

HOW TO USE THIS MANUAL

► This Service Manual contains the new service procedures, service data and specifications for the face-lifted model Z31 series which has been in production since February, 1987.

► This Service Manual does not contain the service procedures, etc. which are the same as those for former models.*

Please use this manual in conjunction with the following Service Manuals.

- The model Z31 series (Pub. No. SM4E-0Z31G0)
- The model Z31 series Supplement-I (Pub. No. SM6E-Z31SG0) except for Australia or the model Z31 series Supplement-I (Pub. No. SM6E-Z31SA0) for Australia.

* Former models: Models before the model Z31 series introduced in February, 1987.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the mechanic and the efficient functioning of the vehicle.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately.

Special service tools have been designed to permit safe and proper performance of service. Be sure to use them.

Service varies with the procedures used, the skills of the mechanic and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first completely satisfy himself that neither his safety nor the vehicle's safety will be jeopardized by the service method selected.

The right is reserved to make changes in specifications and methods at any time without notice.

NISSAN MOTOR CO., LTD.

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GENERAL INFORMATION

SECTION GI

GI

APPLIED FROM : Except Europe

HGZ31-330011

For Europe

JN10HGZ31U0030027 (Without Catalytic Converter)

JN10HGZ31U0500017 (With Catalytic Converter)

OUTLINE OF MODIFICATIONS :

Engine

- A VG30ET engine with a catalytic converter has been adopted for Europe. To minimize exhaust emissions, a mixture ratio feedback system has been adopted, utilizing an Electronic Concentrated Engine Control System (E.C.C.S.), an exhaust gas sensor and a three-way catalytic converter.
- A bottom feed type fuel injector has been adopted on the VG30ET engine with a catalytic converter and VG30E engine for Europe to improve restartability.
- A water-cooled turbocharger has been adopted to increase the durability of the turbocharger unit.

Chassis

- Electrically controlled automatic transmission (E4N71B) has been adopted for VG30E engine models.
- Newly designed transmission model FS5R30A has been adopted for VG30ET engine models.
- Front and rear brakes have been changed to increase braking performance.

Body

- New design bumpers have been adopted.
- Rear combination lamps have been redesigned.
- Front fog lamps installed in the bumper have been adopted.

ASBESTOS SAFETY INSTRUCTIONS (Based on regulations of United Kingdom)

This vehicle uses parts containing asbestos most are not hazardous but Brake and Clutch linings can be. Consult the manufacturer or his agent for further details. When working with these, please observe the "Garage Workers' Asbestos Code" available through your Nissan Dealer, Local Authority or Health and Safety Executive. In particular, work in a well ventilated place using where possible appropriate dust extraction equipment and avoid creating dust.

Dampen all asbestos/dust where possible prior to machining, cutting, cleaning, etc. Use only hand or low-speed tools.

Dispose of all asbestos waste, wet rags, etc., in a closed container as directed by your local waste disposal authority.

PRECAUTIONS FOR A CATALYTIC CONVERTER

If a large amount of unburned fuel flows into the converter, the converter temperature will be excessively high. To prevent this, follow the procedure below.

1. Use unleaded gasoline only. Leaded gasoline will seriously damage the catalytic converter.
2. When checking for ignition spark or measuring engine compression, make tests quickly and only when necessary.
3. Do not run engine when the fuel tank level is low, otherwise the engine may misfire causing damage to the converter.
4. Do not place the vehicle on inflammable material. Keep inflammable material off the exhaust pipe.

FUEL (VG30ET engine with Catalytic Converter)

Use unleaded gasoline of above 90 octane (RON).

Do not use leaded gasoline. Using leaded gasoline will damage the catalytic converter.

IDENTIFICATION INFORMATION

Model Variation (Cont'd)

	K	H	L	G	Z31	J	A	T	Q	
☐ : Standard roof										☐ : L.H. drive except for Europe and Middle East
K : T-bar roof										U : R.H. drive except for Australia and Europe
H : VG30 engine										M : Australia
☐ : R.H. drive										Q : Europe
L : L.H. drive										O : With catalyst for Europe
G : 2+2 seater										K : Middle East
										☐ : Non-turbocharger
										T : Turbocharger
										☐ : Manual transmission
										A : Automatic transmission
										J : GL model
☐ : means no indication.										

Dimensions

Model		2+2 seater
Item		
Overall length	mm (in)	4,605 (181.3)
Overall width	mm (in)	1,725 (67.9)
Overall height	mm (in)	1,310 (51.6)
Wheelbase	mm (in)	2,520 (99.2)
Tread	Front	mm (in) 1,455 (57.3) 1,435 (56.5)*1
	Rear	mm (in) 1,475 (58.1) 1,455 (57.3)*1
Min. ground clearance	mm (in)	150 (5.9)
Overhang	Front	mm (in) 945 (37.2), 950 (37.4)*2
	Rear	mm (in) 1,070 (42.1)

*1: Turbo models for Europe and Australia

*2: For Europe

IDENTIFICATION INFORMATION

Model Variation

Des- tina- tion	Body	Seat- ing capaci- ty	Class	Model		Engine	Transmission	Differ- ential carrier	Road wheel size ... offset mm (in)	Tire size	
				L.H.D.	R.H.D.						
Except for Australia, Europe and Middle East	Standard roof	2+2 seater	GL	HLG-J	—	VG30E	FS5W71C	R200	6-1/2-JJ-15 ... 20 (0.79)	215/60VR15 165-15*2	
				HLG-JA	—		E4N71B				
				HLG-JT	—	VG30ET	FS5R30A				
	T-bar roof			KHLG-J	KHG-JU	VG30E	FS5W71C				
				KHLG-JA	KHG-JAU		E4N71B				
				KHLG-JT	KHG-JTU	VG30ET	FS5R30A				
	Australia			T-bar roof	—		KHG-JTM		E4N71B	7-JJ-16 ... 30 (1.18)	225/50VR16 165-15*2
—					KHG-JATM						
Europe	Standard roof			HLG-JQ	HG-JQ	VG30E	FS5W71C		R200	6-1/2-JJ-15 ... 20 (0.79) 390 x 150TD*1 ... 20 (0.79)	215/60VR15 210/60VR390*1 165-15*2
				HLG-JAQ	HG-JAQ		E4N71B				
				HLG-JTQ	HG-JTQ	VG30ET	FS5R30A				
	T-bar roof			KHLG-JQ	KHG-JQ	VG30E	FS5W71C	6-1/2-JJ-15 ... 20 (0.79) 390 x 150TD*1 ... 20 (0.79)		215/60VR15 210/60VR390*1 165-15*2	
				KHLG-JAQ	KHG-JAQ		E4N71B				
				KHLG-JTQ	KHG-JTQ	VG30ET	FS5R30A	7-JJ-16 ... 30 (1.18)		225/50VR16 165-15*2	
		HLG-JK	—	VG30E	FS5W71C						
Middle East	Standard roof	HLG-JAK	—		E4N71B	6-1/2-JJ-15 ... 20 (0.79)	215/60VR15 165-15*2				
		HLG-JTK	—	VG30ET	FS5R30A						
		T-bar roof	KHLG-JK	—	VG30E			FS5W71C			
	KHLG-JAK		—	E4N71B							
	KHLG-JTK		—	VG30ET	FS5R30A						

*1: For England

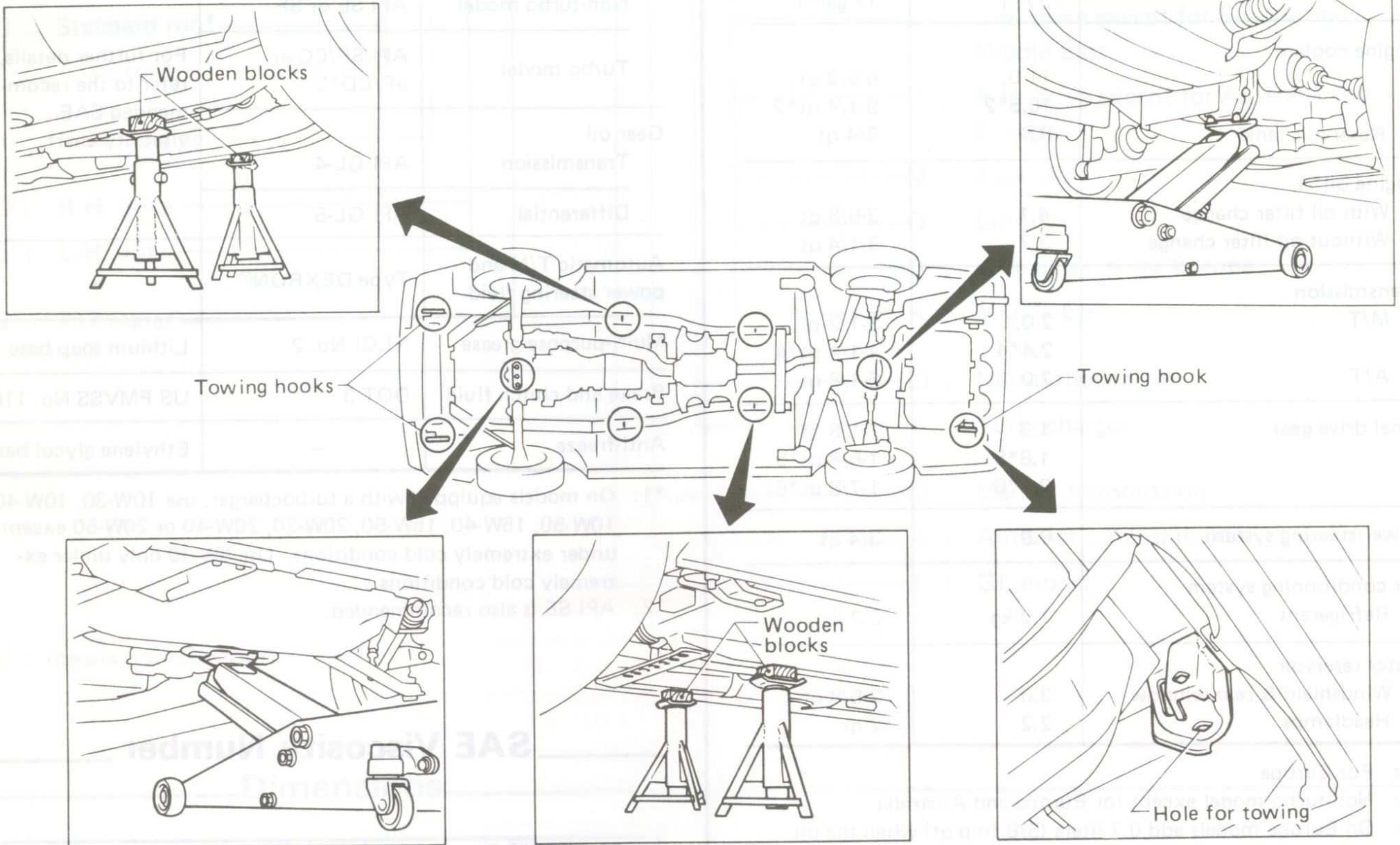
*2: Space Saver Spare Tire

LIFTING POINTS AND TOW TRUCK TOWING

Garage Jack and Safety Stand

CAUTION:

- Place a wooden or rubber block between safety stand and vehicle body when the supporting body is flat.



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RECOMMENDED FUEL AND LUBRICANTS

Approximate Refill Capacities

	Liter	Imp measure
Fuel tank	72, 77*1	15-7/8 gal, 17 gal*1
Engine coolant	11.0, 10.5*2	9-5/8 qt, 9-1/4 qt*2
Reservoir tank	0.8	3/4 qt
Engine oil*3		
With oil filter change	4.1	3-5/8 qt
Without oil filter change	3.7	3-1/4 qt
Transmission		
M/T	2.0, 2.4*4	3-1/2 pt, 4-1/4 pt*4
A/T	7.0	6-1/8 qt
Final drive gear	1.3 1.8*5 2.1*6	1-1/8 qt 1-5/8 qt*5 1-7/8 qt*6
Power steering system	0.9	3/4 qt
Air conditioning system Refrigerant	1.0 kg	2.2 lb
Water reservoir		
Windshield & rear window	3.0	2-5/8 qt
Headlamps	2.2	2 qt

*1: For Europe

*2: Non-turbo model except for Europe and Australia

*3: On Europe models add 0.7 liters (5/8 Imp qt) when the oil cooler and hose are repaired or replaced.

*4: Turbo models

*5: For Middle East

*6: For Europe

Fuel

Recommended gasoline:

	VG30E	VG30ET
Europe except West Germany and Switzerland, Hong Kong, Saudi Arabia and Singapore	Above 97 octane (RON)	Above 97 octane (RON)
Switzerland, West Germany and Australia	—	Unleaded fuel of above 90 octane (RON)*
Except above countries	Above 88 octane (RON)	Above 97 octane (RON)

*: Do not use leaded gasoline. Using leaded gasoline will damage the catalytic converter.

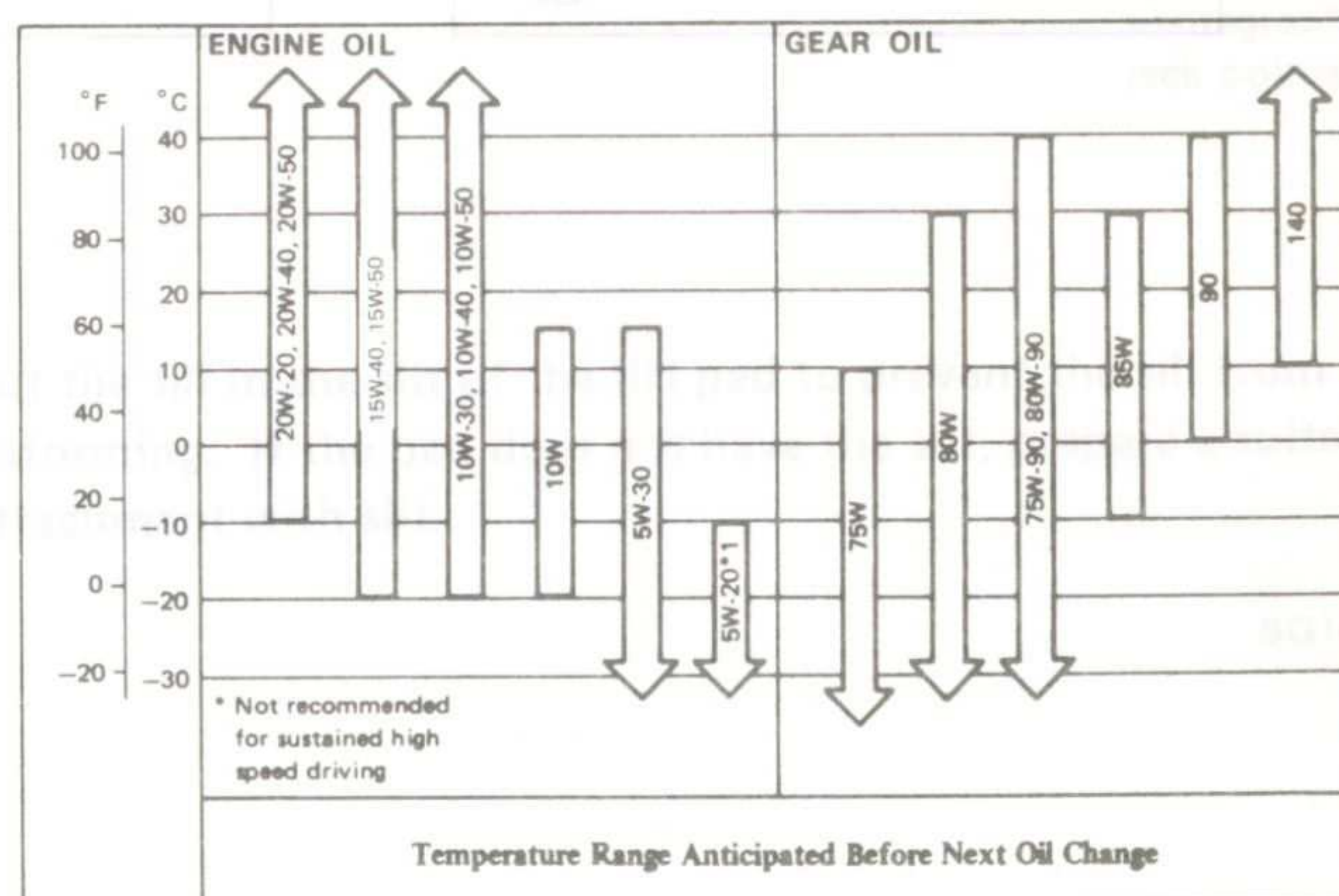
Lubricants

Lubricant	Specifications	Remarks
Gasoline engine oil*1		
Non-turbo model	API SE or SF	
Turbo model	API SF/CC or SF/CD*2	For further details, refer to the recommended SAE viscosity chart.
Gear oil		
Transmission	API GL-4	
Differential	API GL-5	
Automatic T/M and power steering fluid	Type DEXRON®	
Multi-purpose grease	NLGI No. 2	Lithium soap base
Brake and clutch fluid	DOT 3	US FMVSS No. 116
Anti-freeze	—	Ethylene glycol base

*1: On models equipped with a turbocharger, use 10W-30, 10W-40, 10W-50, 15W-40, 15W-50, 20W-20, 20W-40 or 20W-50 except under extremely cold conditions. Use 5W-30 only under extremely cold conditions.

*2: API SE is also recommended.

SAE Viscosity Number

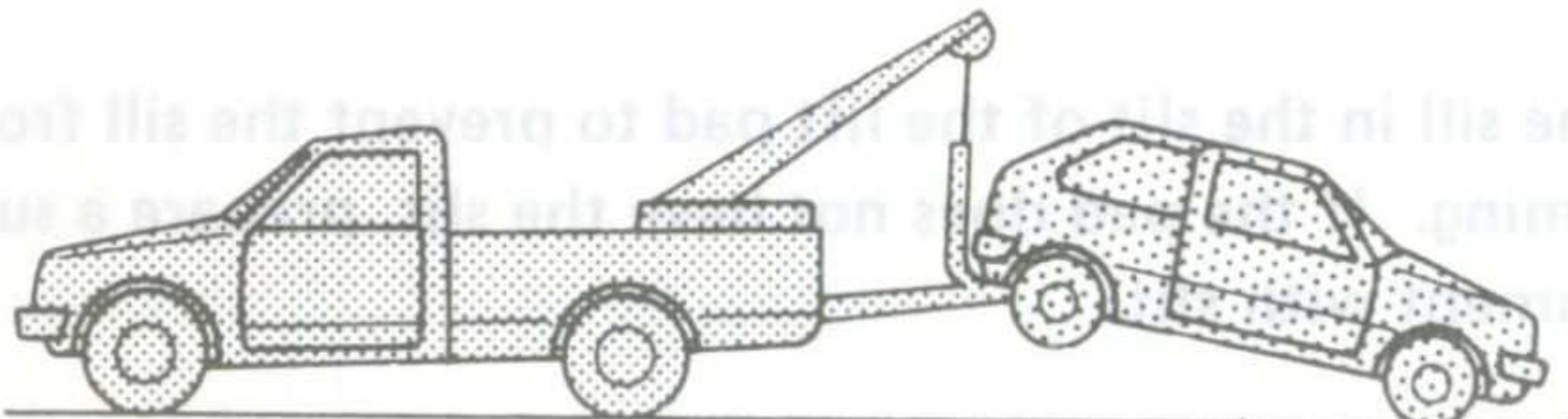


LIFTING POINTS AND TOW TRUCK TOWING

Tow Truck Towing

CAUTION:

- All applicable State or Provincial (in Canada) laws and local laws regarding the towing operation must be obeyed.
- It is necessary to use proper towing equipment to avoid possible damage to the vehicle during a towing operation.
Towing should be done in accordance with Towing Procedure Manual.
- Attach safety chains for all towing.
- When towing, make sure that the transmission, steering system and power train are in good order. If any unit is damaged, a dolly must be used.
- When towing with the front wheels on the ground:
Turn the ignition key to the "OFF" position and secure the steering wheel in a straight-ahead position with a rope or similar device. Never place the ignition key in the "LOCK" position. This will result in damage to the steering lock mechanism.
- When towing with the rear wheels on the ground, release the parking brake and move the gearshift lever to neutral ("N" position).
- Do not tow your vehicle by the front end.



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NISSAN recommends that vehicle be towed with the driving (rear) wheels off the ground as illustrated.

TOWING AN AUTOMATIC TRANSMISSION MODEL WITH FOUR WHEELS ON GROUND OR TOWING WITH FRONT WHEELS RAISED (With rear wheels on ground)

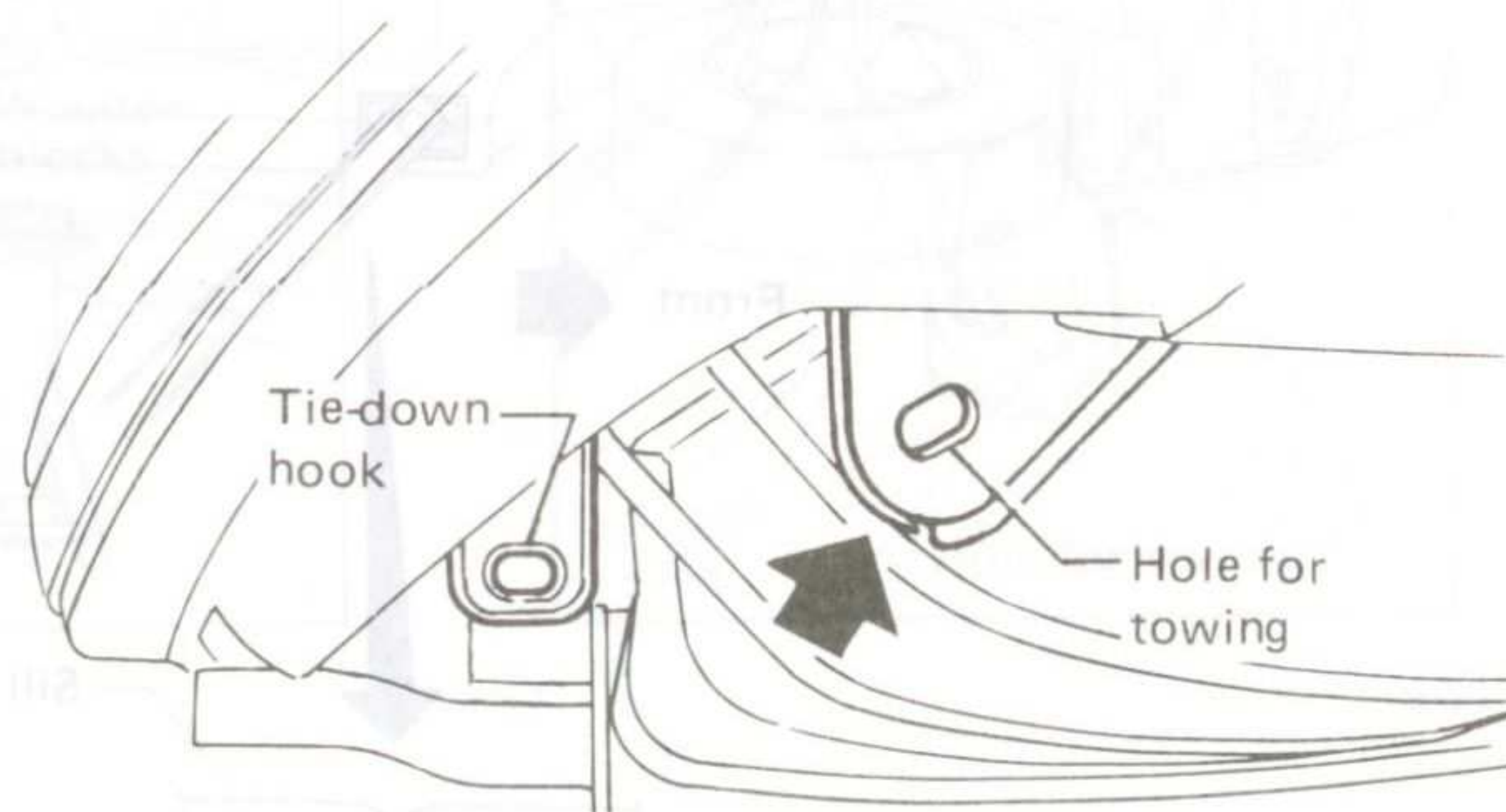
Observe the following restricted towing speeds and distance

Speed	km/h (MPH)	Below 50 (30)
Distance	km (miles)	Less than 65 (40)

If the speed or distance must be greater, remove the propeller shaft beforehand to prevent damage to the transmission.

TOWING POINT

Rear



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- Never tow the vehicle using only the towing hooks. Use proper towing equipment when towing. Otherwise, the vehicle body will be damaged.
- Always pull the cable straight out from the vehicle. Never pull on the hook at a sideways angle.

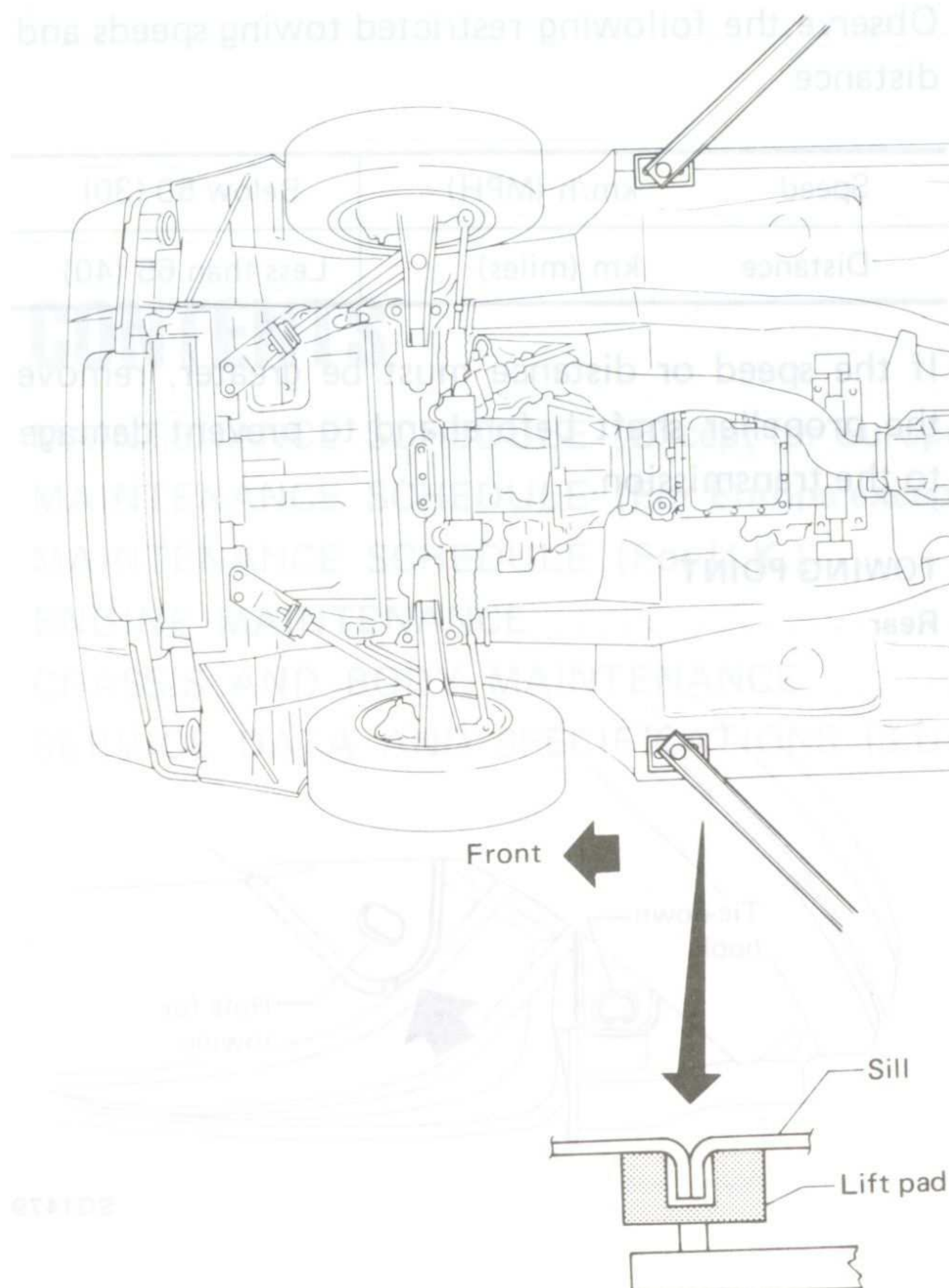
LIFTING POINTS AND TOW TRUCK TOWING

2-point Lift

WARNING:

When lifting the vehicle, open the lift arms as wide as possible and ensure that the front and rear of the vehicle are well balanced.

When setting the lift arm, do not allow the arm to contact the brake tubes and fuel lines.



Note: Front lift-up points are the same as pantagraph jack points.

Put the sill in the slit of the lift pad to prevent the sill from deforming. If the pad does not have the slit, prepare a suitable attachment with slit.

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