

GENERAL INFORMATION

GI

SECTION GI

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2. Before jacking up the vehicle, apply wheel chocks or other tie blocks to the wheels to prevent the vehicle from moving. After jacking up the vehicle, support the vehicle weight with rigid racks at the points designated for proper lifting and towing before working on the vehicle. These operations should be done on a level surface.

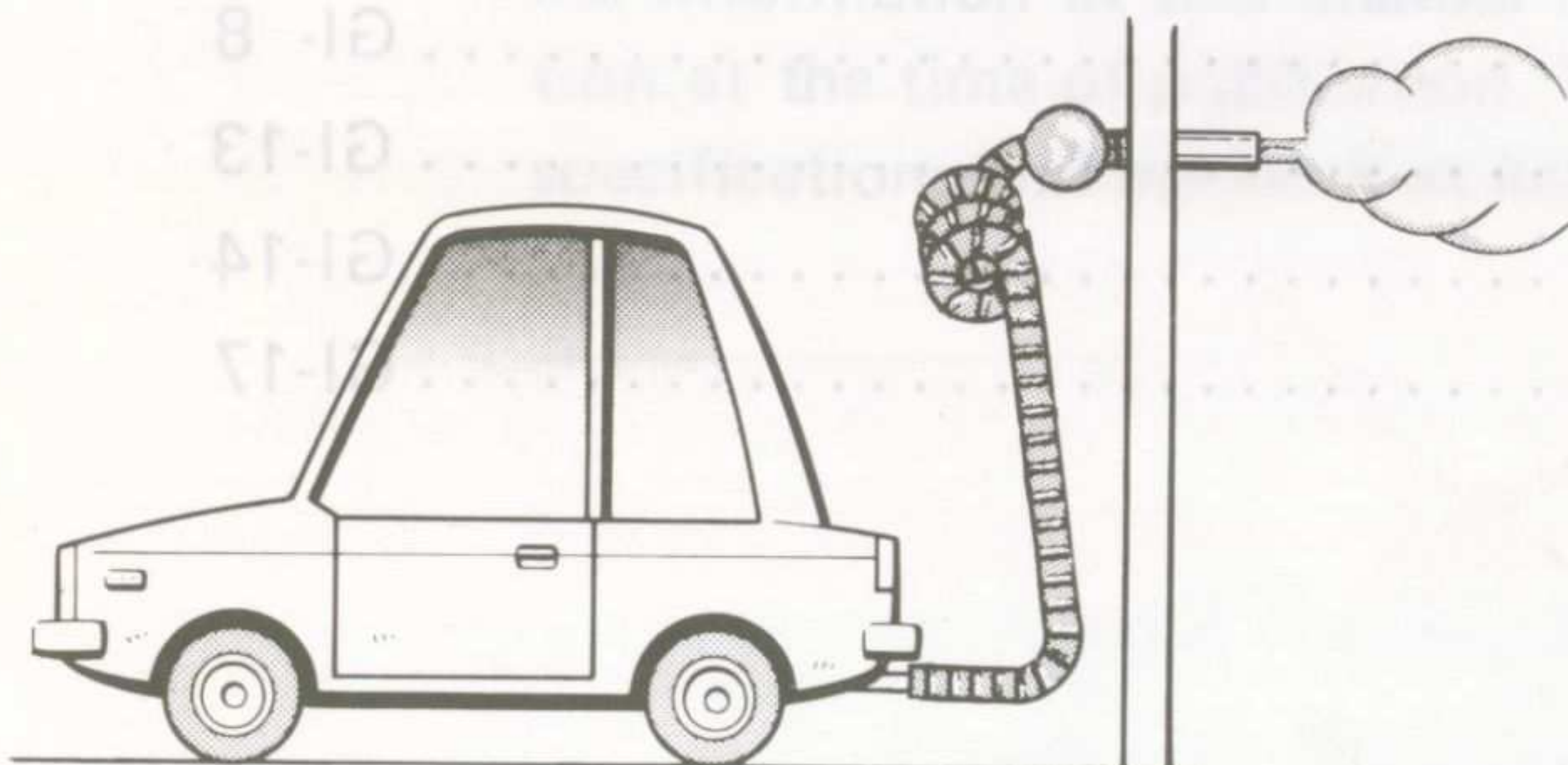


PRECAUTIONS

Observe the following precautions that are not described in each individual section to ensure safe and proper service operations.

1. Do not operate the engine for an extended period of time without proper exhaust ventilation.

Keep the work area well ventilated and free of any inflammable materials. Special care should be taken when handling any inflammable or poisonous materials, such as gasoline, refrigerant gas, etc. If you are working in a pit or other enclosed area, be sure to properly ventilate before working with hazardous materials. Do not smoke while working on the vehicle.



SGI285

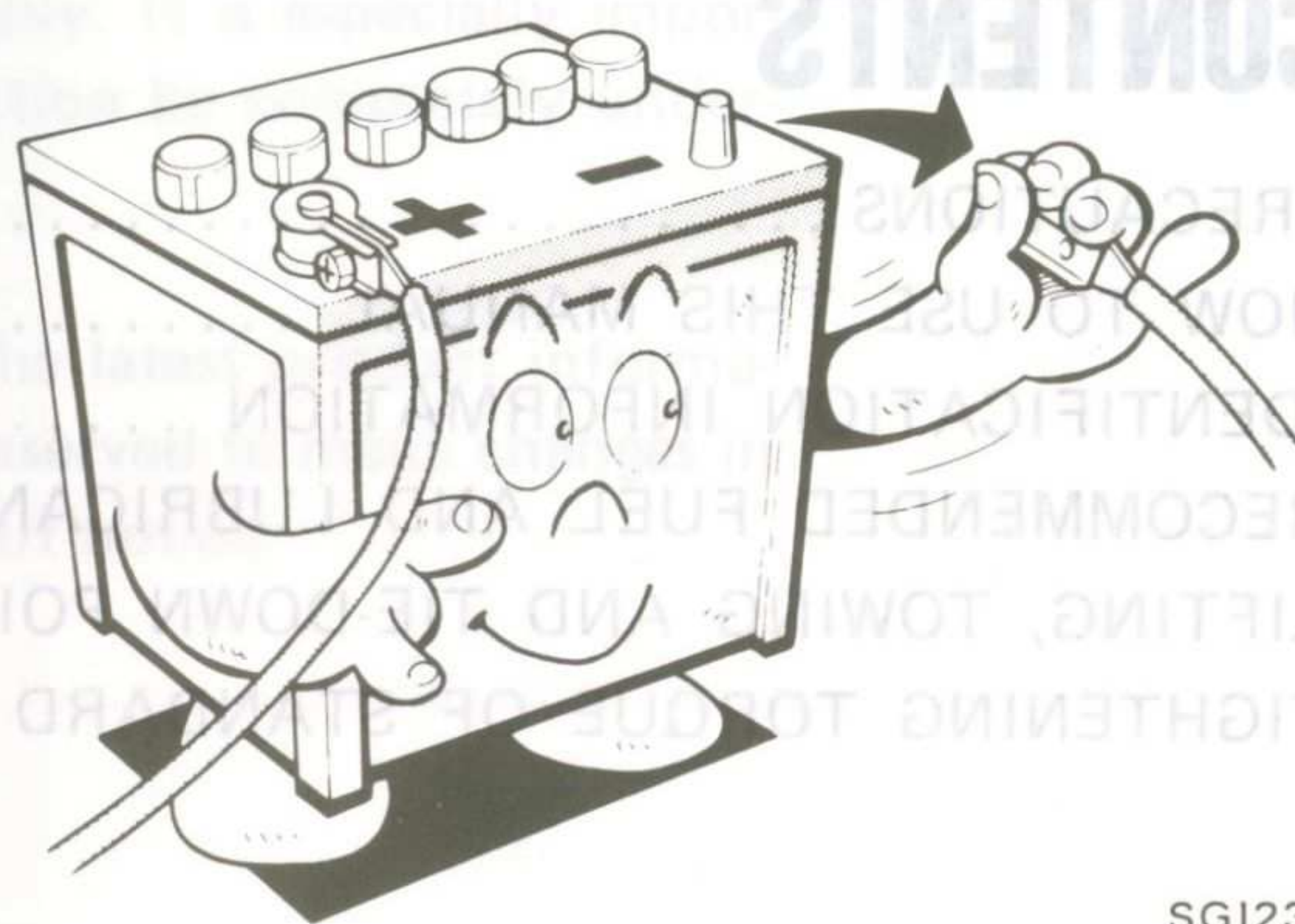
2. Before jacking up the vehicle, apply wheel chocks or other tire blocks to the wheels to prevent the vehicle from moving. After jacking up the vehicle, support the vehicle weight with rigid racks at the points designated for proper lifting and towing before working on the vehicle.

These operations should be done on a level surface.



SGI231

3. When removing a heavy component such as the engine or transaxle/transmission, take care not to lose your balance and drop it or cause it to hit against adjacent parts, especially against the brake parts such as brake tube and master cylinder.
4. Before starting repairs which do not require battery power, always turn off the ignition switch, then disconnect the ground cable from the battery to prevent accidental short circuit.



SGI232

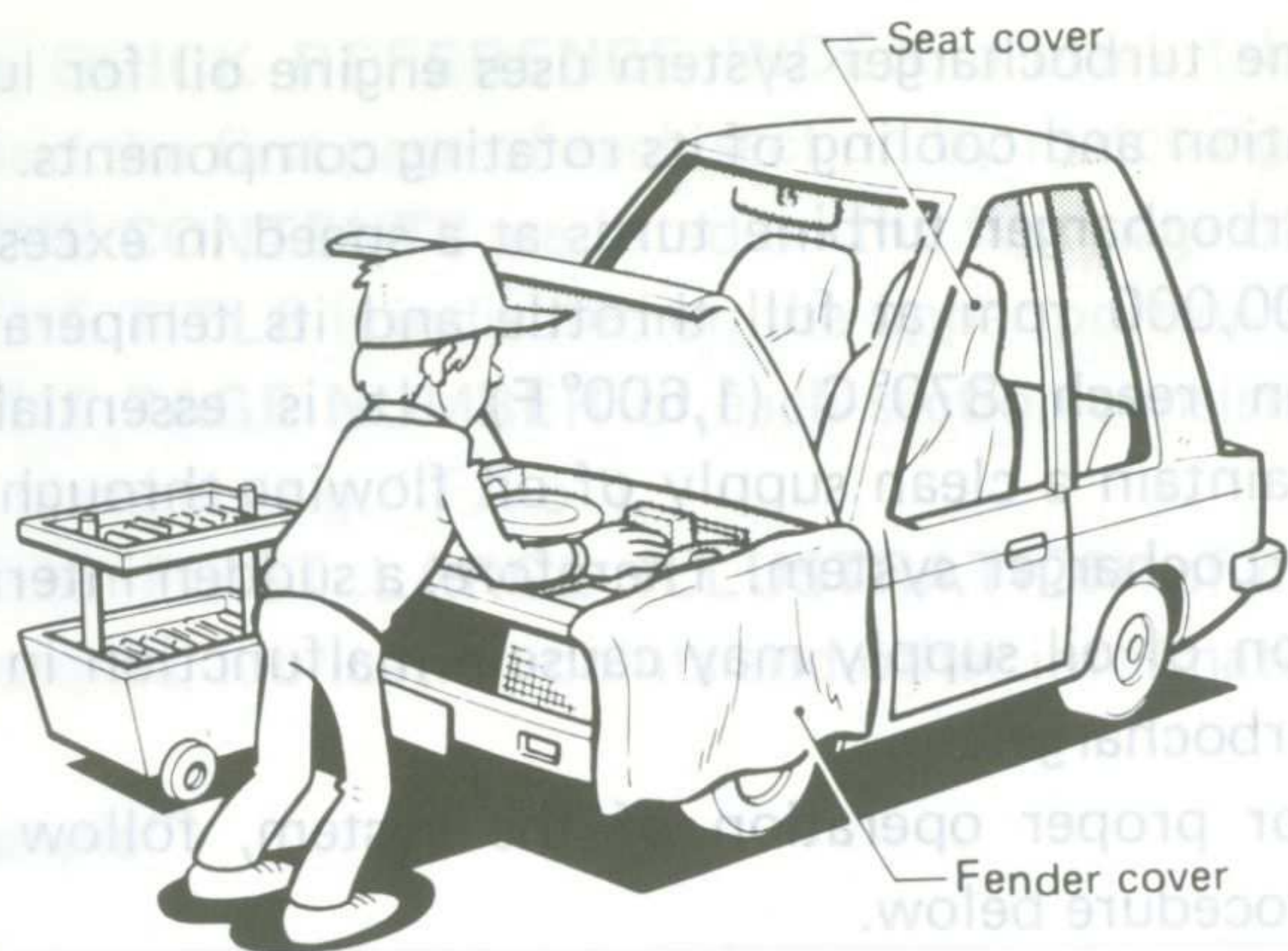
5. To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe and muffler. Do not remove the radiator cap when the engine is hot.



SGI233

6. To prevent scratches and soiling, protect fenders, upholstery and carpeting with appropriate covers before starting servicing. Take caution that keys, buckles or buttons on your person do not scratch the paint.

PRECAUTIONS



SG1234

7. Clean all disassembled parts in the designated liquid or solvent prior to inspection or assembly.
8. Replace oil seals, gaskets, packings, O-rings, locking washers, cotter pins, self-locking nuts, etc. as instructed and discard used ones.
9. Tapered roller bearings and needle bearings should be replaced as a set of inner and outer races.
10. Arrange the disassembled parts in accordance with their assembled locations and sequence.
11. Do not touch the terminals of electrical components which utilize microcomputers such as electronic control units. Static electrical charges stored in your body may damage internal electronic components.
12. After disconnecting vacuum hose or air hose, attach tag which indicates the proper connection to prevent incorrect connection.
13. Use only the lubricants specified in the applicable section or those indicated under "Recommended Fuel and Lubricants".
14. Use approved bonding agent, sealants or their equivalents when required.
15. The use of the proper tools and recommended essential tools should be used where specified for proper, safe and efficient service repairs.
16. When effecting repairs on the fuel, oil, water, vacuum or exhaust systems, make certain to check all affected lines for leaks.
17. Dispose of drained oil or the solvent used for cleaning parts in an appropriate manner.

E.C.C.S. Engine

1. Before connecting or disconnecting E.F.I. or E.C.C.S. harness connector to or from any E.F.I. or E.C.C.S. unit, be sure to turn the ignition switch to the "OFF" position and disconnect the negative battery terminal. Otherwise, there may be damage to control unit.
2. Before disconnecting pressurized fuel line from fuel pump to injectors, be sure to release fuel pressure to eliminate danger.
3. Be careful not to jar components such as control unit and air flow meter.



PRECAUTIONS

Precautions for E.F.I. or E.C.C.S. Engine

1. Before connecting or disconnecting E.F.I. or E.C.C.S. harness connector to or from any E.F.I. or E.C.C.S. unit, be sure to turn the ignition switch to the "OFF" position and disconnect the negative battery terminal. Otherwise, there may be damage to control unit.
2. Before disconnecting pressurized fuel line from fuel pump to injectors, be sure to release fuel pressure to eliminate danger.
3. Be careful not to jar components such as control unit and air flow meter.



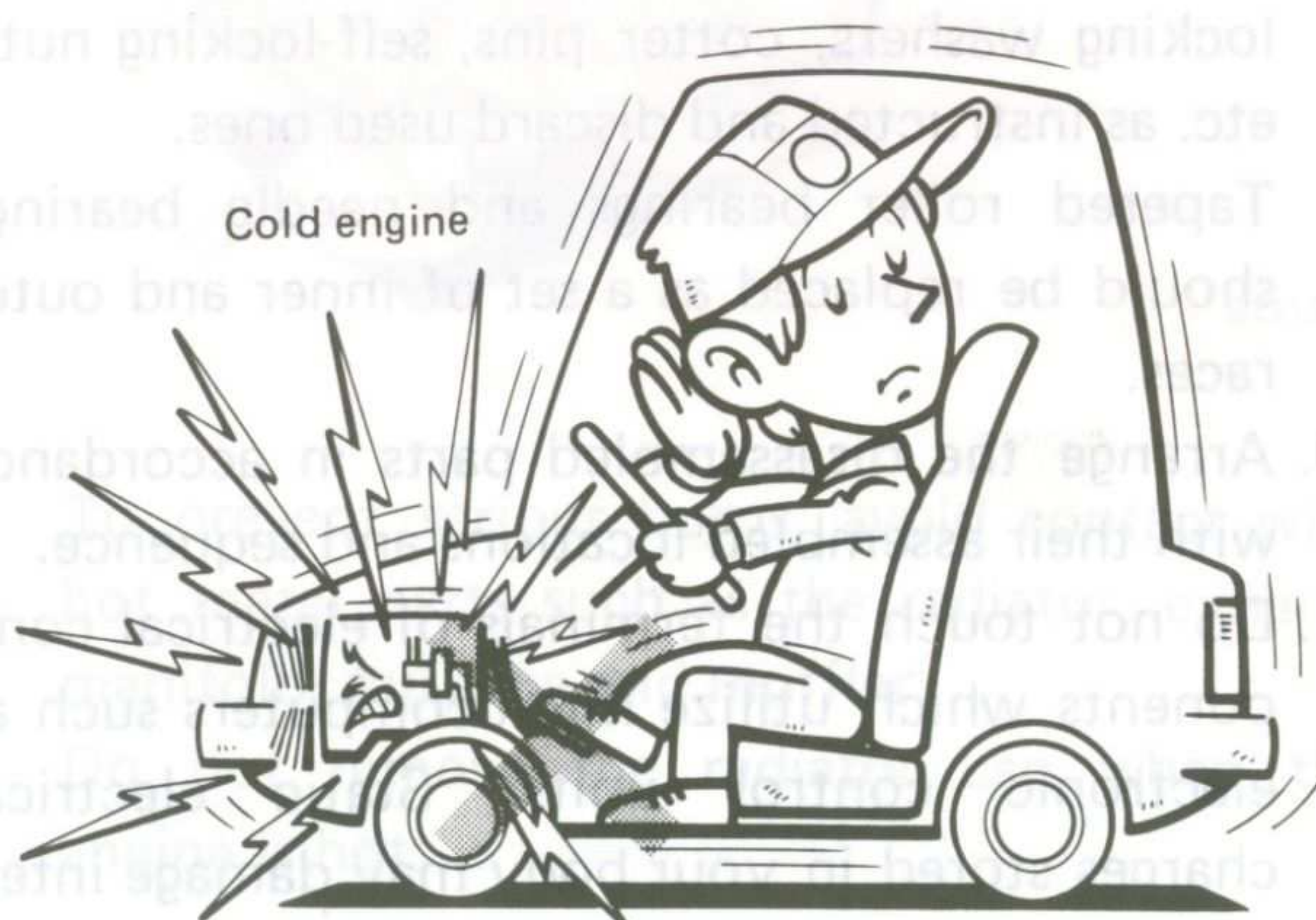
SGI291

Precautions for Turbocharger

The turbocharger system uses engine oil for lubrication and cooling of its rotating components. The turbocharger turbine turns at a speed in excess of 100,000 rpm at full throttle and its temperature can reach 870°C (1,600°F). It is essential to maintain a clean supply of oil flowing through the turbocharger system. Therefore, a sudden interruption of oil supply may cause a malfunction in the turbocharger.

For proper operation of the system, follow the procedure below.

1. Always use the recommended oil. Follow the instructions for proper time to change the oil and proper oil level.
2. Avoid accelerating engine to a high rpm immediately after starting.



SGI292

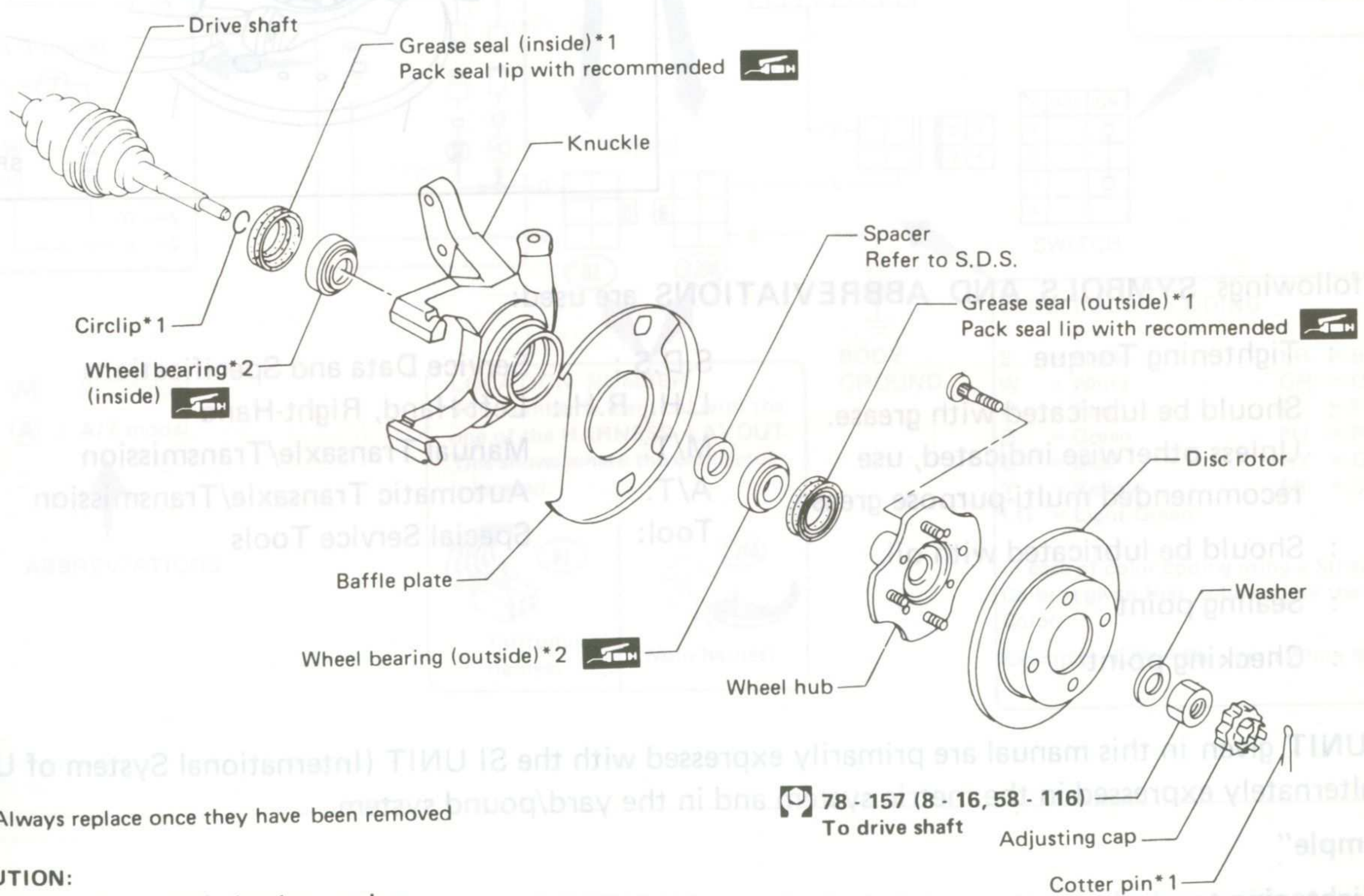
3. If engine had been operating at high rpm for an extended period of time, let it idle for a few minutes prior to shutting it off.

HOW TO USE THIS MANUAL

1. A QUICK REFERENCE INDEX, a black tab e.g. **FA** is provided on the first page. You can quickly find the first page of each section by matching it to the section's black tab.
2. THE CONTENTS are listed on the first page of each section.
3. THE TITLE is indicated on the upper portion of each page and shows the part or system.
4. THE PAGE NUMBER of each section consists of two letters, which designate the particular section, and a number (e.g. "FA-5").
5. THE FIRST LARGE ILLUSTRATION of each section is an exploded view and contains tightening torques, lubrication points and other information necessary to perform repairs.

"Example"

FRONT AXLE — Wheel Hub and Knuckle



*1 Always replace once they have been removed

*2

CAUTION:

When replacing wheel bearing, replace inner and outer wheel bearings at the same time to prevent mix use of bearings of different brands.

: N·m (kg·m, ft·lb)

SFA494

HOW TO USE THIS MANUAL

6. THE FOLLOWING SMALL ILLUSTRATION

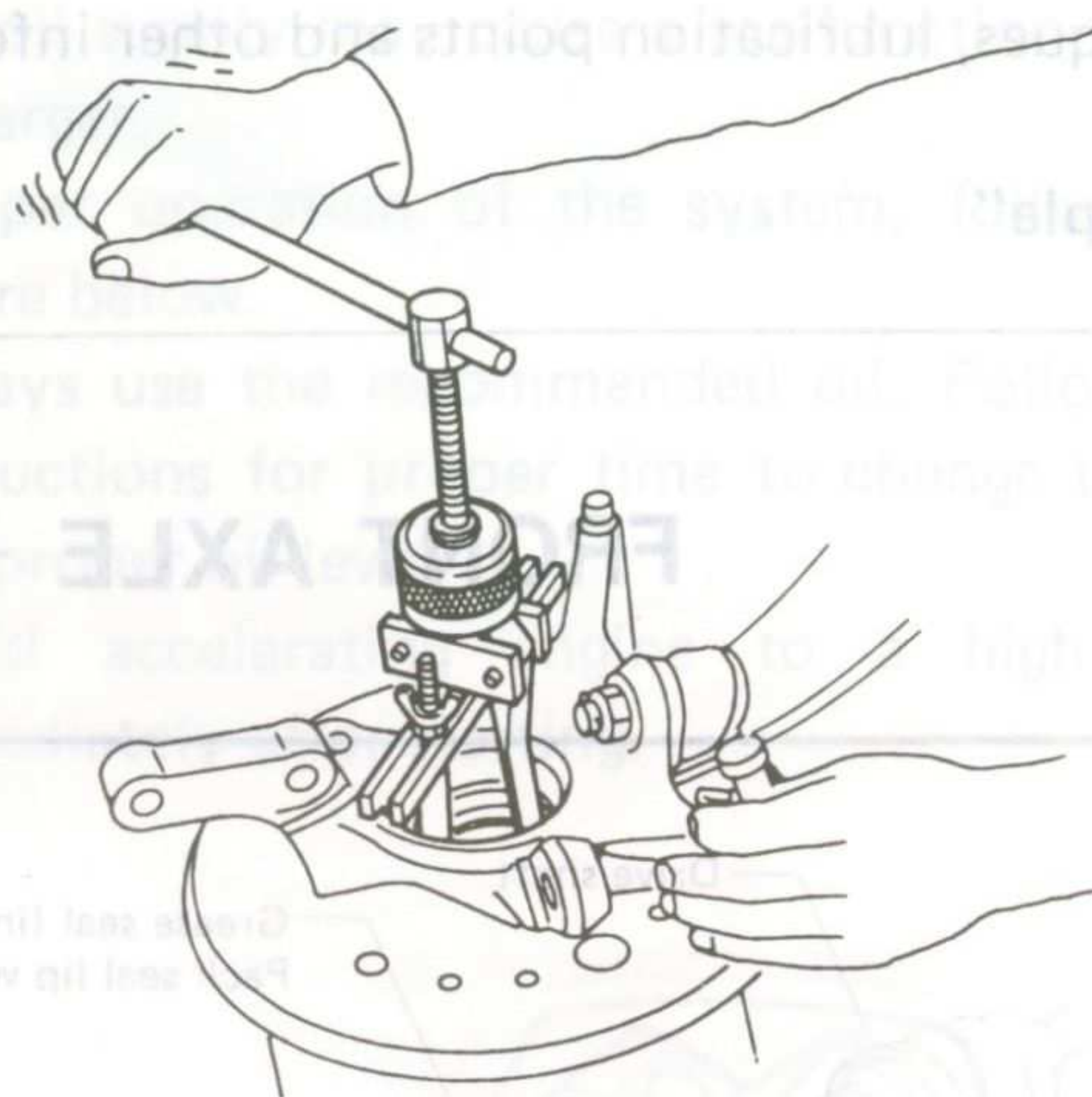
shows the important steps such as inspection, use of special tools, knacks of work and hidden or tricky steps which are not shown in the previous large illustration.

Assembly, inspection and adjustment procedures for the complicated units such as the automatic transaxle or transmission, etc. are presented in a step-by-step format where necessary.

"Example"

KNUCKLE

- Remove wheel bearing outer races. When replacing wheel bearing, replace as a set of outer and inner wheel bearing assembly.



SFA540

7. The followings **SYMBOLS AND ABBREVIATIONS** are used:



: Tightening Torque



: Should be lubricated with grease. Unless otherwise indicated, use recommended multi-purpose grease.



: Should be lubricated with oil.



: Sealing point



: Checking point

S.D.S.: Service Data and Specifications
L.H., R.H.: Left-Hand, Right-Hand
M/T: Manual Transaxle/Transmission
A/T: Automatic Transaxle/Transmission
Tool: Special Service Tools

8. The **UNIT** given in this manual are primarily expressed with the SI UNIT (International System of Unit), and alternately expressed in the metric system and in the yard/pound system.

"Example"

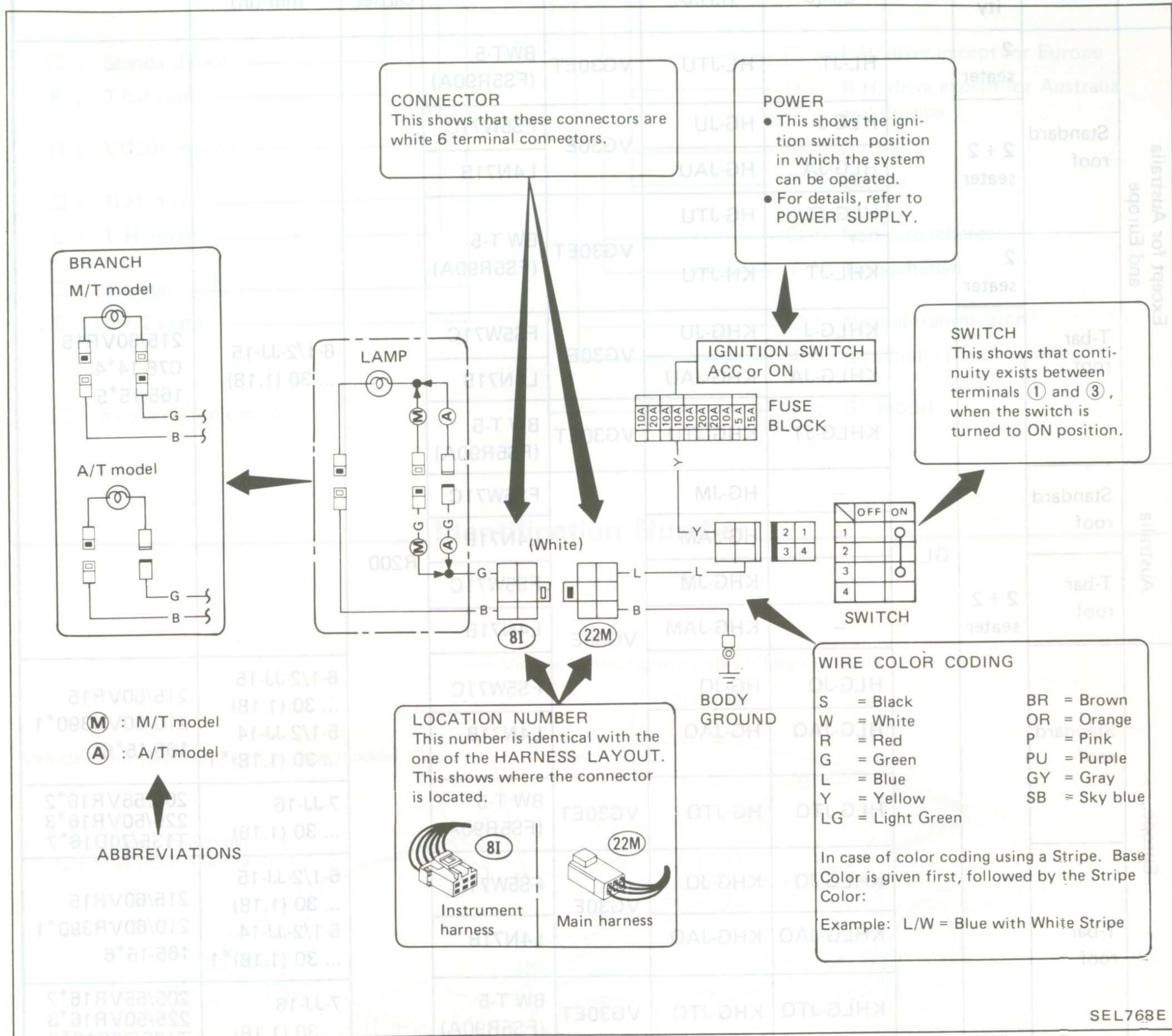
Tightening torque

59 - 78 N·m (6.0 - 8.0 kg-m, 43 - 58 ft-lb)

HOW TO USE THIS MANUAL

9. Symbols used in **WIRING DIAGRAM** are shown below.

"Example"



10. **TROUBLE DIAGNOSES AND CORRECTIONS** are included in sections dealing with complicated units.
11. **SERVICE DATA AND SPECIFICATIONS** and a list of **SPECIAL SERVICE TOOLS** are contained at the end of each section for quick reference of data and special tools.
12. The captions **WARNING** and **CAUTION** warn you of steps that must be followed to prevent personal injury and/or damage to some part of the vehicle.

IDENTIFICATION INFORMATION

Model Variation

Des- tina- tion	Body	Seat- ing capac- ity	Class	Model		Engine	Transmis- sion	Differ- ential carrier	Road wheel size ... offset mm (in)	Tire size		
				L.H.D.	R.H.D.							
Except for Australia and Europe	Standard roof	2 seater	GL	HL-JT	HL-JTU	VG30ET	BWT-5 (FS5R90A)	R200	6-1/2-JJ-15 ... 30 (1.18)	215/60VR15 C78-14*4 165-15*5		
		2 + 2 seater		HLG-J	HG-JU	VG30E	FS5W71C					
				HLG-JA	HG-JAU		L4N71B					
				HLG-JT	HG-JTU		VG30ET				BW T-5 (FS5R90A)	
	T-bar roof	2 seater		KHL-JT	KH-JTU	VG30E					FS5W71C	
		KHLG-J		KHG-JU	VG30E						L4N71B	
				KHLG-JA			KHG-JAU				L4N71B	
				KHLG-JT			KHG-JTU				VG30ET	BW T-5 (FS5R90A)
		Australia		Standard roof	—		HG-JM				VG30E	FS5W71C
					—		HG-JAM					L4N71B
T-bar roof	—		KHG-JM	FS5W71C								
	—		KHG-JAM	L4N71B								
Europe	Standard roof		HLG-JQ	HG-JQ	VG30ET	FS5W71C	6-1/2-JJ-15 ... 30 (1.18) 5-1/2-JJ-14 ... 30 (1.18)*1	215/60VR15 210/60VR390*1 165-15*6				
			HLG-JAQ	HG-JAQ		L4N71B						
			HLG-JTQ	HG-JTQ		BW T-5 (FS5R90A)			7-JJ-16 ... 30 (1.18)	205/55VR16*2 225/50VR16*3 T135/70D16*7		
			KHLG-JQ	KHG-JQ		VG30E			FS5W71C	6-1/2-JJ-15 ... 30 (1.18) 5-1/2-JJ-14 ... 30 (1.18)*1	215/60VR15 210/60VR390*1 165-15*6	
	KHLG-JAQ		KHG-JAQ	L4N71B								
	T-bar roof		KHLG-JTQ	KHG-JTQ	VG30ET	BW T-5 (FS5R90A)	7-JJ-16 ... 30 (1.18)	205/55VR16*2 225/50VR16*3 T135/70D16*7				

*1: For England

*2: Front

*3: Rear

*4: Space saver spare tire (Non-turbo model)

*5: Space saver spare tire

*6: Space saver spare tire (L.H. drive model)

*7: T-type spare tire (L.H. drive model)

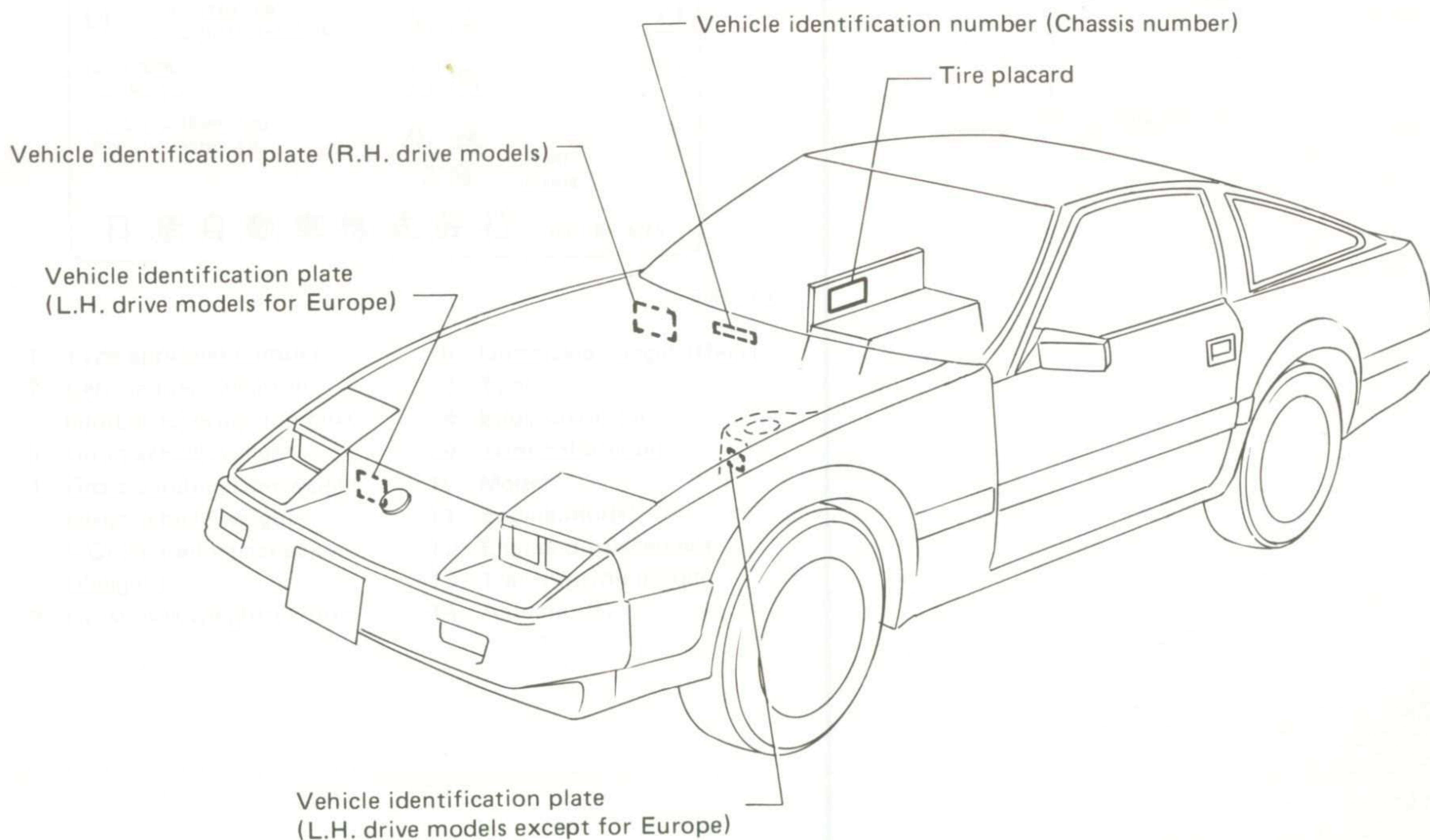
IDENTIFICATION INFORMATION

Model Variation (Cont'd)

Prefix and suffix designations

	K	H	L	G	Z31	J	A	T	U	
☐ : Standard roof										☐ : L.H. drive except for Europe
K : T-bar roof										U : R.H. drive except for Australia and Europe
H : VG30E engine										M : Australia
☐ : R.H. drive										Q : Europe
L : L.H. drive										☐ : Non-turbocharger
☐ : 2 seater										T : Turbocharger
G : 2 + 2 seater										☐ : Manual transmission
										A : Automatic transmission
☐ : means no indication.										J : GL model

Identification Number



SGI317

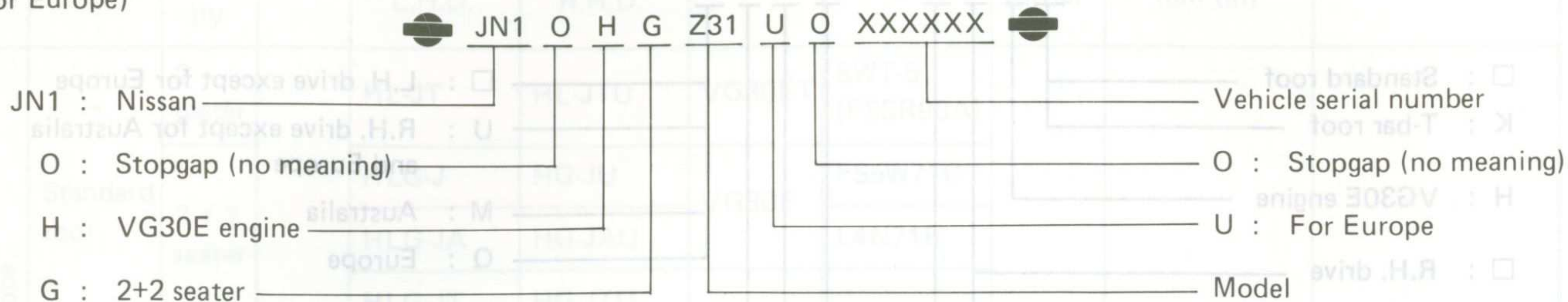
IDENTIFICATION INFORMATION

Identification Number (Cont'd)

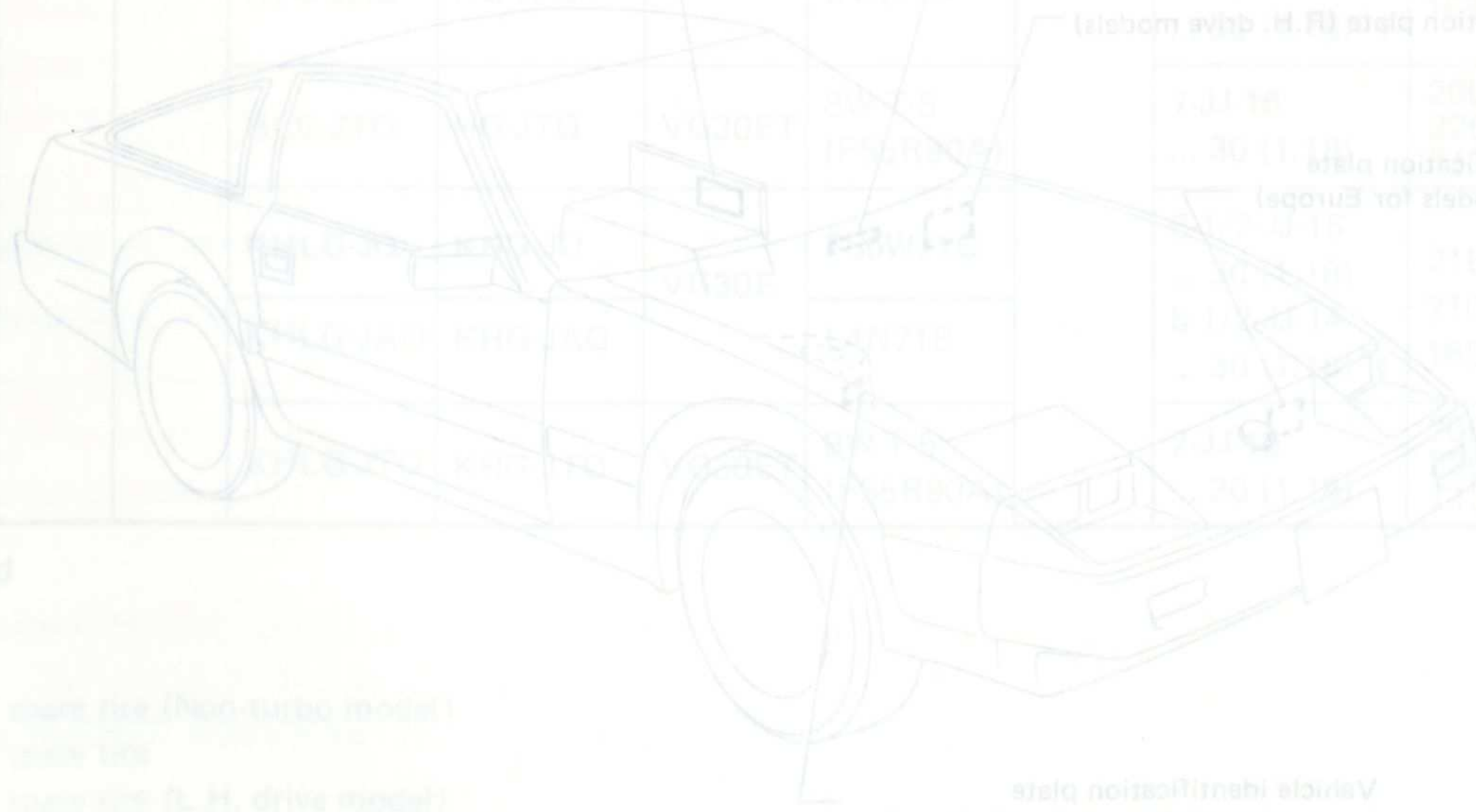
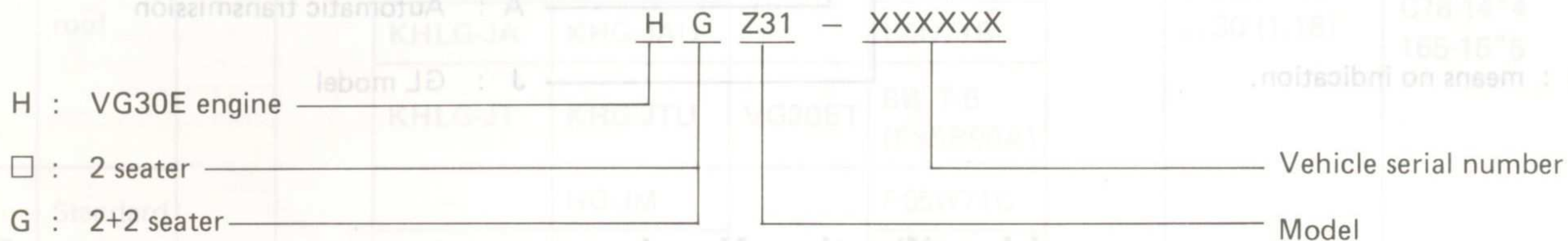
VEHICLE IDENTIFICATION NUMBER (Chassis number)

Prefix and suffix designations

(For Europe)



(Except for Europe)



IDENTIFICATION INFORMATION

Identification Number (Cont'd)

IDENTIFICATION PLATE

Europe

NISSAN MOTOR CO., LTD. JAPAN			
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SGI025

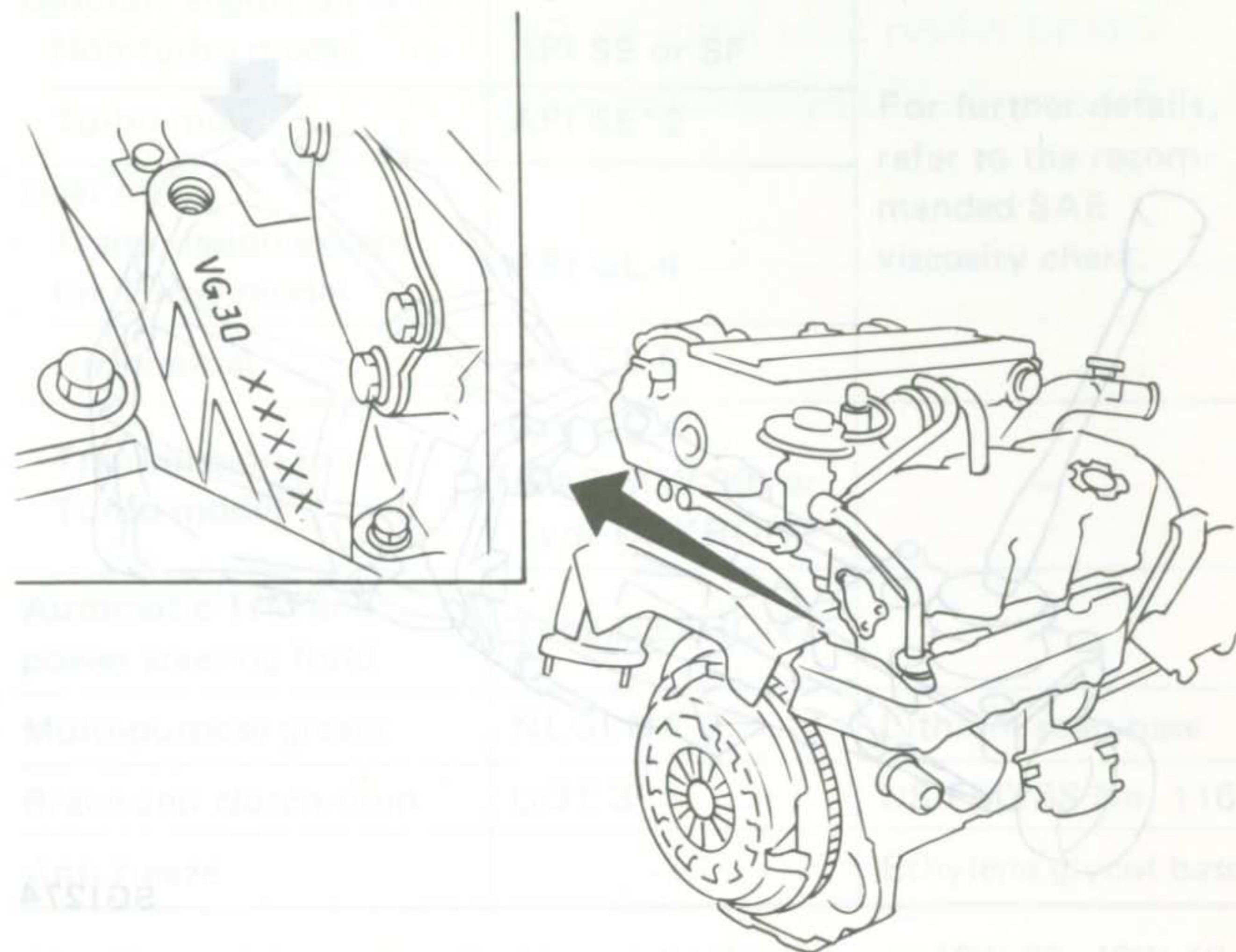
Except Europe

NISSAN MOTOR CO., LTD. JAPAN			
型式 TYPE TIPO			
CHASSIS NO. NO. DE CHASIS			
MODEL MODELO			
カラー COLOR TRIM トリム COLOR GUARNICION			
エンジン ENGINE ジン MOTOR			
ミッション TRANS., AXLE アクスル TRANS., EJE			
工場 PLANT PLANTA			
日産自動車株式会社 MADE IN JAPAN			

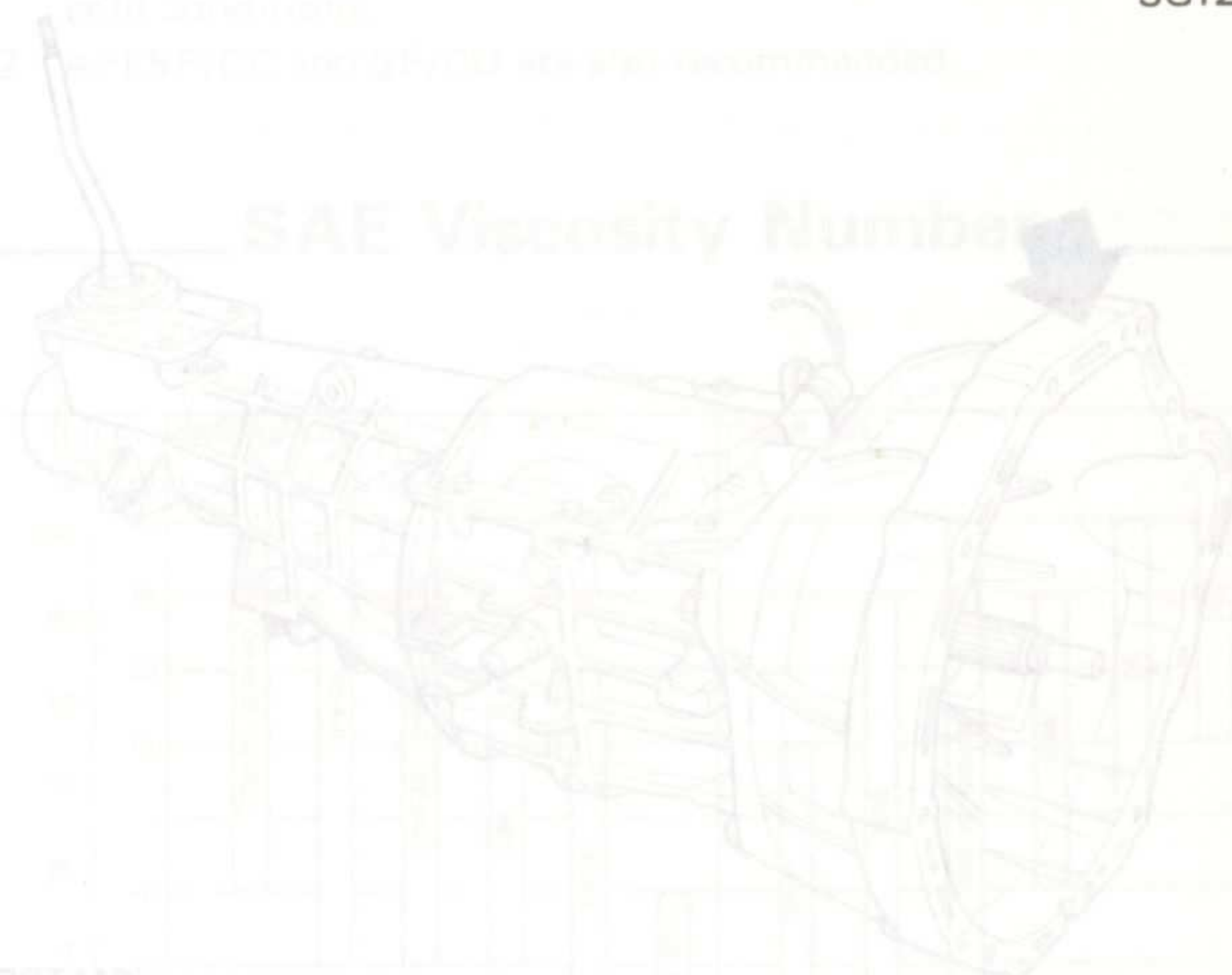
SGI316

- | | |
|--|----------------------------|
| 1 Type approval number | 6 Gross axle weight (Rear) |
| 2 Vehicle identification number (Chassis number) | 7 Type |
| 3 Gross vehicle weight | 8 Body color code |
| 4 Gross combination weight Gross vehicle weight + Gross trailing capacity (Weight) | 9 Trim color code |
| 5 Gross axle weight (Front) | 10 Model |
| | 11 Engine model |
| | 12 Engine displacement |
| | 13 Transmission model |
| | 14 Axle model |

ENGINE SERIAL NUMBER



SGI279



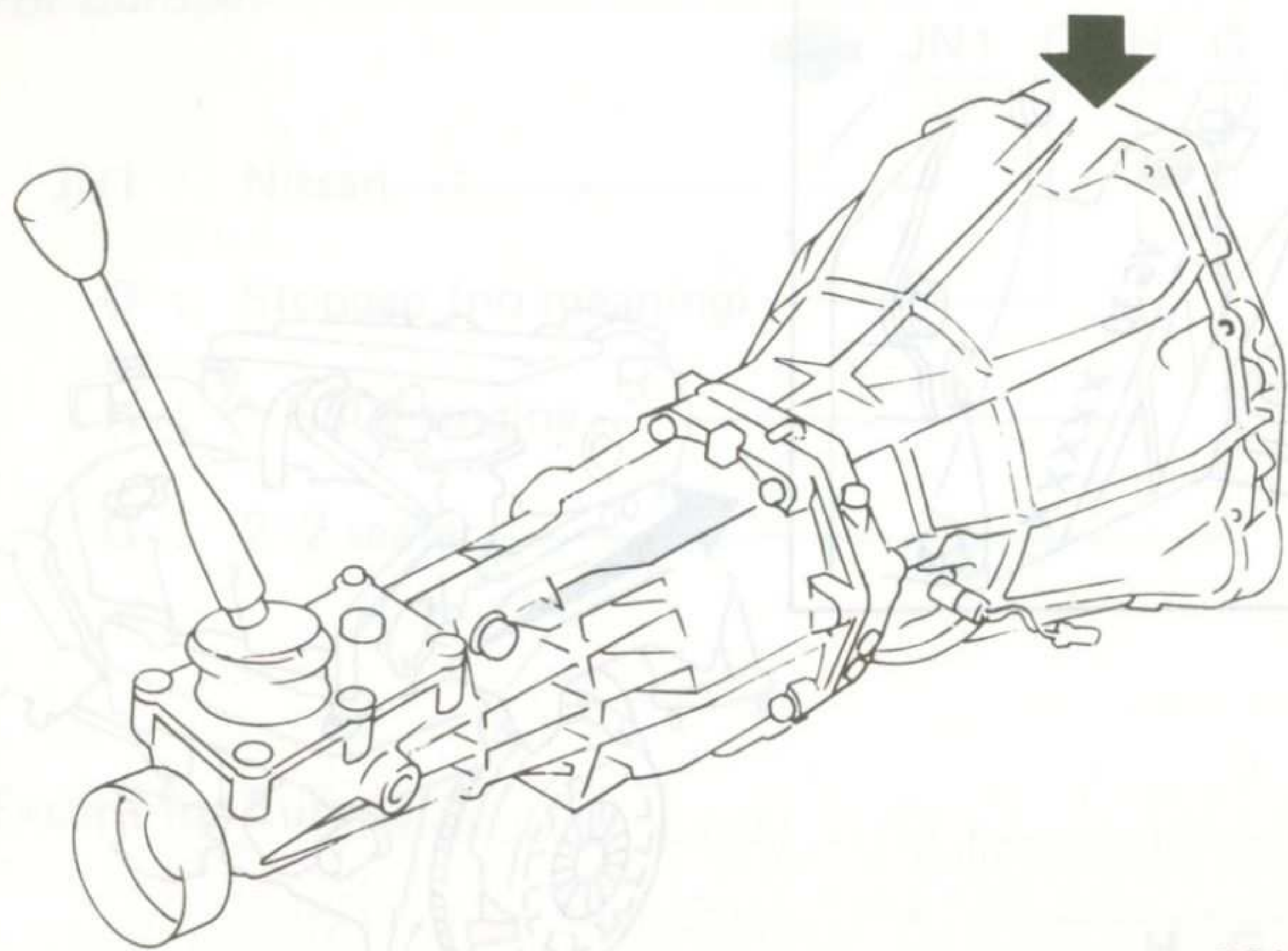
IDENTIFICATION INFORMATION

Identification Number (Cont'd)

Dimension

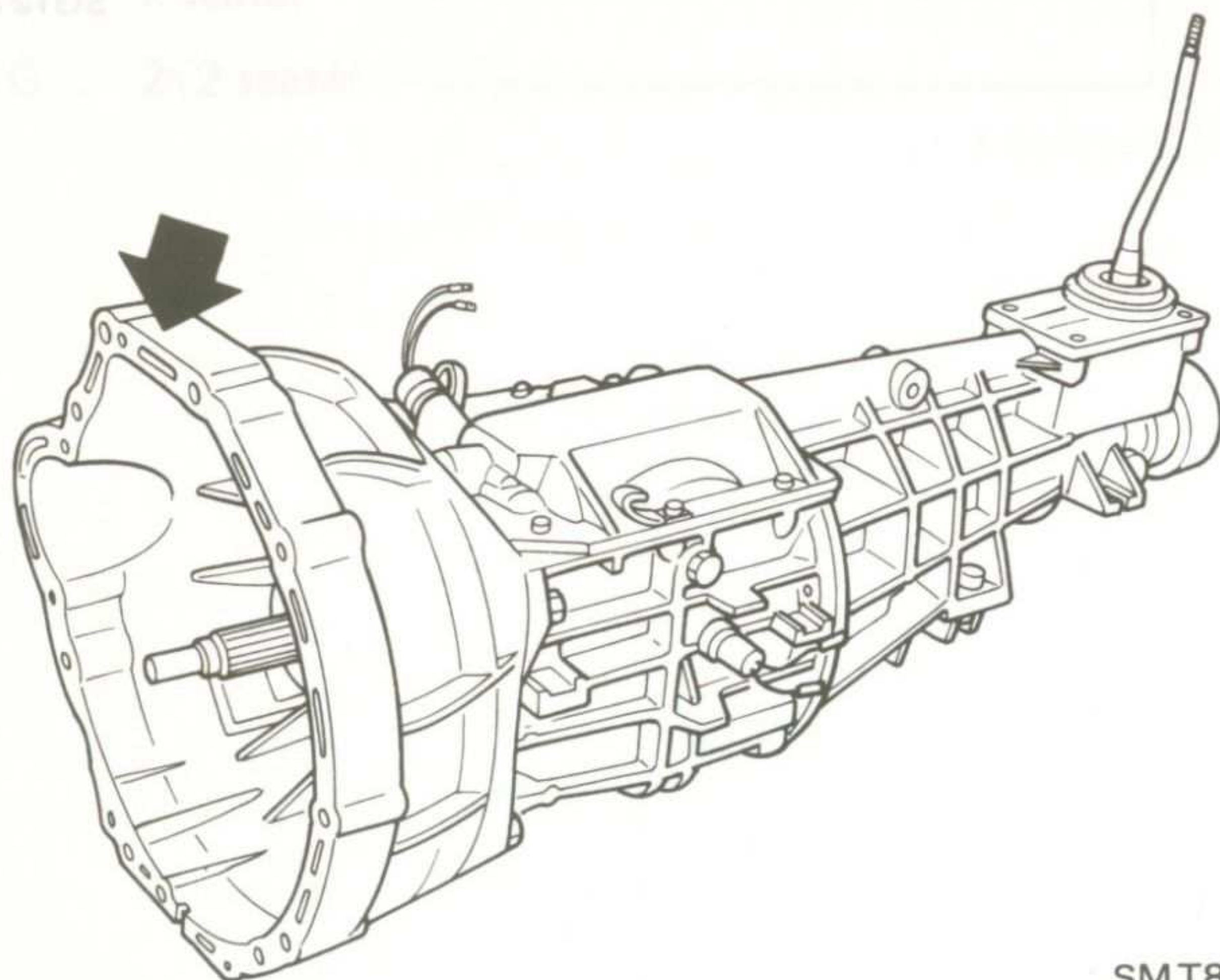
MANUAL TRANSMISSION NUMBER

FS5W71C for non-turbocharger model



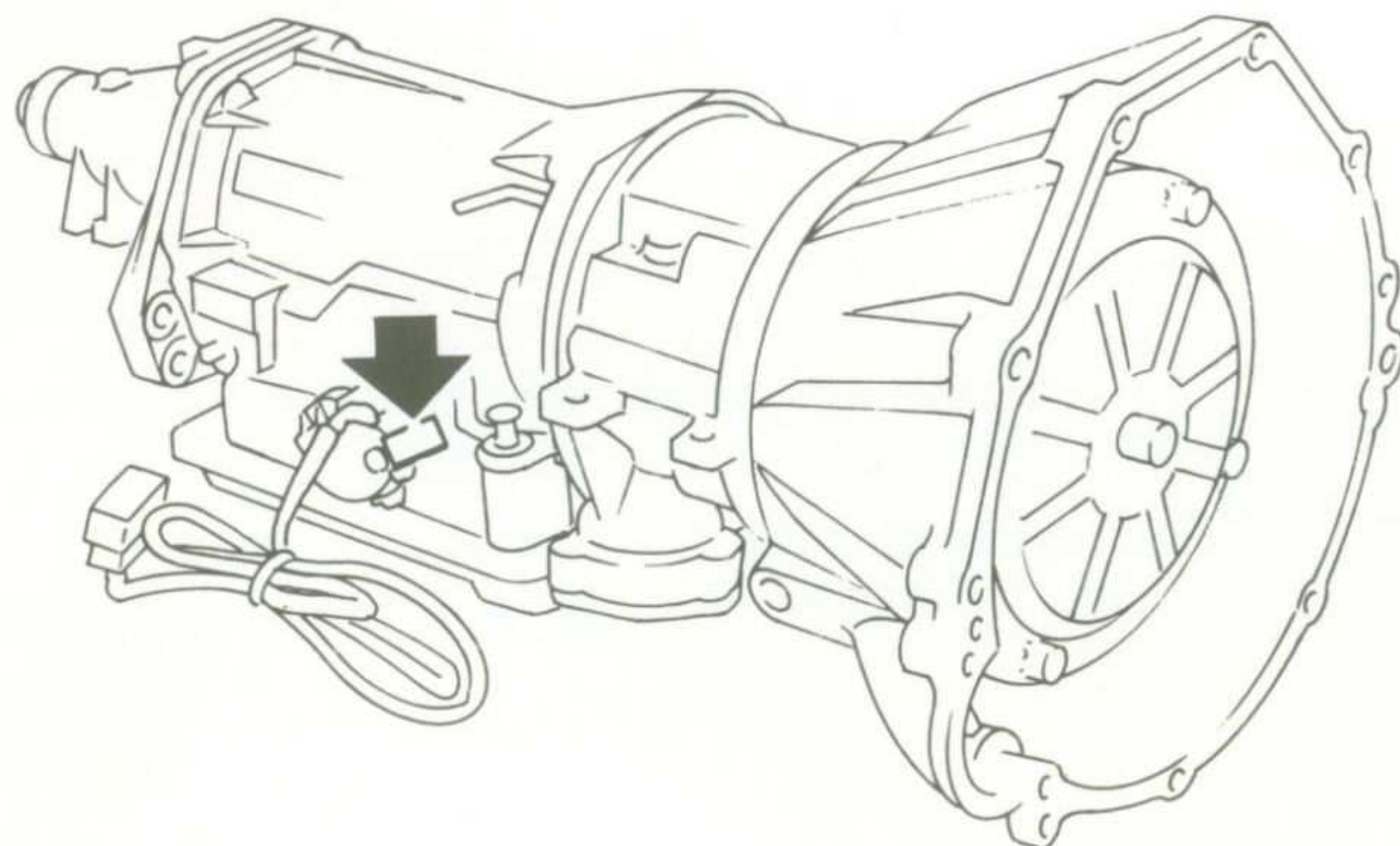
SGI274

BW T-5 (FS5R90A) for turbocharger model



SMT852

AUTOMATIC TRANSMISSION NUMBER



SGI273

Model		2 seater	2+2 seater
Item			
Overall length	mm (in)	4,335 (170.7)	4,535 (178.5)*2, *3
			4,540 (178.7)*1
Overall width	mm (in)	1,690 (66.5) 1,725 (67.9)*4	1,725 (67.9)
Overall height	mm (in)	1,295 (51.0)	1,310 (51.6)
Wheelbase	mm (in)	2,320 (91.3)	2,520 (99.2)
Tread	Front mm (in)	1,415 (55.7)	
	Rear mm (in)	1,435 (56.5)	
Min. ground clearance		150 (5.9)	
Over-hand	Front mm (in)	945 (37.2), 950 (37.4)*1	
	Rear mm (in)	1,070 (42.1)	

*1 For Europe

*2 For Australia

*3 Except Europe and Australia

*4 Model with side molding

RECOMMENDED FUEL AND LUBRICANTS

Approximate Refill Capacities

	Liter	Imp measure
Fuel tank	72, 77*1	15-7/8 gal, 17 gal*1
Engine coolant	10.5*2	9-1/4 qt*2
	11.0	9-5/8 qt
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	1.9, 2.1*4	3-3/8 pt, 3-3/4 pt*4
A/T	7.0	6-1/8 qt
Final drive gear	1.3	1-1/8 qt
	1.8*5	1-5/8 qt*5
	2.1*6	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 equipped with oil cooler for Europe.

*5 For Middle East

*6 For Europe

Fuel

Recommended gasoline:

	VG30E	VG30ET
Europe, Hong Kong, Saudi Arabia and Singapore	Above 97 octane (RON)	Above 97 octane (RON)
Switzerland and Sweden	Above 90 octane (RON)	
Australia	Above 92 octane (RON)	
Except above countries	Above 88 octane (RON)	

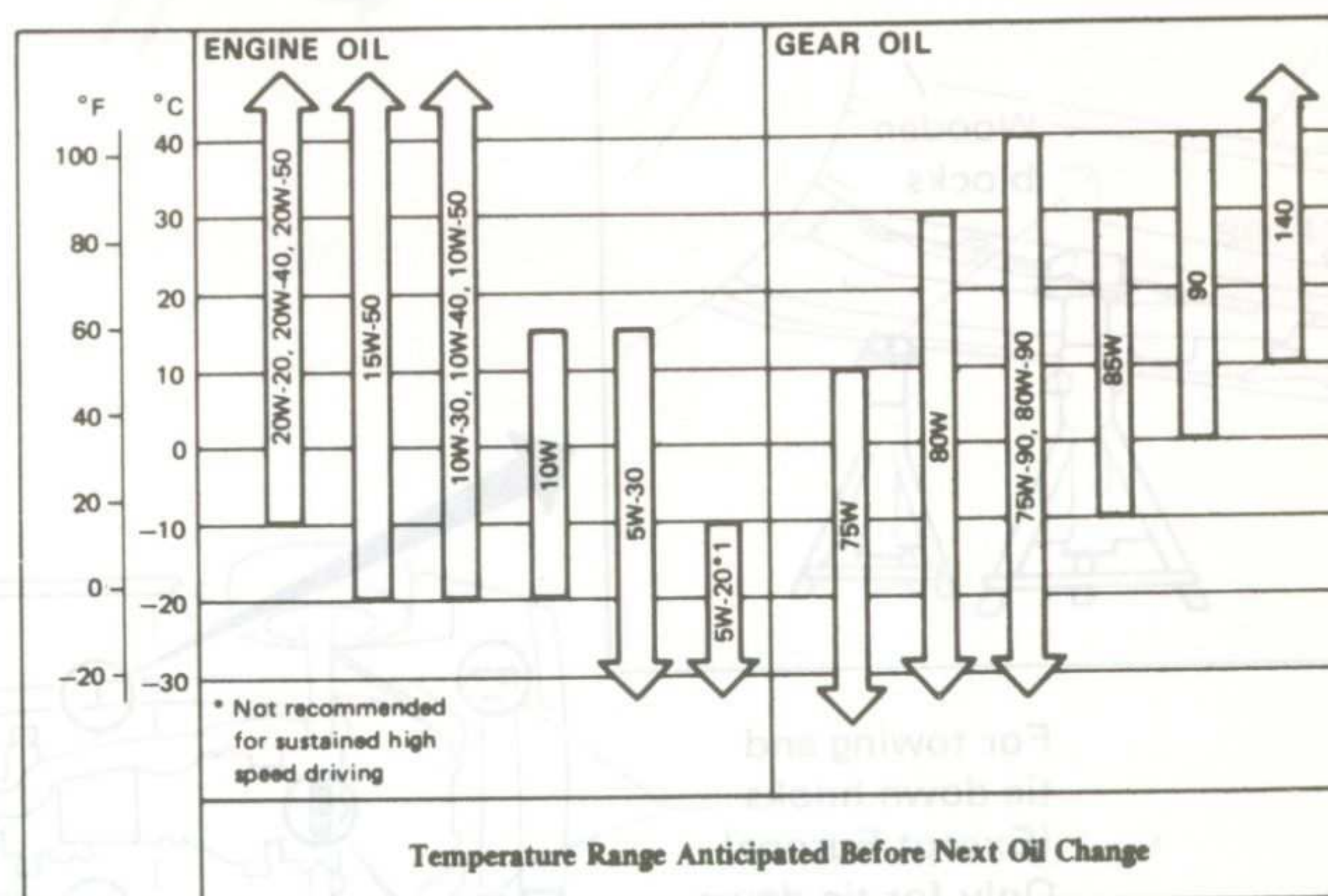
Lubricants

Lubricant	Specifications	Remarks
Gasoline engine oil*1		
Non-turbo model	API SE or SF	For further details, refer to the recommended SAE viscosity chart.
Turbo model	API SE*2	
Gear oil		
Transmission except for Turbo model	API GL-4	—
Differential	API GL-5	
Transmission for Turbo model	API GL-4 (SAE 80W-90) or Type DEXRON	—
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-50, 20W-20, 20W-40 or 20W-50 except under extremely cold conditions. Use 5W-30 only under extremely cold conditions.

*2: API SF/CC and SF/CD are also recommended.

SAE Viscosity Number

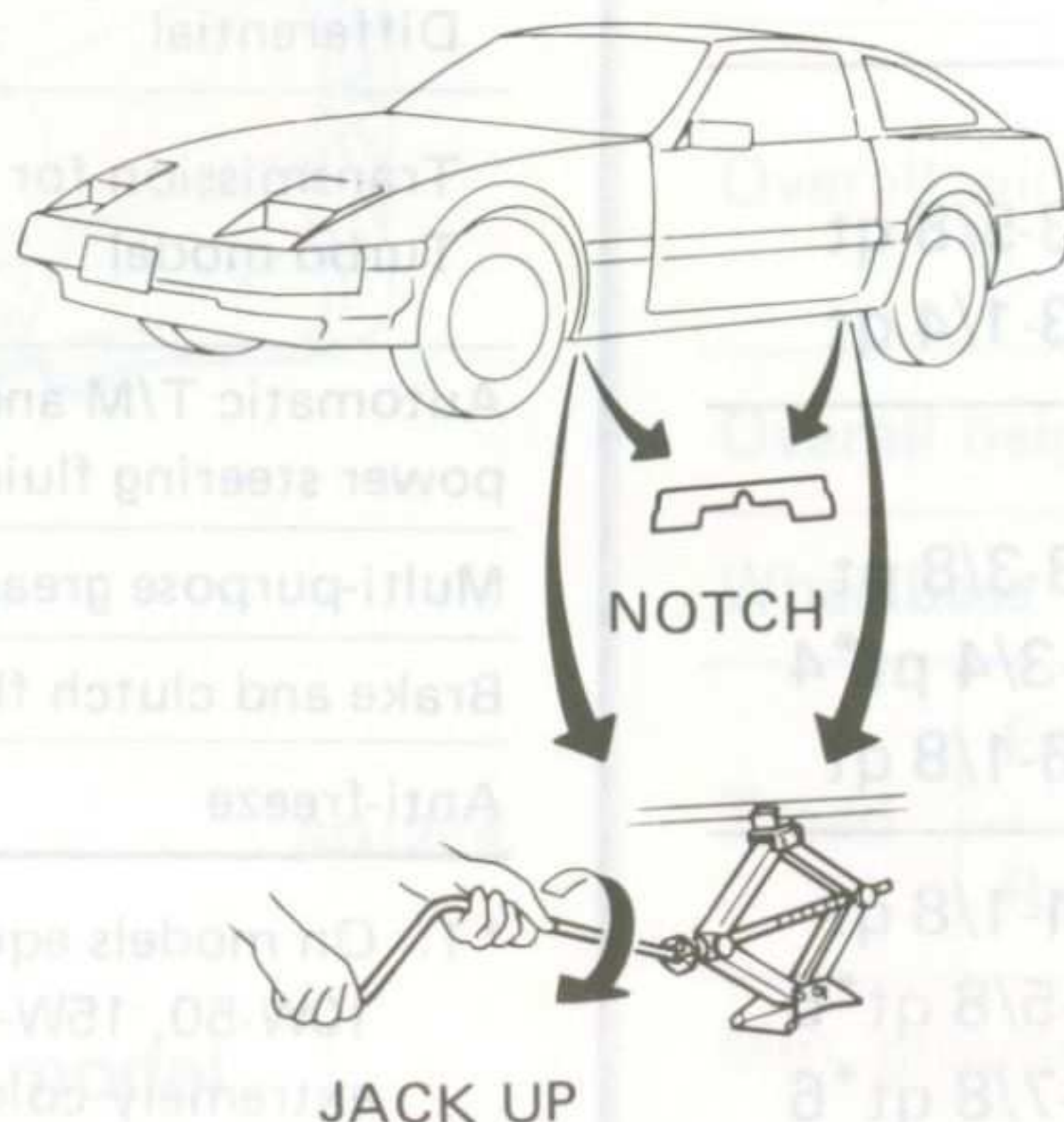


LIFTING, TOWING AND TIE-DOWN POINTS

WARNING:

- Never get under the vehicle while it is supported only by the jack. Always use safety stands to support frame when you have to get under the vehicle.
- Place wheel chocks at both front and back of the wheel which is diagonally opposite the jack position.

Pantograph Jack

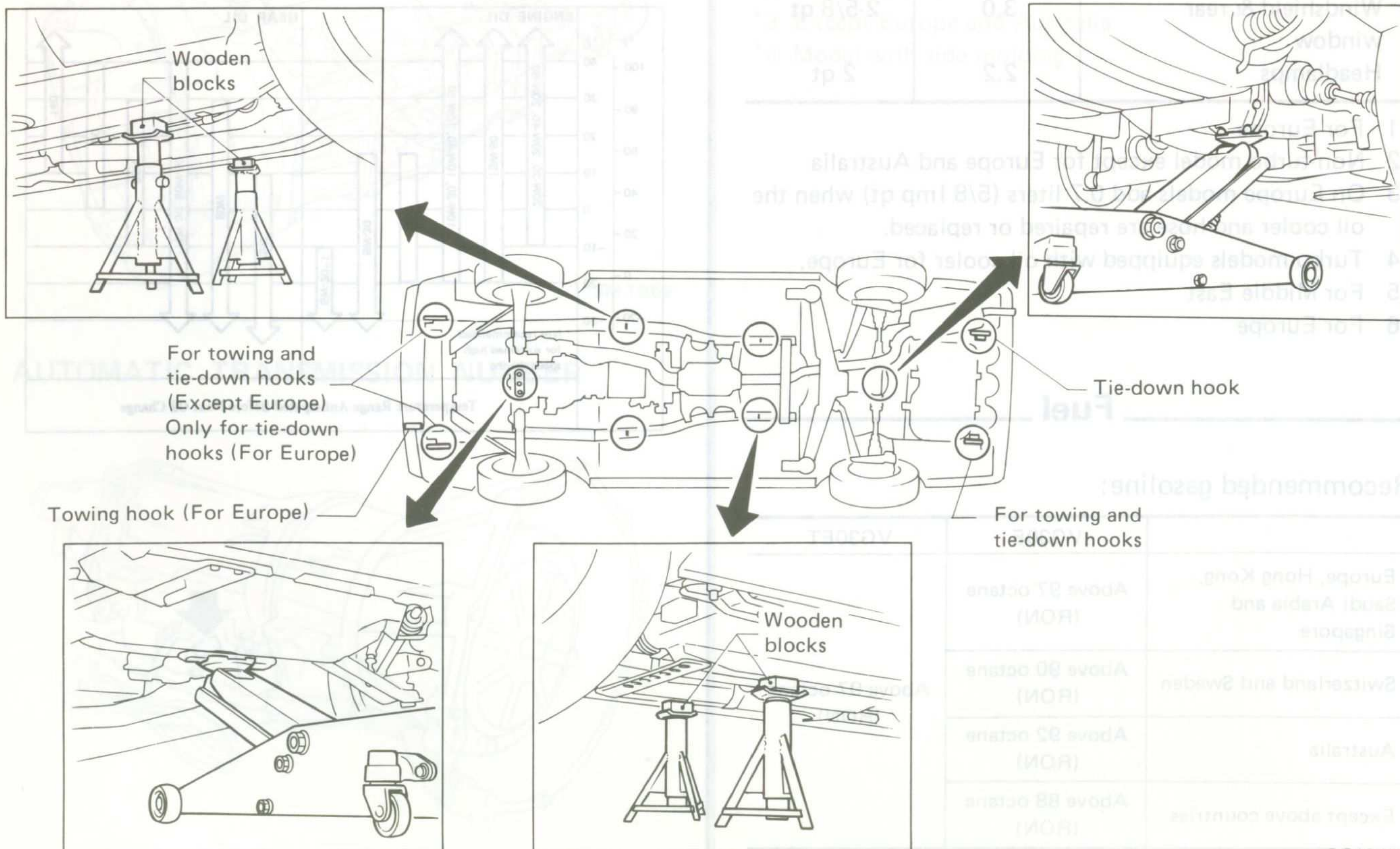


TR400

Garage Jack and Safety Stand

CAUTION:

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



SGI318

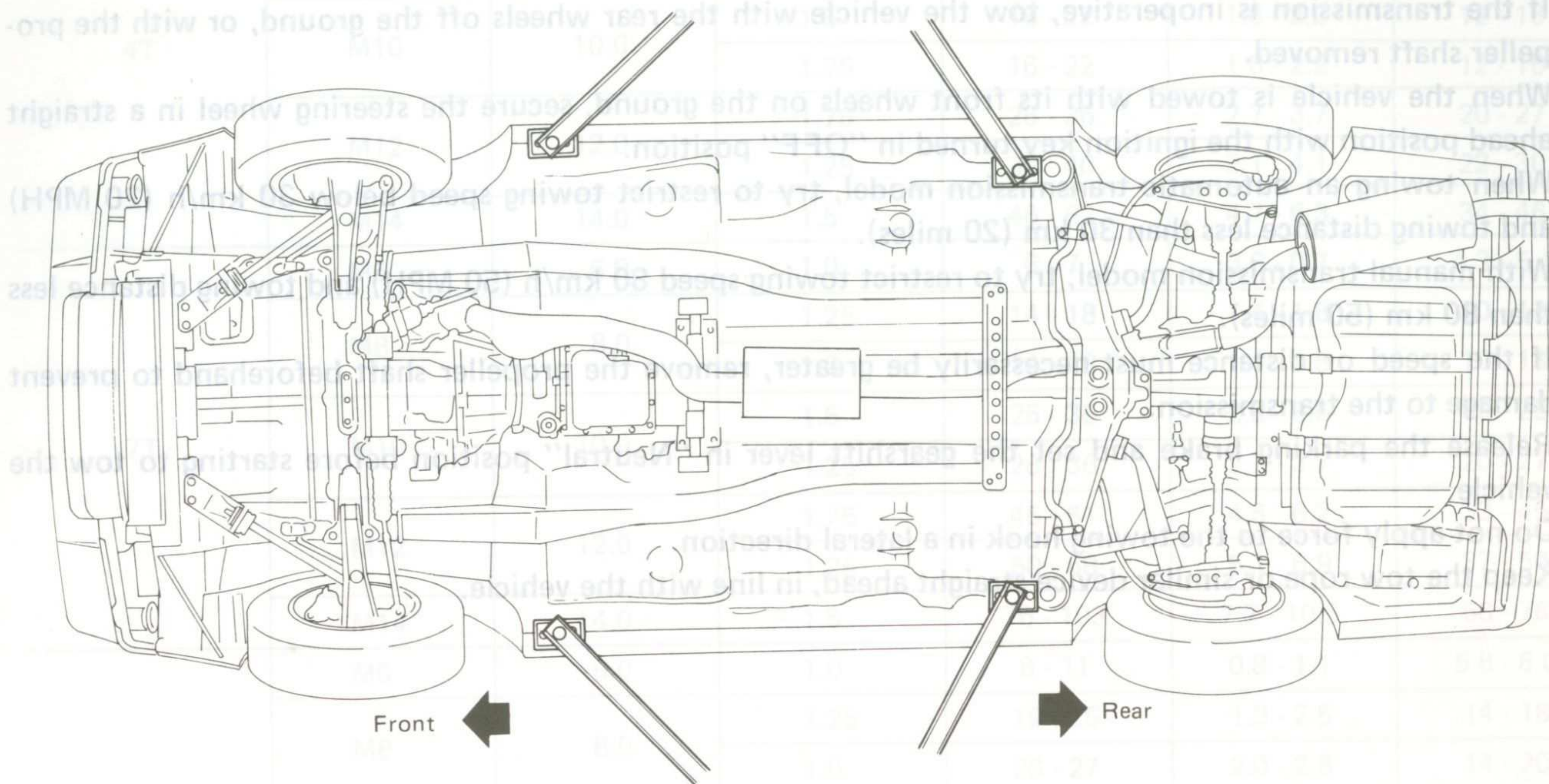
LIFTING, TOWING AND TIE-DOWN POINTS

2-point Lift

WARNING:

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

When setting arm, be careful not to allow the arm to interfere with the brake pipe and fuel pipe.



SGI319

LIFTING, TOWING AND TIE-DOWN POINTS

Towing

CAUTION:

- It is necessary to use proper towing equipment to avoid possible damage to the vehicle during a towing operation.
- Towing is in accordance with Towing Procedure Manual at dealer side.
- Before towing, make sure that the transmission, axles steering system and power train are in good order. If any unit is damaged, a dolly must be used.
- If the transmission is inoperative, tow the vehicle with the rear wheels off the ground, or with the propeller shaft removed.
- When the vehicle is towed with its front wheels on the ground, secure the steering wheel in a straight ahead position with the ignition key turned in "OFF" position.
- When towing an automatic transmission model, try to restrict towing speed below 30 km/h (20 MPH) and towing distance less than 30 km (20 miles).
With manual transmission model, try to restrict towing speed 80 km/h (50 MPH) and towing distance less than 80 km (50 miles).
If the speed or distance must necessarily be greater, remove the propeller shaft beforehand to prevent damage to the transmission.
- Release the parking brake and set the gearshift lever in "Neutral" position before starting to tow the vehicle.
- Do not apply force to the towing hook in a lateral direction.
Keep the tow rope or similar device straight ahead, in line with the vehicle.



TIGHTENING TORQUE OF STANDARD BOLT

Grade	Bolt or nut size	Bolt or nut diameter* mm	Pitch mm	Tightening torque		
				N·m	kg-m	ft-lb
4T	M6	6.0	1.0	3 - 4	0.3 - 0.4	2.2 - 2.9
	M8	8.0	1.25	8 - 11	0.8 - 1.1	5.8 - 8.0
			1.0	8 - 11	0.8 - 1.1	5.8 - 8.0
	M10	10.0	1.5	16 - 22	1.6 - 2.2	12 - 16
			1.25	16 - 22	1.6 - 2.2	12 - 16
	M12	12.0	1.75	26 - 36	2.7 - 3.7	20 - 27
			1.25	30 - 40	3.1 - 4.1	22 - 30
	M14	14.0	1.5	46 - 62	4.7 - 6.3	34 - 46
7T	M6	6.0	1.0	6 - 7	0.6 - 0.7	4.3 - 5.1
	M8	8.0	1.25	14 - 18	1.4 - 1.8	10 - 13
			1.0	14 - 18	1.4 - 1.8	10 - 13
	M10	10.0	1.5	25 - 35	2.6 - 3.6	19 - 26
			1.25	26 - 36	2.7 - 3.7	20 - 27
	M12	12.0	1.75	45 - 61	4.6 - 6.2	33 - 45
			1.25	50 - 68	5.1 - 6.9	37 - 50
	M14	14.0	1.5	76 - 103	7.7 - 10.5	56 - 76
9T	M6	6.0	1.0	8 - 11	0.8 - 1.1	5.8 - 8.0
	M8	8.0	1.25	19 - 25	1.9 - 2.5	14 - 18
			1.0	20 - 27	2.0 - 2.8	14 - 20
	M10	10.0	1.5	36 - 50	3.7 - 5.1	27 - 37
			1.25	39 - 51	4.0 - 5.2	29 - 38
	M12	12.0	1.75	65 - 88	6.6 - 9.0	48 - 65
			1.25	72 - 97	7.3 - 9.9	53 - 72
	M14	14.0	1.5	109 - 147	11.1 - 15.0	80 - 108

1. Special parts are excluded.
2. This standard is applicable to bolts having the following marks embossed on the bolt head.

Grade	Mark
4T	4
7T	7
9T	9

*: Nominal diameter

