

## SECTION 0

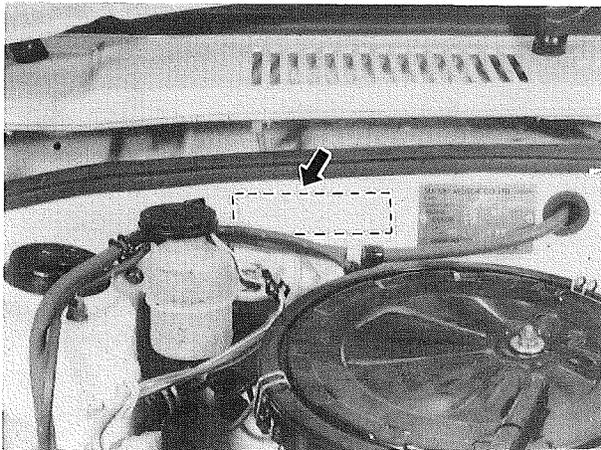
# GENERAL, SPECIAL TOOLS AND SERVICE MATERIALS

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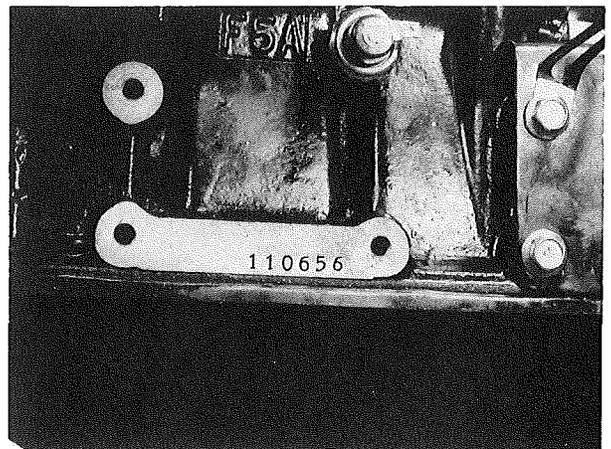
### 0-1. LOCATIONS OF BODY NUMBER AND ENGINE NUMBER

The body number is punched on the body in the engine room as shown below.



*Fig. 0-1 Location of Body No.*

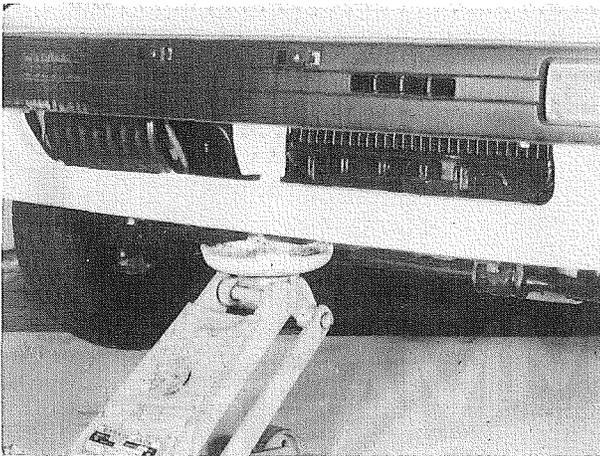
The engine number is punched on the skirt part of the cylinder block under the carburetor.



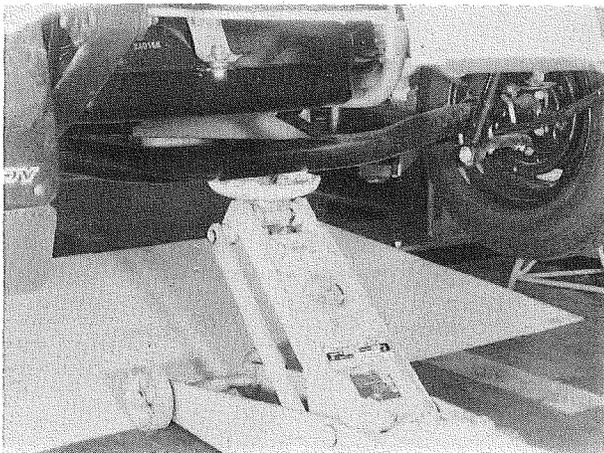
*Fig. 0-2 Location of Engine No.*

## 0-2. STANDARD SHOP PRACTICES

1. Protect painted surfaces of the body, and avoid staining or tearing seats. When working on fenders and seats, be sure to cover them up with sheets.
2. Disconnect negative terminal connection of the battery when working on any electrical part or component. This is necessary for avoiding electrical shocks and short-circuiting, and is very simple to accomplish: merely loosen wing nut on negative terminal and separate cable from terminal post.
3. In raising front or rear car end off the floor by jacking, be sure to put the jack against the center portion of the rear axle housing or front cross member.



*Fig. 0-3 Front Side*

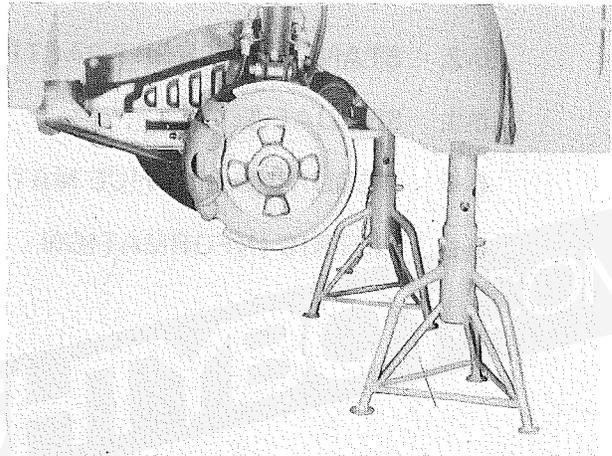


*Fig. 0-4 Rear Side*

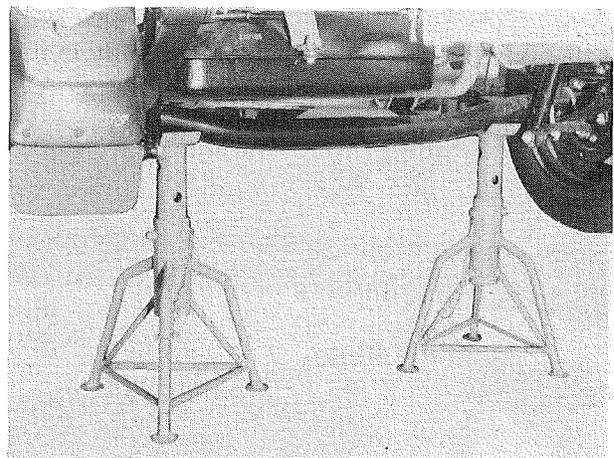
4. To perform service with either front or rear car end jacked up, be sure to place safety stands under car body so that body is securely supported. Refer to below figures for where to place safety stands. And then check to ensure that car body does not slide on safety stands and the car is held stable for safety's sake.

### **IMPORTANT:**

**Place chocks against both right and left wheels on the ground from both front and rear.**



*Fig. 0-5 Front Side*



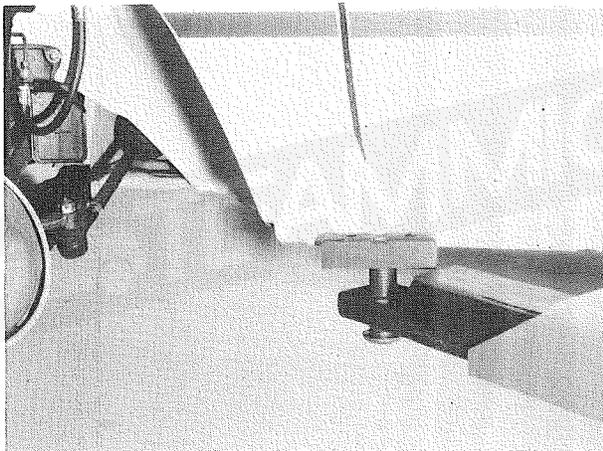
*Fig. 0-6 Rear Side*

5. Fig. 0-7 and 0-8 show how to lift the car by using a hoist.

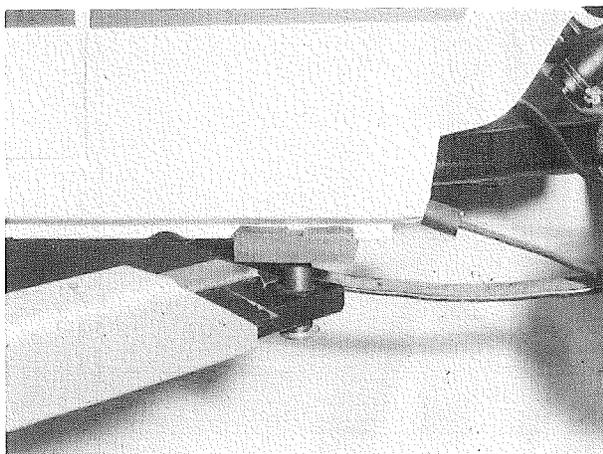
**IMPORTANT:**

- When using frame contact hoist, apply hoist as shown below (right and left at the same position). Lift up the car till 4 tires are a little off the ground and make sure that the car will not fall off by trying to move car body in both ways. Work can be started only after this confirmation.
- Before applying hoist to underbody, always take car balance throughout service into consideration. Car balance on hoist may change depending of what part to be removed.
- Make absolutely sure to lock hoist after car is hoisted up.

When using frame contact hoist:



*Fig. 0-7 Front Support Location*



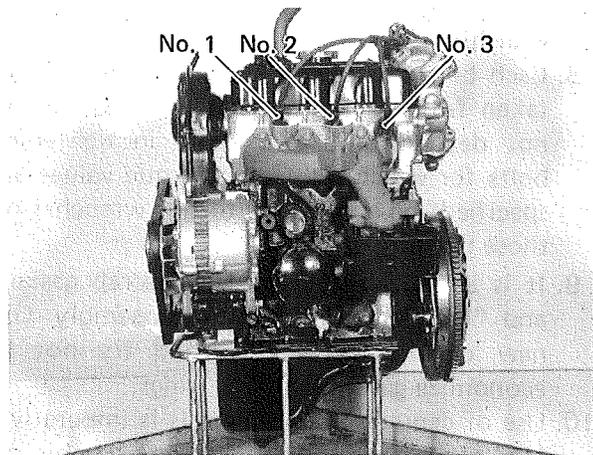
*Fig. 0-8 Rear Support Location*

6. Orderliness is a key to successful overhauling. Trays, pans and shelves are needed to set aside disassembled parts in groups or sets in order to avoid confusion and misplacement. This is particularly important for engine overhauling.
7. Have on hand liquid packing—SUZUKI BOND No. 1215 (99000-31110) — for ready use. This packing dope is an essential item to assure leak-free (water and oil) workmanship.
8. Each bolt must be put back to where it was taken from or for which it is intended. Do not depend on your hunch in tightening bolts for which tightening torque values are specified: be sure to use torque wrenches on those bolts.
9. It is advisable to discard and scrap gaskets and "O" rings removed in disassembly. Use new ones in reassembly, and try not to economize gaskets and "O" rings.
10. Use of genuine SUZUKI parts is imperative. Use of imitation parts is a big gamble on safety and performance. Use genuine SUZUKI parts and live up to the trust your customer places on you.
11. Special tools save time and ensure good workmanship: They are available from SUZUKI. Use them where their use is specified. Moreover, your own safety is assured by the use of special tools in many of the disassembly and reassembly steps.

12. Refer to the contents of this MANUAL as often as practical, and do each job properly as prescribed.

**NOTICE:**

Engine cylinders are identified by numbers. See Fig. 0-9. Counting from the crankshaft pulley side, the cylinders are referred to as No. 1, No. 2 and No. 3 cylinders.

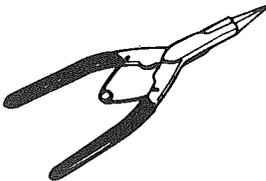
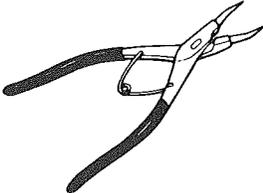
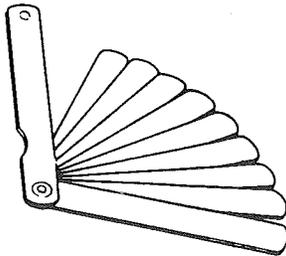
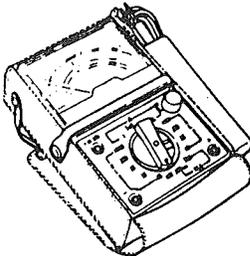
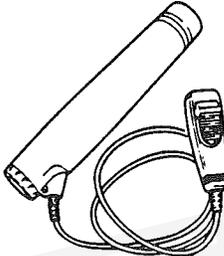
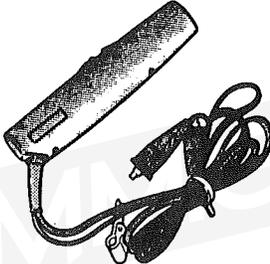
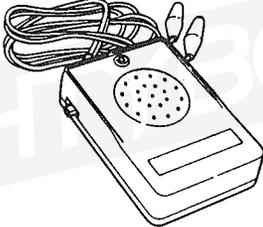
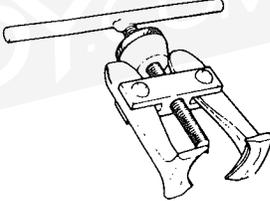
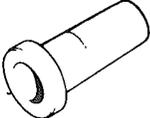
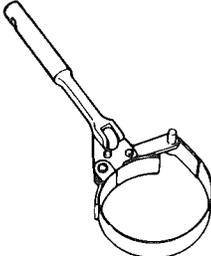
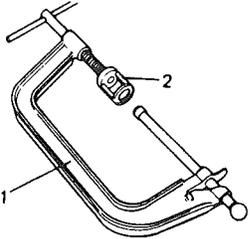


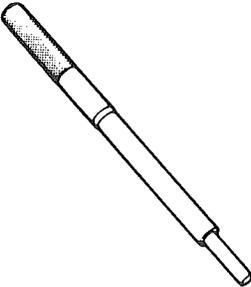
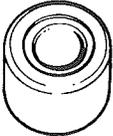
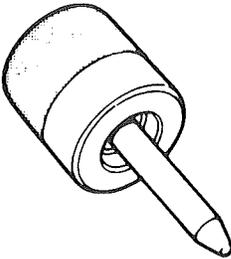
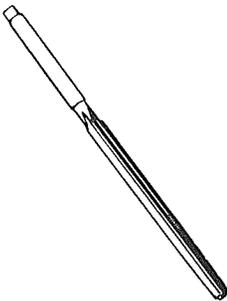
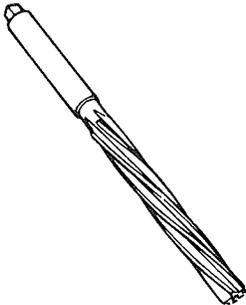
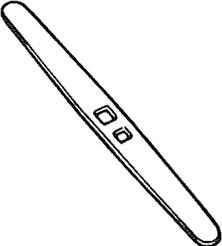
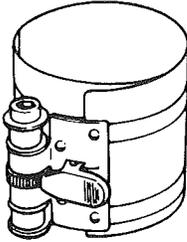
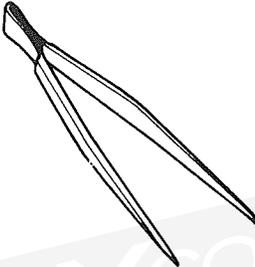
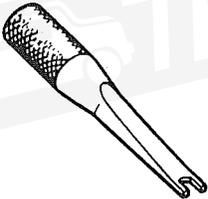
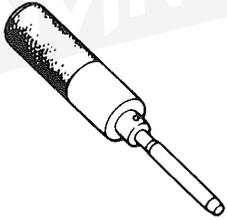
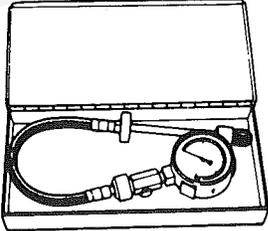
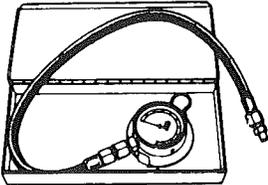
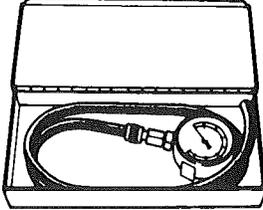
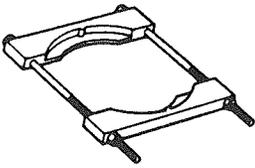
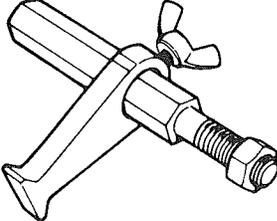
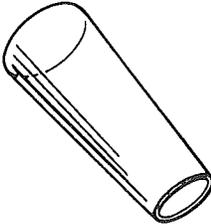
*Fig. 0-9 Engine Cylinder Numbers*

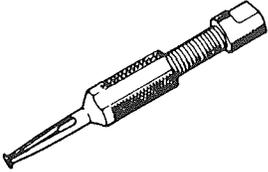
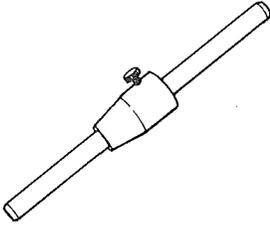
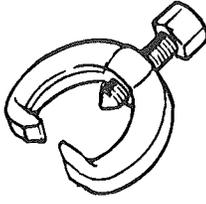
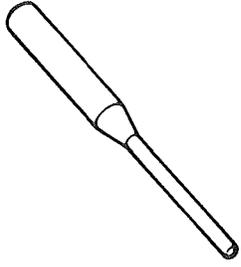
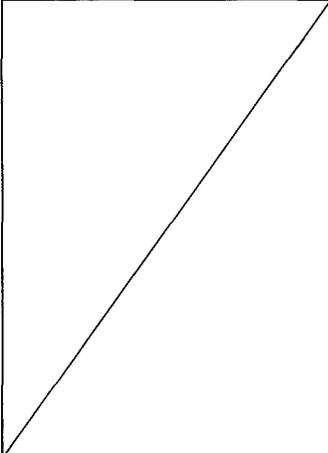
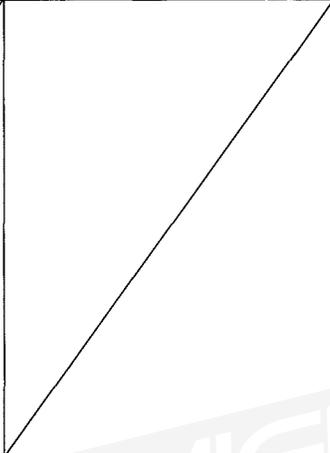
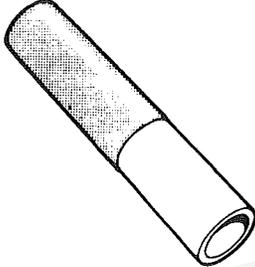
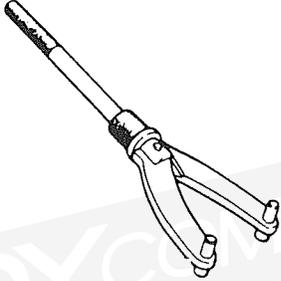
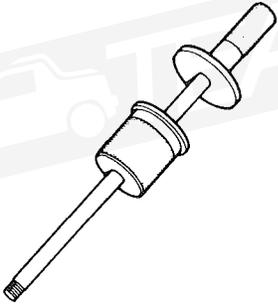
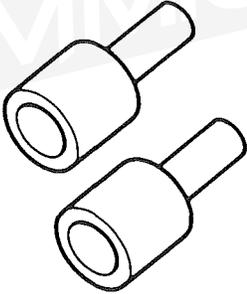
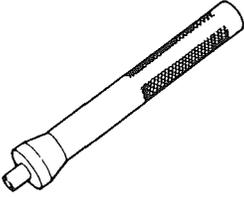
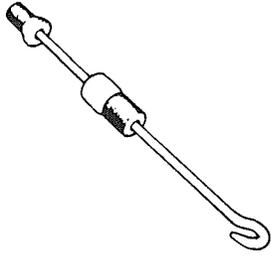
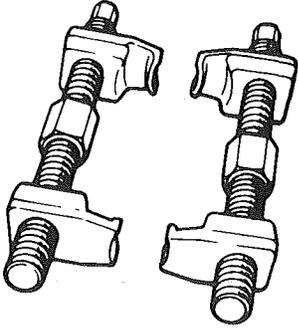
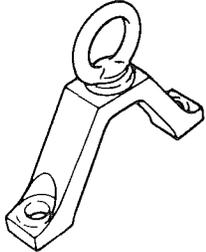
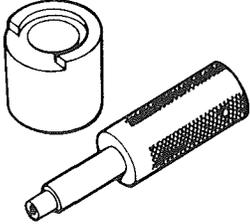
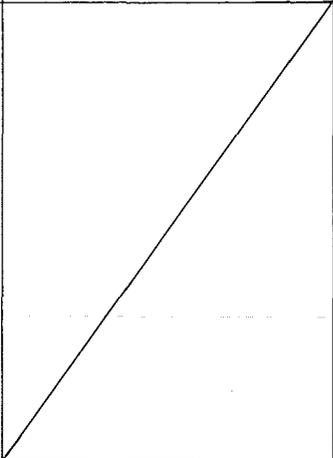


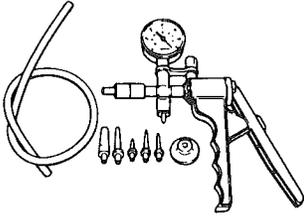
### 0-3. SPECIAL TOOLS

Special tools assure three things: 1) improved workmanship; 2) speedy execution of jobs for which they are meant; and 3) protection of parts and components against damage. Here are the special tools prescribed for this Model:

 <p>09900-06107 Snap ring plier (opening type)</p>	 <p>09900-06108 Snap ring plier (closing type)</p>	 <p>09900-20803 Thickness gauge</p>	 <p>09900-25002 Pocket tester</p>
 <p>09900-27311 Timing light (Dry cell type)</p>	 <p>09900-27301 Timing light (D.C. 12V)</p>	 <p>09900-27003 Ignition timing tester</p>	 <p>09913-61110 Bearing puller</p>
 <p>09915-27810 Hexagon socket (10 mm)</p>	 <p>09913-75810 Bearing installer</p>	 <p>09915-47310 Oil filter wrench</p>	 <p>1. 09916-14510 Valve lifter 2. 09916-48210 Valve lifter attachment</p>

 <p>09916-44511 Valve guide remover</p>	 <p>09917-88210 Valve guide installer</p>	 <p>09917-98210 Valve stem seal installer</p>	 <p>09916-34520 Reamer (7 mm)</p>
 <p>09916-37310 Reamer (12 mm)</p>	 <p>09916-34541 Reamer handle</p>	 <p>09916-77310 Piston ring compressor</p>	 <p>09916-84510 Forceps</p>
 <p>09913-17310 Carburetor adjuster</p>	 <p>09916-57321 Valve guide installer handle</p>	 <p>09915-64510 Compression gauge</p>	 <p>09915-77310 Oil pressure gauge</p>
 <p>09915-67310 Vacuum gauge</p>	 <p>09921-57810 Counter shaft holder</p>	 <p>09924-17810 Flywheel holder</p>	 <p>09926-18210 Oil seal guide (Vinyl resin)</p>

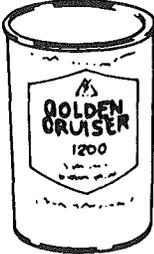
 <p>09921-20200 Bearing remover</p>	 <p>09923-36330 Clutch center guide</p>	 <p>09913-65210 Tie-rod end remover</p>	 <p>09922-85811 Spring pin remover (4.5 mm)</p>
		 <p>09913-80112 Bearing installer</p>	 <p>09930-40113 Camshaft lock holder</p>
 <p>09930-30102 Sliding shaft</p>	 <p>09930-40120 Camshaft lock holder attachment</p>	 <p>09943-88210 Bearing installer</p>	 <p>09942-15510 Sliding hammer</p>
 <p>09940-71430 Spring compressor</p>	 <p>09943-17910 Front wheel hub remover (Brake drum remover)</p>	 <p>09943-77910 Control bush remover</p>	

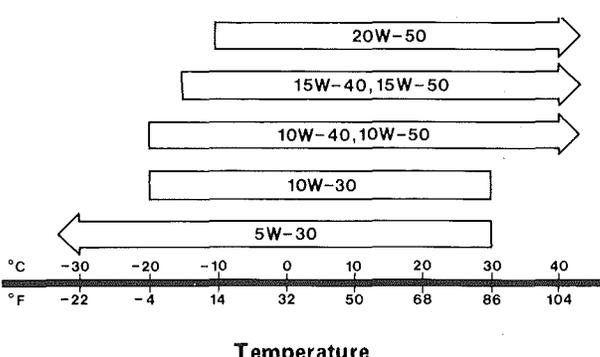
	 <p>09917-47910 Vacuum pump gauge</p>	 <p>09950-78210 Flare nut wrench (10 mm)</p>	

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## 0-4. REQUIRED SERVICE MATERIALS

The materials listed below are needed for maintenance work on these cars, and should be kept on hand for ready use. In addition, such standard materials as cleaning fluids, lubricants, etc., should also be available. Methods and time of use are discussed in the text of this manual on later pages.

Ref. No.	Material		Use
1.	GOLDEN CRUISER 1200 "Anti-freeze and Summer Coolant" (99000-24120)		Additive to engine cooling system for improving cooling efficiency and for protection of wet walls against rusting.
2.	SUZUKI SUPER GREASE A (99000-25010)		<ul style="list-style-type: none"> <li>• For locations indicated in the section dealing with the starter motor.</li> <li>• Clutch release bearing retainer.</li> <li>• Clutch release shaft bushing.</li> <li>• Transmission oil seal.</li> <li>• Differential oil seal.</li> <li>• Wheel bearings, bearing oil seal lip.</li> <li>• Gear shifting control lever bushing &amp; seat.</li> <li>• Door window regulators.</li> <li>• For other locations specifically indicated in the text of this manual.</li> </ul>
3.	SUZUKI GREASE SUPER H (99000-25120)		Special grease intended for use on constant velocity joints. (Drive shaft joint)
4.	SUZUKI BOND NO. 1215 (99000-31110)		<ul style="list-style-type: none"> <li>• For top and bottom mating faces of transmission case.</li> <li>• For other locations specifically indicated in the text of this manual.</li> </ul>

5.	<p>SUZUKI SUPER GREASE (E) (99000-25050)</p>	<ul style="list-style-type: none"> <li>● To apply to steering (rack &amp; pinion) gear case inner parts.</li> </ul>
6.	<p>FOR MANUAL TRANSMISSION:</p> <p>GEAR OIL SAE 90, 80W or 75W 80 – 85 for cars used in such areas where the ambient temperature becomes lower than <math>-15^{\circ}\text{C}</math> (<math>5^{\circ}\text{F}</math>) during the coldest season, it is recommended that oils be changed with SAE80W or 75W/80 – 85 oils on such occasion of service as periodic maintenance.</p>	<ul style="list-style-type: none"> <li>● Transmission case 2.0 ltr. (4.2/3.5 US/Imp. pt.)</li> <li>● Transmission gear and bearing</li> </ul>
7.	<p>SEALANT (99000-31150)</p>	<ul style="list-style-type: none"> <li>● For mating surfaces of engine oil pan and cylinder block.</li> </ul>
8.	<p><b>4-STROKE ENGINE OIL</b> It is recommended to use engine oil of SD, SE or SF class.</p> <p><b>Proper Engine Oil Viscosity Chart</b></p>  <p>The chart shows the following temperature ranges for each oil grade:</p> <ul style="list-style-type: none"> <li>20W-50: 0°C to 40°C</li> <li>15W-40, 15W-50: -10°C to 40°C</li> <li>10W-40, 10W-50: -20°C to 40°C</li> <li>10W-30: -20°C to 30°C</li> <li>5W-30: -30°C to 30°C</li> </ul> <p>Temperature scales: <math>^{\circ}\text{C}</math> (-30, -20, -10, 0, 10, 20, 30, 40) and <math>^{\circ}\text{F}</math> (-22, -4, 14, 32, 50, 68, 86, 104).</p>	<ul style="list-style-type: none"> <li>● For engine oil pan: (For periodical oil change)</li> <li>● Crank journal bearings and thrust plate.</li> <li>● Connecting-rod big-end and small-end bearings.</li> <li>● Camshaft journals.</li> <li>● Rocker shafts.</li> <li>● Oil pump gears.</li> <li>● Pistons and piston rings.</li> <li>● Engine oil seals.</li> <li>● Valve stems.</li> <li>● Accelerator, choke and clutch cables.</li> <li>● Parking brake cable.</li> <li>● Accelerator, brake and clutch pedal shafts.</li> <li>● Door locks and hinges.</li> <li>● Distributor gear.</li> </ul>

9.	SEALING COMPOUND "CEMEDINE" 366E (Water tight sealant) (99000-31090) 180 ml		<ul style="list-style-type: none"> <li>● For rear axle and brake backing plate mating surface.</li> <li>● For other locations specifically indicated in the text of this manual.</li> </ul>
10.	SUZUKI SUPER GREASE I (99000-25210)	<ul style="list-style-type: none"> <li>● To apply to transmission input shaft splines.</li> </ul>	
11.	BRAKE FLUID "DOT3" or SAE J1703	<ul style="list-style-type: none"> <li>● To fill master cylinder reservoir.</li> <li>● To clean and apply to inner parts of master cylinder, caliper and wheel cylinder when they are disassembled.</li> </ul>	
12.	SILICONE GREASE (99000-25190)	<ul style="list-style-type: none"> <li>● To apply to leaf spring bushes. (Refer to page 15-11)</li> </ul>	

## 0-5. METRIC INFORMATION

### METRIC FASTENERS

Most of the fasteners used for this vehicle are metric. When replacing any fasteners, it is most important that replacement fasteners be the correct diameter, thread pitch and strength.

### FASTENER STRENGTH IDENTIFICATION

Most commonly used metric fastener strength property classes are 4T, 7T and radial line with the class identification embossed on the head of each bolt. Some metric nuts will be marked with punch mark strength identification on the nut face. Fig. 0-10 shows the different strength markings.

When replacing metric fasteners, be careful to use bolts and nuts of the same strength or greater than the original fasteners (the same number marking or higher). It is likewise important to select replacement fasteners of the correct size. Correct replacement bolts and nuts are available through the parts division.

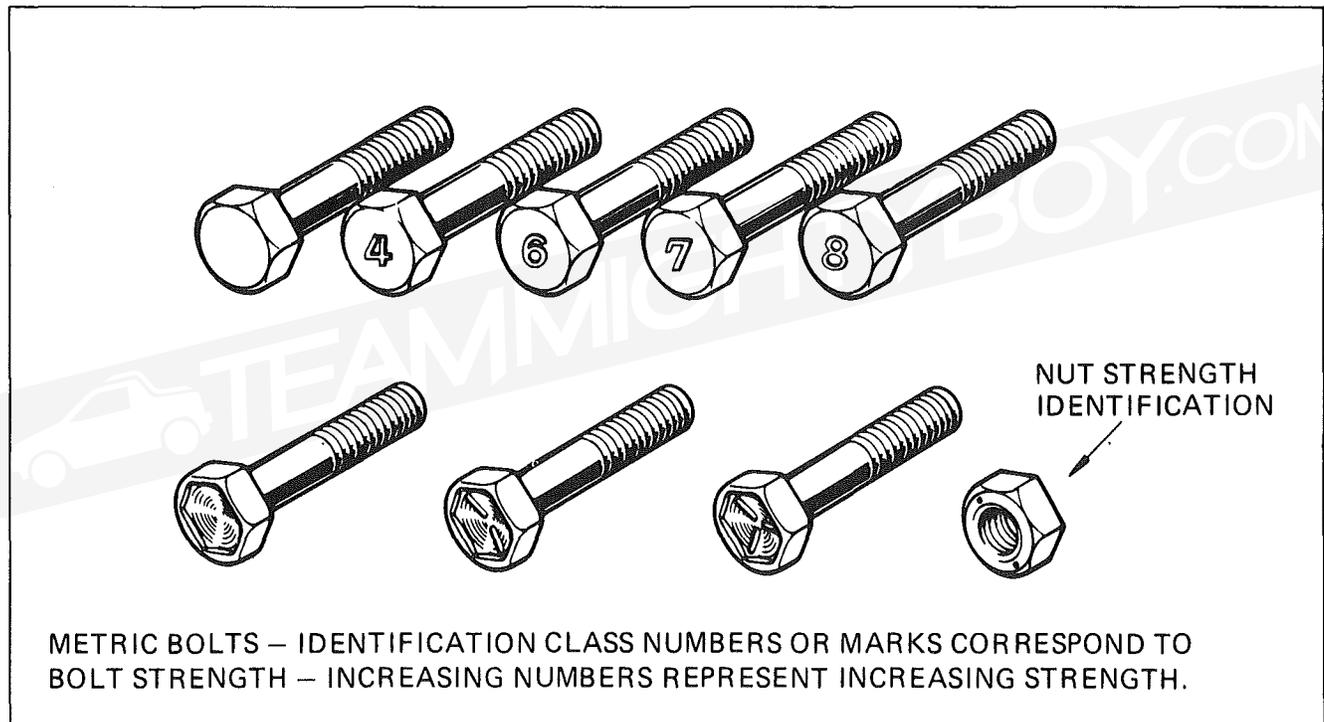


Fig. 0-10 Bolt Strength Markings

## STANDARD TIGHTENING TORQUE

Each fastener should be tightened to the torque specified in each section of this manual. If no description or specification is provided, refer to the following tightening torque chart for the applicable torque for each fastener. When a fastener of greater strength than the original one is used, however, use the torque specified for the original fastener.

### NOTICE:

- For the flanged bolt and nut, add 10% to the tightening torque given in the below chart.
- The below chart is applicable only where the fastened parts are made of steel or light alloy.

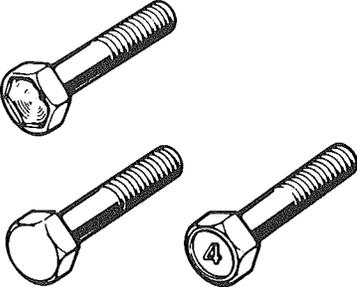
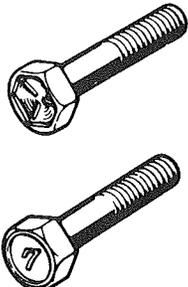
STRENGTH  THREAD DIAMETER (mm)	 Conventional bolt "4T" bolt			 "7T" bolt		
	N·m	kg·m	lb·ft	N·m	kg·m	lb·ft
4	1 – 2	0.1 – 0.2	0.7 – 1.0	1.5 – 3.0	0.15 – 0.30	1.5 – 2.0
5	2 – 4	0.2 – 0.4	1.5 – 3.0	3 – 6	0.3 – 0.6	2.5 – 4.0
6	4 – 7	0.4 – 0.7	3.0 – 5.0	8 – 12	0.8 – 1.2	6.0 – 8.5
8	10 – 16	1.0 – 1.6	7.5 – 11.5	18 – 28	1.8 – 2.8	13.5 – 20.0
10	22 – 35	2.2 – 3.5	16.0 – 25.0	40 – 60	4.0 – 6.0	29.0 – 43.0
12	35 – 55	3.5 – 5.5	25.5 – 39.5	70 – 100	7.0 – 10.0	51.0 – 72.0
14	50 – 80	5.0 – 8.0	36.5 – 57.5	110 – 160	11.0 – 16.0	80.0 – 115.5
16	80 – 130	8.0 – 13.0	58.0 – 94.0	170 – 250	17.0 – 25.0	123.0 – 180.5
18	130 – 190	13.0 – 19.0	94.5 – 137.0	200 – 280	20.0 – 28.0	145.0 – 202.5

Fig. 0-11 Tightening Torque Chart

