

DATSUN

240Z SPORTS

SERVICE MANUAL

**MODEL S30 SERIES
CHASSIS & BODY**



NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

QUICK REFERENCE INDEX

GENERAL INFORMATION GI

**ENGINE REMOVAL
& INSTALLATION ER**

CLUTCH CL

TRANSMISSION TM

**PROPELLER SHAFT
& DIFFERENTIAL CARRIER PD**

**FRONT AXLE
& FRONT SUSPENSION FA**

**REAR AXLE
& REAR SUSPENSION RA**

BRAKE BR

WHEEL AND TIRE WT

STEERING ST

**ENGINE CONTROL, FUEL
& EXHAUST SYSTEM FE**

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FOREWORD

This service manual has been prepared for the purpose of assisting service personnels of our distributors and dealers for effective service and maintenance of DATSUN 240Z SPORTS (model S30 series).

Since proper maintenance and service are most essential to satisfy our customers by keeping their cars in the best condition, this manual should be read carefully. The followings should be noted for effective utilization of this manual.

- 1. Explanations in this manual are mainly concerning the model HLS30-U (left hand drive) but will easily be referred also for the right hand drive models and for the version models.*
- 2. Please, refer to both this and L20A, L24 SERIES ENGINE SERVICE MANUAL for complete details of the car, because this manual describes information concerning the chassis and body only.*
- 3. All part name in this manual conform to DATSUN SPORTS 240Z PARTS CATALOG, and only the genuine service parts listed in this parts catalog should be used for 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 is emphasised that those who use this manual revise the contents according to the SERVICE JOURNAL and SERVICE DATA AND SPECIFICATIONS issued by the factory, which carry the latest factory approved servicing method.*
- 6. Rights for alternation in specifications and others at any time are reserved.*

NISSAN MOTOR CO., LTD.

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SECTION GI

GI

GENERAL INFORMATION

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GENERAL INFORMATION

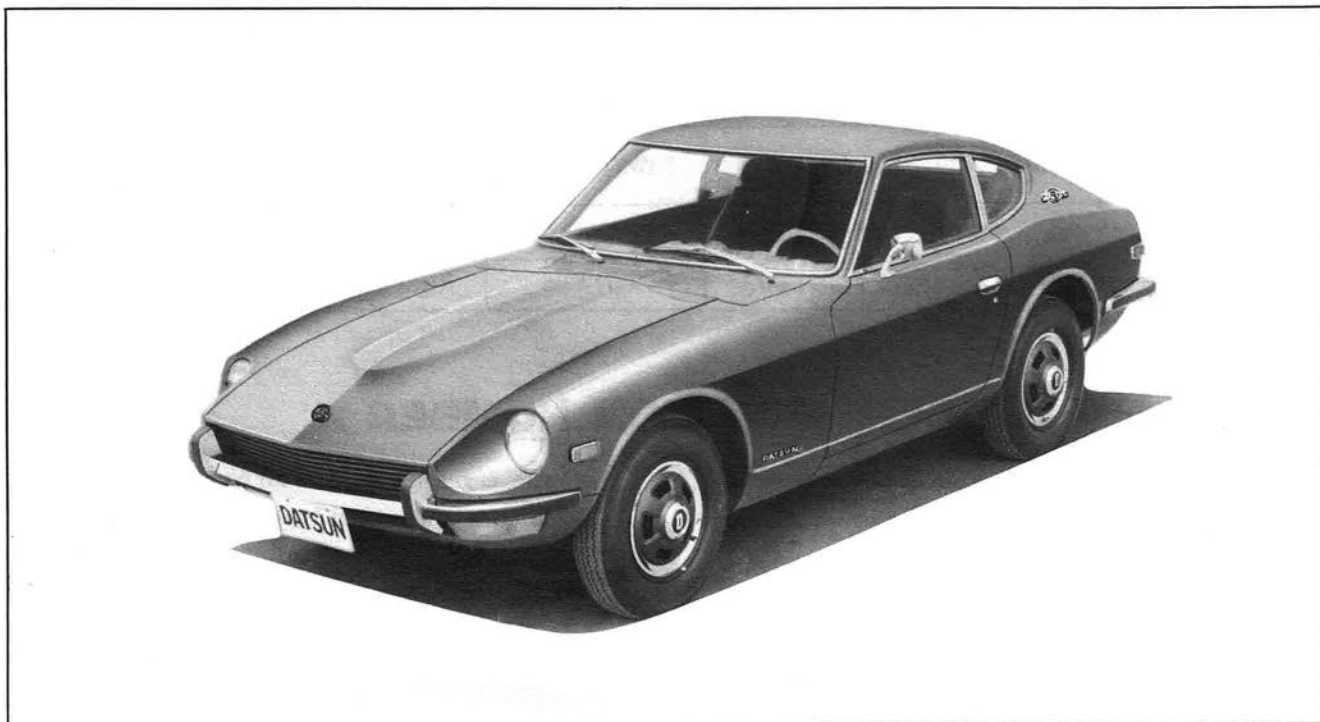


Fig. GI-1 DATSUN 240Z SPORTS (Model HLS30-U)

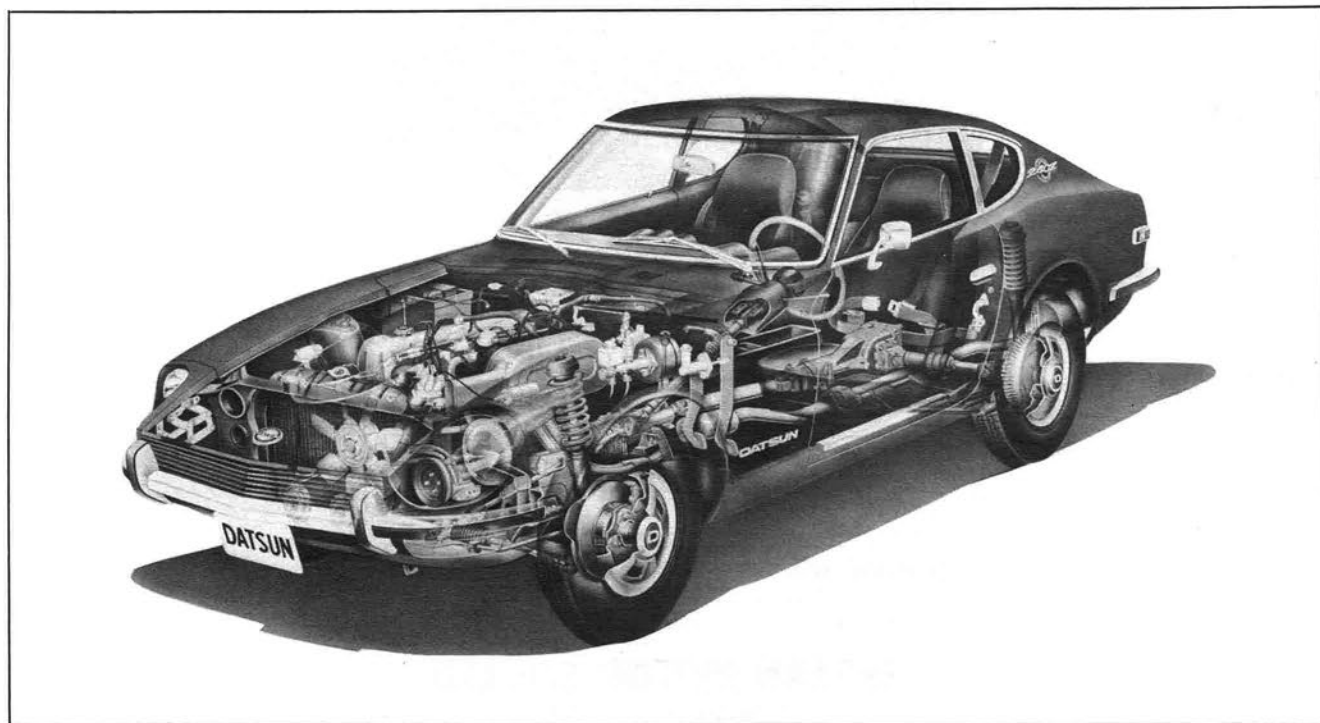


Fig. GI-2 Clairvoyant view (Model HLS30-U)

CHASSIS

MODEL IDENTIFICATION

Vehicle model	Engine model	Transmission — speeds	Remark
HLS30-U	L24 (SU carb.)	F4W71A-4	Left hand drive for U.S.A. Canada.
HLS30	L24 (SU carb.)	FS5C71A-5	Left hand drive
HS30-U	L24 (SU carb.)	FS5C71A-5	Right hand drive

IDENTIFICATION NUMBER

The identification number is stamped on instrument panel, and can be seen from outside. (For U.S.A.)

The body number plate identifies the type of car, engine capacity, maximum horse power [SAE (New)],

wheel base, engine number and car number.

The body number plate is attached to the right front strut housing.

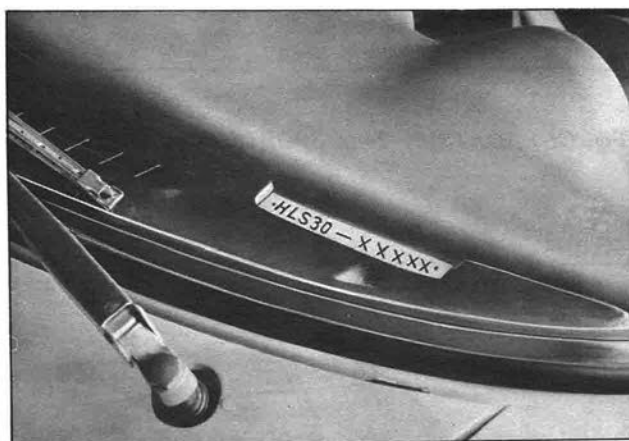


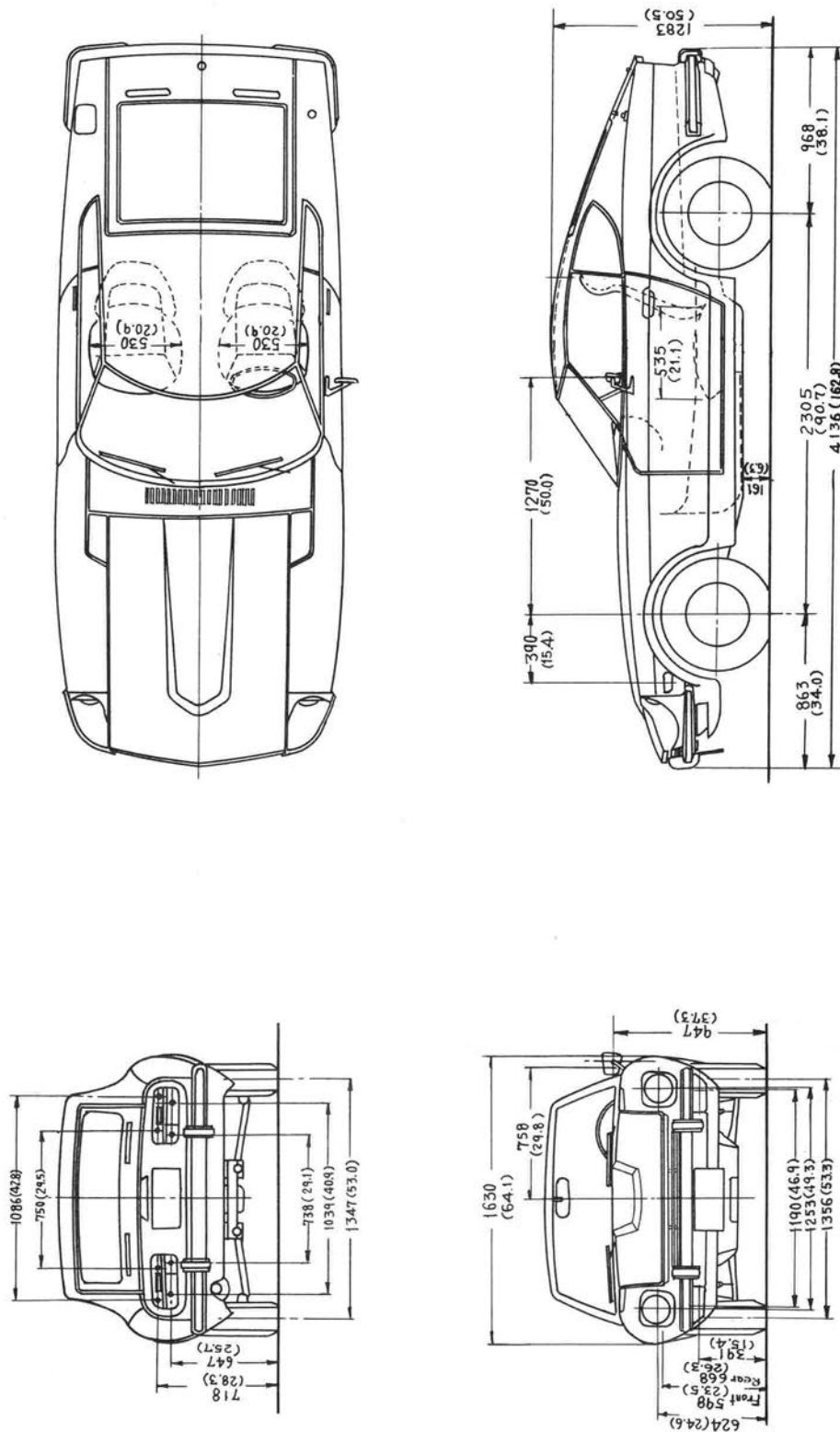
Fig. GI-3 Identification number

DATSUN		TYPE	HLS30
ENGINE CAPACITY	2,393 cc		
MAX. HP at RPM	151 HP at 5,600 rpm		
WHEEL BASE	2,305 mm		
ENGINE NO.	L24- ☐ ☐ ☐ ☐ ☐ ☐		
CAR NO.	HLS30- ☐ ☐ ☐ ☐ ☐ ☐		
NISSAN MOTOR CO., LTD. YOKOHAMA JAPAN			

Fig. GI-4 Body number plate

GENERAL INFORMATION

GENERAL VIEW



Unit: mm (in)

Fig. GI-5 General view

CHASSIS

GENERAL SPECIFICATIONS

Item			Model	DATSUN 240Z SPORTS	
				HLS30-U	H(L)S30-(U)
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	←
	Vehicle weight			1,044 kg (2,300 lb)	1,025 kg (2,260 lb)
Performance	Maximum speed			200 km/h (125 mph)	205 km/h (129 mph)
	Maximum grade ability (Sin θ)			0.436	0.436
	Minimum turn radius			4.8 m (15.7 ft)	←
Engine model				L24 (SU carb.)	←
Clutch type				Dry single disc Diaphragm spring.	←
Transmission	Model			F4W71A	FS5C71A
	Synchro type			Warner	Servo
	Control system			Floor shift	←
	Gear ratio	1st		3.549	2.957
		2nd		2.197	1.858
		3rd		1.420	1.311
		4th		1.000	1.000
		5th		—	0.852
Reverse			3.146	2.922	
Final gear	Gear type			Hypoid gear	←
	Gear ratio			3.364	3.900

GENERAL INFORMATION

Speedometer gear ratio			17/6	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 (15.9 US gal 13.2 UK gal)	←
	Reservoir tank capacity		*4.2 ℓ (1.1 USgal 0.9 UK gal)	—
Battery			N50	←
Steering	Gear type		Rack-and-pinion	←
	Lock to lock		2.7	←
Wheel & Tire	Size		175SR-14 175HR-14 6.45H14-4PR	6.45H14-4PR 165HR-14 6.95H14-4PR
	Rim size		4½J × 14	←

* For U.S.A. California

LUBRICATION CHART

CHASSIS

MAINTENANCE FREQUENCY EVERY		LUBRICATION	MAINTENANCE PERIODS											
			(3,000 miles) (5,000 km)	(6,000 miles) (10,000 km)	(12,000 miles) (20,000 km)	(24,000 miles) (40,000 km)	(30,000 miles) (48,000 km)	(36,000 miles) (57,000 km)	(42,000 miles) (67,000 km)	(48,000 miles) (76,000 km)	(54,000 miles) (86,000 km)	(60,000 miles) (96,000 km)	(66,000 miles) (105,000 km)	(72,000 miles) (114,000 km)
		Change engine oil.	●											
		Lubricate foot operated bushings.												
		Check transmission & differential gear oil level, top up if necessary.	○											
		Change transmission & differential gear oil.												
		Grease distributor shaft & cam heel.												
		Grease hand brake system linkage.												
		Grease brake shoe metal-to-metal contact parts.												
		Change suspension ball joint grease.												
		Change wheel bearing grease.												
		Change rear axle drive shaft joint & ball spline grease.												
		Change steering linkage ball joint grease.												
		Change steering gear grease.												
		Check steering grease reservoir (replace if necessary).												
		Change propeller shaft joint grease.												
		Grease wiper motor linkage.												
		Grease window regulator & lock.												
		Grease body metal-to-metal contact parts.												
		Change brake fluid.												
		Change cooling water (Long Life Coolant).												

○ = Clean, check, adjust or supply ● = Change

GENERAL INFORMATION

CHECKING CHART

MAINTENANCE FREQUENCY EVERY	MAINTENANCE PERIODS												CHECKING POINTS (ENGINE)
	50,000 km (30,000 miles)	40,000 km (24,000 miles)	35,000 km (21,000 miles)	30,000 km (18,000 miles)	25,000 km (15,000 miles)	20,000 km (12,000 miles)	15,000 km (9,000 miles)	10,000 km (6,000 miles)	6,000 km (4,000 miles)	3,000 km (2,000 miles)	1,000 km (600 miles)		
													Adjust valve clearance.
													Check ignition timing (adjust if necessary).
													Check fan belt tension.
													Measure compression pressure.
													Change air cleaner element (viscous type).
													Check fuel line for leak.
													Change cartridge type fuel strainer.
													Check fuel pump for proper function.
													Retighten carburetor & fitting parts.
													Overhaul carburetor.
													Change cartridge type oil filter.
													Check battery for electrolyte specific gravity.
													Check (or change) spark plugs.
													Check distributor breaker point.
													Check condenser for proper function.
													Check alternator, regulator for proper function.
													Check alternator brush.
													Check starter for proper function.
													Check engine for oil and water leaks.
													Retighten cylinder head, manifolds & exhaust pipe flange.
													Check for weak or damage of engine mountings.
													Retighten engine mountings.
													Adjust idling speed.
													Check engine starting condition, abnormal noise and exhaust color.
													Check high tension cable.
													Clean ignition coil distributor and battery.

Special maintenance for emission control system is described on page GI-9.

O = Clean, check, adjust or supply

● = Change

CHASSIS

MAINTENANCE FREQUENCY EVERY					MAINTENANCE PERIODS												
50,000 km (30,000 miles)	40,000 km (24,000 miles)	20,000 km (12,000 miles)	10,000 km (6,000 miles)	5,000 km (3,000 miles)	CHECKING POINTS (CHASSIS & BODY)	1,000 km (600 miles)	3,000 km (2,000 miles)	6,000 km (4,000 miles)	10,000 km (6,000 miles)	15,000 km (9,000 miles)	20,000 km (12,000 miles)	25,000 km (15,000 miles)	30,000 km (18,000 miles)	35,000 km (21,000 miles)	40,000 km (24,000 miles)	45,000 km (27,000 miles)	50,000 km (30,000 miles)
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Check clutch & brake pedal free play.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
					Check clutch & brake system for oil leak or defect.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Check clutch operation.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐			☐		Check foot & hand brake operation.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
					Check brake drum for wear.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Check drum brake lining.			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Check disc brake lining pad.			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Check master vac for proper function. (Change rubber parts every two years.)			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐				Overhaul Master-Vac.			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐					Overhaul master cylinder, wheel cylinder & caliper assembly.			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Check steering wheel free play.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Retighten steering gear housing.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐				Retighten steering coupling & joint.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Check steering linkage for loose connection.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Retighten steering knuckle.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Check and retighten front and rear suspension parts.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐					Check P-valve operation.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Check strut assembly.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Check wheel alignment and turning angle.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Rotate wheel position.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Check wheel disc for damage.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	Measure wheel balance (correct if necessary).		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Retighten propeller shaft universal joint flange.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Check propeller shaft spline and joint for wear or damage.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐			Retighten transmission case and differential carrier.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐				Check exhaust pipe & muffler fitting parts.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Check wire harness and contact parts.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
					Retighten door hinge, lock & striker (align door if necessary).		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐		Road test.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐					Check headlight aiming.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐					Check wheel bearing for wear.		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

GENERAL INFORMATION

O = Clean, check, adjust or supply ● = Change

CHASSIS

JACKING UP AND TOWING THE CAR

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JACK UP

Pantograph jack

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

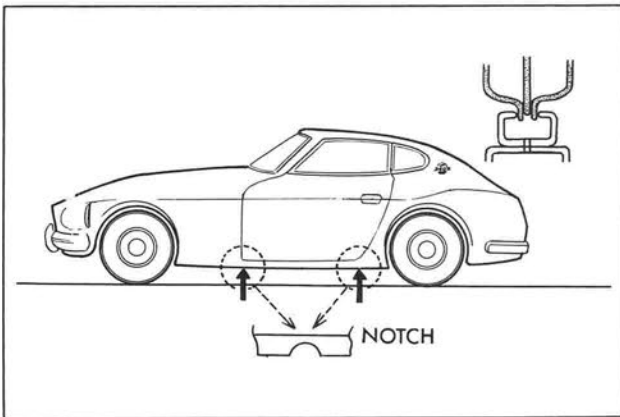


Fig. GI-6 Jacking point

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.

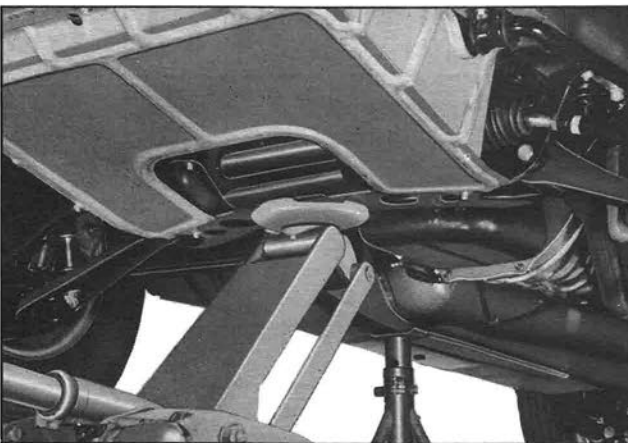


Fig. GI-7 Front jacking point

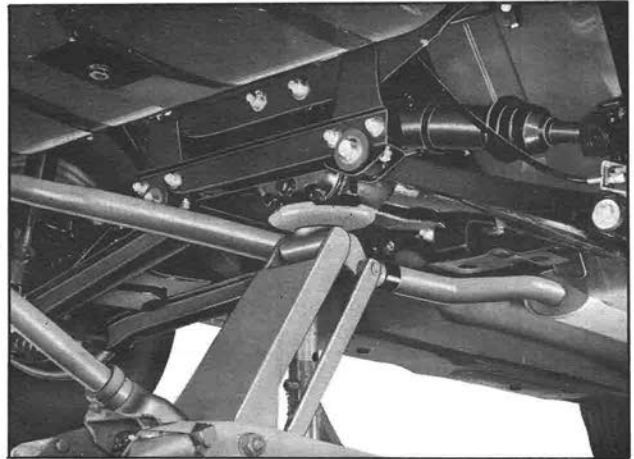


Fig. GI-8 Rear jacking point

Supportable point

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

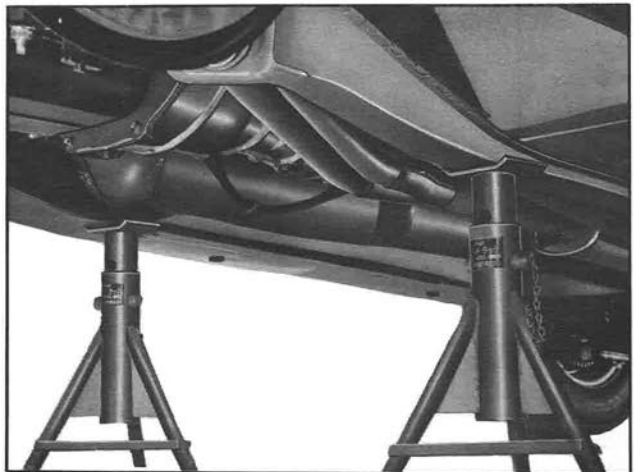


Fig. GI-9 Front supportable point

GENERAL INFORMATION

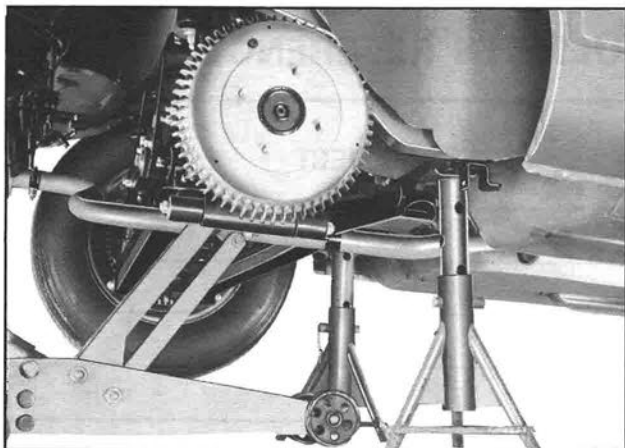


Fig. GI-10 Rear supportable point

Admittable load of hook is less than 1,000 kg (2,205 lb).

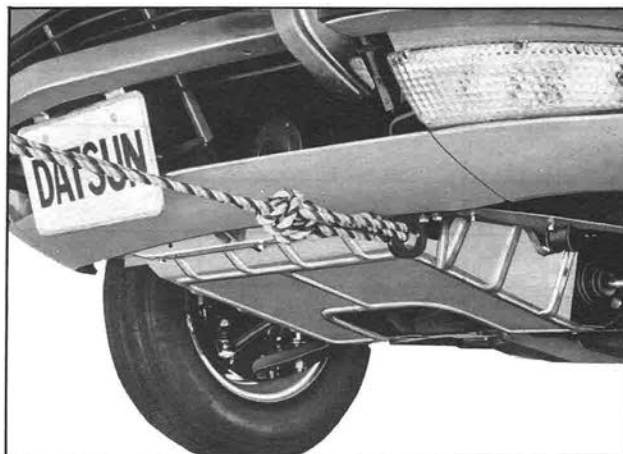


Fig. GI-11 Front towing point

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.

SERVICE JOURNAL OR BULLETIN REFERENCE[illegible]

CHASSIS

SERVICE JOURNAL OR BULLETIN REFERENCE[illegible]