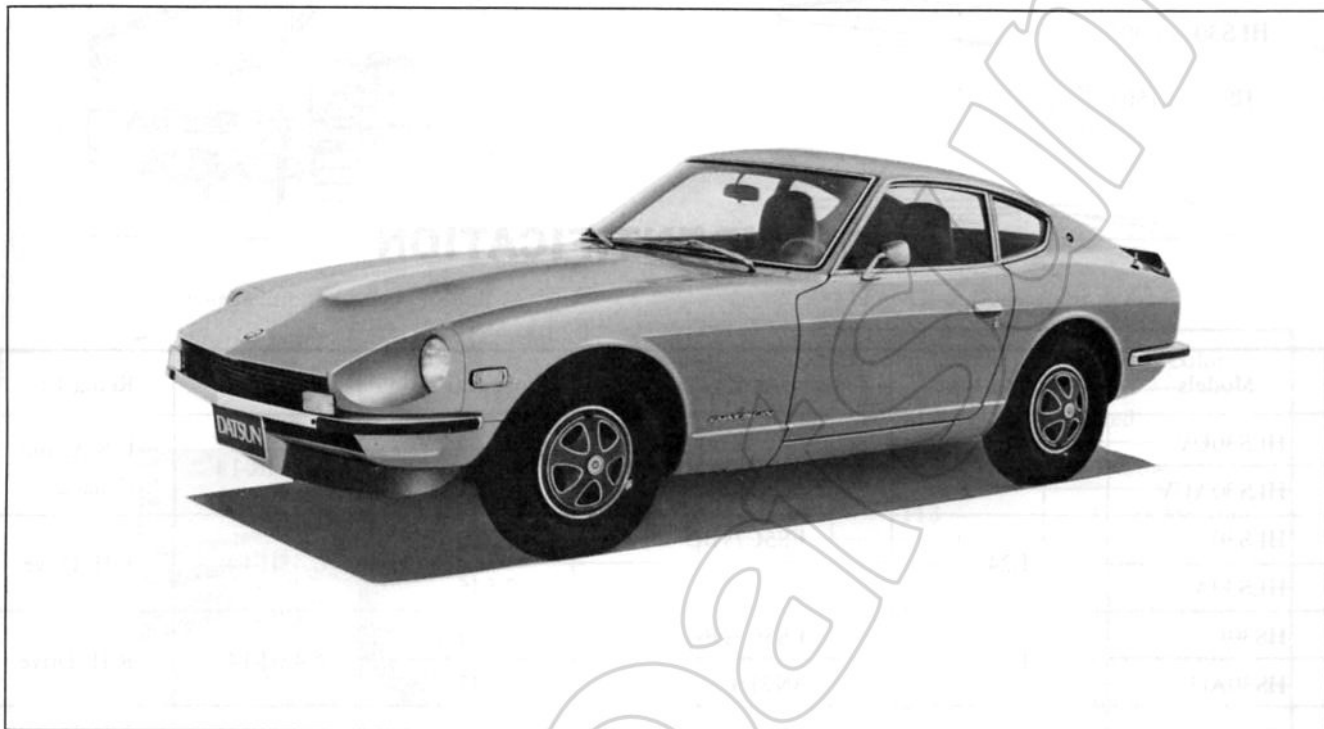


Fig. GI-1 DATSUN 240Z SPORTS (Model HLS30-U)

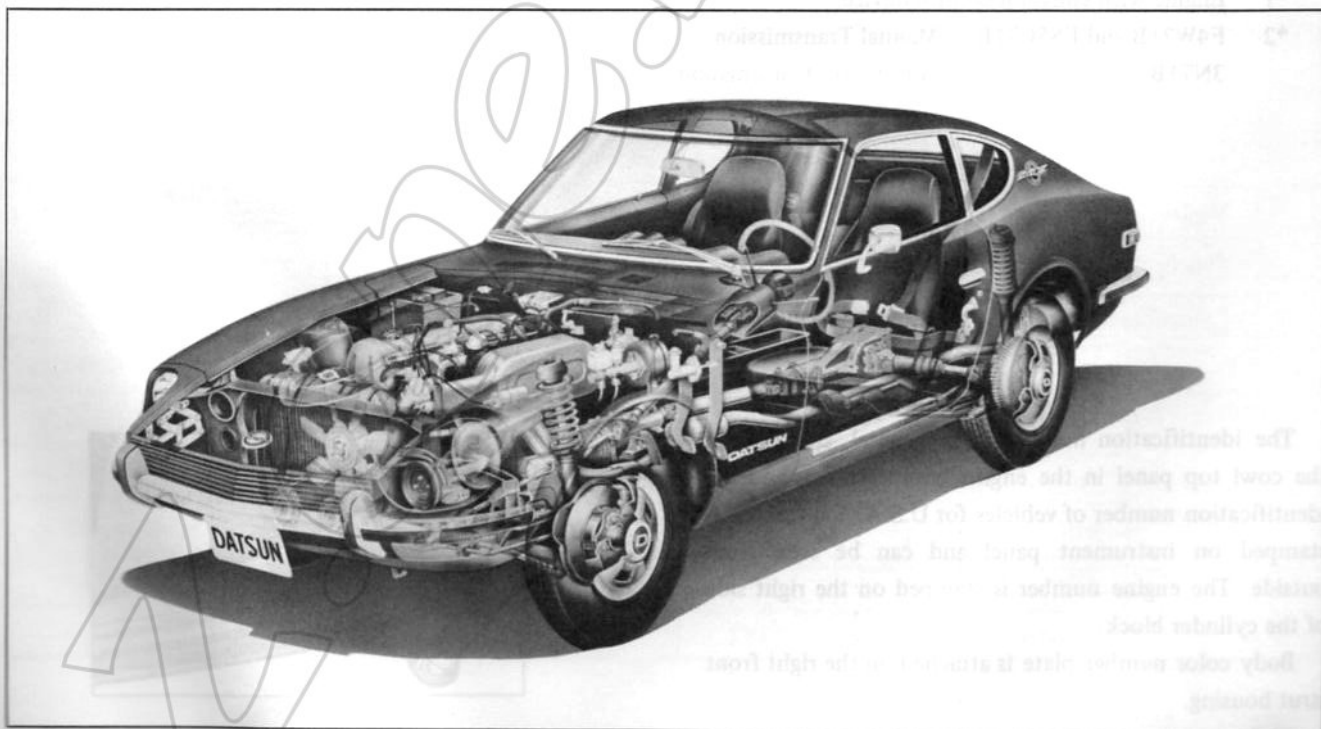


Fig. GI-2 Clairvoyant view (Model HLS30-U)

CHASSIS

This service manual is applicable to the 1972 model S30 series vehicles which are listed below:

HLS30-46001

HS30-01501

MODEL IDENTIFICATION

Models	Engine type	Transmission type-speed*2	Final gear ratio	Tire size	Remarks
HLS30UV	L24*1	F4W71B-4	3.364	175HR-14	U.S.A. and Canada
HLS30AUV		3N71B-3	3.545		
HLS30	L24	FS5C71B-5	3.900	6.45H-14	L.H. Drive
HLS30A		3N71B-3	3.545		
HS30U	L24	FS5C71B-5	3.900	6.45H-14	R.H. Drive
HS30AU		3N71B-3	3.545		
HLS30Q	L24	FS5C71B-5	3.900	175HR-14	L.H. Drive for Europe
HS30Q					R.H. Drive for Europe

*1 Engine with emission control device.

*2 F4W71B and FS5C71B : Manual Transmission
3N71B : Automatic Transmission

IDENTIFICATION NUMBER

The identification number is, in general, stamped on the cowl top panel in the engine compartment, and the identification number of vehicles for U.S.A. and Canada is stamped on instrument panel and can be seen from outside. The engine number is stamped on the right side of the cylinder block.

Body color number plate is attached on the right front strut housing.

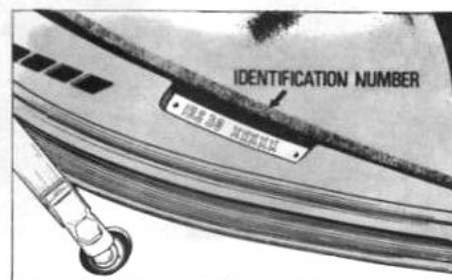


Fig. GI-3 Identification number
(For U.S.A. and Canada only)

GENERAL INFORMATION

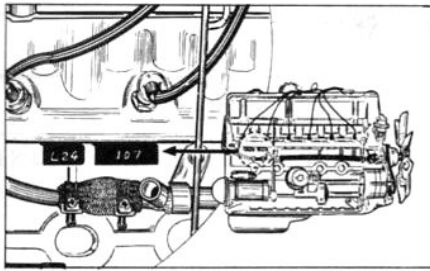


Fig. GI-4 Identification number (For all countries except U.S.A. and Canada)

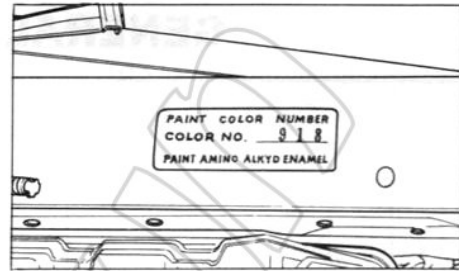


Fig. GI-6 Body color number

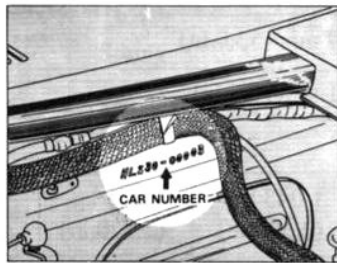


Fig. GI-5 Engine number

Body color number		Body color
1	110	Red
2	112	Yellow
3	113	Green Metallic
4	114	Gold
5	115	Blue Metallic
6	901	Gray Metallic
7	904	White
8	918	Orange

CHASSIS

GENERAL SPECIFICATIONS

Item		Model	DATSUN 240Z SPORTS				
			HLS30UV	HLS30AUV	HLS30 HS30	HLS30A HS30AU	HLS30Q HS30Q
Dimensions & Weight	Overall length		4,136 mm (162.8 in)				
	Overall width		1,630 mm (64.1 in)				
	Overall height		1,283 mm (50.5 in)				
	Wheel base		2,305 mm (90.7 in)				
	Tread	Front	1,356 mm (53.3 in)				
		Rear	1,347 mm (53.0 in)				
	Minimum road clearance		161 mm (6.3 in)				
	Seating capacity		2				
Performance	Vehicle weight		1,066 kg (2,350 lb)	1,089 kg (2,400 lb)	1,043 kg (2,300 lb)	1,045 kg (2,370 lb)	1,043 kg (2,300 lb)
	Maximum speed		200 km/h (125 mph)	185 km/h (116 mph)	205 km/h (129 mph)	185 km/h (116 mph)	205 km/h (129 mph)
	Maximum grade ability (Sin θ)		0.436	0.428	0.436	0.428	0.436
	Minimum turn radius		4.8 m (15.7 ft)				
Engine model			L24*1		L24		
Clutch type			Dry single disc Diaphragm spring.	—	Dry single disc Diaphragm spring.	—	Dry single disc Diaphragm spring.
Transmission	Model		F4W71A	3N71B	FS5C71B	3N71B	FS5C71B
	Synchro type		Warner	—	Servo	—	Servo
	Control system		Floor shift				
	Gear ratio	1st	3.592	2.458	2.906	2.458	2.906
		2nd	2.246	1.458	1.902	1.458	1.902
		3rd	1.415	1.000	1.308	1.000	1.308
		4th	1.000	—	1.000	—	1.000
		5th	—	—	0.864	—	0.864
		Reverse	3.657	2.182	3.820	2.182	3.820

*1 Engine with emission control device

GENERAL INFORMATION

Model			DATSUN 240Z SPORTS				
			HLS30UV	HLS30AUV	HLS30 HS30	HLS30A HS30AU	HLS30Q HS30Q
Item							
Final gear	Gear type		Hypoid gear				
	Gear ratio		3.364	3.545	3.900*2	3.545	3.900
Speedometer gear ratio			17/6	—	19/6	—	19/6
Suspension	Front	Type	Independent strut type				
		Spring	Coil spring				
		Shock absorber type	Telescopic double-acting				
	Rear	Type	Independent strut type				
		Spring	Coil spring				
		Shock absorber type	Telescopic double-acting				
		Drive shaft	Ball spline				
Brake system	Front		Girling-Sumitomo S-16 type Disc brake				
	Rear		Leading training type with Self-adjuster				
		Drum	Aluminum drum with fins				
	Parking		Mechanical operated on rear wheels				
	Master Vac		6 in				
	Master cylinder		7/8 in tandem Master cylinder				
	Skid control valve		Proportioning valve				
Fuel tank	Tank capacity		60 ℓ (15 $\frac{3}{8}$ U.S. gal. 13 $\frac{1}{4}$ Imper. gal.)				
	Reservoir tank capacity		* 4.2 ℓ (1 $\frac{3}{8}$ U.S. gal. $\frac{1}{8}$ Imper. gal.)	—			
Battery			N50Z		N50		N50Z
Steering	Gear type		Rack-and-pinion				
	Lock to lock		2.7				
Wheel & Tire	Size		175HR-14	6.45H14-4PR 165HR-14 6.95H14-4PR			175HR-14
	Rim size		14 - 5J				

* For U.S.A. California
*2 Option: 3.545, 3.700

PERIODICAL MAINTENANCE

LUBRICATION CHART

LUBRICATING POINTS		MAINTENANCE INTERVAL											
		1	5	10	15	20	25	30	35	40	45	50	100
Number of thousands of Kilometers		0.6	3	6	9	12	15	18	21	24	27	30	
Number of thousands of Miles					33	36	39	42	45	48	51	57	-60
Change engine oil		X	X	X	X	X	X	X	X	X	X	X	X
Change or check transmission & differential gear oil level, top up if necessary		R	X	X	X	X	X	X	X	X	X	R	R
Check automatic transmission fluid level, top up if necessary		X	X	X	X	X	X	X	X	X	X	X	X
Change brake fluid reservoir						X				X			X
Change cooling water				X		X		X		X		X	X
Change cooling water (L.L.C.)										X			
Grease distributor shaft & cam heel				X									
Check SU-carburetor damper oil level, top up if necessary			X	X	X	X	X	X	X	X	X	X	X
Lubricate accelerator linkage			X	X	X	X	X	X	X	X	X	X	X
Lubricate foot operated pedal bushings						X				X			X
Grease parking brake linkage										X			
Grease steering linkage ball joints												X	X
Grease suspension ball joints												X	X
Change steering gear housing grease reservoir												X	X
Repack wheel bearing grease												X	X
Grease rear axle drive shaft joints & ball spline												X	X
Grease propeller shaft joints												X	X
Lubricate all locks and hinges				X		X		X		X		X	X

R: Replacement

GENERAL INFORMATION

CHECKING CHART

ENGINE SERVICE POINTS		MAINTENANCE INTERVAL											
Number of thousands of Kilometers		1	5	10	15	20	25	30	35	40	45	50	100
Number of thousands of Miles		0.6	3	6	9	12	15	18	21	24	27	30	60
Replace carburetor air cleaner element										X			
Check or replace spark plugs			X	X	X	R	X	X	X	R	X	X	R
Check or replace distributor breaker points			X	X	X	R	X	X	X	R	X	X	R
Replace oil filter		X		X		X		X		X		X	X
Replace cartridge type fuel strainer										X			
Retighten cylinder head bolts and manifold nuts		X											
Adjust valve clearance		X		X		X		X		X		X	X
Check and adjust ignition timing		X	X	X	X	X	X	X	X	X	X	X	X
Check high tension cables						X				X			X
Check fan belt tension		X		X		X		X		X		X	X
Adjust engine idling		X	X	X	X	X	X	X	X	X	X	X	X
Engine tune-up						X				X			X
Check fuel line (hoses, pipings, connections, etc.) for leaks		X	X	X	X	X	X	X	X	X	X	X	X
Check engine for oil and water leaks		X		X		X		X		X		X	X
Check battery specific gravity		X				X				X			X
Check air pump belt tension		X	X	X	X	X	X	X	X	X	X	X	X
Check hose & piping connections for loose (A.I.S. & P.C.V.)					X	X	X	X	X	X	X	X	X
Check air pump for operation					X	X	X	X	X	X	X	X	X
Check emission control valves for operation						X				X			X

R: Replacement

CHASSIS

CHASSIS & BODY SERVICE POINTS		MAINTENANCE INTERVAL												
		1	5	10	15	20	25	30	35	40	45	50	55	60
Number of thousands of Kilometers		1	5	10	15	20	25	30	35	40	45	50	55	60
Number of thousands of miles		0.6	3	6	9	12	15	18	21	24	27	30	33	36
Check clutch & brake pedal free play		X		X		X		X		X		X		X
Check clutch & brake system (cylinders, hoses, pipings, connections, etc.) for leaks or defects		X	X	X	X	X	X	X	X	X	X	X	X	X
Check foot & hand brake operation			X	X		X		X		X		X		X
Check brake linings and liners for wear						X				X				X
Check disc brake pads				X	X	X	X	X	X	X	X	X	X	X
Check Master-Vac for operation				X		X				X				X
Overhaul Master-Vac										X				
Overhaul brake cylinders & caliper assembly												X		X
Check P-valve for operation												X		X
Check hydraulic shock absorber						X				X				X
Check and retighten suspension parts		X		X		X		X		X		X		X
Check and retighten steering gear box and linkage		X		X		X		X		X		X		X
Adjust front wheel bearing pre-load														
Check wheel discs for damage				X		X		X		X		X		X
Check wheel balance and rotate wheel position				X		X		X		X		X		X
Check front wheel alignment and turning angle						X				X				X
Retighten propeller shaft universal joint flange bolts		X				X				X				X
Check head light aiming														X
Road test		X		X		X		X		X		X		X

RECOMMENDED LUBRICANTS

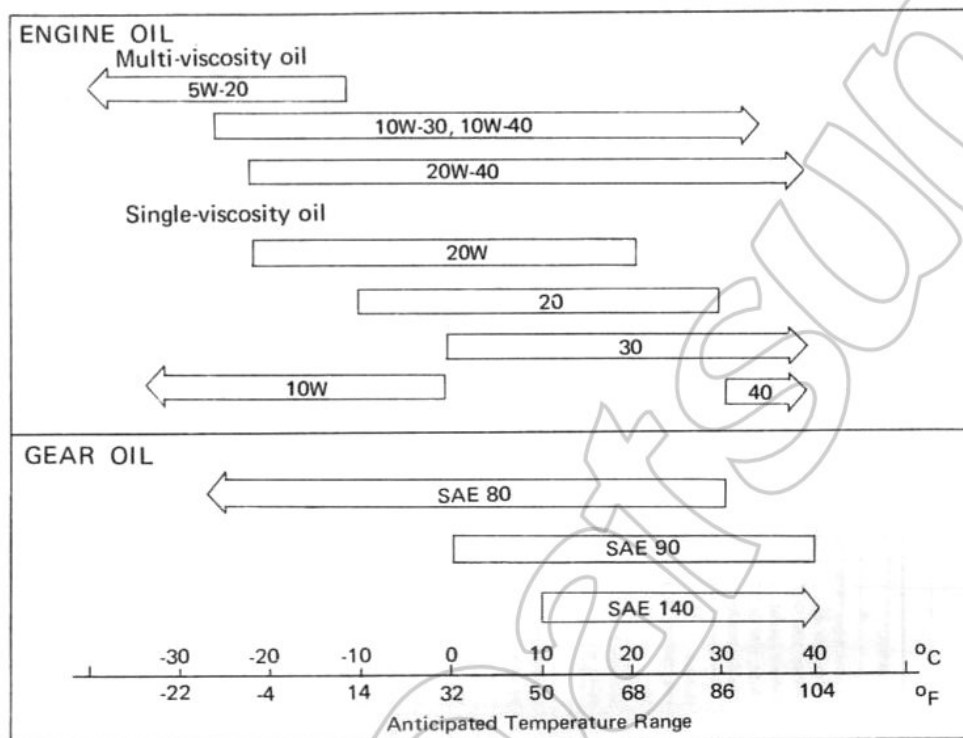
GENERAL INFORMATION

PRODUCING	BP	CALTEX	CASTROL	CHEVRON	ESSO	MOBIL	SHELL	SUNOCO	TEXACO	TOTAL
ENGINE OIL	Casoline	Custom Five Star Motor Oil 10W-30, 10W-40, 20W-40, 20W-50	Castrolite 10W-30 XL 20W-40	Supreme Motor Oil 5W-30, 10W-30, 10W-40, 20W-40	Uniflo 5W-30, 10W-40 Extra Motor Oil 5W-20, 10W-30, 20W-40	Mobiloil Super 5W-30, 5W-40, 10W-40, 10W-50, 20W-50 Mobiloil Special 5W-20, 10W-30, 20W-40, 20W-50	Super Motor Oil 10W-40, 20W-50	Special Motor Oil 5W-30, 10W-40 Dynalube Motor Oil 10W-30	Havoline Super Premium 5W-30, 10W-40, 20W-50	GTS 10W-30, 20W-40, 20W-50
		Not available	5HD, 10HD, 20HD, 30HD, 40HD, 50HD	Special Motor Oil 10W, 20W-20, 30, 40, 50	Not available	Mobiloil 10W, 20W-20, 30, 40, 50	Not available	Sunlobe Motor Oil 10W, 20W-20, 30, 40, 50	Havoline Motor Oil 10W, 20W-20, 30, 40, 50	Super HD 10W, 20W-20, 30, 40, 50
GEAR OIL	API GL-4 MIL-L-2104B	Universal Thuban 80, 90, 140	Hypoy 80, 90, 140	Multigrade Gear Lub. 75, 80, 90, 140	Gear Oil GP 80, 90, 140	Mobilube EP or GX 80-90, 90, 140	Spirax 75EP, 80EP, 90EP, 140EP	Multipurpose Gear Lub. GL-4 80, 90, 140	Universal Gear Lub. EP 80, 90, 140	Extreme Precision 80, 90, 140
	API GL-5 MIL-L-2105B	3450 Gear Oil 90 Multipurpose Thuban EP 80, 90, 140	Hypoy LS	Universal Gear Lub. 75, 80, 90, 140	Gear Oil GX 80, 90, 140	Mobilube HD 80, 80-90, 90, 140	Spirax Heavy Duty 80, 90, 140	Multipurpose Gear Lub. GL-5 75, 80, 90, 140	3450 Gear Oil 90 Multigrade Lub. EP 80, 90, 140	Extreme Precision Type B 80, 90, 140
Automatic T/M Fluid	Autran DX	Texamatic Fluid DEXRON	TQ DEXRON	ATF	ATF	ATF 220	ATF DEXRON	Transmatic Fluid DEXRON Type	Texamatic Fluid DEXRON	DEXRON
Multi-purpose grease	Lithium soap NLGI 2	Marfak Multipurpose 2*	LM Grease*	Automotive Grease Medium*	Multipurpose Grease*	Mobilgrease MP*	Retinax A	Prestige II WB-500*	Marfak Multipurpose 2*	Multis*
Brake & Clutch Fluid	SAE J1703a	Heavy Duty Brake Fluid	G.B.F. Crimson Girling B.F. Green GT (LMA)	Atlas Brake Fluid Super Heavy Duty 450	Brake Fluid HD400, 500 "HD400, 450"	Super Heavy Duty B.F.	Donax B. HB "Super Heavy Duty B.F."	460 Brake Fluid	Super Heavy Duty Motor Vehicle B.F.	Brake Fluid
Antifreeze Coolant (L.L.C.)	Antifrost	Startex Antifreeze Coolant	Antifreeze	Atlas Perma Guard Antifreeze*	Antifreeze* "Long Life Coolant" "Atlas Long Life Coolant RAD"	Permazone*	Glycoheal* Shellzone	Permanent Type*	Antifreeze Coolant* Startex Antifreeze Coolant*	Antigel*

* is only for U.S.A. and CANADA.
In case the above brand oils are not available, it is permissible to use oils marked *

CHASSIS

RECOMENDED LUBRICANTS



APPROXIMATE REFILL CAPACITIES

		Liters	U.S. Measure	Imper. Measure
Fuel tank		60	15 7/8 gal.	13 1/4 gal.
Engine cooling system		8	2 1/8 gal.	1 3/4 gal.
Engine crank case	*1	5.0	5 1/4 qts.	4 3/8 qts.
Transmission case	Manual	1.5	3 1/8 pts.	2 5/8 pts.
	Automatic	5.5	5 7/8 qts.	4 7/8 qts.
Differential case		1.0	2 1/8 pts.	1 3/4 pts.

*1. Includes 1 7/8 U.S. pts., (1 5/8 Imper. pts., 0.9 liter) required for oil filter replacement.

GENERAL INFORMATION

JACKING UP AND TOWING THE CAR

CONTENTS

JACK UP	GI-11	Supportable point	GI-11
Pantograph jack	GI-11	TOWING	GI-12
Garage jack	GI-11		

JACK UP

Pantograph jack

Apply a jack to the indicated position where sill flange is cut for identification. Do not jack up other position.

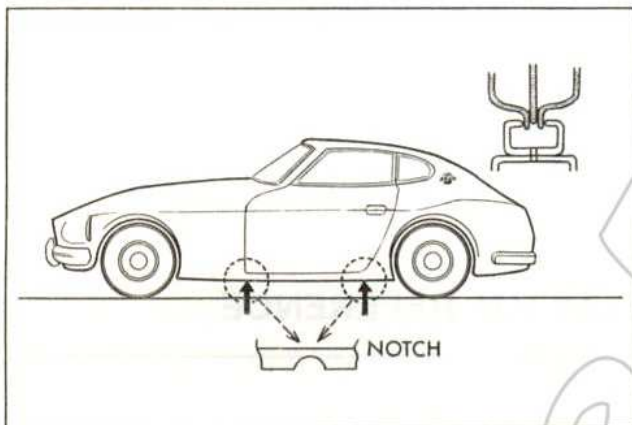


Fig. GI-7 Jacking point

Garage jack

The front jacking point is center of front suspension member and rear is differential gear carrier.

Do not apply a jack to center portion of front suspension transverse link



Fig. GI-8 Front jacking point



Fig. GI-9 Rear jacking point

Supportable point

Front supportable points for stand are both front side members. Rear supportable points are both sides of front differential mounting cross member.



Fig. GI-10 Front supportable point

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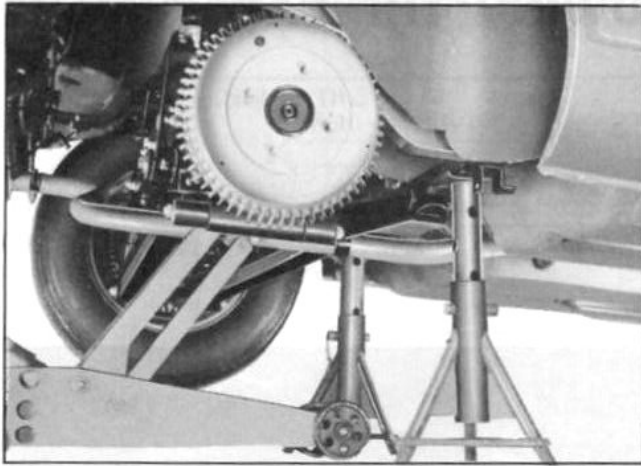


Fig. GI-11 Rear supportable point

TOWING

Tow forward at hook as shown in Figure GI-11. Do not tow at front suspension member or transverse link. Be careful not to apply impact load to the hook.

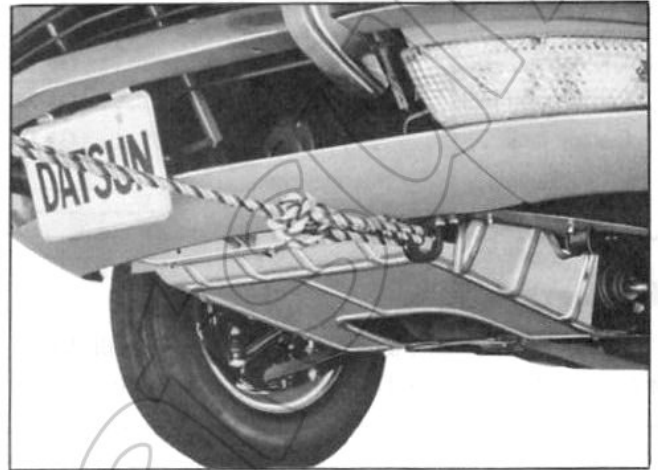


Fig. G1-12 Front towing point

SERVICE JOURNAL OR BULLETIN REFERENCE

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