SUZUKI

A50P

SERVICE MANUAL

A50P SERVICE MANUAL FOREWORD

Information contained in this Manual is primarily for those whose job it is to inspect, adjust and service Model A50P motorcycles, but users who are experienced in do-it-yourself servicing of Suzuki two-cycle machines will also find this manual useful as a guide.

Model A50P manufactured to standard specifications is the main subject matter of this Manual. However, the A50P machines distributed in your country might differ in minor respects from the standard-specification A50P and, if they do, it is because some minor modifications (which are of no consequence in most cases as far as servicing is concerned) had to be made to comply with the statutory requirements of your country.

This Manual contains up-to-date information at the time of its issue. Later-made modifications and changes will be made known to each Suzuki distributor in respective markets, to whom you are kindly requested to contact about updated information.

SUZUKI MOTOR CO., LTD.
Service Department

GROUP INDEX

GENERAL INFORMATION

GROUP 1

CONTENTS

SPECIFICATIONS

	FOR ENGLAND	FOR FRANCE	FOR NETHERLANDS
DIMENSIONS AND WEIGHT			
Overall length	1,820 mm (71.7 in)	←	←
Overall width	765 mm (30.1 in)	←	←
Overall height	1,020 mm (40.2 in)	←	←
Wheelbase	1,200 mm (47.2 in)	←	←
Ground clearance	125 mm (4.9 in)	←	←
Dry weight	75 kg (165 lbs)	72 kg (159 lbs)	72 kg (159 lbs)
ENGINE			
Type	Two-stroke cycle, air-cooled	←	←
Intake system	Rotary-disc valve	Reed valve	←
Number of cylinder	1	←	←
Bore × Stroke	41.0 mm × 37.8 mm (1.61 in × 1.49 in)	←	←
Piston displacement	49 cc (3.0 cu.in)	←	←
Corrected compression ratio	6.7 : 1	6.9 : 1	←
Carburetor	MIKUNI VM16SC	MIKUNI VM10SC	←
Air cleaner	Fibrous tissue	←	←
Starter system	Kick	Primary kick	←
Lubrication system	SUZUKI "CCI"	←	Fuel and oil premixture with 20 : 1
TRANSMISSION			
Clutch	Wet multi-plate type	←	←
Transmission	5-speed constant mesh	4-speed constant mesh	←
Gearshift pattern	1 down 4 up	All down	←
Primary reduction	3.842 (73/19)	←	←
Final reduction	2.642 (37/14)	3.167 (38/12)	3.636 (40/11)
Gear ratios, Low	3.666 (44/12)	←	←
2nd	2.133 (32/15)	2.200 (33/15)	←
3rd	1.578 (30/19)	1.579 (30/19)	←
4th	1.280 (32/25)	.....	.....
Top	1.071 (30/28)	1.240 (31/25)	←
Drive chain	#420, 106 links	#420, 104 links	#420, 106 links
CHASSIS			
Front suspension	Telescopic fork with hydraulic damper	←	←
Rear suspension	Swinging arm with hydraulic damper	←	←
Steering angle	45° (right, left)	←	←
Castor	63°	←	←
Trail	67 mm (2.6 in)	←	←
Turning radius	1.8 mm (5.9 ft)	←	←
Front brake	Disc — A50PD	←	←
	Internal expanding — A50P	←	←
Rear brake	Internal expanding	←	←
Front tire size	2.25 — 17 — 4PR	←	←
Rear tire size	2.25 — 17 — 4PR	2.50 — 17 — 6PR	←
ELECTRICAL			
Ignition type	Flywheel magneto	←	←
Spark plug	NGK B-8HS or NIPPON DENSO W24FS	NGK BP-7HS or NIPPON DENSO W22FP	←

	FOR ENGLAND	FOR FRANCE	FOR NETHERLANDS
Battery	6V 4AH	←	←
Generator	Flywheel magneto	←	←
CAPACITIES			
Fuel tank including reserve	7.5 lit (2.0/1.6 US/Imp.gal)	←	←
Fuel tank reserve	2.0 lit (0.5/0.4 US/Imp.gal)	←	←
Engine oil tank	1.2 lit (2.5/2.1 US/Imp.pt)	←	←
Front fork oil	138 cc (4.7/4.9 US/Imp.oz)	←	←
Transmission oil	Oil bath, 550 cc (1.2/1.0 US/Imp.pt)	Oil bath, 500 cc (1.1/0.9 US/Imp.pt)	←

* These specifications are subject to change without notice.

GENERAL INSTRUCTIONS

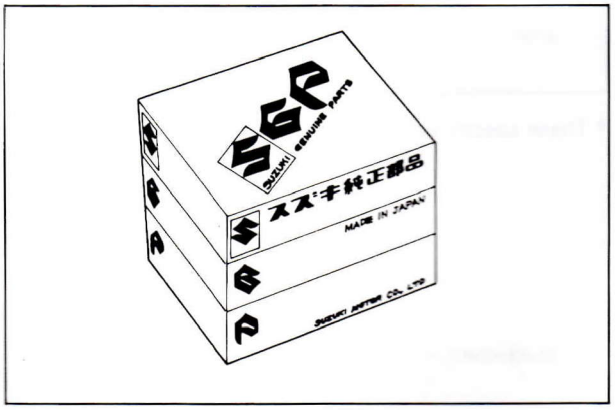
MATERIALS REQUIRED FOR MAINTENANCE

The materials listed below are required for maintenance works on the A50P, and should be kept on hand for ready use. In addition, such standard materials as cleaning fluids, lubricants, etc., should also be available. Methods of use are discussed in the text of this manual on later pages.

MATERIAL	USE
 Thread lock cement 99000-32040	Gear shifting cam guide screw Kick starter pawl lifter screw Bearing holder screw Front fork cylinder fixing bolt
 Suzuki super grease "A" 99000-25010	Oil seal
 Thread lock super 103K 99000-32020	Second drive gear

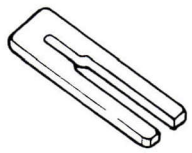
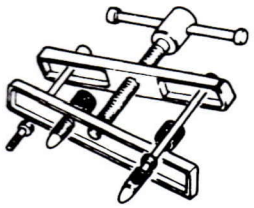
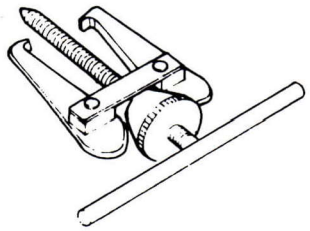
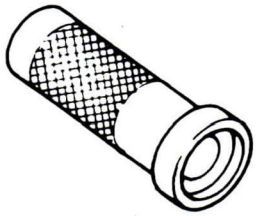
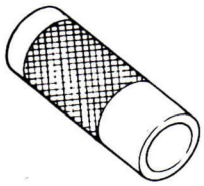
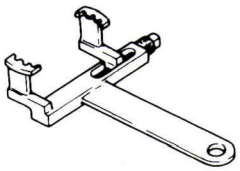
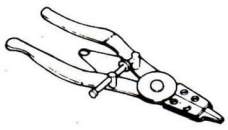
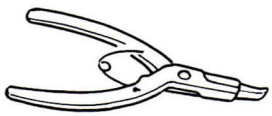
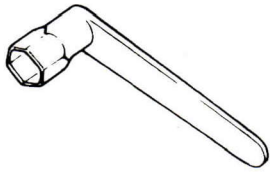
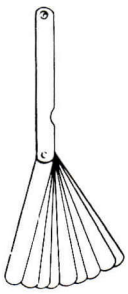
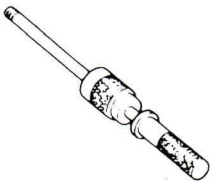
USE OF GENUINE SUZUKI PARTS

To replace any part of the machine, use a genuine SUZUKI replacement part. Imitation parts or parts supplied from any other source than SUZUKI, if used to replace parts of SUZUKI origin in the machine, will lower the inherent capacility of the machine and, even worse, could induce costly mechanical trouble.

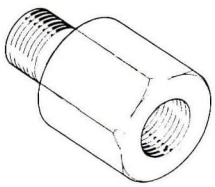


SPECIAL TOOLS

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 the Model A50P.

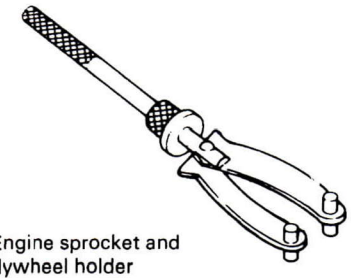
①  Con-rod stopper 09910-20114	②  Crankcase separating tool 09910-80113	③  Oil seal remover 09913-50110
④  Bearing puller 09913-60910	⑤  Bearing and oil seal installing tool 09913-70122	⑥  Bearing and oil seal installing tool 09913-80111
⑦  Clutch sleeve hub holder 09920-53710	⑧  Snap ring opener (small) 09920-70111	⑨  Circlip opener 09920-06104
⑩  Spark plug wrench 09930-10111	⑪  Thickness gauge 09900-20803	⑫  Rotor remover shaft 09930-30101

⑬



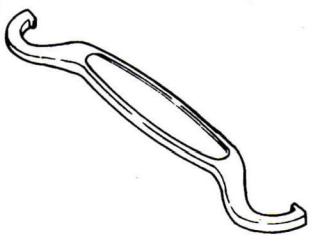
Rotor remover attachment
09930-30150

⑭



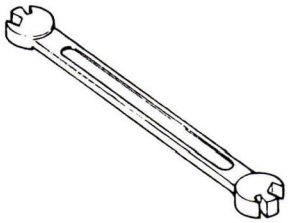
Engine sprocket and
flywheel holder
09930-40113

⑮



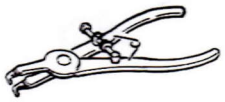
Steering stem lock
nut wrench
09940-10122

⑯



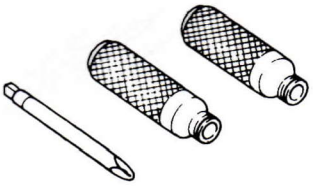
Spoke nipple wrench
09940-60112

⑰



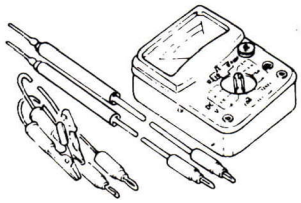
Snap ring remover
09920-73110

⑱



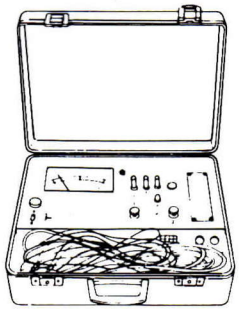
Shock driver set
09900-09002

⑲



Pocket tester
09900-25002

⑳

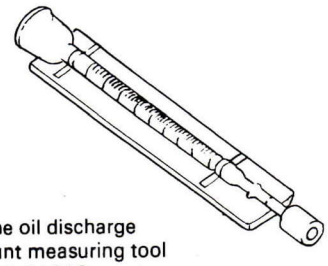


Electro tester
09900-28106

㉑

Clutch spring hook
09920-20310

㉒



Engine oil discharge
amount measuring tool
09900-21602

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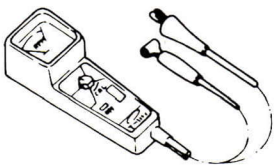
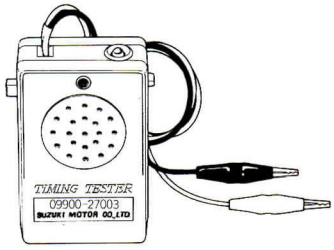
Hydrometer
09900-28401

㉔



Engine tachometer
09900-26002

㉕



Timing tester
09900-27003

CONTENTS

ENGINE REMOVAL

The procedure of engine removal is sequentially explained in 11 steps. Engine installation is effected by reversing the removal procedure.

Disconnect the fuel hose from carburetor.

Fig. 2-1

Remove the rear fender.

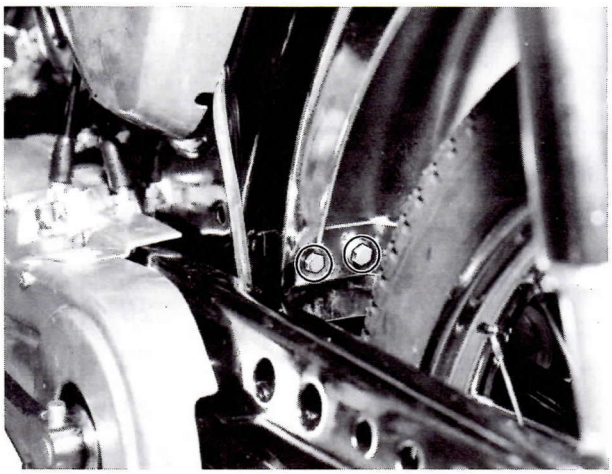


Fig. 2-2

Remove the seat.

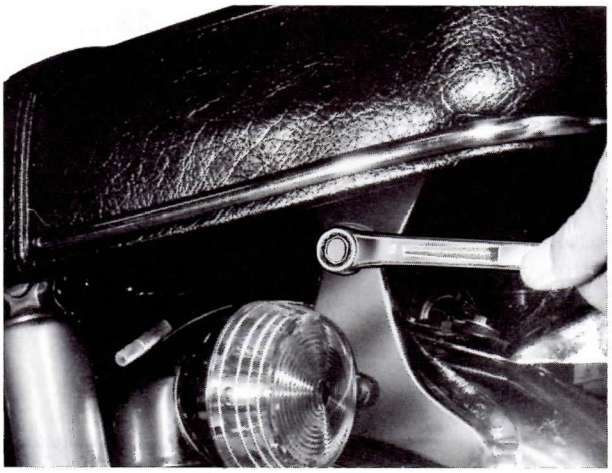


Fig. 2-3

Take the fuel tank off.

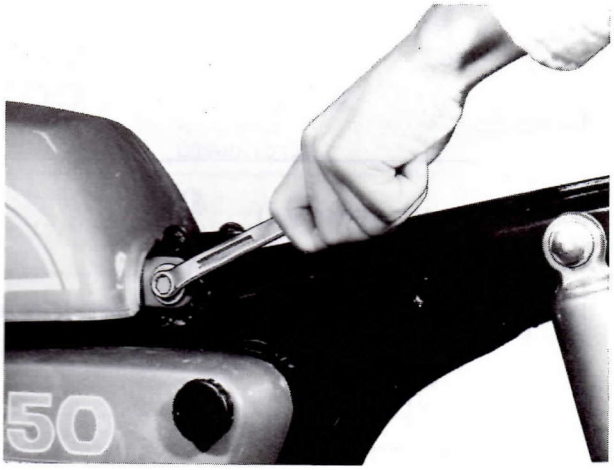


Fig. 2-4

Disconnect lead wires and the spark plug cord.

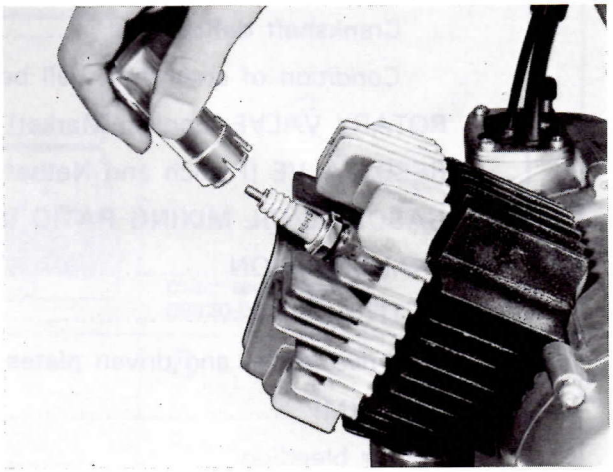


Fig. 2-5

Remove the kick starter lever.

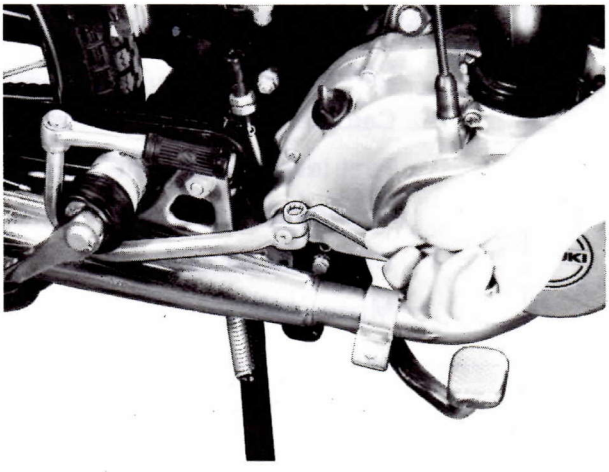


Fig. 2-6

Remove the muffler.

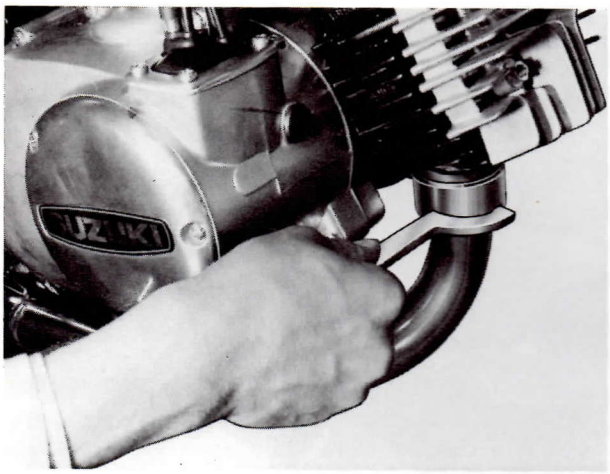


Fig. 2-7

Remove the carburetor.

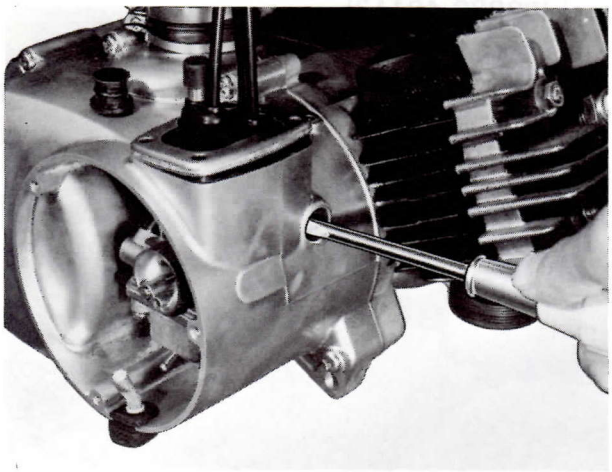


Fig. 2-8

Remove pedals.

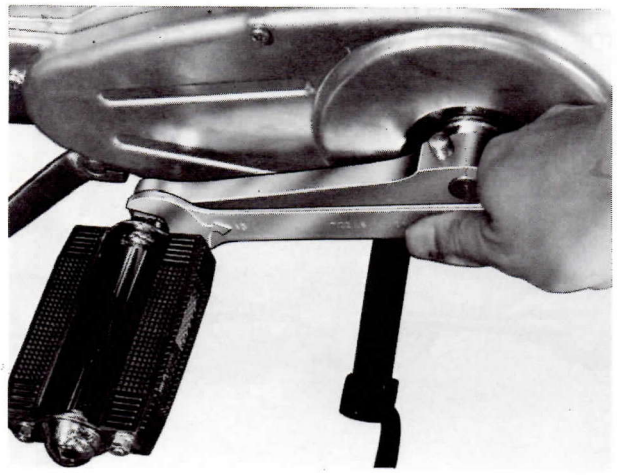


Fig. 2-9

Remove the cycle chain cover and circlip.

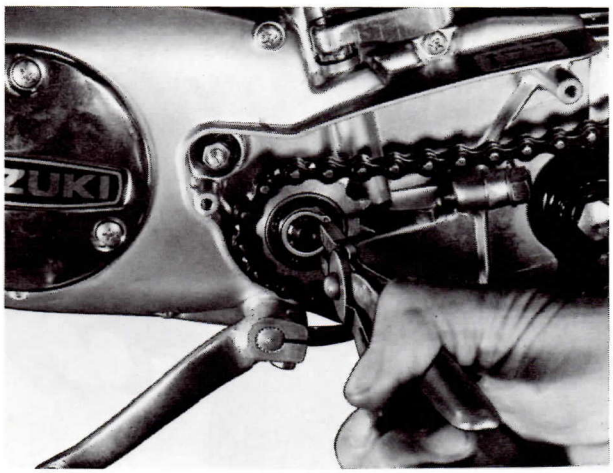


Fig. 2-10

Remove cycle sproket, bearing and cycle chain, by using special tool (09913-60910).

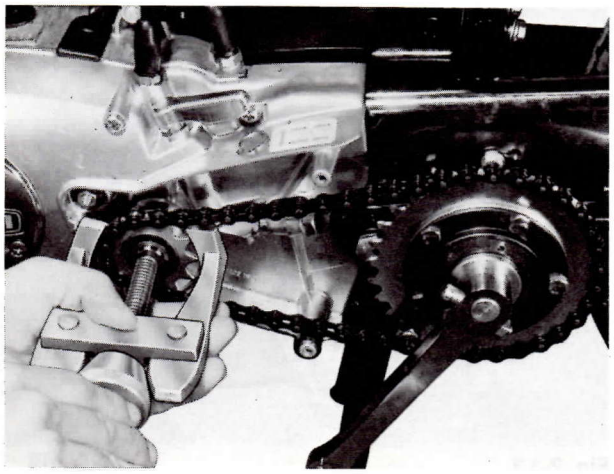


Fig. 2-11

Dismount the engine from the vehicle body.

ENGINE DISASSEMBLY

The procedure of engine disassembly is sequentially explained in 36 steps as follows. Reassembly is reverse of disassembly, and is effected by carrying out the following steps the other way around.

Remove the air cleaner.

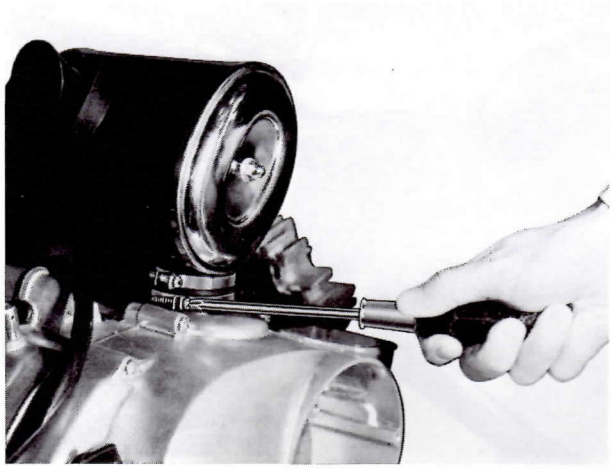


Fig. 2-12

Remove oil drain plug and let out oil.

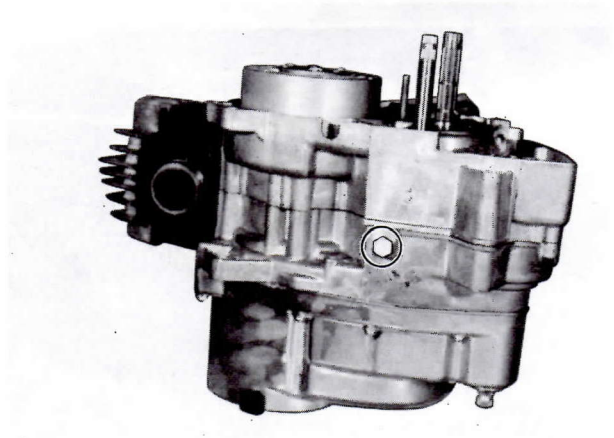


Fig. 2-13

Remove cylinder head.

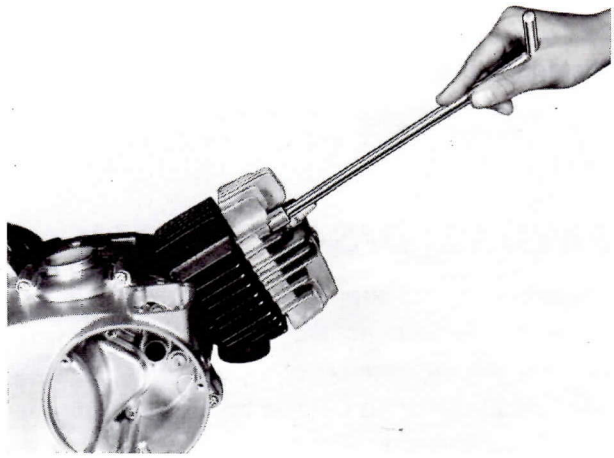


Fig. 2-14

Detach and remove cylinder.

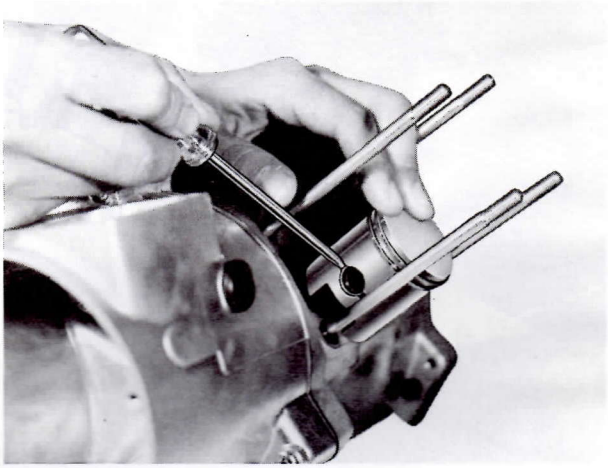


Fig. 2-15

Unscrew the flywheel rotor nut by using special tool (09930-40113).

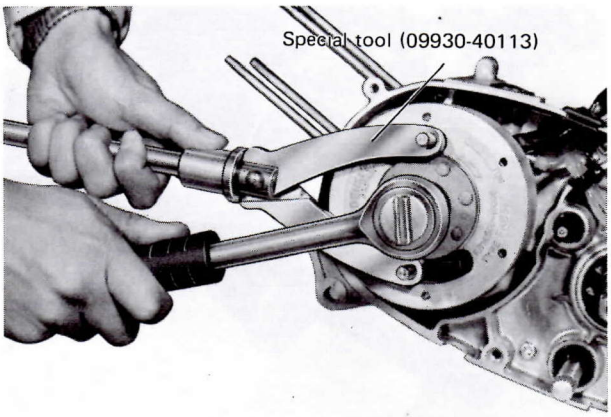


Fig. 2-16

Remove the flywheel rotor by using special tool (09930-30101 with 09930-30150).

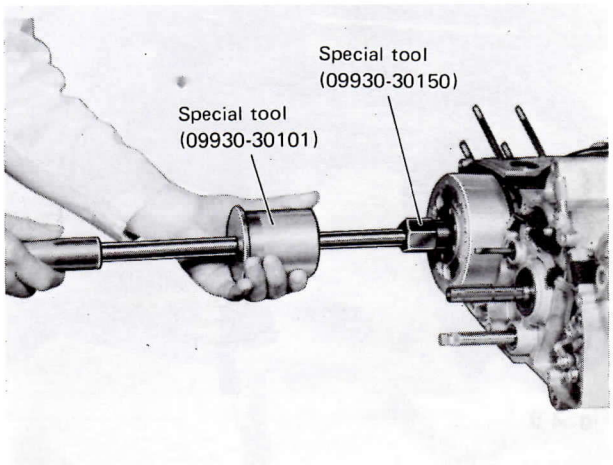


Fig. 2-17

Pick out the key.

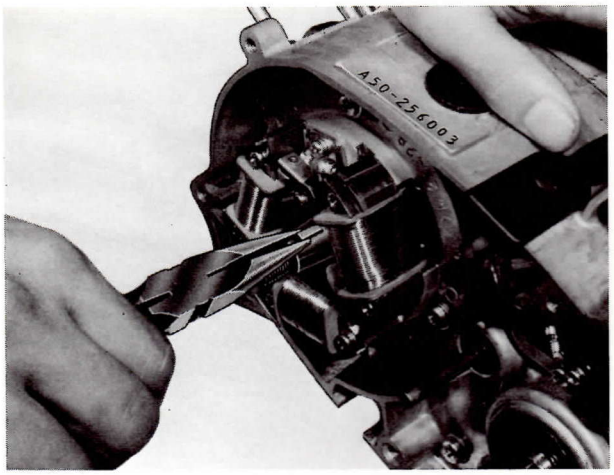


Fig. 2-18

Take the stator off.

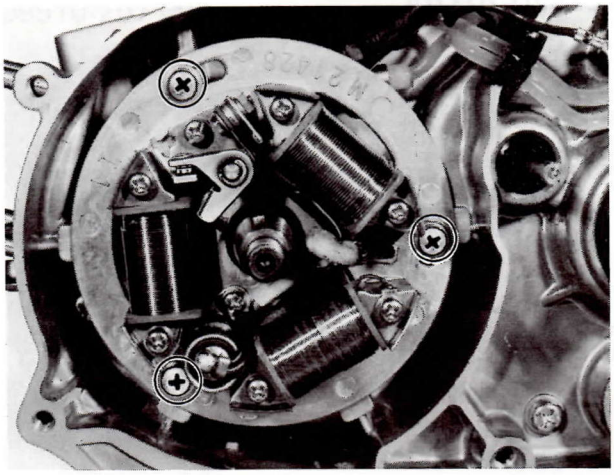


Fig. 2-19

Disconnect oil hoses from the oil pump.

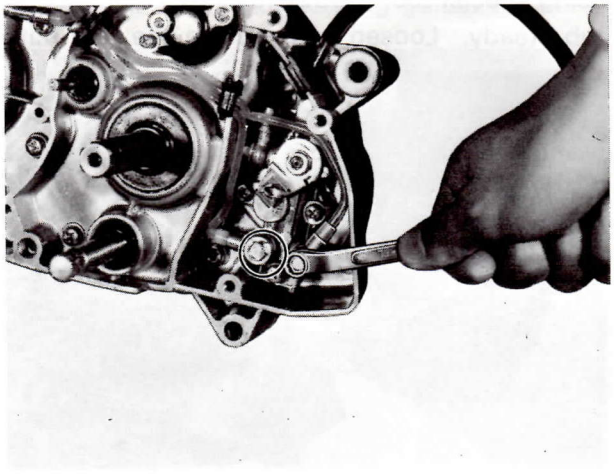


Fig. 2-20

Disconnect oil hose from the crankcase.

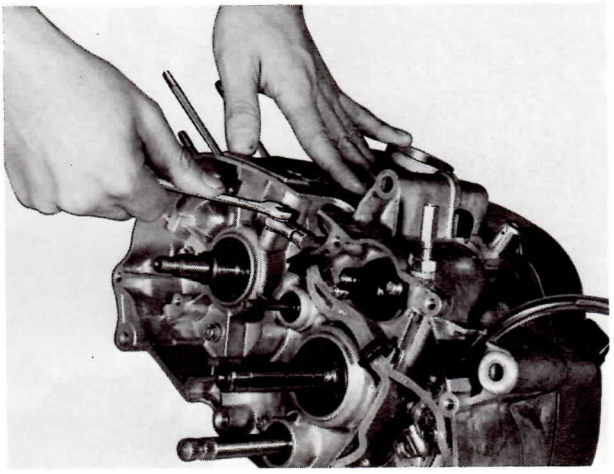


Fig. 2-21

Remove the oil pump.

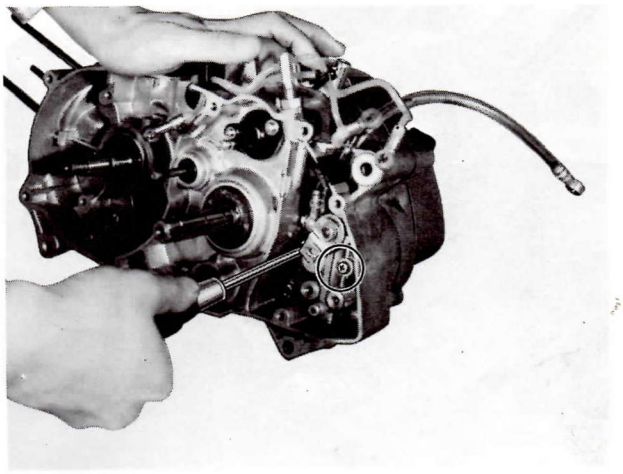


Fig. 2-22

Disconnect oil hose from the right side crankcase.

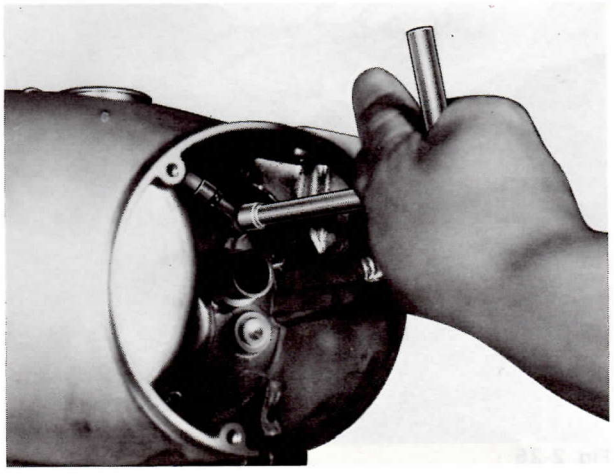


Fig. 2-23

Take out oil pump drive piece.

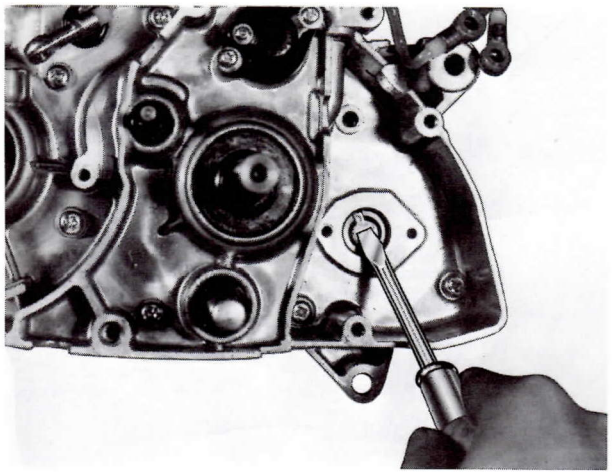


Fig. 2-24

Remove the neutral switch body.

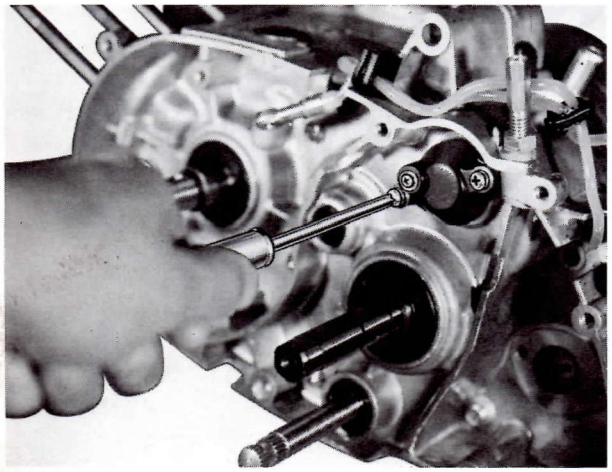


Fig. 2-25

Remove the neutral switch.

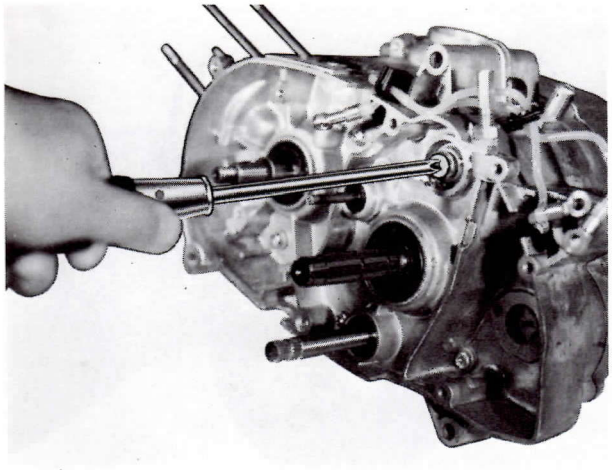


Fig. 2-26

Remove the clutch cover.

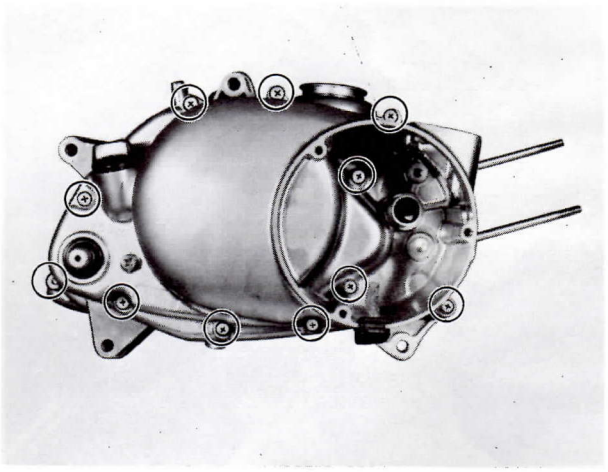


Fig. 2-27

Remove clutch spring pins by using special tool (09920-20310).

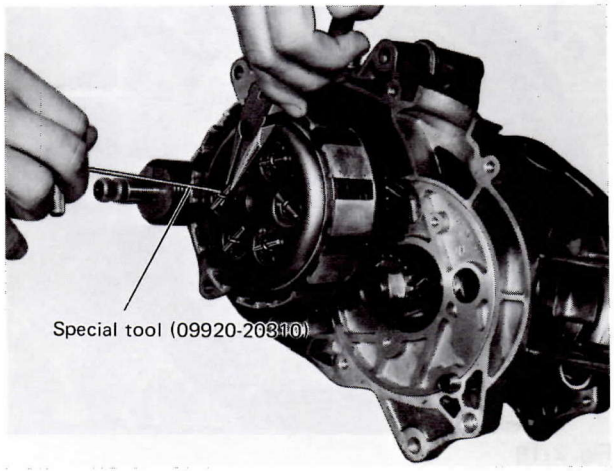


Fig. 2-28

Using special tool (09920-53710), hold sleeve hub steady. Loosen and remove the hub nut.

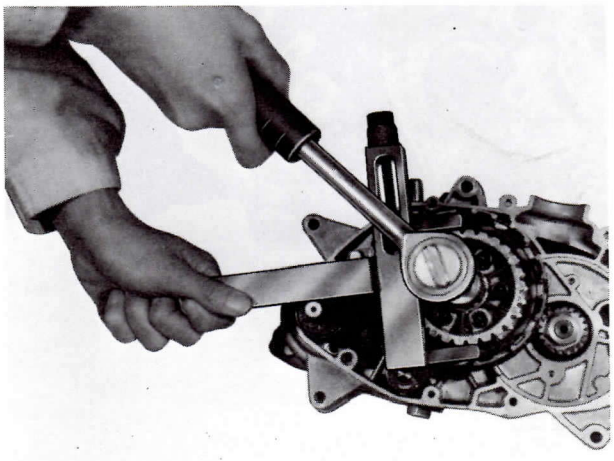


Fig. 2-29

Remove the sleeve hub and primary driven gear.

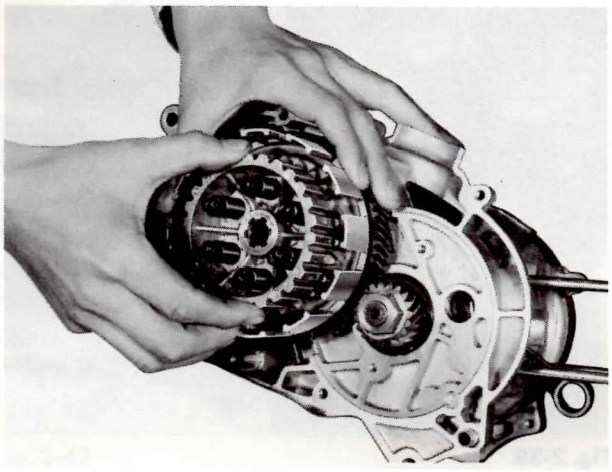


Fig. 2-30

Remove primary drive gear by using special tool (09910-20114).

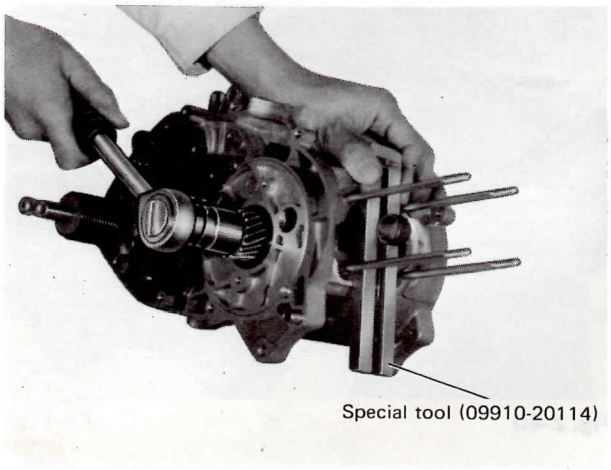


Fig. 2-31

Remove the kick return spring guide.

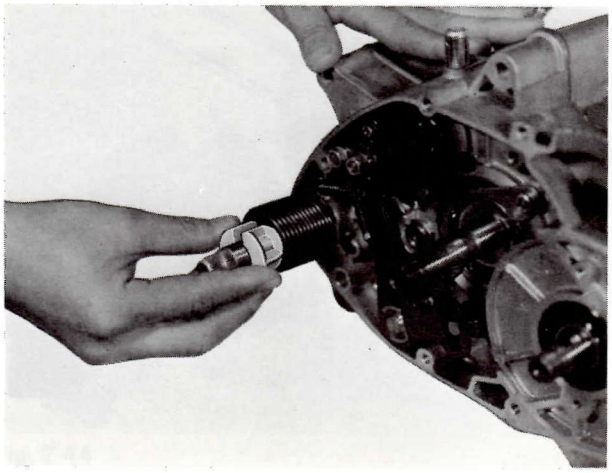


Fig. 2-32

Remove the kick return spring.

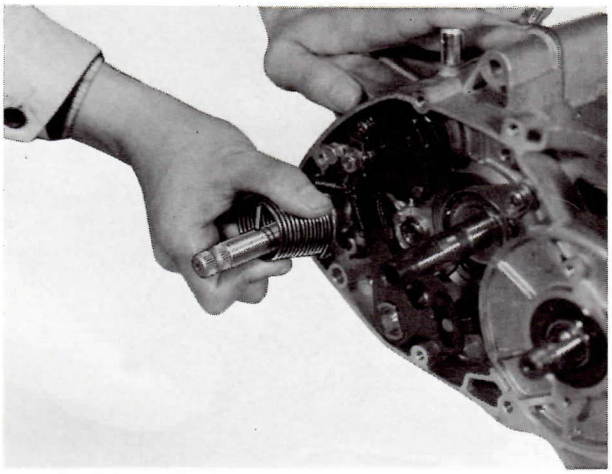


Fig. 2-33

Loosening the screw (A), remove the drive pin retainer (B) and cam stopper (C).

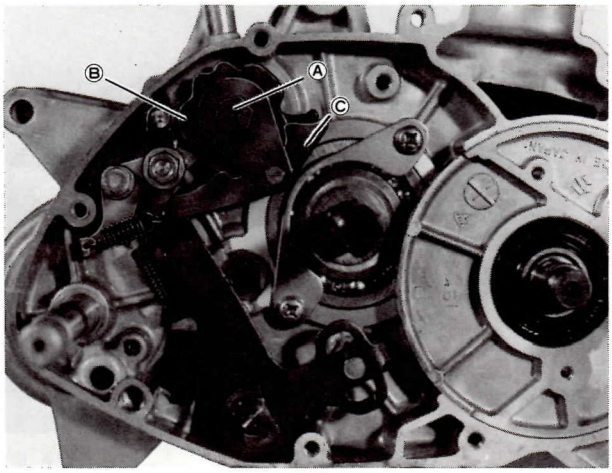


Fig. 2-34

Remove drive pins.

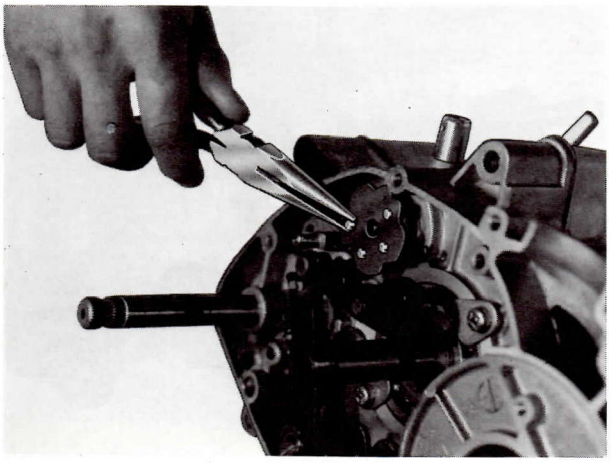


Fig. 2-35

Draw out gear shifting shaft.

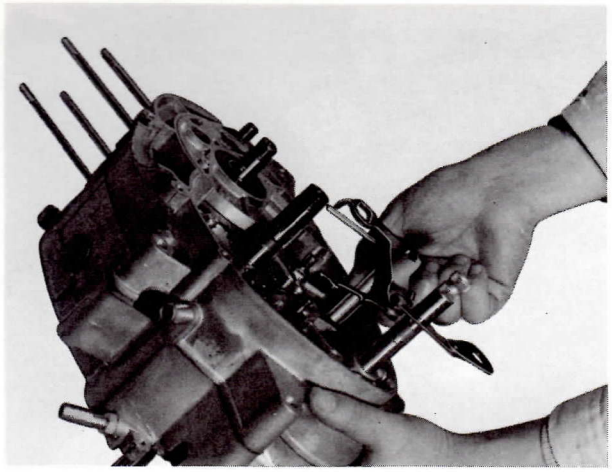


Fig. 2-36

Remove cam guide.

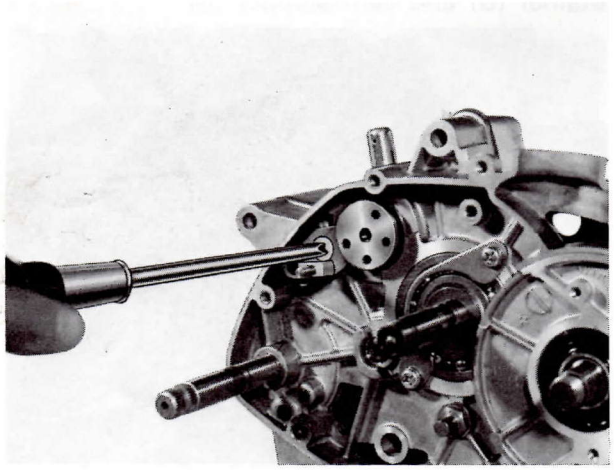


Fig. 2-37

Pick out the key.

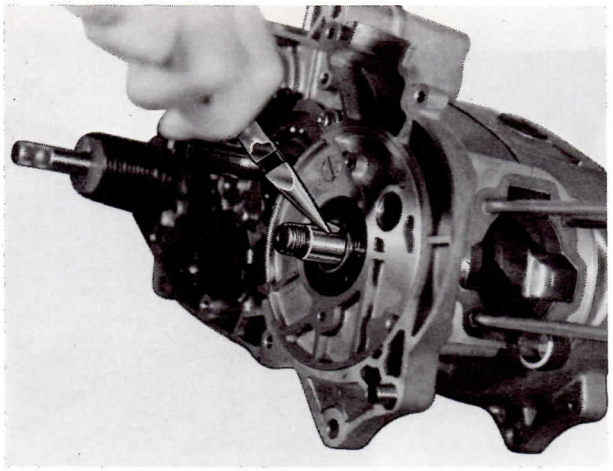


Fig. 2-38

Remove the outer valve seat.

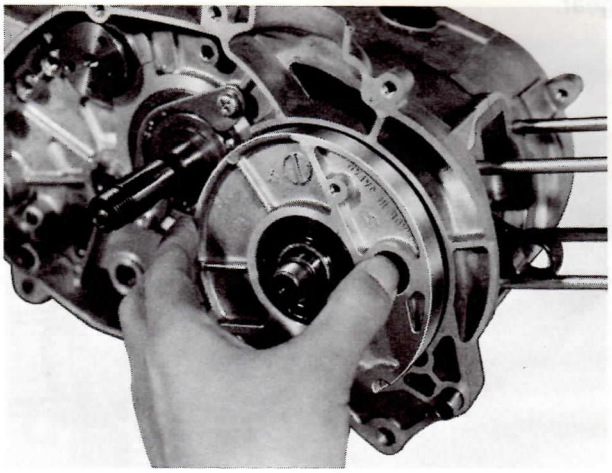


Fig. 2-39

Remove the rotary disck valve

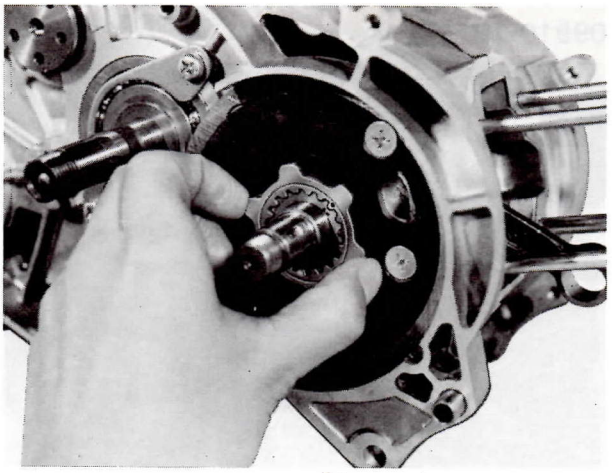


Fig. 2-40

Remove the inner valve seat.

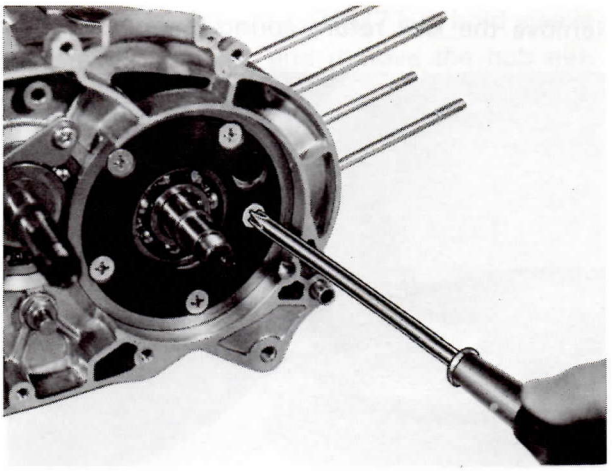


Fig. 2-41

Remove the counter shaft bearing retainer.

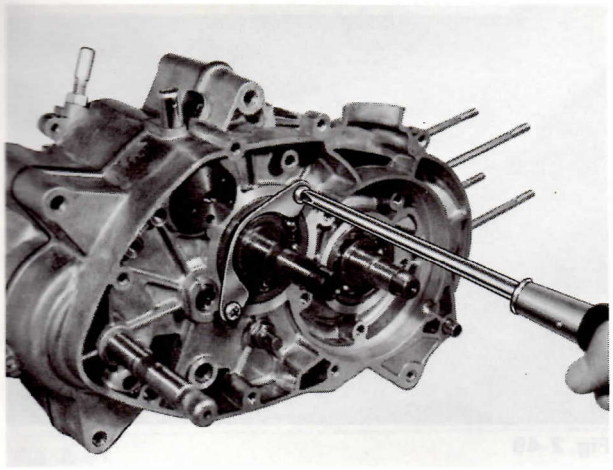


Fig. 2-42

Loosen crankcase fitting screws.

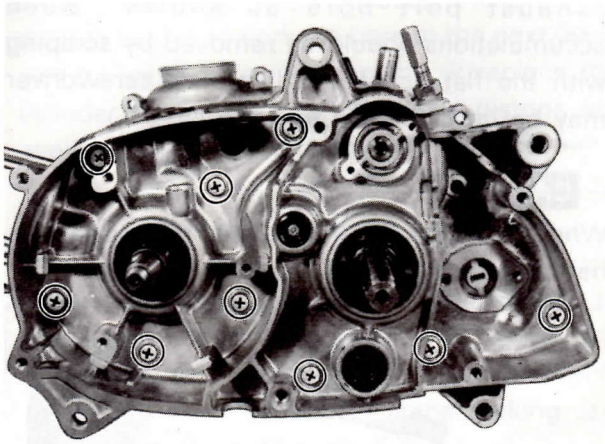


Fig. 2-43

Using special tool (A) (09910-80113) as shown, separate the two halves.

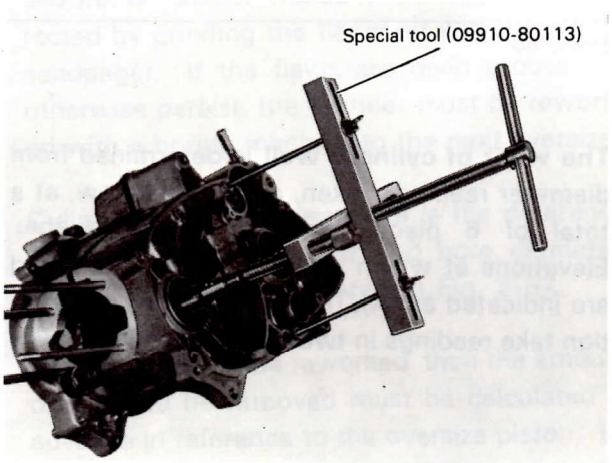


Fig. 2-44

Pick out the valve guide pin.

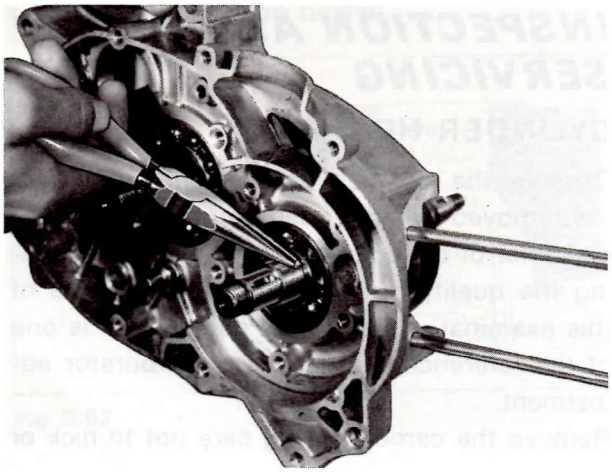


Fig. 2-45

Remove the crankshaft.

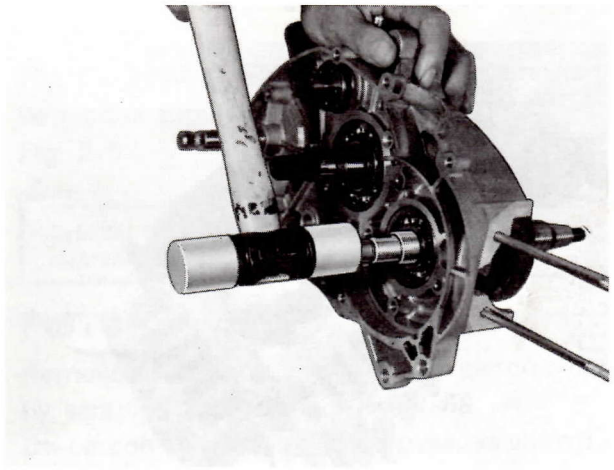


Fig. 2-46

Pull out the transmission gears as a unit together with the gear shift set.

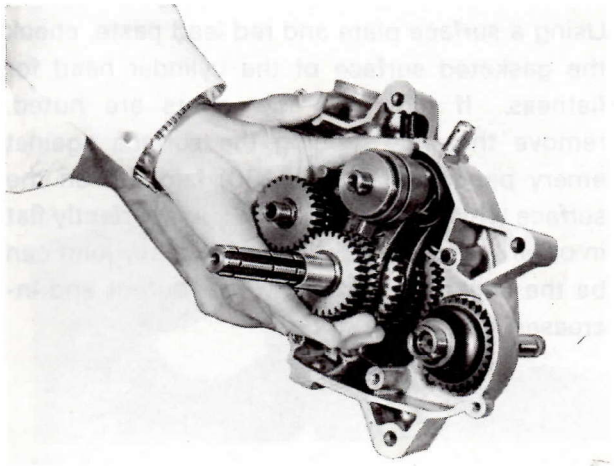


Fig. 2-47

ENGINE COMPONENT INSPECTION AND SERVICING

CYLINDER HEAD

Observe the combustion-chamber surface of the removed cylinder head, noting the amount and color of the carbon deposit as data for telling the quality of fuel combustion; results of this examination about fuel combustion is one of the references necessary for carburetor adjustment.

Remove the carbon, taking care not to nick or mar the metal surface. Carboned surfaces are often responsible for the tendency of an engine to overheat or to produce less power than it ought to be capable of giving.

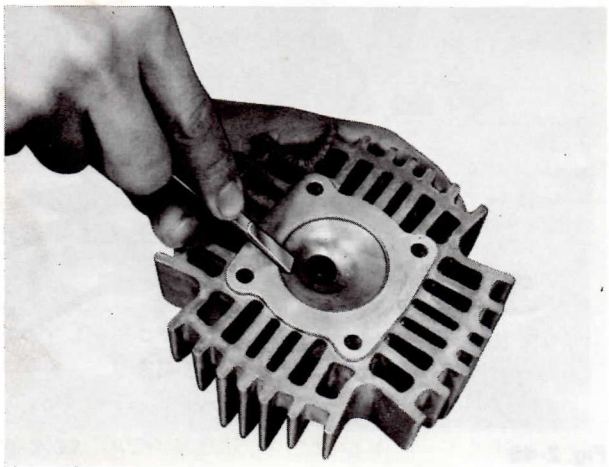


Fig. 2-48

Using a surface plate and red lead paste, check the gasketed surface of the cylinder head for flatness. If high and low spots are noted, remove them by rubbing the surface against emery paper (of about #400) laid flat on the surface which must be smooth and perfectly flat in order to secure a tight joint; a leaky joint can be the cause of reduced power output and increased fuel consumption.

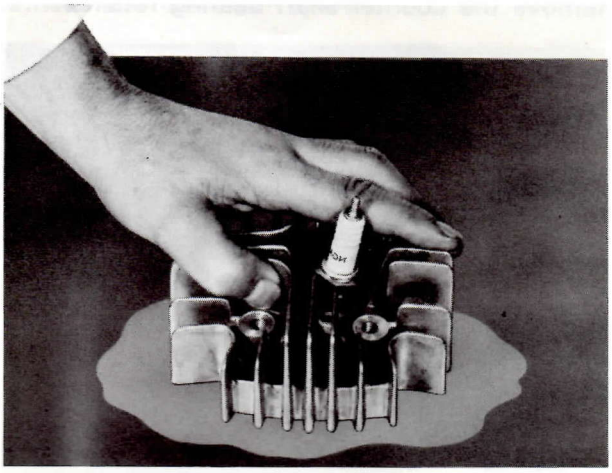


Fig. 2-49

CYLINDER

Carbon is more likely to accumulate in the exhaust port bore as shown. Such accumulations should be removed by scraping with the flat tip of a rod: a plain screwdriver may be used for this purpose.

CAUTION

When de-carboning the exhaust port as shown, be careful not to nick the cylinder wall.

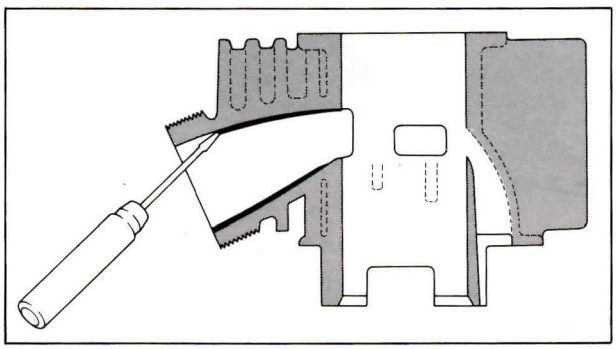


Fig. 2-50

The wear of cylinder wall is determined from diameter readings taken, as shown below, at a total of 6 places with a cylinder guage. Elevations at which the bore is to be checked are indicated as (A), (B) and (C); at each elevation take readings in two directions, (D) and (E).

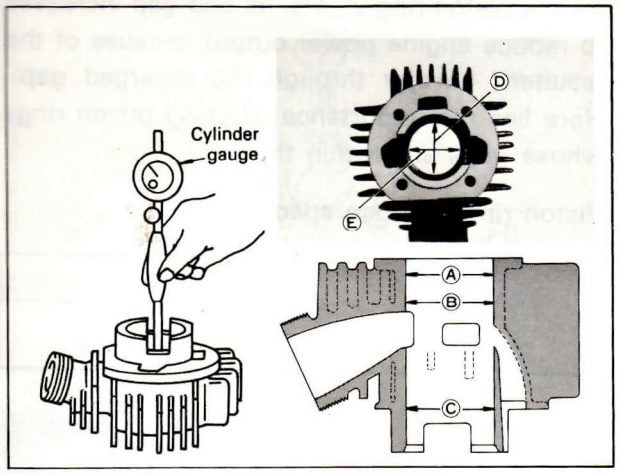


Fig. 2-51

The amount of wear is the difference between largest reading and smallest reading. If the wear thus determined exceeds the limit indicated below, rework the bore to the next oversize by using a boring machine or replace the cylinder by a new one. Oversize pistons are available in two sizes: 0.5 mm and 1.0 mm.

Wear limit on cylinder bore:	0.1 mm

After reworking the bore to an oversize, be sure to chamfer the edges of ports and smoothen the chamfered edges with sandpaper. To chamfer, use a scraper, taking care not to nick the wall surface.

NOTE

Minor surface flaws on the cylinder wall due to seizure or similar malconditions can be corrected by grinding the flaws off with fine-grain sandpager. If the flaws are deep grooves or otherwise persist, the cylinder must be reworked with a boring machine to the next oversize.

Cylinder-to-piston clearance is the difference between piston diameter and bore diameter, read the elevation indicated in Fig. 2-52.

If the bore has to be reworked, then the amount of stock to be removed must be calculated in advance in reference to the oversize piston. Be sure that, after finishing the bore by honing, the oversize piston will provide an amount of clearance coming within the specified range (see the specification below).

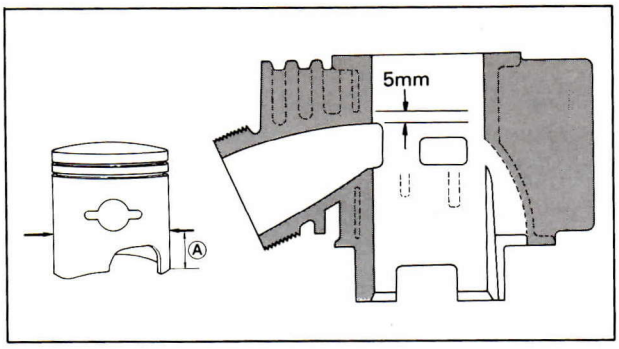


Fig. 2-52

Referring to Fig. 2-52, be sure to take the miked diameter at right angles to piston pin. The value of elevation (A) is prescribed to be 11 mm.

The elevation at which the bore diameter is to be read is about 5 mm above the exhaust port, Fig. 2-52.

Cylinder-to-piston clearance specification	0.045 ~ 0.055 mm

PISTON

Remove the carbon, if any, on the piston crown by scraping as shown in Fig. 2-53.
De-carbon the piston ring grooves, as shown in Fig. 2-54. After cleaning the grooves, fit the rings and rotate them in respective grooves to be sure that they move smoothly.

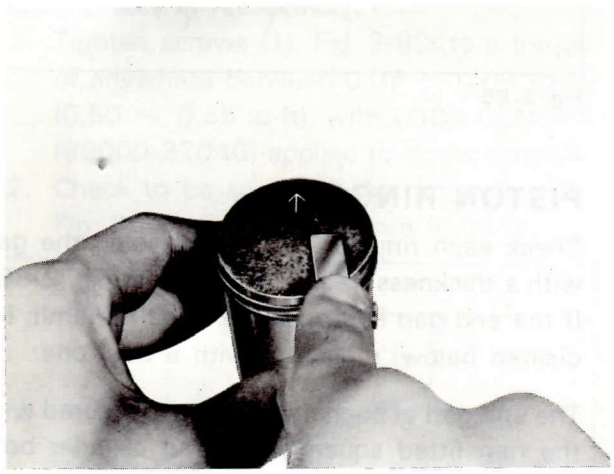


Fig. 2-53

Carbon in the groove is liable to cause the piston ring to get stuck in the groove, and this condition will lead to reduced engine power output.

Fig. 2-54

A piston whose sliding surface is badly grooved or scuffed due to overheating must be replaced. Shallow grooves or minor scuff can be removed by grinding with emery paper of about #400.

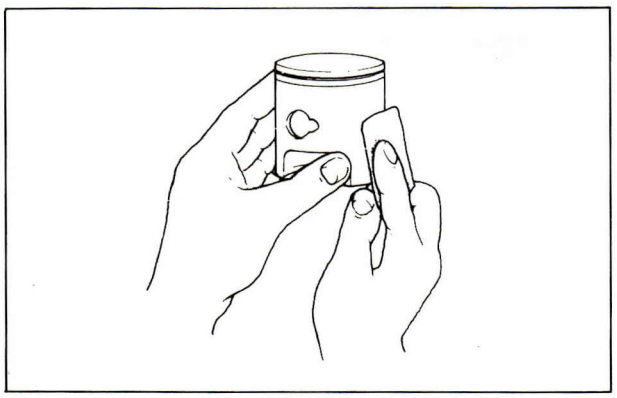


Fig. 2-55

PISTON RINGS

Check each ring for end gap, reading the gap with a thickness gauge, as shown in Fig. 2-56. If the end gap is found to exceed the limit, indicated below, replace it with a new one.

The end gap of each ring is to be measured with the ring fitted squarely into the cylinder bore and held at the least worn part near cylinder top, as shown in Fig. 2-56.

As the piston ring wears, its end gap increases to reduce engine power output because of the resultant blowby through the enlarged gap. Here lies the importance of using piston rings whose gaps are within the limit.

Piston ring end gap specification

Standard	Limit
0.15 ~ 0.35 mm (0.006 ~ 0.014 in)	0.80 mm (0.031 in)

Fig. 2-56

CRANKSHAFT

After visually inspecting the crankshaft, check it particularly carefully for 1) shaft deflection, 2) condition of ball bearings at shaft ends, and 3) condition of connecting-rod big end bearing, as follows:

CRANKSHAFT DEFLECTION

Support crankshaft by "V" blocks, as shown in Fig. 2-57, with the dial gauge rigged to read the runout. Deflection is half the runout read on the gauge, and is specified to be within the following limit:

Limit on crankshaft deflection	0.05 mm (0.002 in)

Excessive crankshaft deflection is often responsible for abnormal engine vibration. Such vibration shortens engine life.

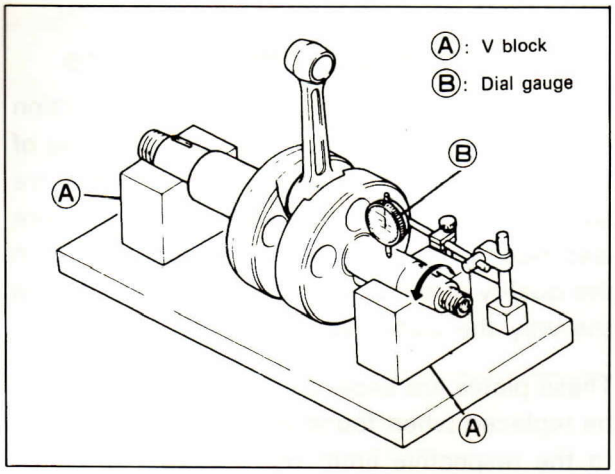


Fig. 2-57

CONDITION OF CRANKSHAFT BALL BEARINGS

After washing the bearings clean, spin the outer race of each bearing to see if it rotates smoothly as it should, without any abnormal noise. A bearing ground to rattle, grate or give any abnormal noise or to present a color signifying burning must be replaced.

To wash the cranksahft, use kerosene. At the time of installing it, be sure to oil it with the prescribed lubricant.

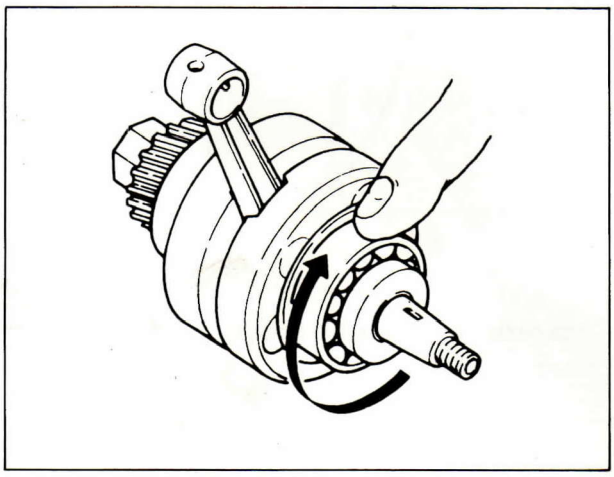


Fig. 2-58

ROTARY VALVE (English Market)

The rorary valve has a duration of 160°.
Install the valve plate so that the timing mark punched on it faces outward and is aligned with the valve guide pin set in the crankshaft.

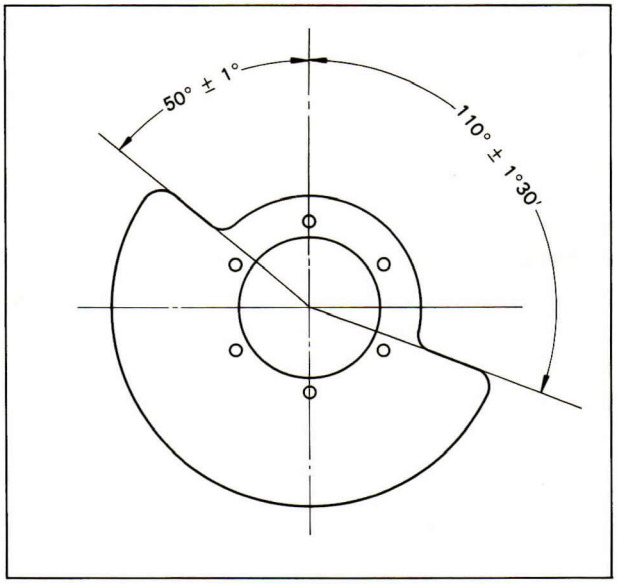


Fig. 2-59

REED VALVE (French and Netherlands Market)

Using a thickness gauge, check the clearance between reed valve and its seat. If this clearance (indicated as (3) in Fig. 2-60) is noted to exceed 0.2 mm (0.008 in), replace the whole reed valve assembly.

The reed valve assembly is treated as a unit in the supply of replacement parts: its individual parts are not supplied as such. However, it is permissible to disassemble the reed valve assembly in place for servicing; if it has to be disassembled, be sure to adhere to the following two rules in reassembly:

1. Tighten screws (1), Fig. 2-60, to a torque of anywhere between 0.07 ~ 0.09 kg-m (0.50 ~ 0.65 lb-ft), with LOCK CEMENT (99000-32040) applied to screw threads.
2. Check to be sure that the dimension (2), Fig. 2-60, is at least 1 mm (0.04 in).

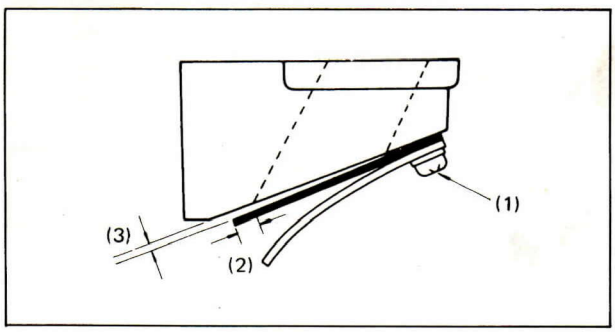


Fig. 2-60

GASOLINE/OIL MIXING RATIO (Netherlands Market)

Mix the gasoline and oil in the 25 : 1 ratio.

TRANSMISSION

Upon disassembling the engine, immediately inspect the transmission internals, visually examining the gears for damage and checking the meshed condition of gear teeth. Using a **thickness gauge** (A) (09900-20803), Fig. 2-61, check the shifting fork clearance in the groove of its gear.

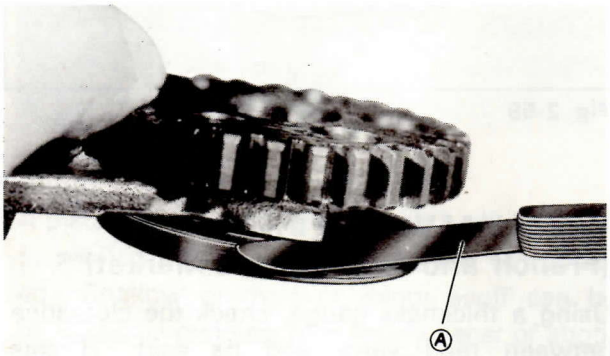


Fig. 2-61

This clearance for each of the three shifting forks plays an important role in the smoothness and positiveness of shifting action. Each fork has its prongs fitted into the annular groove provided in its gear. In operation, there is sliding contact between fork and gear and, when a shifting action is initiated, the fork pushes the gear axially. Too much a clearance is, therefore, liable to cause the meshed gears to slip apart.

If the clearance checked is noted to exceed the limit specified, replace the fork or its gear, or both.

Shifting fork clearance specification

	Standard	Limit
Fork and gear	0.1 ~ 0.2 mm	0.3 mm

CLUTCH

DRIVE PLATES AND DRIVEN PLATES

Clutch plates in service remain in oily condition as if they were lubricated with oil. Because of this condition both drive and driven plates are subject to but little wearing action and therefore last much longer. Their life depends largely on the quality of oil used in the clutch and also on the way the clutch is operated.

These plates are expendable: they are meant to be replaced when found worn down or warped to the respective limit: use a caliper to check thickness and a thickness gauge and surface plate to check warpage, as shown in Fig. 2-62 and 63.

Drive plate thickness specification

Standard	Limit
3.0 mm	2.8 mm

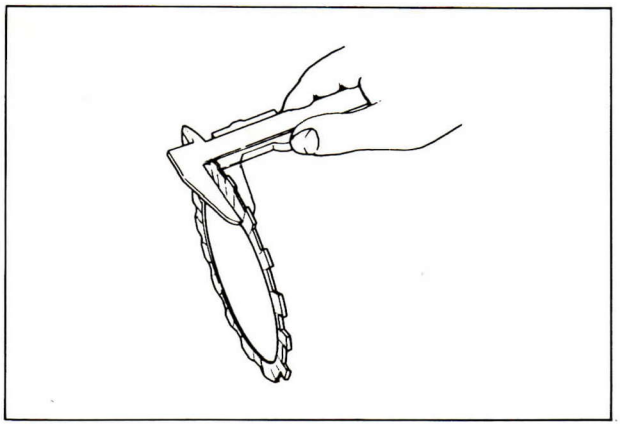


Fig. 2-62

Thickness and warpage specifications for driven plates

Item	Standard	Limit
Thickness	1.6 mm	1.5 mm
Warpage	Less than 0.1 mm	0.1 mm

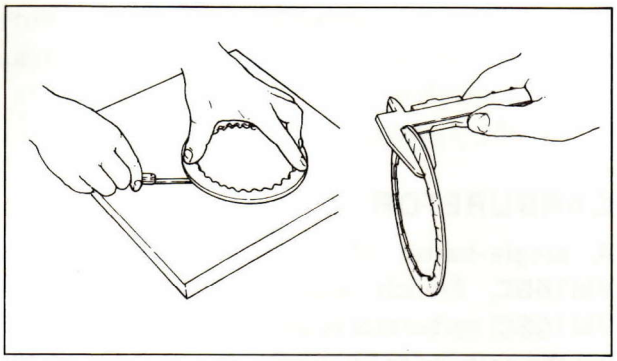


Fig. 2-63

OIL PUMP
(English and French Market)

AIR BLEEDING

Whenever evidence is noted of some air having leaked into the oil pipe from the oil tank in the machine brought in for servicing, or if the oil pump had to be removed for servicing, be sure to carry out an air bleeding operation with the oil pump in place before releasing the machine to the user.

Here's how to bleed the air out: Hold the engine in standstill condition; loosen screw (A), Fig. 2-64, to let out the air; and, after making sure that the trapped air has all been bled out, tighten the screw good and hard.

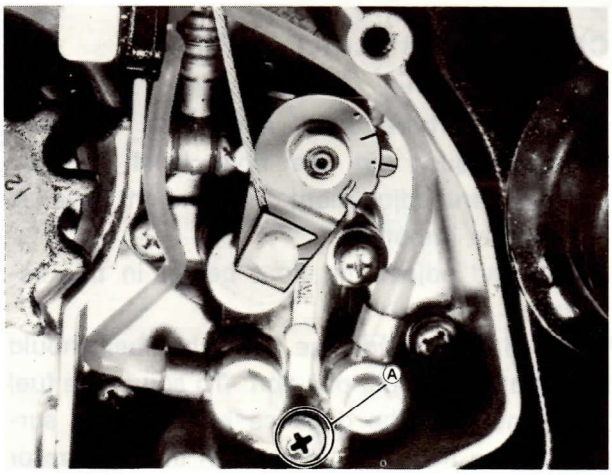


Fig. 2-64

CONTROL CABLE ADJUSTMENT

English Market A50P

This adjustment refers to the oil pump control cable, and is to be effected by means of cable adjuster (A). Three alignment marks are involved: mark (B) for mark (C), and mark (D). As the throttle grip is turned to actuate the throttle valve, thereby bringing dent mark (D) of this valve to the upper part of venturi, mark (B) should come into register with index mark (C).

This requirement is satisfied by adjusting cable adjuster (A). After setting the adjuster, be sure to secure it firmly by tightening its lock nut (F).

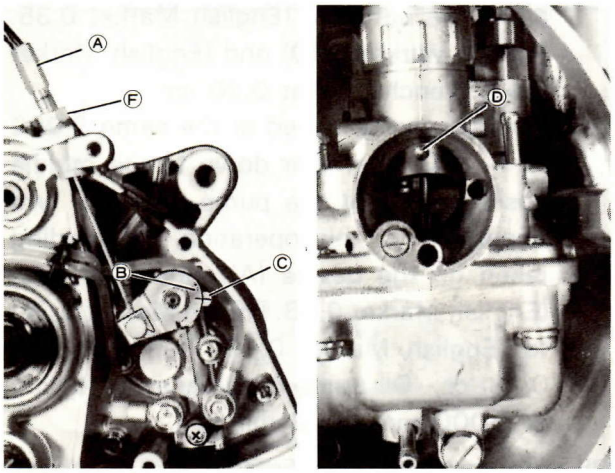


Fig. 2-65

French Market

Mark on the oil pump should be as indicated in Fig. 2-66. When the carburetor is fully closed.

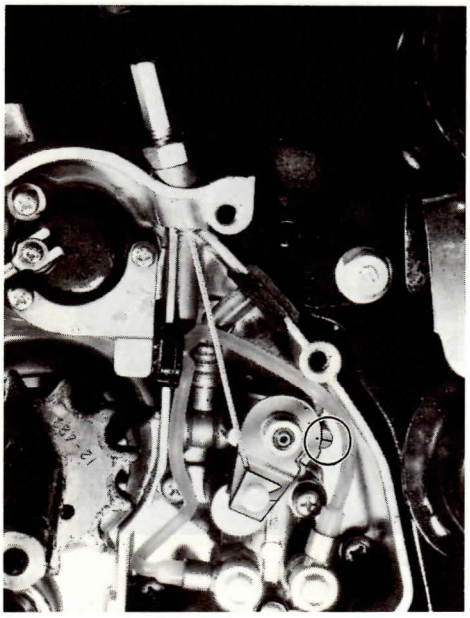


Fig. 2-66

CHECKING THE OIL PUMP CAPACITY

Use **special tool** (A) (09900-21602), Fig. 2-67, to check the pump for capacity by measuring the amount of oil the pump draws during the specified-interval. The checking procedure follows:

1. Have the tool (A) filled with Suzuki CCI oil, and connect it to the suction side of the pump.
2. Run the engine at 2,000 rpm.
3. Hold the oil control lever in full-open position, and let the pump draw the oil for two minutes. The pump is working properly if the special tool indicates anywhere between (English Market 0.35, French Market 0.40) and (English Market 0.43, French Market 0.50)cc.
4. Holding engine speed at the same 2,000 rpm, move the lever down to the middle position and let the pump draw for two minutes. For this operation, the reading taken on the device (A) should be from (English Market 0.35, French Market 0.27) to (English Market 0.43, French Market 0.35) cc. Oil pump capacity specification at 2,000 rpm per 2 minutes.

Oil pump capacity specification at 2,000 rpm

Control lever	Pumping duration	Delivery	
		English Market	French Market
Half open	Two minutes	0.35~0.43 cc	0.27~0.35 cc
Full open	Two minutes	0.35~0.43 cc	0.40~0.50 cc

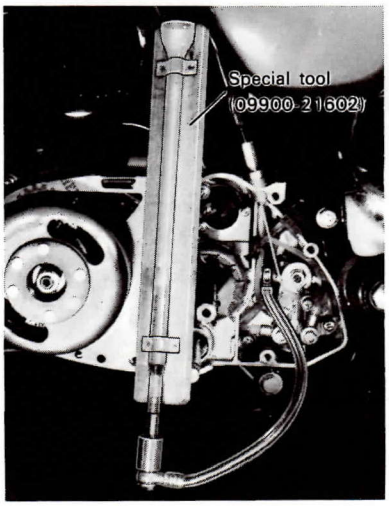


Fig. 2-67

Models for Netherlands market are not equipped with CCI oil pump as lubrication oil is mixed in gasoline. Use the gasoline/oil mixture in the 25 : 1 ratio.

CARBURETOR

A single-barrel MIKUNI (English Market VM16SC, French and Netherlands Market VM10SC) carburetor is used. After disassembling the carburetor for overhaul work, be sure to refer to the enlargened view, Fig. 2-68, of the carburetor in order to rebuild it correctly.

CARBURETOR JETTING

	English Market	French Market	Netherlands Market
Type	VM16SC	VM10SC	VM10SC
Main Jet	72.5	67.5	60
Pilot Jet	25	20	20
Jet Needle	3G1-3	3F3-2	3F3-2
Needle Jet	E-2	E-4	E4
Cut-away	2.0	2.5	2.5
Pilot Air Adjusting Screw	1-1/2	1-1/2	1-1/2
Float Level	22.5±1	24±0.5	24±0.5
Identification Number	05112	22650	22671

Fig. 2-68

CARBURETOR FLOAT HEIGHT ADJUSTMENT

Balanced carburetion at each level of speed depends much on the float level setting. Checking and adjustment of this height (level) is particularly important.

Check and adjust the float height in this sequence:

The fuel level inside the float chamber should be set at the proper position. To adjust the fuel level, measure the distance between the surface of the float bowl setting in the carburetor body and the bottom of the float assembly, as shown in the illustration.

FUEL LEVEL ADJUSTMENT

Standard distance A:

English Market 22.5 mm

French and Netherlands Market 24.0 mm

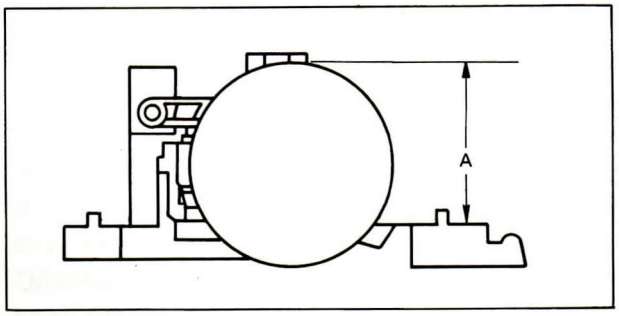
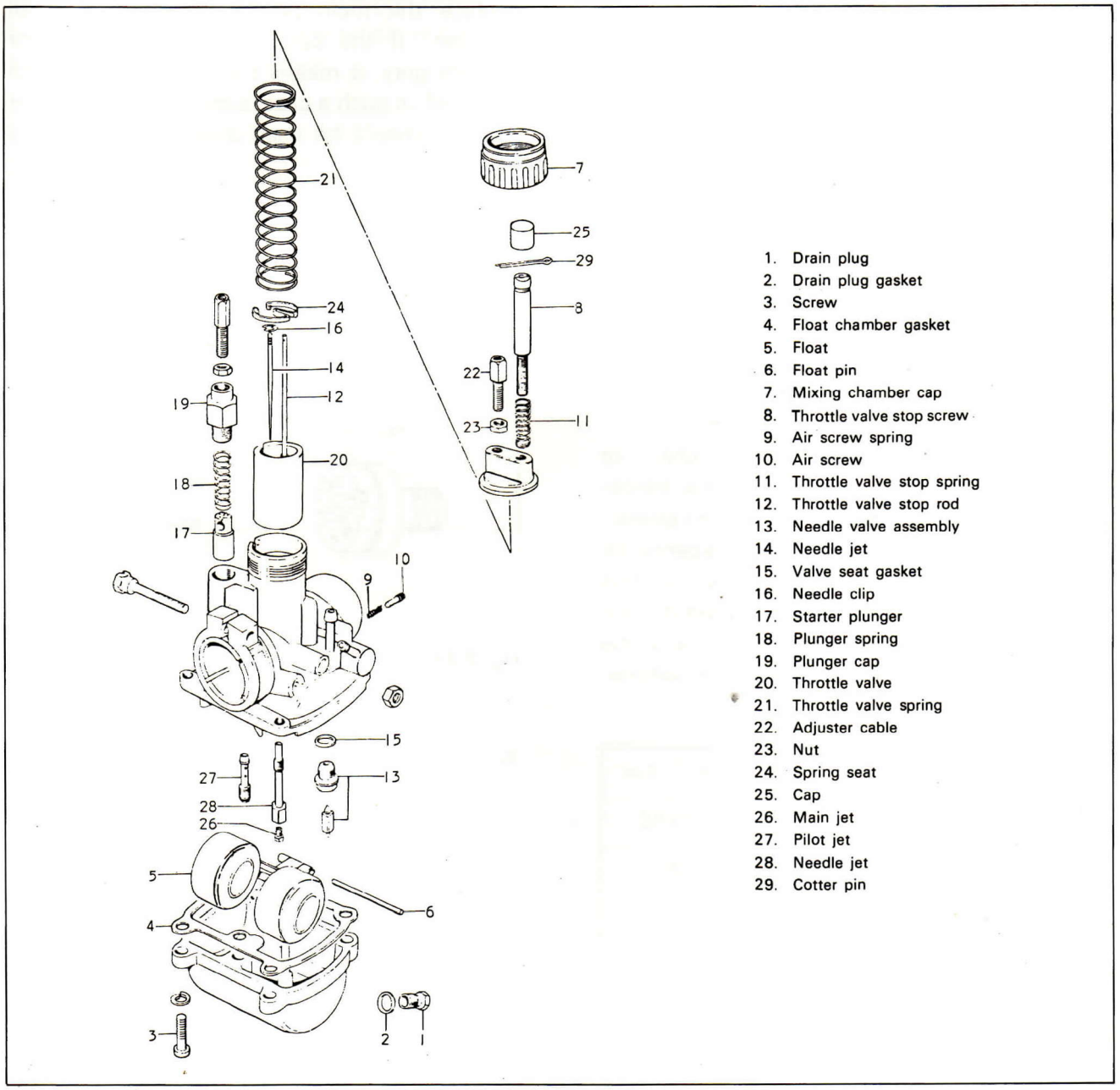


Fig. 2-69

CARBURETOR CONSTRUCTION



1. Drain plug
2. Drain plug gasket
3. Screw
4. Float chamber gasket
5. Float
6. Float pin
7. Mixing chamber cap
8. Throttle valve stop screw
9. Air screw spring
10. Air screw
11. Throttle valve stop spring
12. Throttle valve stop rod
13. Needle valve assembly
14. Needle jet
15. Valve seat gasket
16. Needle clip
17. Starter plunger
18. Plunger spring
19. Plunger cap
20. Throttle valve
21. Throttle valve spring
22. Adjuster cable
23. Nut
24. Spring seat
25. Cap
26. Main jet
27. Pilot jet
28. Needle jet
29. Cotter pin

Fig. 2-70

DIAGNOSIS ON CARBURETION

Whether the carburetor is producing a proper mixture of fuel and air can be known by making a road test (simulating the way the user operates the machine) with a standard spark plug (English Market NGK B-8HS or NIPPON DENSO W24FS. France and Netherland Market NGK BP-7HS or NIPPON DENSO W22EP) fitted to the engine. After the road test, remove the spark plug, and observe the appearance of the plug as well as the surfaces of cylinder head and piston crown. The color observed shows whether the mixture is too rich or too lean.

MIXTURE ADJUSTMENT

1. This adjustment is effected mainly by main jet and jet needle. Before doing so, check to be sure that the float level is correctly set and that the overflow pipe, inlet hose and air cleaner are in sound condition.
2. Find out at which throttle position the engine lacks power or otherwise performs poorly. Drive the machine at that throttle position for a distance of about 10 km (6 miles), after which the spark plug, cylinder head and piston crown should be inspected for color and appearance.
   The mixture can be made "richer" or "leaner" by three adjusting means: namely, main jet, jet needle and pilot air screw. Effectiveness of these means depends on the throttle position, as shown in this chart. The length of each shaded pattern represents the effective range, and the width represents the intensity of carburetion.

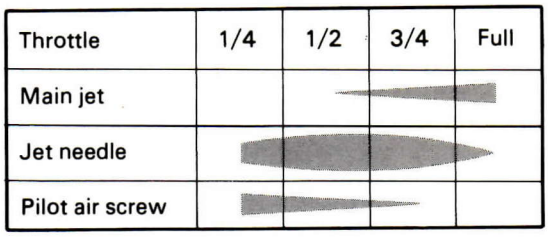


Fig. 2-71

EXAMPLE

If the machine is tested at 1/2 throttle to result in a color and appearance indicating a mixture that is too righ or too lean, make an adjustment by jet needle and pilot air screw.

3. How these three adjusting means are effective will be explained:

A. MAIN JET

When throttle grip is in the range from 3/4 to full-open, the amount of fuel for carburetion is controlled by this jet. If the mixture is too rich (indicated by a black color due to carbon), replace the main jet by one with a small number. If the color is rather brownish or whitish gray, it means that the mixture is too lean and, in such a case, a main jet with a larger number should be used instead to enrich the mixture.

Standard main jet:
English Market ..... #72.5
French Market ..... #67.5
Netherlands Market ..... #60

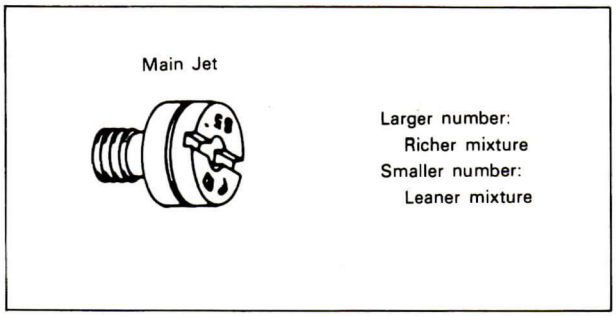


Fig. 2-72

B. JET NEEDLE

The rate of fuel supply for carburetion is controlled by the jet needle when throttle grip is in the range from 1/4 to 3/4. To enrich the mixture, set the needle by a lower notch, and vice versa. Removing the clip allows the needle to be repositioned. There are a total of five notches for selectively setting the needle by clipping.

Standard jet needle setting: 2nd notch

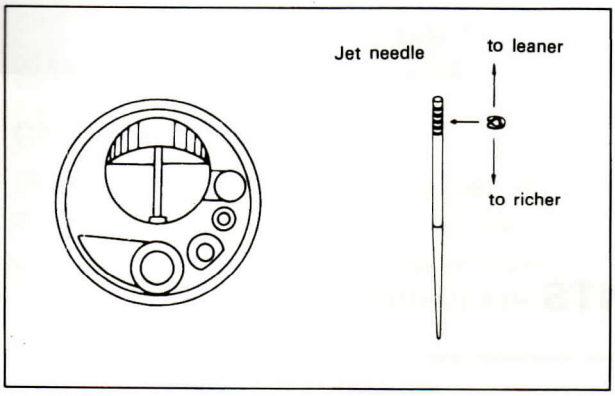


Fig. 2-73

Adjusting by means of the jet needle affects the carburetion for the lower throttle grip range up to 1/4. For adjustment in this range, reposition the pilot air screw as shown:

Standard pilot air screw setting	Run in all the way and back it away 1-1/2 turns.

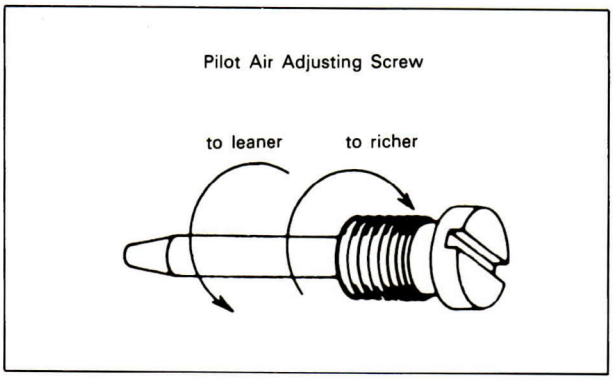


Fig. 2-74

CONTENTS

PEDAL-CRANKING SYSTEM

CHARACTERISTICS

This A50P can be operated either through engine driving or pedal-driving by rider. SUZUKI's original system makes it possible to switch over the operation methods easily and securely.

Engine driving

By changing the shift pattern as shown in Fig. 3-1 engine power is transmitted to the rear wheel via the drive chain.

*Engine power is transmitted through the oblique-lined sections.

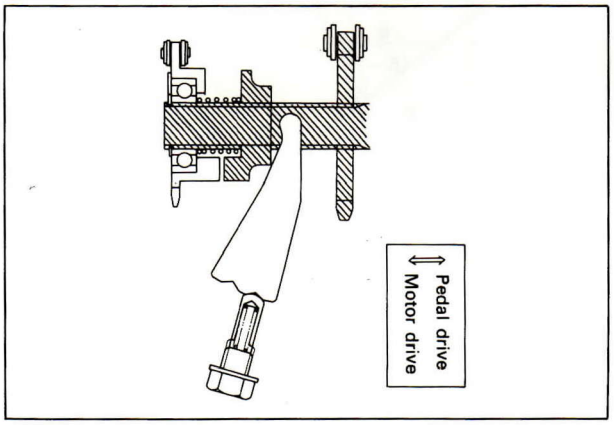


Fig. 3-1

Pedal driving

By changing the shift pattern as shown in Fig. 3-2 power from the pedal is transmitted to the engine sprocket via the cycle chain and to the rear wheel via the drive chain.

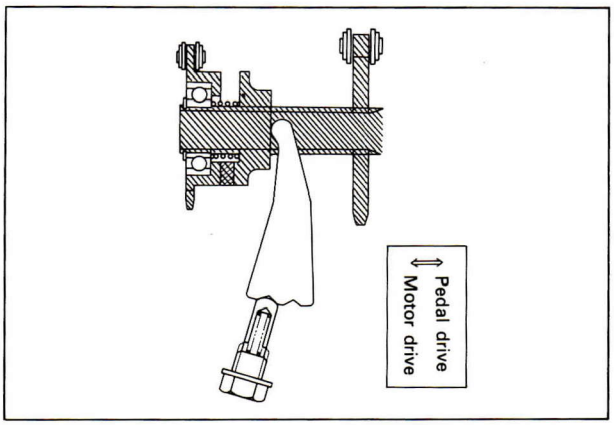
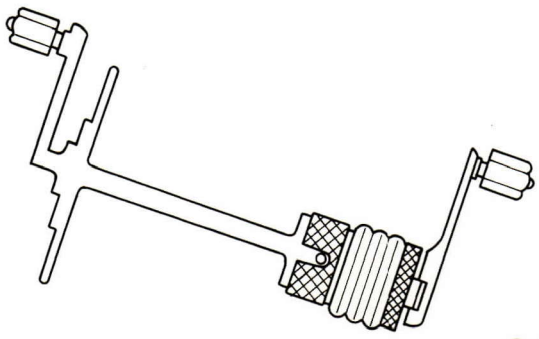
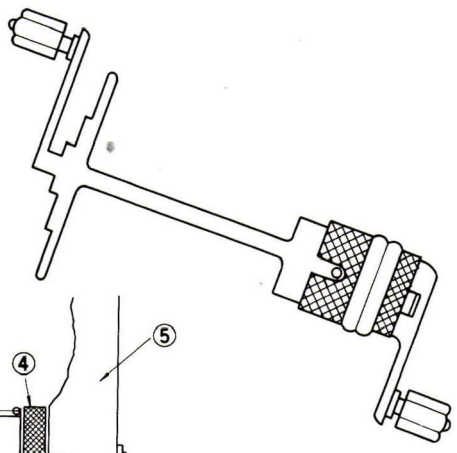


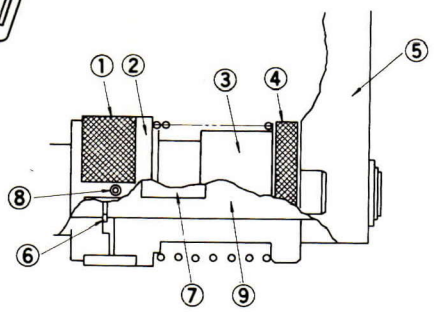
Fig. 3-2

Pedal position in the engine driving operation.



Pedal position in the pedal driving operation.





1. Dog stopper
2. Inner dog
3. Crank sleeve
4. Outer dog
5. Crank R
6. Circlip
7. Woodruft key
8. Spring pin
9. Crank shaft

Fig. 3-3, 3-4

Cycle sprocket wheel moves 5.5 mm when the shift pattern is changed.

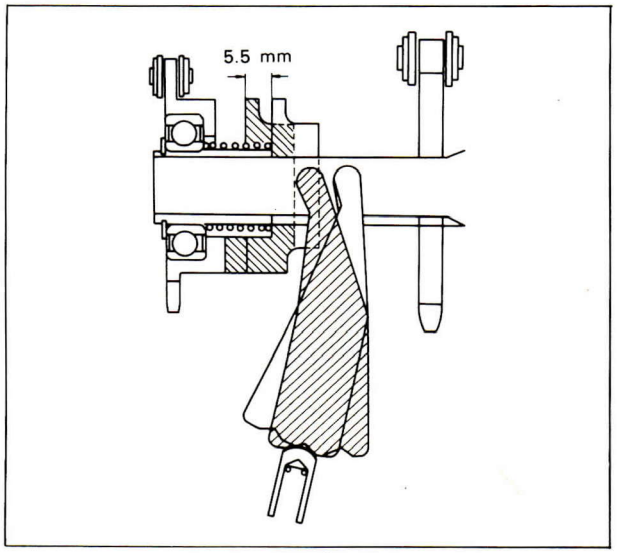


Fig. 3-5

FRONT SUSPENSION AND WHEEL

The front suspension features hydraulically damped telescopic forks. Each damper assembly consists of a chromium plating steel inner tube.

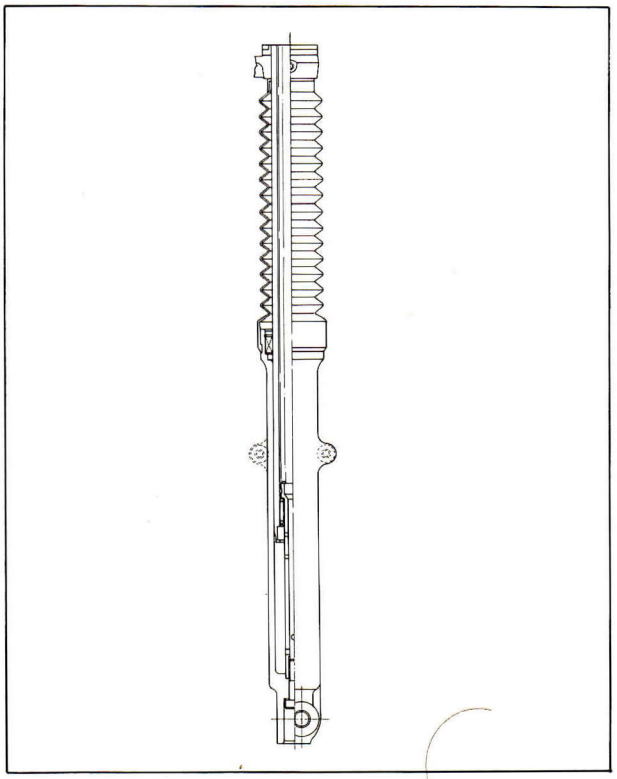
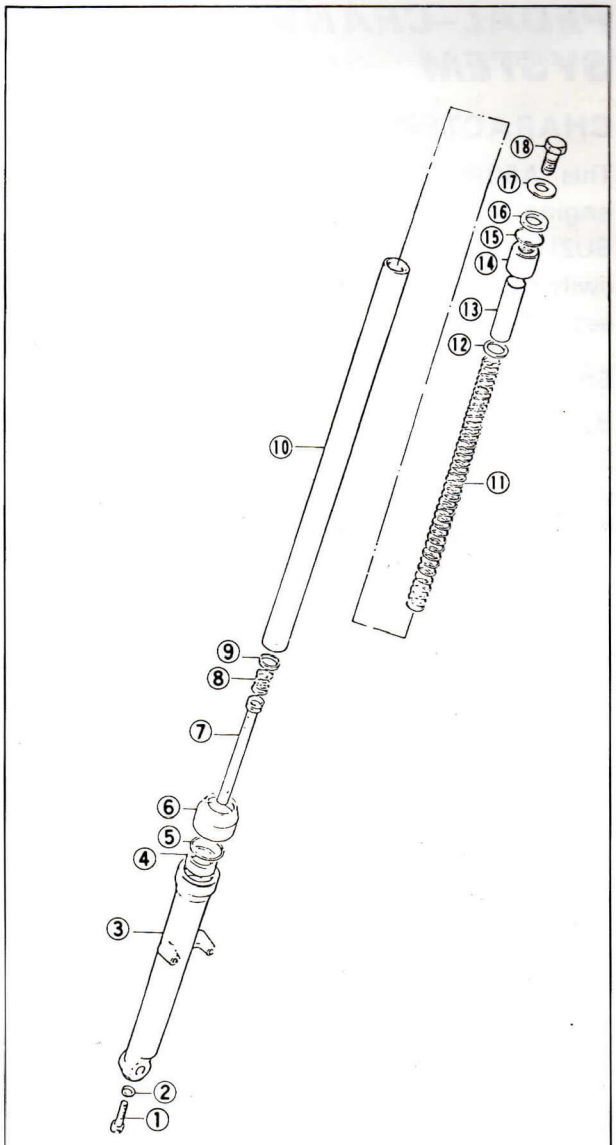


Fig. 3-6-1



1. Bolt
2. Gasket
3. Outer tube, R.H.
4. Oil seal
5. Oil seal stopper ring
6. Dust seal
7. Seat pipe
8. Rebound spring
9. Piston ring
10. Fork pipe
11. Spring
12. Spring seat
13. Spring color
14. Spring seat
15. Stopper ring
16. Gasket
17. Washer
18. Bolt

Fig. 3-6-2

SERVICE

Under normal conditions the front forks will require no servicing other than an occasional change of oil. Should the oil level become low, it will be indicated by excess movement of the forks, but only after considerable mileage.

FRONT FORK OIL

Capacity: 70 cc in each leg
Viscosity: SAE 10W/20

SPRING CHARACTERISTICS

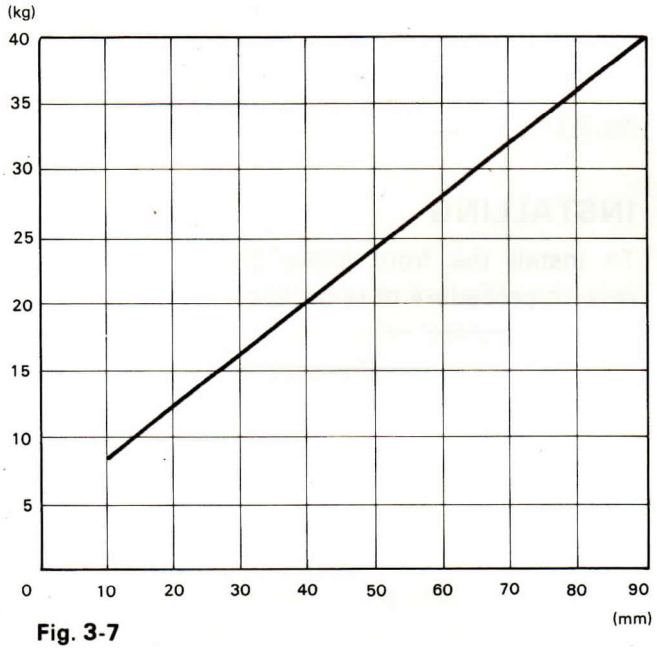


Fig. 3-7

PRECAUTIONS FOR HANDLING

Never charge the front fork with more oil than specified: supply up to 70 cc for each leg.
When removing the front fork cylinder fixing bolt, copper packing is apt to be damaged, which may cause oil leakage. Be sure to replace the fixing bolt and copper packing when removing fixing bolt.

When the inner tube sliding surface is visibly uneven, or when a flaw is felt with finger, replace both the inner tube and oil seal. When there is a flaw in the inner tube, the oil seal is also damaged in most cases.

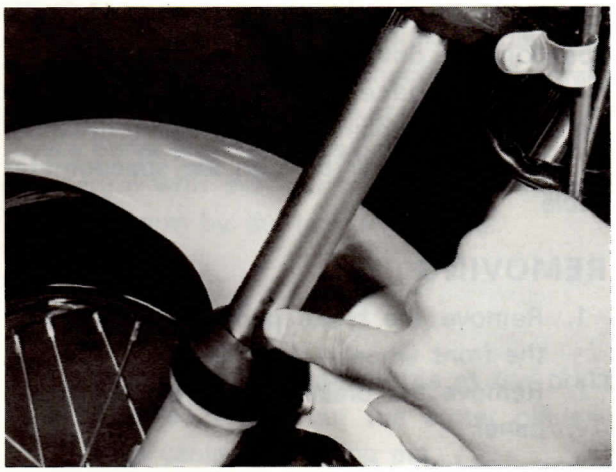


Fig. 3-8

REAR SUSPENSION AND WHEEL

The rear suspension incorporates a hydraulically damped swinging arm. Shocks received by the rear wheel are damped by rear shock absorbers mounted between the frame and this swinging arm. These shock absorbers are telescopic oil damper types.

FRONT BRAKE

DESCRIPTION

The front brake is an internal expansion type and consists of the front brake lever, brake cable, brake shoes and panel etc. The speedometer drive system is installed in the front brake panel and the speed of the motorcycle is transmitted from the front wheel to the speedometer through the speedometer cable.

REMOVING

1. Remove the brake panel after removing the front wheel.
2. Remove the brake shoes from the brake panel.

Fig. 3-9

3. Remove the speedometer drive gear, gear and its washer by taking out the circlip with the special tool (09920-06104).

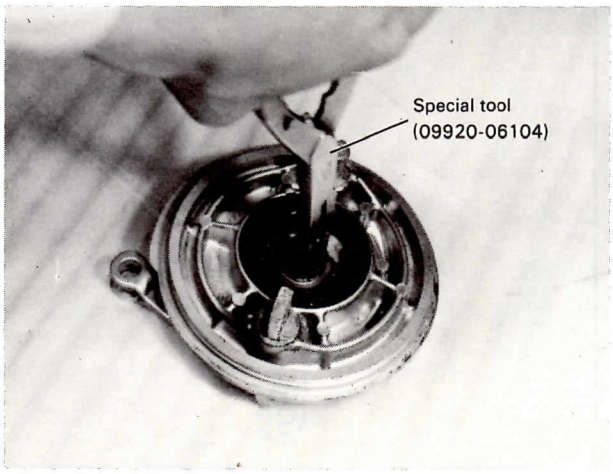


Fig. 3-10

4. Remove the speedometer drive gear, its bushing and washers by unscrewing the driven gear bushing screw.

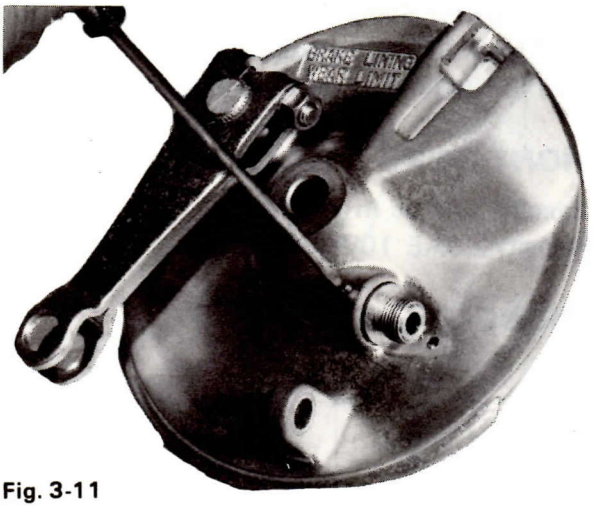


Fig. 3-11

INSTALLING

To install the front brake panel, follow the reverse procedure of removal taking care of the following points.

1. Tighten the brake cam lever bolt to the specified torque.

Brake cam lever bolt tightening torque: 70 kg-cm

2. Apply grease to the lips of the oil seal and install the oil seal to the brake panel.
3. Apply grease to the brake camshaft, speedometer drive gear and speedometer driven gear.

INSPECTION

1. Brake shoes
   Check the outside diameter of the brake shoes as shown in the figure. If the measurement is less 104.0 mm, replace both brake shoes.

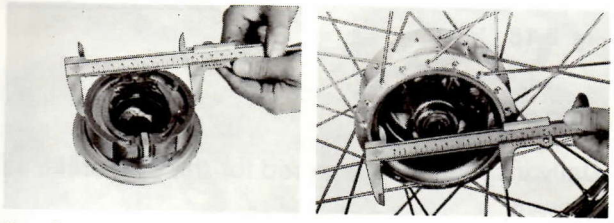


Fig. 3-12

2. Brake drum
   If the inside diameter of the brake drum exceeds 110.7 mm due to wear, replace with a new brake drum.

ADJUSTMENT

Adjust the brake cable with the cable adjusting nut on the end of the brake cable so that the distance between the brake lever and the throttle grip is 20 ~ 30 mm.

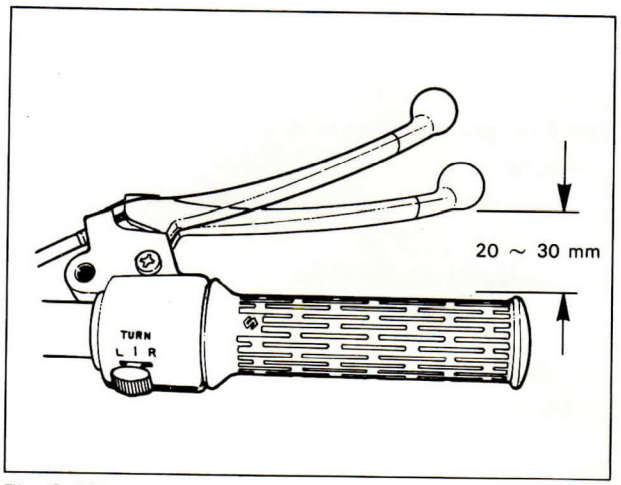


Fig. 3-13

REAR BRAKE

DESCRIPTION

The rear brake consists of the brake panel, brake cable, camshaft and shoes etc. The brake pedal is fitted on the frame, and the end of the pedal is connected to the brake cable. The other end of the cable is connected to the brake cam lever. The brake shoes are mounted on the brake panel and the brake panel is mounted on hub drum with the rear axle fixed to the rear swinging arm by the rear torque link.

REMOVING

1. Disconnect the brake cable at the brake pedal by taking out the cotter pin and brake cable connecting pin.
2. Remove the right footrest bar after unhooking the brake lamp switch spring at the brake pedal.
3. Remove the rear brake pedal after removing the rear wheel.
4. Remove the brake shoes from the brake panel.

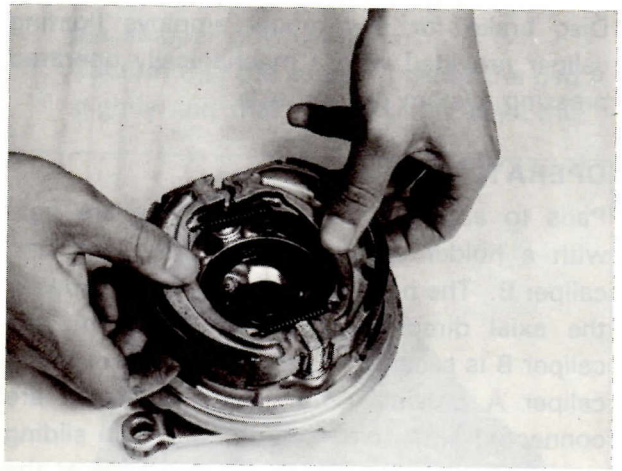


Fig. 3-14

5. Remove the brake cam lever and its return spring by loosening its retaining nut and bolt take out the "O" ring, washer and camshaft.

INSPECTION

1. Brake shoe
   Check the outside diameter of the brake shoes, shown in the figure. If the measurement is less 104.0 mm, replace both brake shoes.
2. Brake drum
   If the inside diameter of the hub drum exceeds 110.7 mm due to wear, replace with a new hub drum.

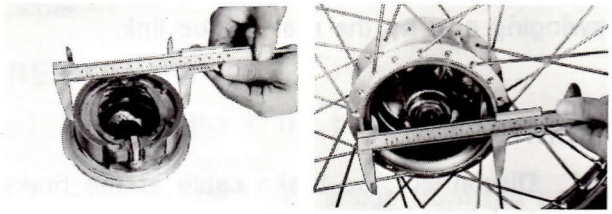


Fig. 3-15

IN CASE DISC BRAKE IS INSTALLED

OUTLINE

Disc brake for this model employs floating caliper provided with a mechanically operated pressing system on one side.

OPERATION

Pads to apply friction-braking force are held with a holder secured to the front fork and caliper B. The pad held with the holder slides in the axial direction. The pad held with the caliper B is secured with screws. Caliper B and caliper A provided with pressing system are connected with two bolts through two sliding guide holes in the holder so as to slide at the same time. Thus, when the brakes are applied, the pressing system is actuated to press the pad A held with holder directly, the caliper A moves to the opposite direction to press the pad B held with caliper B against the disc.

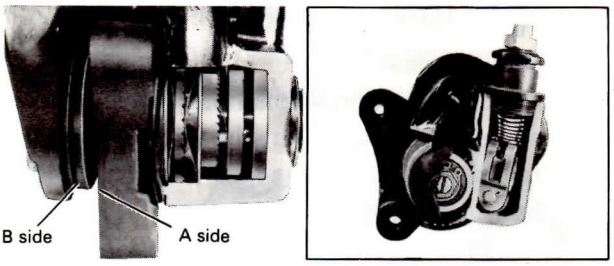


Fig. 3-16

INSPECTION

Daily inspection is required for the disc brake as follows:

1. Whether the pad lining is not exceeding the allowable wear limit.
   If the wear of the pad lining reaches the allowable limit, replace with new one.
2. Whether the pad lining or disc is not stained with oil, grease or mud.
   Wipe out oil or grease on the disc with thinner or if the pad is stained considerably, replace with new one.

REPLACING

PAD

Molded lining attached to a steel plate constitutes a pad and provides friction force. Replace the pad when it is worn out so that the red line on the circumference of the pad disappears.

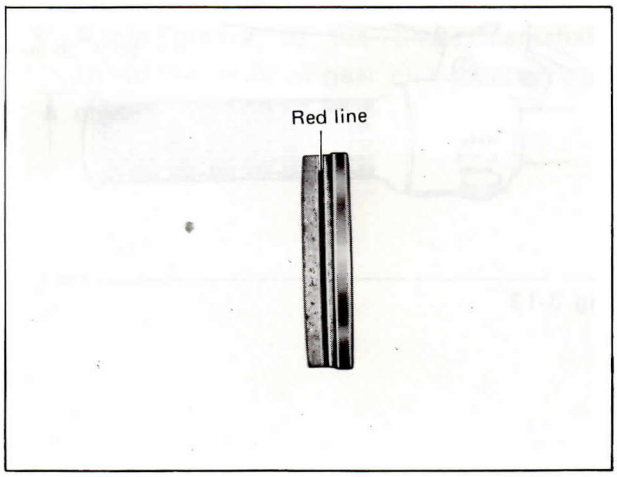


Fig. 3-17

Replace the pad in the following procedure.

1. Remove the caliper with the wire cable on it from the front fork.

Fig. 3-18

2. Remove the pad B securing screws from the caliper B and move the pad B to pad A direction, and then the pad B can be removed.

Fig. 3-19

3. Slide the pad A to the caliper B direction, and then it can be taken out of the holder.

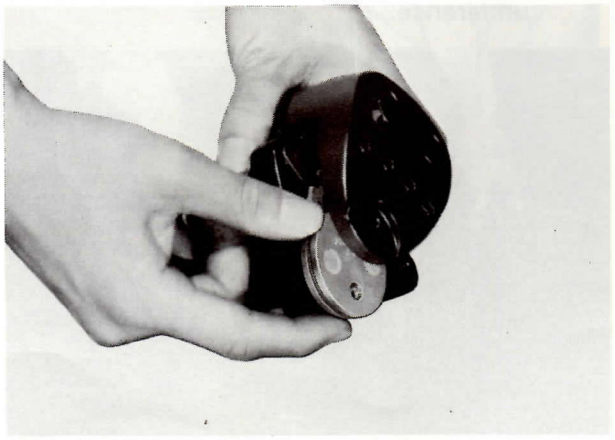


Fig. 3-20

To install a new pad:

4. Remove mud etc. from mating sections of caliper B and pad B, and holder and pad A.

Fig. 3-21

5. Remove outer boots, loosen the nut, and turn the stopper clockwise to return the push rod. Never turn the stopper further when meeting resistance.
6. Move the holder to caliper A direction and insert the pad A in the holder. In this case, align the slot on the pad A to the stopper on the holder and insert the pad A pushing the stopper downward.
   Confirm that the stopper pushes the pad A slightly and that pad A slides smoothly.

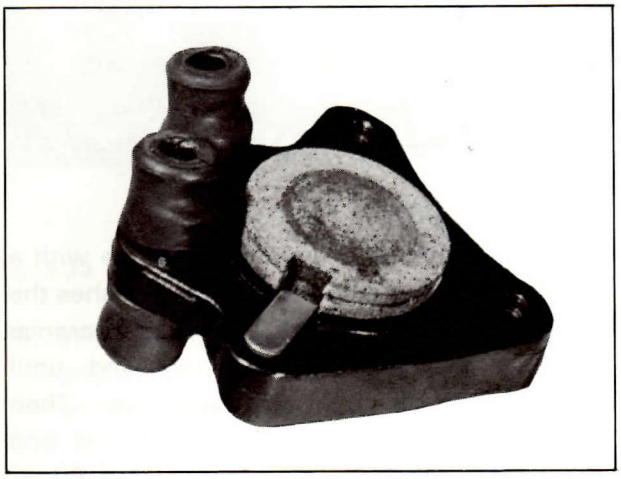


Fig. 3-22

7. Install the pad B and secure to the caliper B with a spring washer and screws. Confirm that the holder moves smoothly.

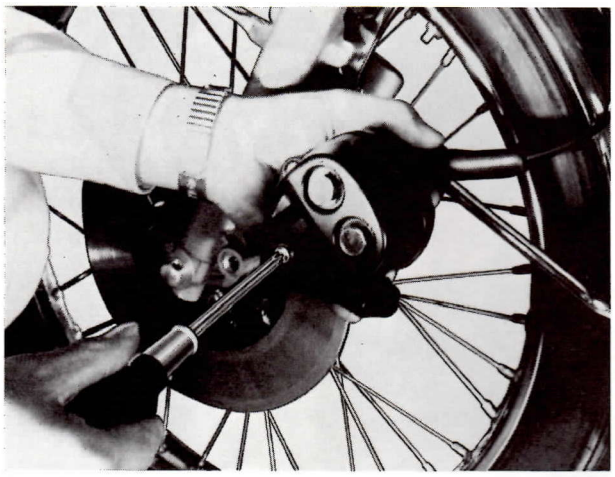


Fig. 3-23

8. Determine the distance between pad A and B so that the disc can be inserted and secure the caliper to the front fork.

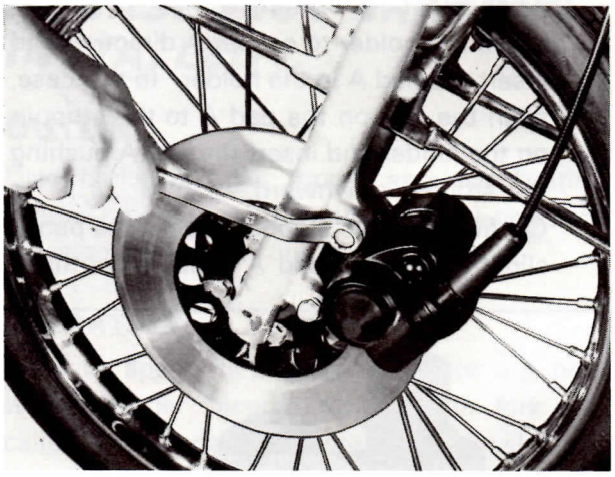


Fig. 3-24

9. Turn the stopper counterclockwise with a minus driver until the push bolt pushes the pad A so that there is no clearance between the disc and pad and until resistance is felt against the driver. Then return the stopper by one rotation and tighten the lock nut to a torque of 80 ~ 100 kg-cm. Secure the outer boots to boots cap.

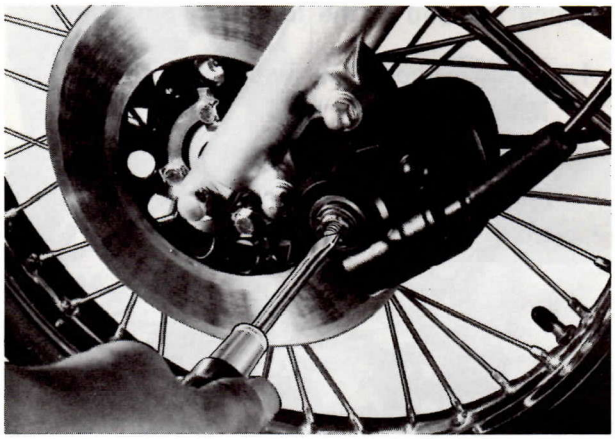


Fig. 3-25

10. Grasp the brake lever lightly and move it over its stroke until resistance is felt and release hand. Repeat this action about 20 times: it will adjust the clearance between pad and disc by operating the automatic adjustment system incorporated in the caliper.

Fig. 3-26

11. After rotating the tire several times, confirm that the tire can be rotated with the force of 2 kg or less at the outer circumference.

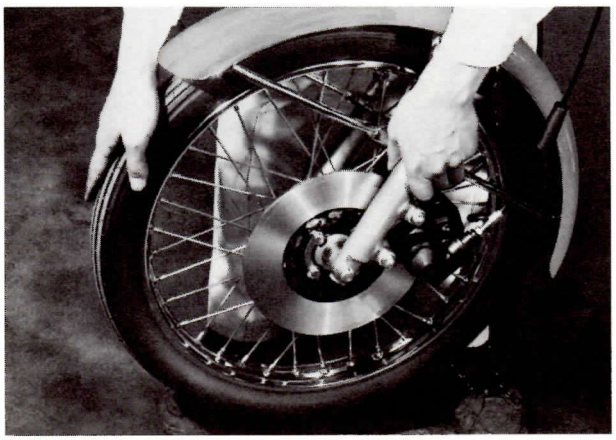


Fig. 3-27

CALIPER

1. Remove the wire cable from the brake lever.

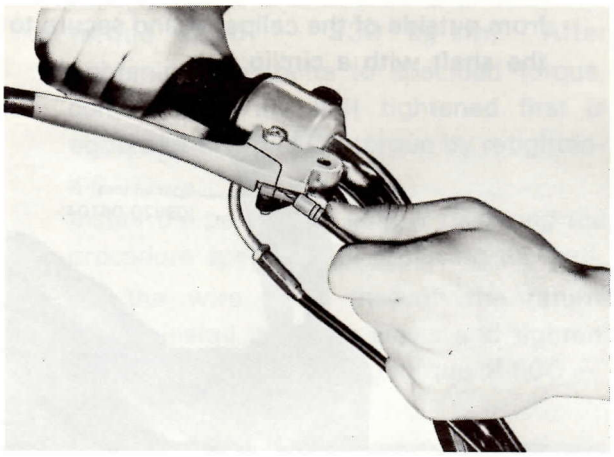


Fig. 3-28

2. Loosen the plug and remove the wire cable from the lever of the caliper.

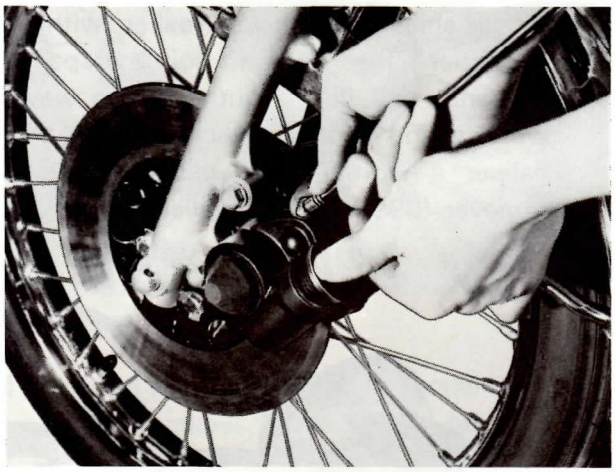


Fig. 3-29

3. Remove two caliper bolts.

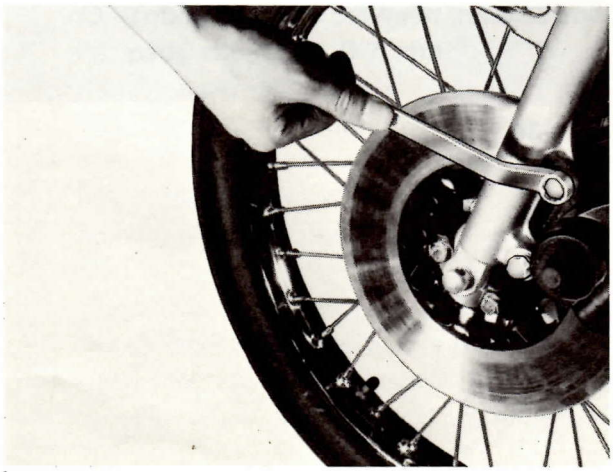


Fig. 3-30

Remove pad A and B following the procedure specified for replacing the pad.

4. Loosen the bolt making sure that the bolt head is not raised off the bearing surface which will damage the O ring of the axle bolt.

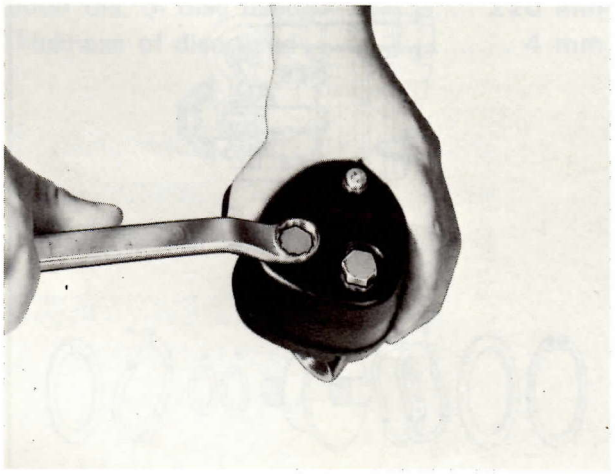


Fig. 3-31

5. Remove the boots snap ring from caliper A and take off the outer boots.

Fig. 3-32

6. Wipe out the caliper A and B, axle holder and caliper A components with absolute alcohol or brake fluid.

7. Assembling the caliper A.
a. Apply PBC grease (high load resisting grease) to oblique-lined sections and *marked parts in Fig. 3-33.

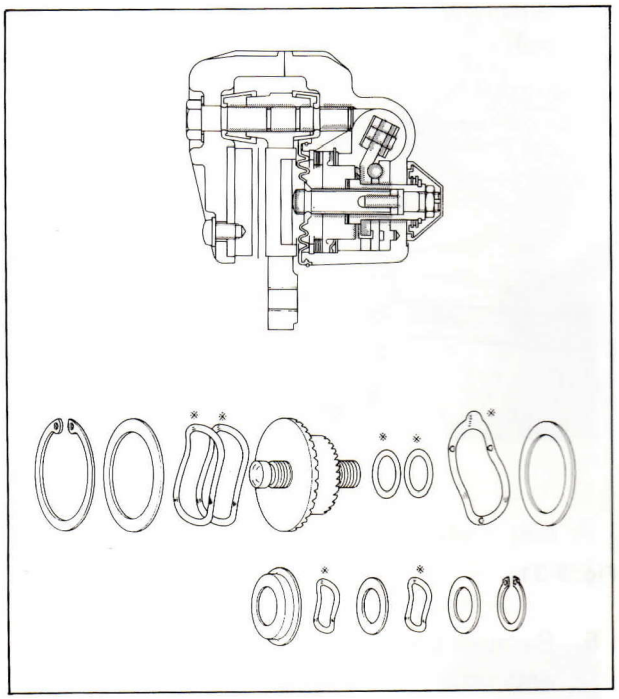


Fig. 3-33

b. Place three balls to ball seats in the lamp and secure fitting to the locking system at the bottom of the caliper A.
c. Fit a clevis, wire pin and pin spring to the lever. Install the lever so that it is seated on the three balls. Confirm that the balls are seated properly by pushing them from upside of the lever with finger.

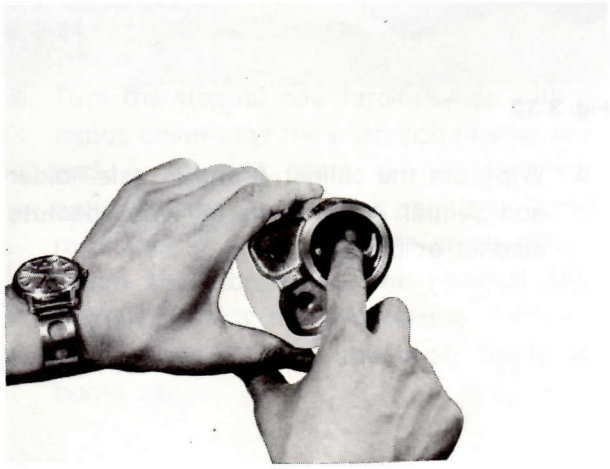


Fig. 3-34

d. Fit a stopper nut to the shaft. Install the shaft fitting to the square hole in the lever. Install boots, cap, wave washer, shim, wave washer and shim in this order from outside of the caliper A and secure to the shaft with a circlip.

Fig. 3-35

e. Fit a shim and wave washer with a projection. Insert a push bolt and spacer to a nut and fit the nut. Fit two wave washers and shims and secure them to the caliper A with a circlip using snap ring remover (09920-73110) pliers.

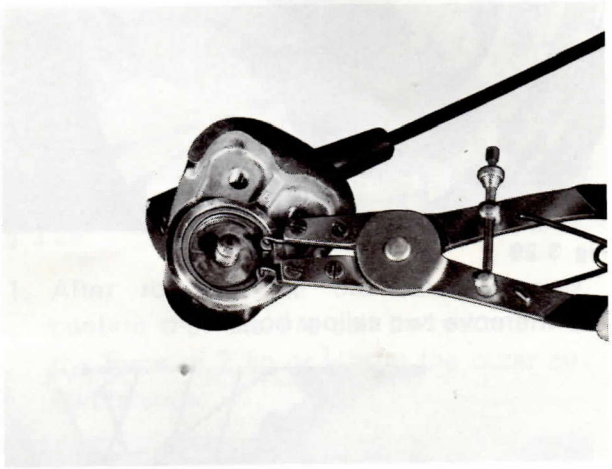


Fig. 3-36

8. Fit a washer to a bolt. Insert the bolt to the caliper B, fit a new O ring and apply PBC grease between the O ring and bolt.
9. When installing the caliper A and B, be sure to fasten the axle bolts to specified torque (280 ~ 330 kg-cm). After tightening two bolts to specified torque, confirm that the bolt tightened first is tightened to specified torque by retightening.
   Install the pad to the caliper following the procedure specified for replacing the pad.
10. Put the wire cable through the return spring, install it to the clevis and tighten the plug to the tightening torque of 500 ~ 600 kg-cm.

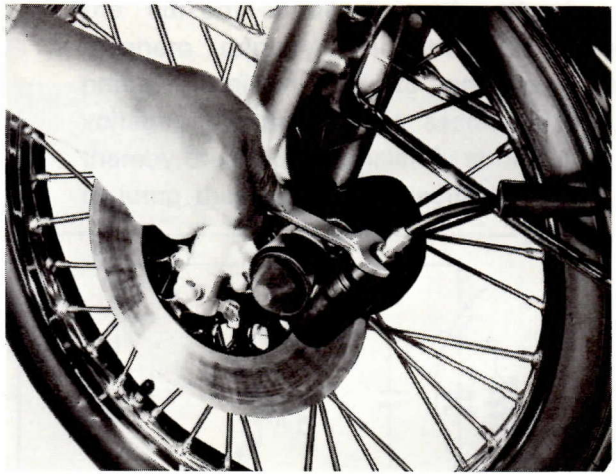


Fig. 3-37

12. Install the wire calbe to the brake lever and fix the caliper to the vehicle body.

NOTE

- Replace the rubber parts once every two years.
- Total clearance between the disc and pads should be 0.7 mm.

Specifications

Pad area	14.8 × 2 cm^2
Pad lining thickness	6.15 mm
Pad lining effective thickness	4.5 mm
Caliper lever ratio	6.3 mm
Effective radius	87 mm
Outer dia. of disc used	220 mm
Thickness of disc used	4 mm

CONTENTS

ENGINE ELECTRICAL COMPONENTS

Flywheel magneto of this A50P consists of 2 type coils; one for ignition and other for battery charging and lamps.

1. Ignition system
   The flywheel magneto type ignition system is wired as shown in the diagram. As the flywheel magneto rotates, current is generated in the primary coil mounted on the stator. When the breaker points close, this current flows to ground through them, because the primary coil is grounded and thus has no influence on the primary ignition coil. When the contact points open, the current induced in the flywheel magneto primary coil flows into the primary ignition coil to provide high voltage induction in the secondary coil, thereby creating a sufficiently strong spark to jump the spark plug electrode gap.

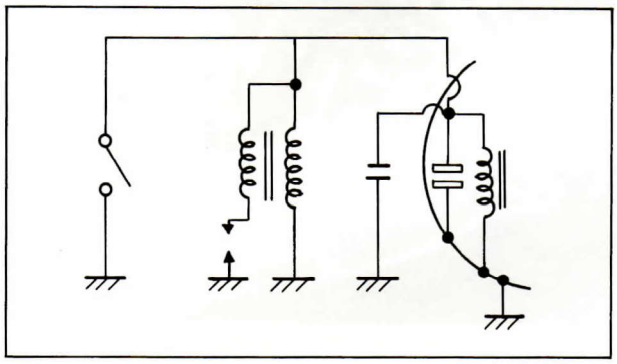


Fig. 4-1

2. Charging system
   The charging system uses the flywheel magneto as shown in the figure. The charging and lamp coils are mounted on the magneto stator and generate AC as the flywheel rotor turns.
   Charging coil and lighting coil use a same core. Charging coil corresponds from the beginning to the end of the coil and lighting coil from the beginning to the middle.
   These circuits are each engaged by setting the ignition key to the proper position. AC generated in the charging coil flows to the rectifier where it is charged to DC. This DC then charges the battery.

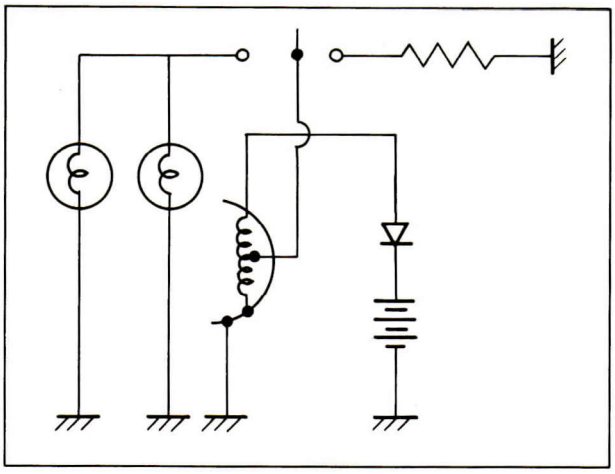


Fig. 4-2

IGNITION SYSTEM COMPONENT INSPECTION

1. Spark plug
   E-2 ..... English Market
   E-4 ..... French Market
   E-25 ..... Netherlands Market

	NGK		Nippon Denso		Remarks
	E-2	E-4 and 25	E-2	E-4 and 25	
Hot type	B-7HS	BP-6HS	W22FS	W20FP	To correct fouling
Standard	B-8HS	BP-7HS	W24FS	W22FP	
Cold type	B-9HS	B-8HS	W27FS	W24FS	To correct overheating

Fig. 4-3

Spark plug gap:
0.6 ~ 0.7 mm

As the table shows, either the **NGK** E-2 B-8HS, E4, and 25 BP-7HS or the **Nippon Denso** E-2 W24FS, E-4, and 25 W22FP is standard for the A50P. If the electrodes foul (become wet), change to the hotter type; if overheating is a problem, switch to the colder type.

When carbon accumulates on the electrodes, remove it with a wire brush or pin. Then readjust the gap (A) to 0.6 ~ 0.7 mm; use a thickness gauge.

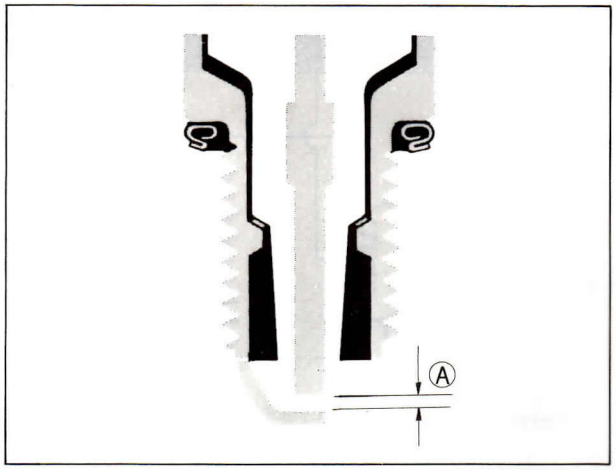


Fig. 4-4

NOTE

Be sure to adjust the gap on a new spark plug before installing it.

Plug tightening torque:
250 ~ 300 kg-cm

2. Ignition coil
The ignition coil is essentially a transformer which changes low voltage into high. For this reason there are two windings; the first (low voltage — input side) is the primary coil and the second (high voltage — output) the secondary coil.
Use a electro tester to verify ignition coil performance.

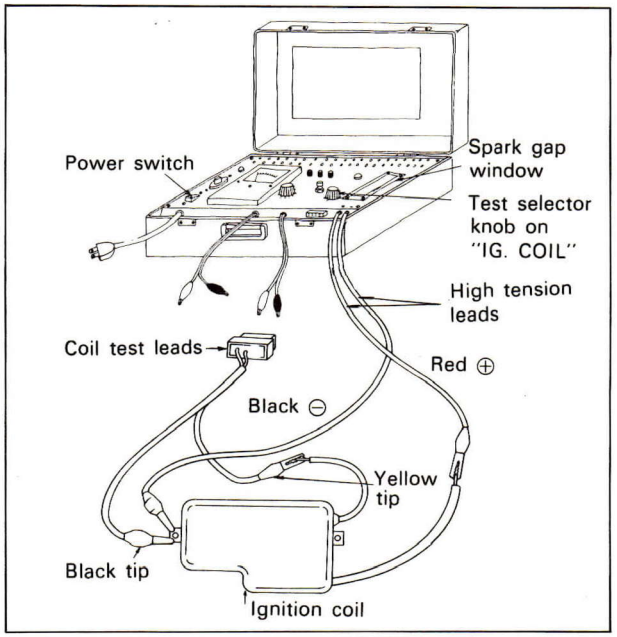


Fig. 4-5

a. Set the power switch to "OFF".
b. Connect the coil test leads with the yellow tip attached to the coils black wire and the black tip to the coils mounting bracket (ground). Connect the high tension leads with the red ⊕ lead attached to the spark plug cable and the black ⊖ lead to the coils mounting bracket (ground).
c. Set the test selector knob to "IG. COIL".
d. Switch the power On.
e. Note the spark in the spark gap window. It should be strong and continuous, not intermittent, across a preset **8 mm** gap. Allow the spark to jump the test gap for at least **five minutes** continuously, to insure proper operation under the temperature conditions of actual riding.

3. Contact points

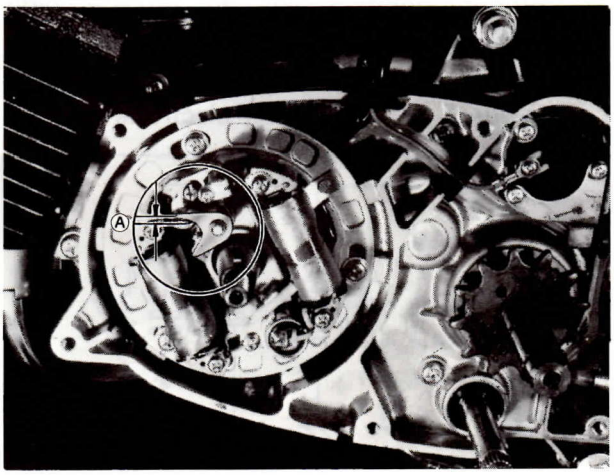


Fig. 4-6

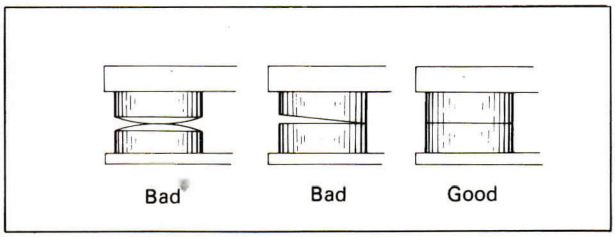


Fig. 4-7

The contact breaker on the flywheel magneto is in reality a type of switch which is activated by the cam rotating inside the flywheel rotor. It acts to pass and cut the current generated in the primary coil.
To inspect the point gap, first rotate the crankshaft slowly until the gap is largest. Next, check this gap with a thickness

guage. The standard gap (A) is 0.3 ~ 0.4 mm. If the gap is not set to this standard, reset.

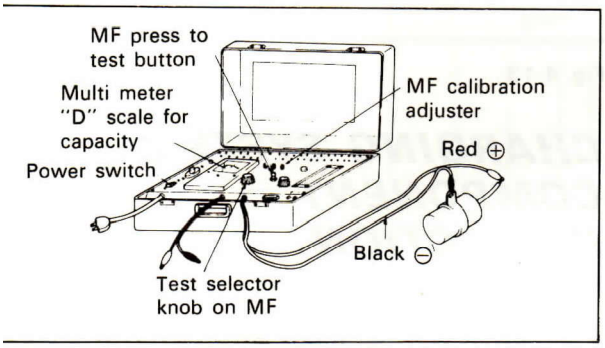
The contact point gap should be checked after the first 1,000 km and every 3,000 km thereafter.

NOTE

Whenever the point gap is reset, be sure to then reset the ignition timing.

Inspect the point surface condition. If either surface is burned or pitted, remove and polish with an oil stone. Wash the points carefully with gasoline before reinstalling.

4. Condenser



ig. 4-8

A condenser is connected in parallel with the contact points to store and then release electric current. The amount of charge the condenser can store is determined by its capacity.

This capacity should be checked using an SS-2 type electro tester (Part No. 09900-28106).

a. Insert insulation between the points and the condenser body should be isolated from ground.
b. Set the tester selector knob to "MF".
c. Set the power switch to "ON" and calibrate the multimeter "D" scale to the "CAL" position using the "MF" calibration screw.
d. Connect the red (positive) lead to the condenser lead and the balck (negative) lead to the condenser case mounting tab.
e. Press the Test button and note the "D" scale reading.

If the reading does not fall within the standard range, replace the condenser.

Standard condenser capacity range: 0.16 ~ 0.20 μF

5. Ignition timing

Ignition timing accuracy can be checked using **a timing light** or **a timing (dial) gauge** and **timing tester**. Before checking ignition timing, always be sure the point gap is correctly set at 0.3 ~ 0.4 mm. Ignition timing should be checked after the initial 1,000 km and every 3,000 km thereafter.

6. Checking with timing light

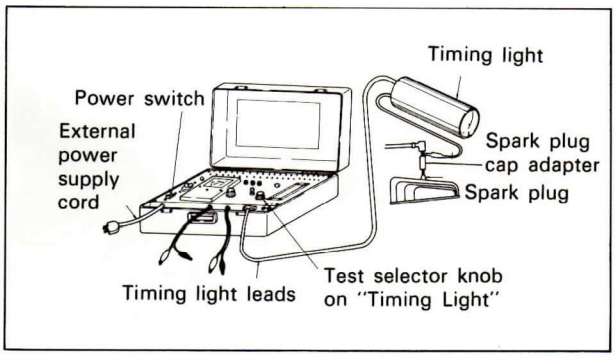


Fig. 4-9

a. Set the power switch to "OFF".
b. Plug the timing light cord into the test plug socket on the tester.
c. Attach the high-tension lead to the spark plug cap adaptor (high tension adaptor).
d. Turn the selector to "TIMING LIGHT".
e. Turn the power switch "ON".
f. Aim the timing light at the aligning mark

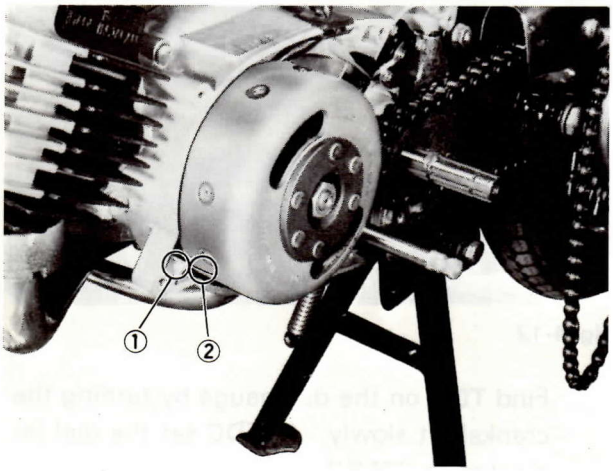


Fig. 4-10

(1) and embossed mark (2) on the magneto flywheel. When the aligning and embossed marks are together at the time the timing light flashes, timing is correct. If the light flashes when the aligning mark is before the embossed mark (in relation to the direction of rotation), firing is too early; if it is after the embossed mark, firing is late. Correct by readjusting the point gap.

7. Check with timing (dial) gauge and tester

a. Remove the spark plug from the cylinder head and install the timing gauge (1) in its place.

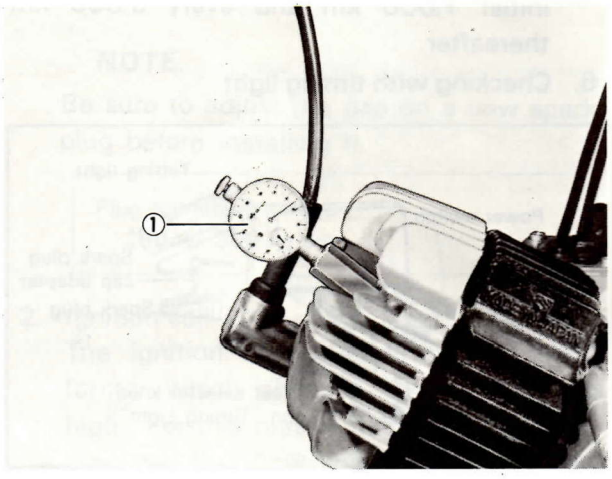


Fig. 4-11

b. Connect one tester (2) lead to the contact point positive terminal, the other to a ground.

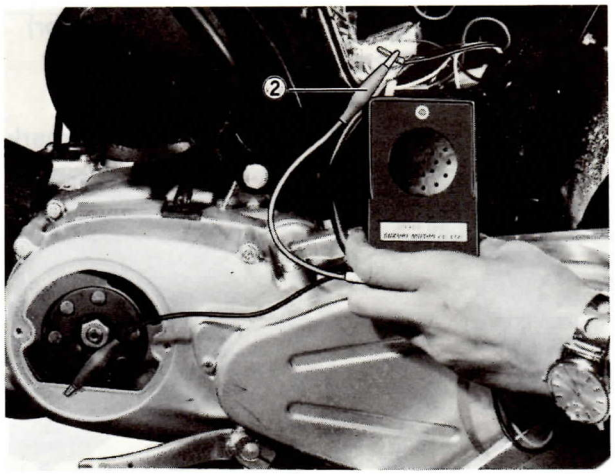


Fig. 4-12

c. Find TDC on the dial gauge by turning the crankshaft slowly. At TDC set the dial indicator to "ZERO".

d. Turn the crankshaft slowly clockwise (the reverse of normal engine rotation); stop when the tester sound fades out.

e. Read the dial gauge indication. This shows the ignition timing in piston travel from TDC.

Required tools:
Timing gauge 09931-00112
Timing tester 09900-27003

	Timing Retards	Std.	Timing Advances
Crankshaft angle (°C)	16	18	20
Piston distance (mm)	0.96	1.14	1.69

Fig. 4-13

CHARGING SYSTEM COMPONENT INSPECTION

1. Silicon rectifier

The silicon rectifier converts AC to DC by allowing current to pass in one direction only.

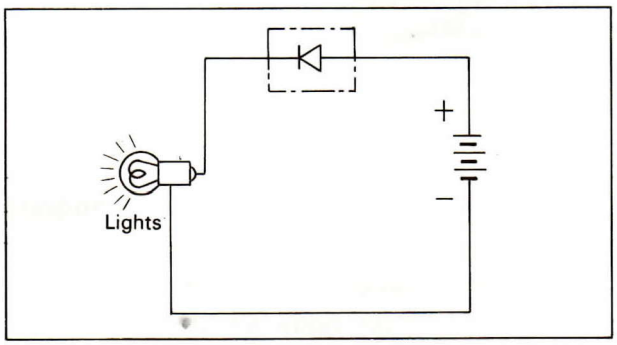


Fig. 4-14

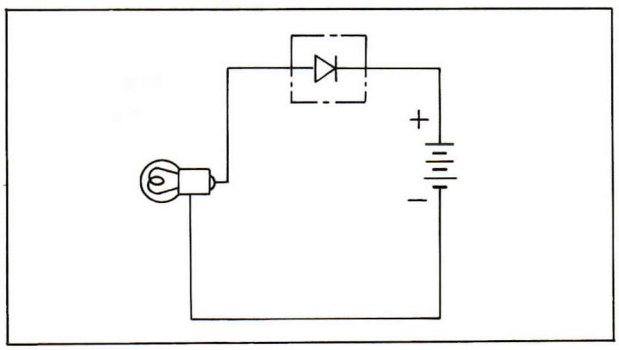


Fig. 4-15

A simple way to check the rectifier is to wire a circuit as shown in the figure, using one lamp. If the lamp lights when connected so that current flows in the correct direction, and fails to light when connected in the opposite way, then the rectifier is in good condition. If the lamp lights in both connection modes, replace the rectifier.

2. Lighting performance check
   Electricity generated at the lighting coil is 21W. For this reason, head lamp 15W and the following two lamps:
   Tail lamp..... 3W
   Speedometer lamp..... 3W
   Connect the pocket tester as indicated below and start the engine.

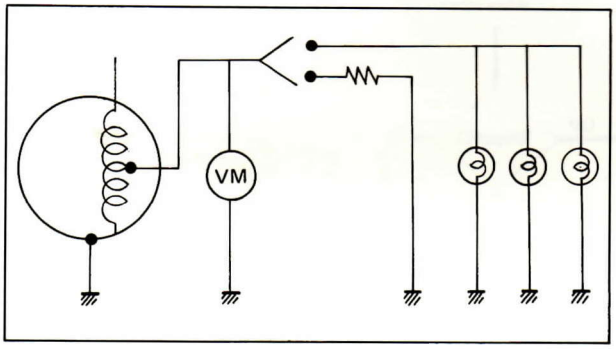


Fig. 4-16

NOTE

Be careful not to mix the plus ⊕ and minus ⊖ connections.

Turn the tester knob to "VOLTMETER". Check that the voltmeter reads over 6V at 3,000 rpm, and below 9V at 8,000 rpm.

3. Charging performance check
   To check charging, follow these steps:

a. Connect the pocket tester in series between the negative ⊖ terminal of the battery and ground, as show in the illustration.

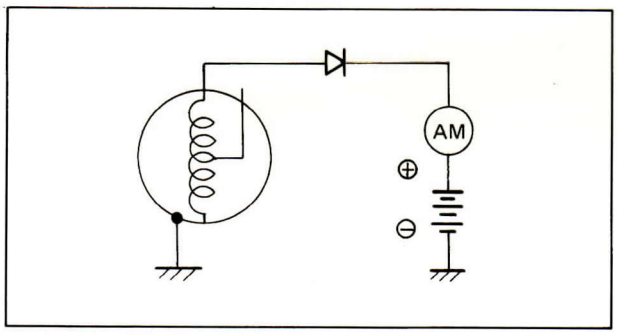


Fig. 4-17

NOTE

Do not mistake the plus ⊕ and minus ⊖ terminals.

b. Start the engine.
c. Set the tester knob to "AMMETER".
d. Check that the proper charging occurs at the various engine speeds shown in the following chart. (Values in the list below indicate minimum limit. Therefore, they should be more than indicated in normal condition.)

	Engine rpm (× 1000)	1	2	3	4	5	6	7
Nighttime	Current (A)	0	0.1	0.4	0.6	0.8	0.8	0.9
Daytime	Current (A)	0	0.4	0.7	0.95	1.1	1.2	1.3

e. When charged amount is less than indicated, remove the register.
f. When overcharged, replace the register to part number 36510-30600.

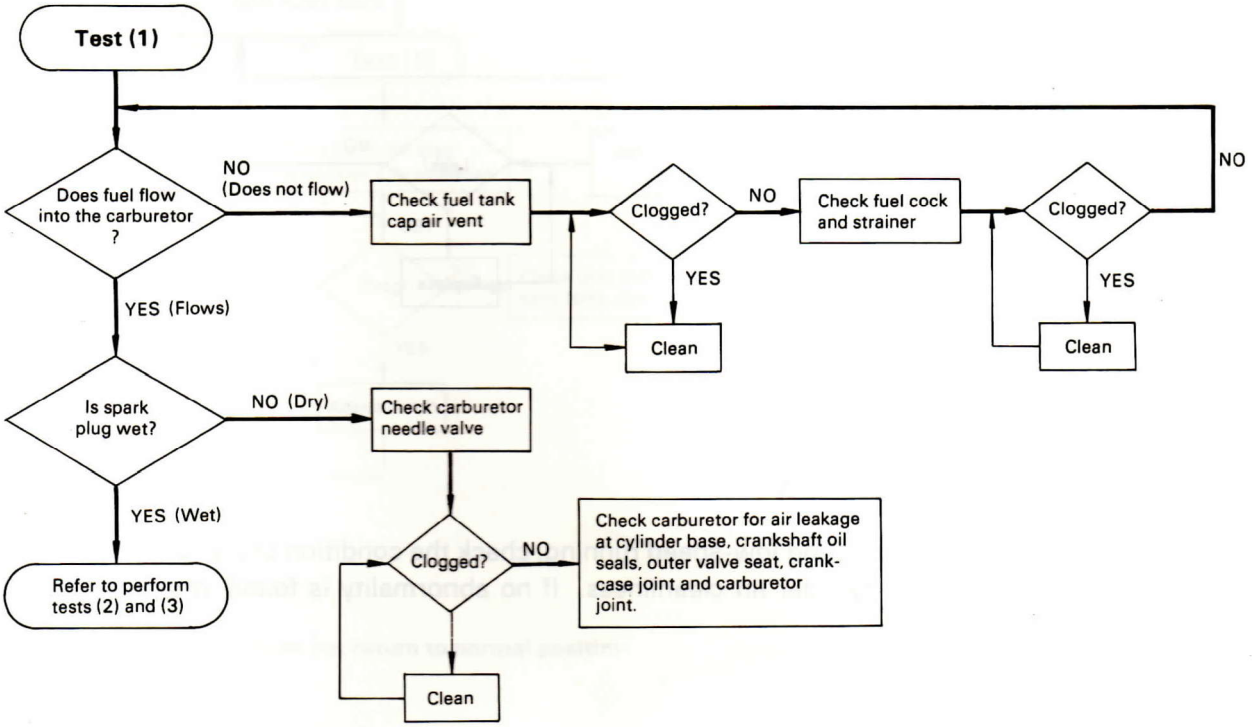
GROUP 5

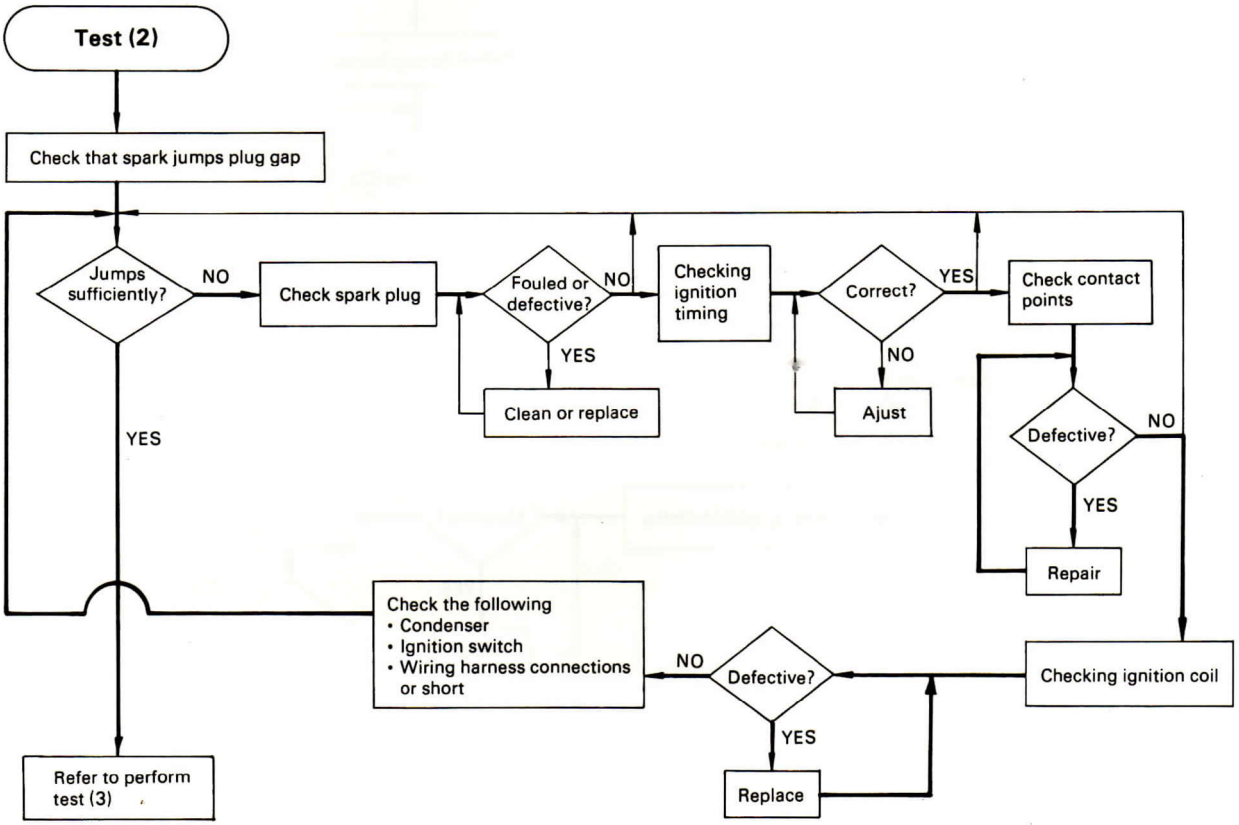
TROUBLE SHOOTING

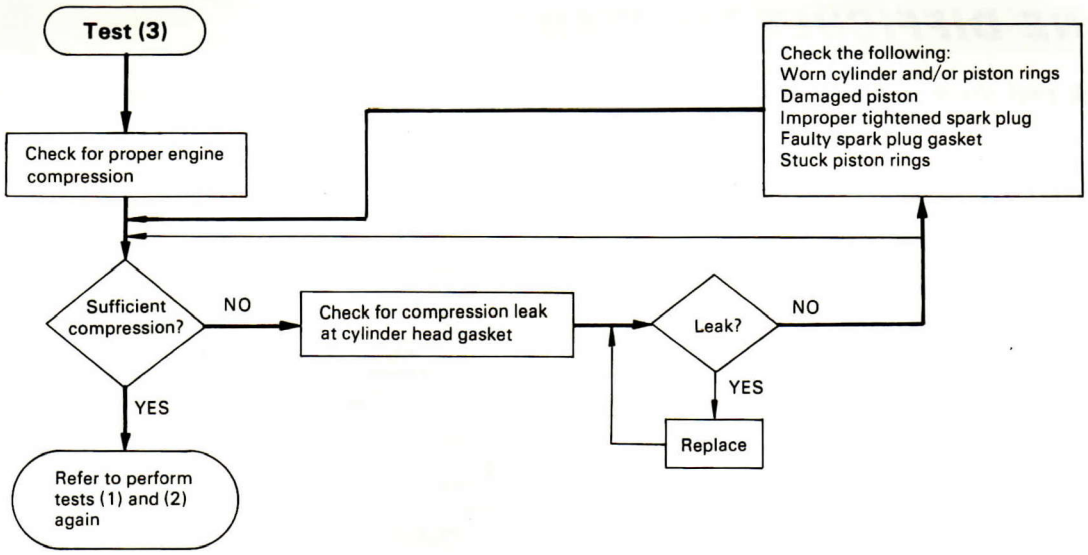
CONTENTS

ENGINE DIFFICULT TO START

First check that there is fuel in the tank. If there is a sufficient amount of fuel, check the following.

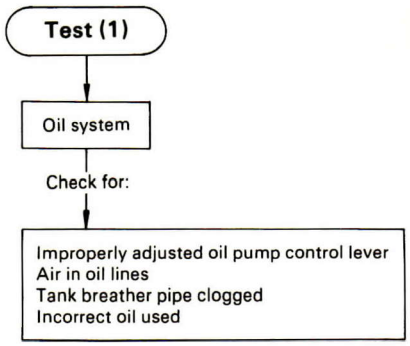


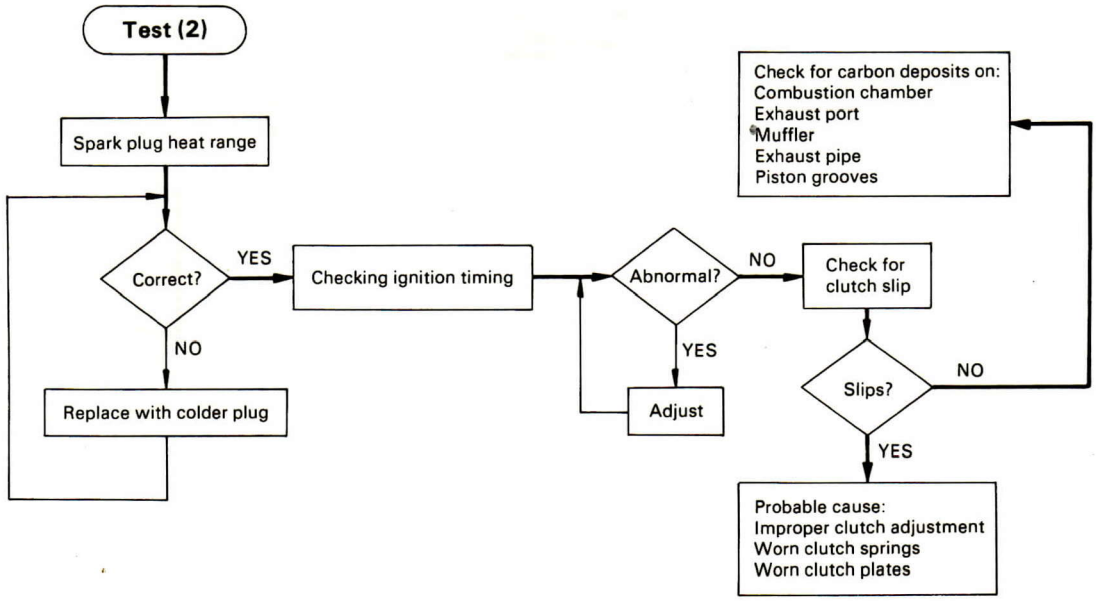




ENGINE OVERHEATS

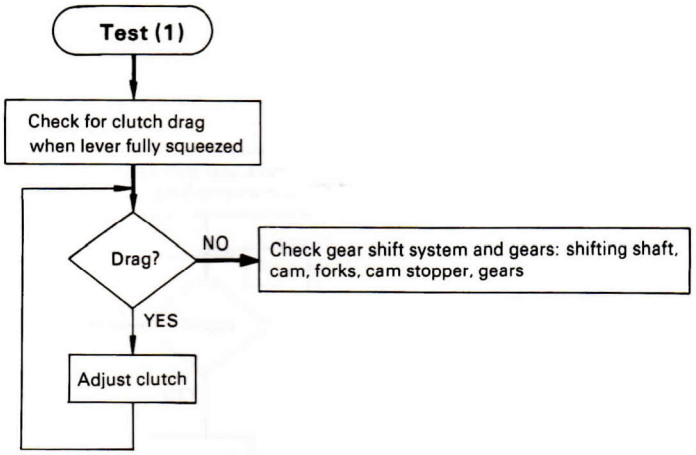
If the engine tends to overheat during low-speed running, check the condition of the lubrication system, the brakes (for dragging) and cylinder fin cleanliness. If no abnormality is found, make the following checks:



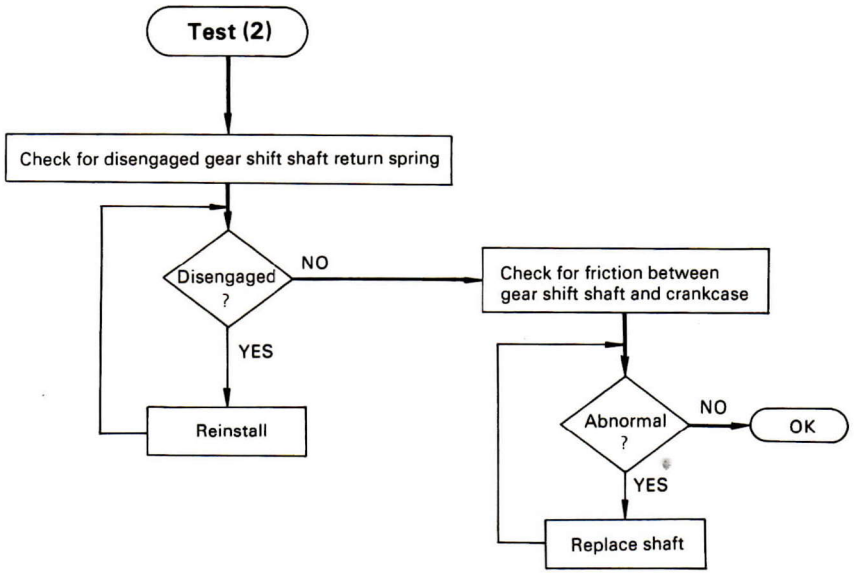


GEAR SHIFT PROBLEMS

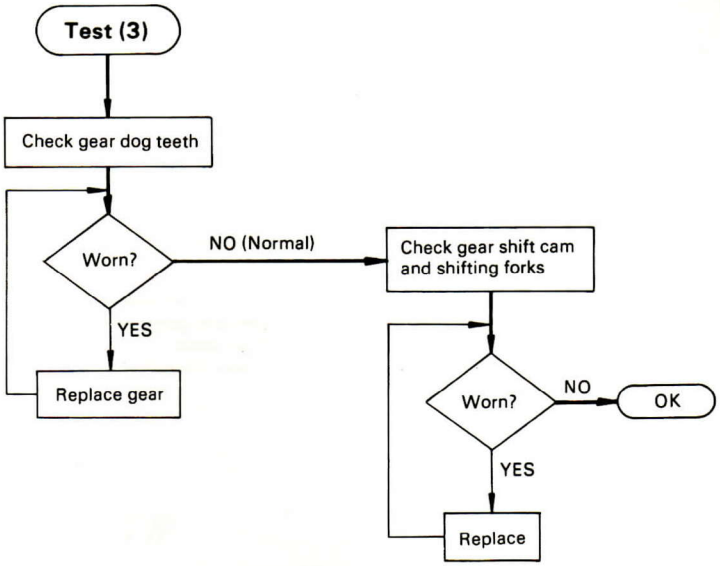
Case 1 Gears do not engage



Case 2 Gear shift lever does not return to normal position

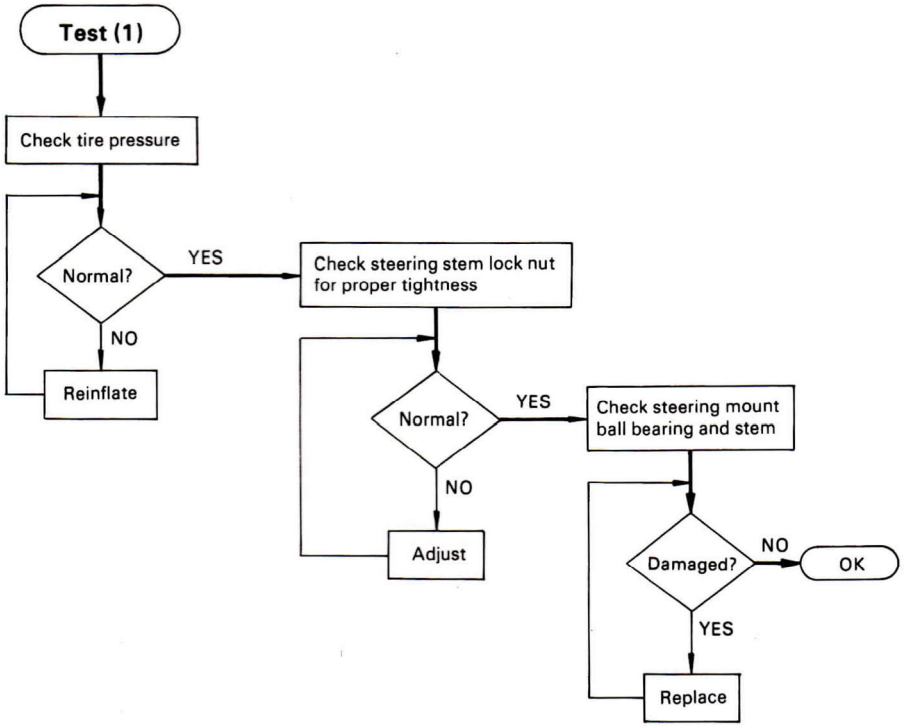


Case 3 Gears disengage while running

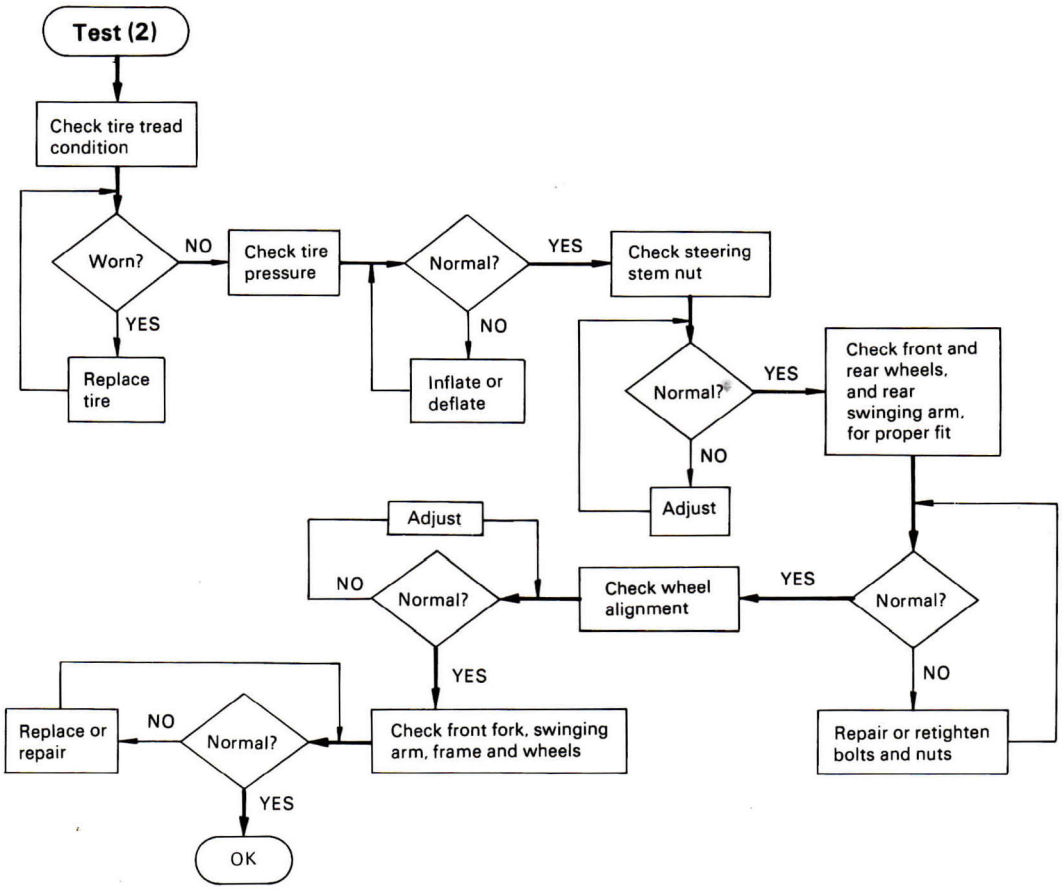


POOR STABILITY AND STEERING

Handlebar feels stiff to turn



Handlebar operation unstable



GROUP 6

MAJOR PARTS CHECK

For optimum riding safety, the following parts should be checked according to the list during every periodic inspection.

System	Item	Check for
Fuel Supply	Carburetor	Uneven throttle valve movement Fuel leakage
	Fuel hose Fuel tank Fuel cock	Fuel leakage
Suspension	Front fork	Cracks, faulty welding
	Front fork lower and upper brackets	Cracks, faulty welding
	Front and rear axles	Cracks
	Rear swinging arm	Cracks, faulty welding
Steering	Handlebars Handlebar clamps	Cracks
Brakes	★ Front Brake	
	Pads	Wear
	Disc plate	Wear, runout
	Brake lever	Cracks
	★ Rear Brake	
	Hub drum	Cracks
	Hub panel	Cracks
	Torque link	Cracks
	Shoes	Wear, peeled lining
	Camshaft	Wear
	Rod	Cracks
	Pedal	Cracks, faulty welding
Frame	Frame	Cracks, faulty welding

TIGHTENING TORQUE

ENGINE

	kg-cm	lb-ft
Engine mounting (bolt diam 8 mm)	130 ~ 230	9.4 ~ 17.0
Engine mounting (bolt diam 10 mm)	250 ~ 400	18.0 ~ 29.0
Cylinder head nut	300 ~ 350	22.0 ~ 25.5
Flywheel rotor nut	300 ~ 400	22.0 ~ 29.0
Clutch sleeve hub nut	200 ~ 300	14.5 ~ 22.0
Primary driven gear nut	360 ~ 500	26.0 ~ 36.5

CHASSIS

	kg-cm	lb-ft
Front axle holder nut	150 ~ 250	11.0 ~ 18.0
Front axle nut	360 ~ 520	26.0 ~ 37.5
Steering stem upper bracket bolt	200 ~ 300	14.5 ~ 22.0
Steering stem lower bracket bolt	250 ~ 350	18.0 ~ 25.5
Front fork hexagon socket head cap bolt	150 ~ 250	11.0 ~ 18.0
Rear torque link nut	100 ~ 150	7.3 ~ 11.0
Rear axle nut	360 ~ 520	26.0 ~ 37.5
Rear axle sleeve nut	450 ~ 600	32.5 ~ 43.5
Rear swinging arm pivot nut	300 ~ 450	22.0 ~ 32.5
Rear brake cam lever nut	50 ~ 80	3.6 ~ 5.8
Rear shock absorber nut	200 ~ 300	14.5 ~ 22.0
Steering stem bolt	350 ~ 550	25.5 ~ 40.0
Front fork cap	150 ~ 300	11.0 ~ 22.0
Handlebar fitting bolt	120 ~ 200	8.7 ~ 14.5
Front footrest bolt	100 ~ 150	7.3 ~ 11.0

GROUP 8

PERIODIC INSPECTION CHART

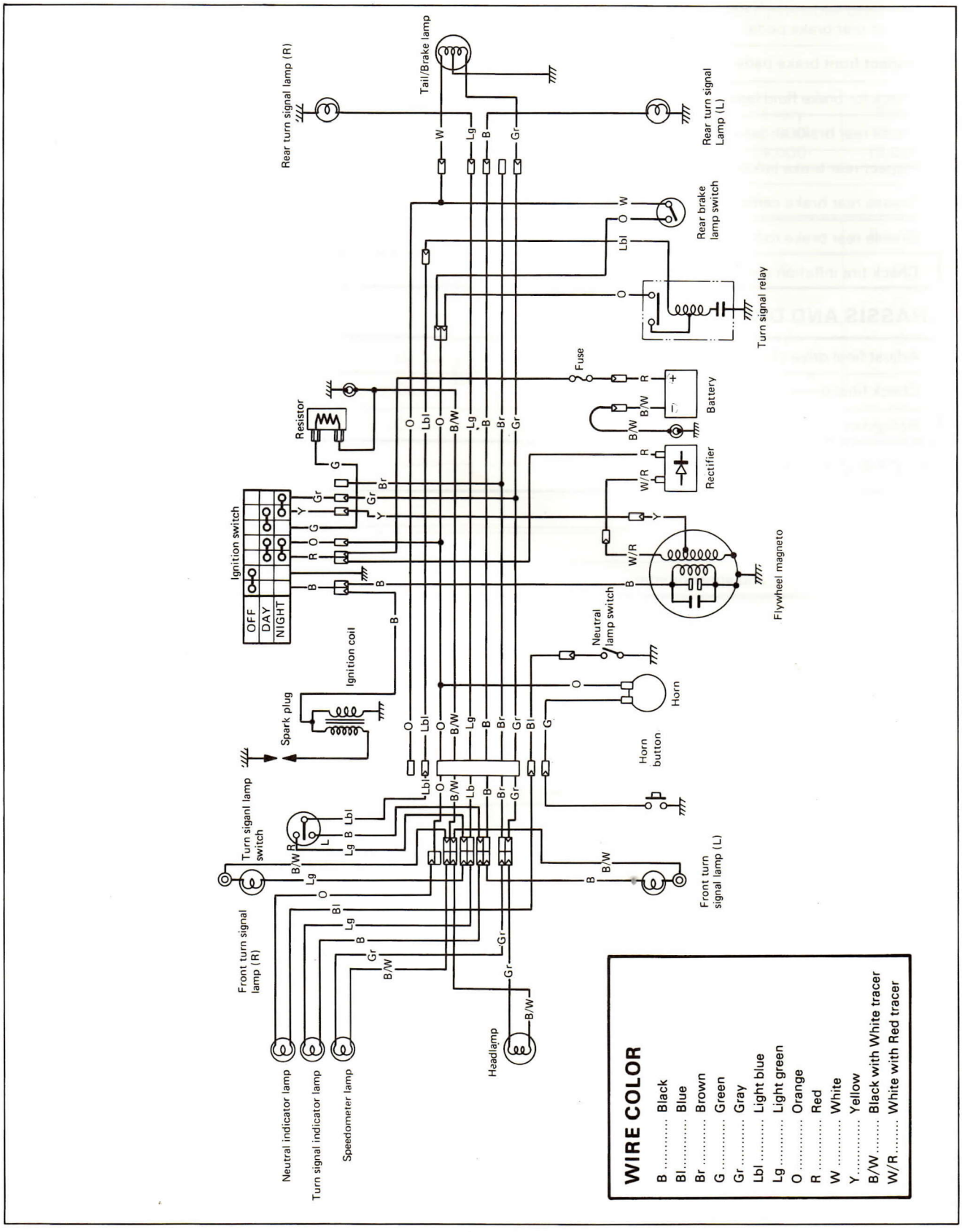
The following maintenance chart should be followed carefully to assure optimum riding comfort and safety, and to drive the longest possible service life from the A50P, all at lowest possible cost in time and materials.

Service Required \ Distance in km (miles)	Initial 1,000 (750)	Every 3,000 (2,000)	Every 6,000 (4,000)	Every 12,000 (8,000)
ENGINE				
Check contact breaker points	○	○	○	Replace
Check and adjust ignition timing	○	○	○	○
Check ignition timing advance	○	○	○	○
Adjust spark plug gap		○	○	○
Clean spark plug	○	○	Replace	
Wash air cleaner element		○	○	○
Remove exhaust pipe and muffler carbon			○	○
Retighten cylinder head nut and cylinder nut	○	○	○	○
Remove cylinder head carbon			○	○
Adjust idling speed	○	○	○	○
Overhaul and clean carburetor				○
CLUTCH AND TRANSMISSION				
Change transmission oil	○	○	○	○
Adjust clutch	○	○	○	○
BATTERY				
Service battery	○	○	○	○
FUEL SYSTEM				
Change fuel hose		Every two years		
Check for leaks	○	○	○	○
STEERING AND SUSPENSIONS				
Check steering stem play	○		○	○
Check wheel alignment	○	○	○	○

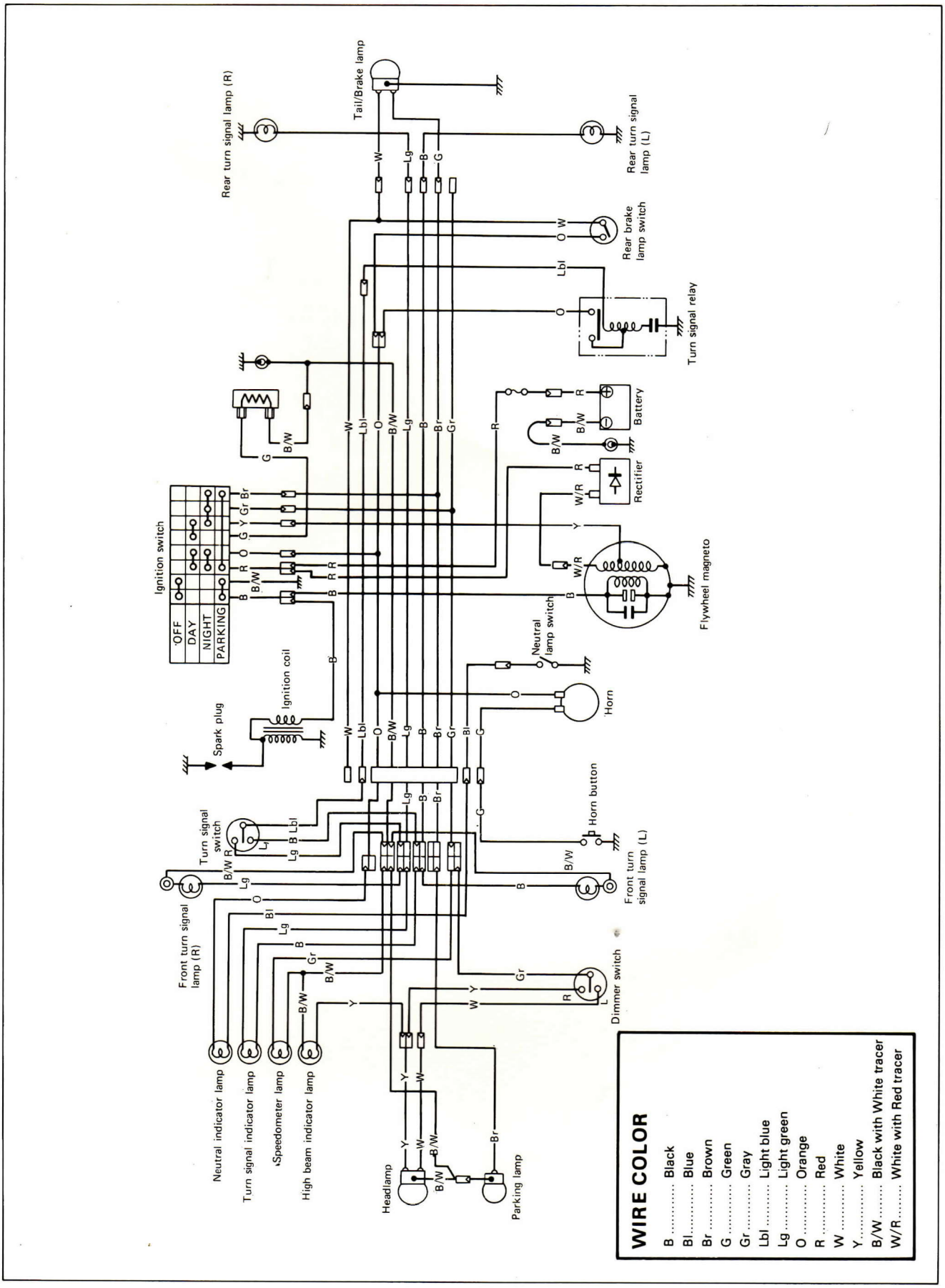
Service Required \ Distance in km (miles)	Initial 1,000 (750)	Every 3,000 (2,000)	Every 6,000 (4,000)	Every 12,000 (8,000)
BRAKES AND WHEELS				
Adjust rear brake pedal	○	○	○	○
Inspect front brake pads	○	○	○	○
Check for brake fluid leak	○	○	○	○
Check rear brake shoes wear	○	○	○	○
Inspect rear brake linkage	○	○	○	○
Grease rear brake camshaft			○	○
Grease rear brake rod arm			○	○
Check tire inflation pressure and tread wear		○	○	○
CHASSIS AND DRIVE				
Adjust final drive chain	○	○	○	○
Check final driven sprocket wear	○	○	○	○
Retighten bolts and nuts	○		○	○
ELECTRICAL EQUIPMENT				
Inspect lamps and switches		○	○	○
Inspect horn		○	○	○
Inspect tachometer and speedometer		○	○	○

WIRING DIAGRAM

FOR ENGLISH MARKET



FOR FRENCH AND NETHERLANDS MARKET



SUZUKI MOTOR CO., LTD.

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