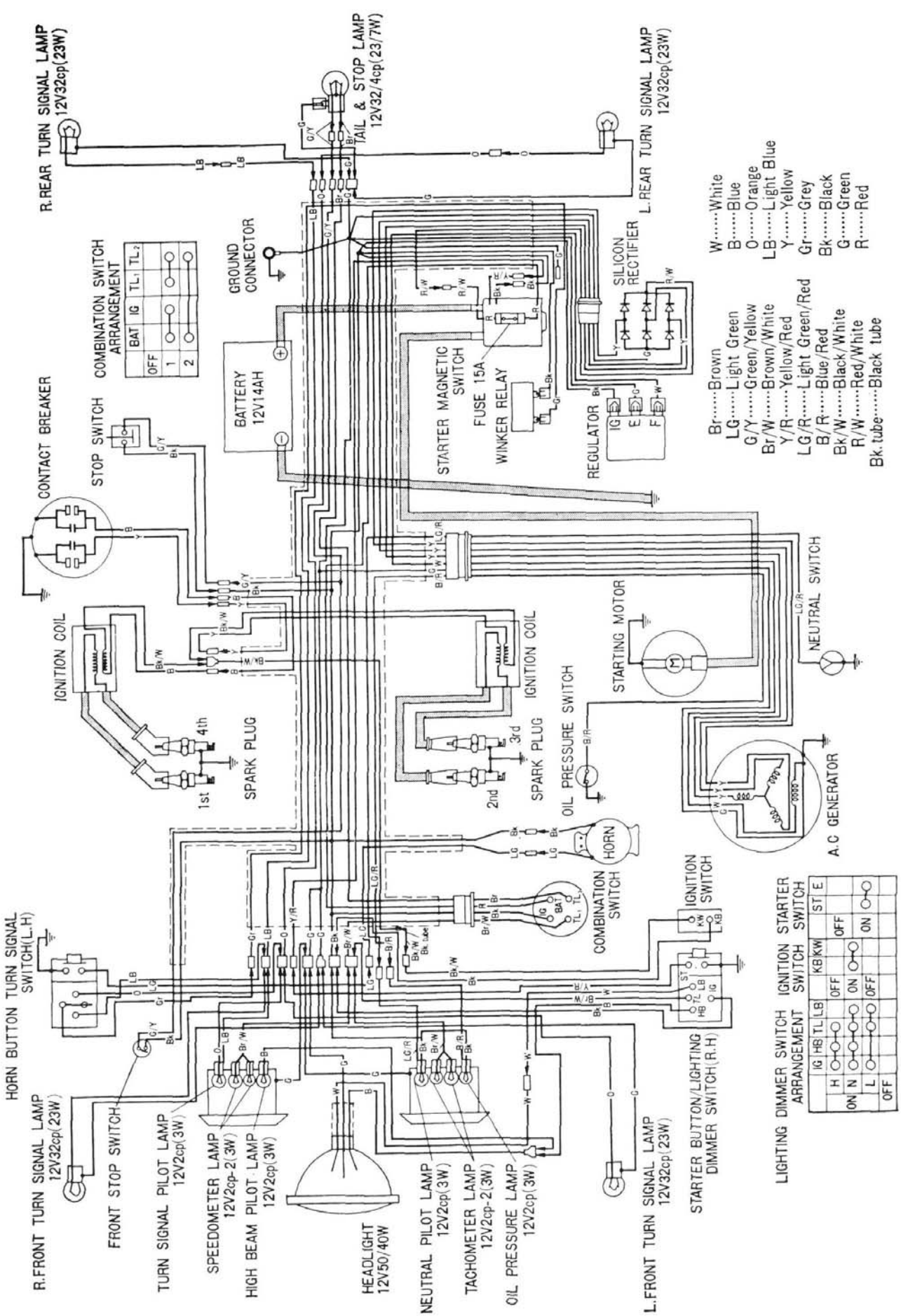
WIRING DIAGRAM

GROUP

17


R.REAR TURN SIGNAL LAMP 12V32cp(23W)
TAIL & STOP LAMP 12V32/4cp(23/7W)
L.REAR TURN SIGNAL LAMP 12V32cp(23W)
GROUND CONNECTOR
COMBINATION SWITCH ARRANGEMENT
BAT IG TL1 TL2
OFF
1
2
CONTACT BREAKER
STOP SWITCH
BATTERY 12V14AH
STARTER MAGNETIC SWITCH
FUSE 15A
WINKER RELAY
REGULATOR
SILICON RECTIFIER
IGNITION COIL
SPARK PLUG
1st
2nd
3rd
4th
OIL PRESSURE SWITCH
STARTING MOTOR
NEUTRAL SWITCH
A.C GENERATOR
HORN
COMBINATION SWITCH
IGNITION SWITCH
HORN BUTTON TURN SIGNAL SWITCH(L.H)
R.FRONT TURN SIGNAL LAMP 12V32cp(23W)
FRONT STOP SWITCH
TURN SIGNAL PILOT LAMP 12V2cp(3W)
SPEEDOMETER LAMP 12V2cp-2(3W)
HIGH BEAM PILOT LAMP 12V2cp(3W)
HEADLIGHT 12V50/40W
NEUTRAL PILOT LAMP 12V2cp(3W)
TACHOMETER LAMP 12V2cp-2(3W)
OIL PRESSURE LAMP 12V2cp(3W)
L.FRONT TURN SIGNAL LAMP 12V32cp(23W)
STARTER BUTTON/LIGHTING DIMMER SWITCH(R.H)
LIGHTING DIMMER SWITCH ARRANGEMENT
IGNITION STARTER SWITCH
IG HB TL LB KB KW ST E
H
N
L
OFF
ON
W.....White
B.....Blue
O.....Orange
LB.....Light Blue
Y.....Yellow
Gr.....Grey
Bk.....Black
G.....Green
R.....Red
Br.....Brown
LG.....Light Green
G/Y.....Green/Yellow
Br/W.....Brown/White
Y/R.....Yellow/Red
LG/R.....Light Green/Red
B/R.....Blue/Red
Bk/W.....Black/White
R/W.....Red/White
Bk.tube.....Black tube

ENGINE TUNE-UP

GROUP 18

CONTENTS

The engine tune-up referred herein is the diagnosis for the determination of the cause of the engine malfunction, lack of power or abnormal fuel consumption, and the maintenance and servicing task to adjust the engine to its best operating condition. The processes described below is confined within the scope of preventive maintenance operation and does not constitute an overhaul or disassembling. It is recommended that the sequence of operation outlined below be followed when performing the tune-up.

The engine tune-up operations are basically a part of the periodical maintenance except compressions test of engine. Therefore, for the operations other than the compression test and road test, refer to the pertinent part of the Group of Periodical Maintenance.

1. COMPRESSION TEST

Before a tune-up is performed, the engine must be in a condition suitable for tuning up. This can be determined by first checking the compression of each cylinder to assure that the compression pressure is normal. This test is conducted with the engine properly serviced with engine oil and warmed up to operating temperature, and then following the procedure below.

a. Remove all the spark plugs from the cylinder head. After the spark plug has been removed, carefully clean the areas around the spark plug hole and seat to remove any dirt and grease.
b. Insert the end of the compression gauge into the spark plug hole and make sure that it is properly seated.

c. Twist the throttle grip so that the throttle is at maximum opening, and set the carburetor choke valves to full opened.

d. Crank the engine with the starter motor and record the highest pressure indicated on the compression gauge. **(Fig. 18-1)**

Perform this test for each of the cylinders.

The normal compression pressure is 150 psi (10.5 kg/sq. cm)~170 psi (12 kg/sq. cm)

If the compression pressure varies by more than 10% between the highest and lowest cylinders or if the pressure of any cylinder is lower than normal, it is an indication that there is a probable defect in the engine, such as worn or broken piston rings, poor valve seating or leaking head gaskets. The defect must be corrected before attempt is made to tune-up.

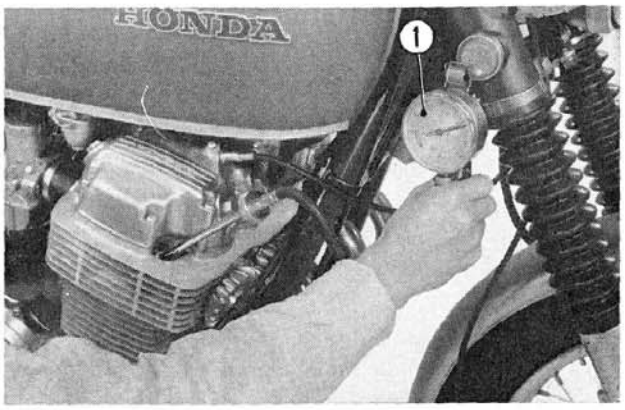


Fig. 18-1 ① Compression gauge

Refer to page 33~35 for repair procedures.

2. SERVICE SPARK PLUGS (Refer to page 179)

3. CHECK AND ADJUST IGNITION TIMING (Refer to page 180)

4. SERVICE BATTERY (Refer to page 184)

5. ADJUST VALVE TAPPET CLEARANCE (Refer to page 181)

6. ADJUST CAM CHAIN (Refer to page 181)

7. SERVICE AIR CLEANER (Refer to page 181)

8. CHECK AND SERVICE FUEL SYSTEM (Refer to page 181)

9. ADJUST CARBURETOR (Refer to page 182)

10. CHANGE OIL AND OIL FILTER (Refer to page 178)

11. ROAD TEST

After completing the initial series of the tune-up, start the engine in the normal manner. Ride the motorcycle and conduct the road test to check the starting, acceleration, and also for stable riding at low and intermediate speeds. If possible ride the motorcycle at high speed and also check for mis-fire during acceleration and deceleration and during rough riding; flat spot during acceleration. If the results of the test are not completely satisfactory, the trouble diagnosis of the engine, clutch and brake should also be performed.

PERIODICAL MAINTENANCE

GROUP 19

CONTENTS

MAINTENANCE SCHEDULE

The following maintenance schedule is based upon average riding conditions.

Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.

	INITIAL SERVICE PERIOD	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval, whichever occurs first.			
	500 miles	1 month	3 months	6 months	12 months
		500 miles	1,500 miles	3,000 miles	6,000 miles
ENGINE OIL—Change	●		○		
OIL FILTER ELEMENT—Replace	●			○	
OIL FILTER SCREEN—Clean					○
SPARK PLUGS—Clean and adjust gap or replace if necessary.				○	
*CONTACT POINTS AND IGNITION TIMING—Clean, check, and adjust or replace if necessary.	●			○	
*VALVE TAPPET CLEARANCE—Check, and adjust if necessary.	●			○	
*CAM CHAIN TENSION—Adjust.	●			○	
PAPER AIR FILTER ELEMENT—Clean.	(service more frequently if operated in dusty areas)			○	
PAPER AIR FILTER ELEMENT—Replace.					○
*CARBURETORS—Check, and adjust if necessary.	●			○	
THROTTLE OPERATION—Inspect cables. Check, and adjust free play.	●			○	
FUEL FILTER SCREEN—Clean.				○	
FUEL LINES—Check.				○	
*CLUTCH—Check operation, and adjust if necessary.	●			○	
DRIVE CHAIN—Check, lubricate, and adjust if necessary.	**●	○			
BRAKE FLUID LEVEL—Check, and add fluid if necessary.	●			○	

	INITIAL SERVICE PERIOD	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval, whichever occurs first.			
	500 miles	1 month	3 months	6 months	12 months
		500 miles	1,500 miles	3,000 miles	6,000 miles
*FRONT BRAKE PADS—Inspect, and replace if worn.				○	
*REAR BRAKE SHOES—Check wear indicator.				○	
BRAKE CONTROL LINKAGE—Check linkage, and adjust free play if necessary.	●			○	
*WHEEL RIMS AND SPOKES—Check. Tighten spokes and true wheels, if necessary.	●			○	
TIRES—Inspect and check air pressure.	●	○			
FRONT FORK OIL—Drain and refill.	***●				○
FRONT AND REAR SUSPENSION—Check operation.	●			○	
REAR FORK BUSHING—Grease, check for excessive looseness.				○	
*STEERING HEAD BEARINGS—Adjust.					○
BATTERY—Check electrolyte level, and add water if necessary.	●		○		
LIGHTING EQUIPMENT—Check and adjust if necessary.	●	○			
ALL NUTS, BOLTS, AND OTHER FASTENERS—Check security and tighten if necessary.	●	○			

Items marked * should be serviced by an authorized Honda derler, unless the owner has proper tools and is mechanically proficient. Other maintenance items are simple to perform and may be serviced by the owner.

** INITIAL SERVICE PERIOD 200 MILES

*** INITIAL SERVICE PERIOD 1,500 MILES

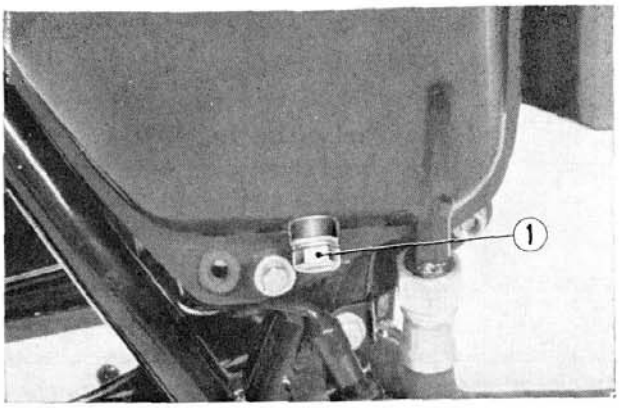


Fig. 19-1 ① Oil tank drain plug

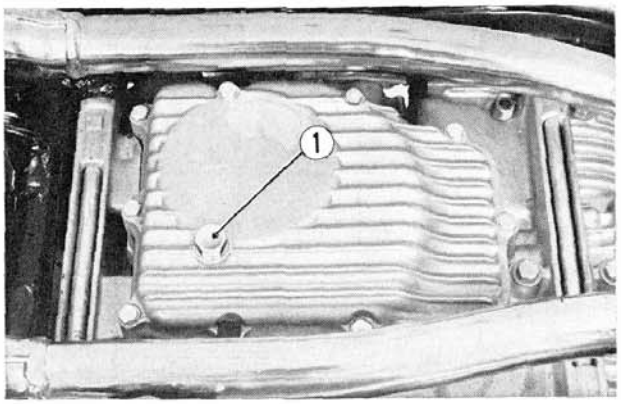


Fig. 19-2 ① Crankcase oil drain plug

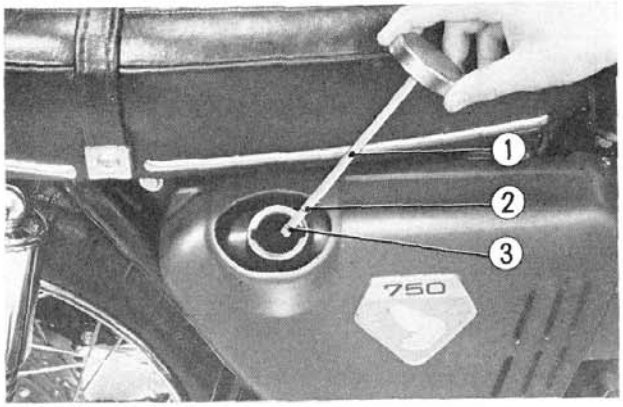


Fig. 19-3 ① Oil dipstick ③ Lower level line
② Upper level line

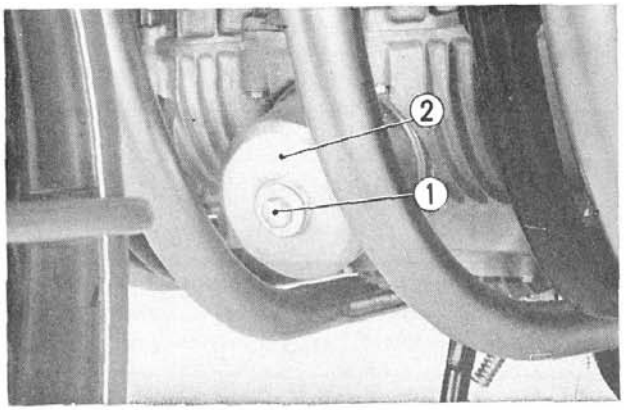


Fig. 19-4 ① Oil filter retaining bolt
② Oil filter cover

MAINTENANCE OPERATION

1. Change engine oil

(1) Take the oil tank cap off and remove the drain plugs from the oil tank and lower crankcase. **(Fig. 19-1, 2)** The oil will drain steadily. Operate the kick starter several times to drain any oil which may have been left within the pockets of the engine. After the oil has been thoroughly drained, reinstall and tighten the drain plugs.

(2) Add approximately **3.0 qts. (2.9 lit.) of good grade oil of MS, DG or DM, SAE *10 W-40* or *20 W-50*** into the oil tank and start the engine. After making sure that the warning light is off, raise the engine rpm to **1000～1500** and run the engine for one or two minutes.

Stop the engine and check the oil level in the tank with the dipstick on the filler cap **(Fig. 19-3)** and add oil if necessary to bring the oil to upper level line.

(3) First oil change should be done at 200 miles (300 km) and thereafter oil change should be made at 1500 mile (2500 km) intervals as described in the listed schedule list.

2. Change oil filter element

(1) Remove oil filter cover by unscrewing the oil filter retaining bolt. **(Fig. 19-4)**

Discard oil filter element and oil filter rubber packing. Clean the oil filter cover and other components with clean gasoline or solvent and dry them before reinstall. Replace the oil filter cover with a new element and rubber packing.

Having installed the filter cover, start the engine and inspect oil seepage.

(2) The oil filter should be changed according to the schedule. However for convenience it should be done when the oil is changed.

3. Clean oil pump strainer

Remove oil pan cover by unscrewing ten bolts (6 mm). Remove the oil pump strainer from the oil pump body and clean the strainer and oil pan cover with solvent. Fit the strainer to the pump body by the rubber clamp.

Attach the cover with a new gasket, and then inspect oil seepage around the cover by starting engine. **(Fig. 19-5)**

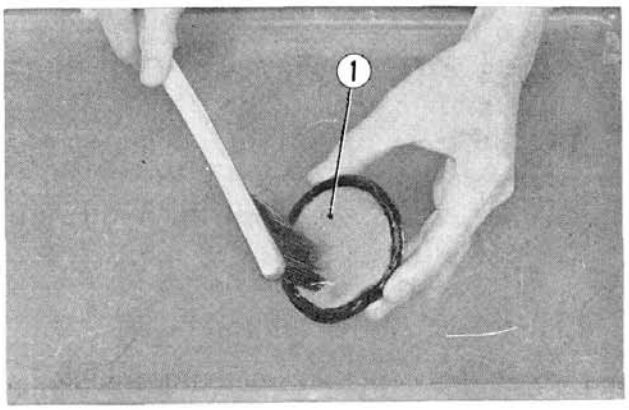


Fig. 19-5 ① Oil strainer

4. Check engine oil pressure

The oil pressure can be checked by removing the oil path cap on the right side of the crankcase and installing a pressure gauge adapter (Tool No. 07510-3000000), pressure gauge (Tool No. 07506-3000000) and running the engine. If the oil pressure is **50 to 64 PSI (3.5~4.5 kg/sq. cm)** at approximately **3000 rpm engine speed** and the oil temperature at **140°F (60°C)**, the condition is satisfactory. If the condition is unsatisfactory, refer to the section of Oil Pump on page 60. **(Fig. 19-6)**

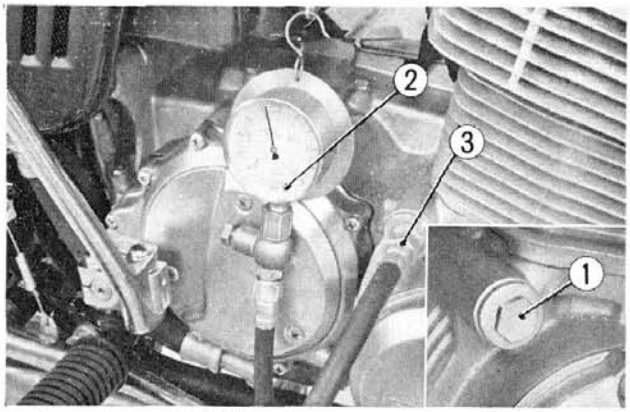


Fig. 19-6 ① Oil path cap ③ Adapter
② Oil pressure gauge

5. Service spark plug

(1) Remove the spark plugs with spark plug wrench for CB 750. The spark plug which was removed must be inspected in detail. If the electrodes are excessively worn, deformed or if the porcelain is broken, the plug must be replaced. Inspect each spark plug for make and heat range. All plugs must be of same make and suitable heat range.

(2) The spark plug which is satisfactory for reuse should be cleaned with a spark plug cleaner. If a spark plug cleaner is not available, use wire brush or a stiff pointed wire to remove any carbon deposits from the electrodes and also from around the tip of the porcelain insulator ; followed by washing it thoroughly in solvent and then drying with a rag.

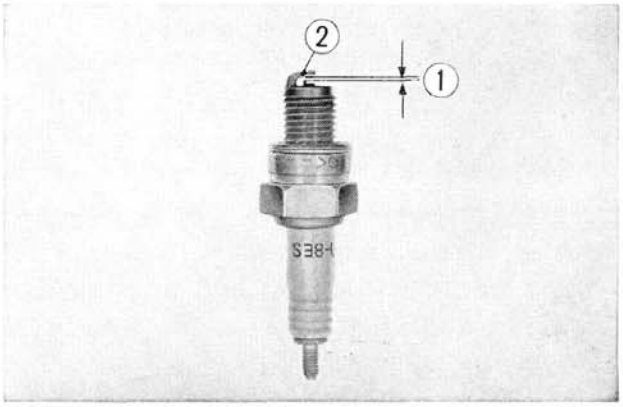


Fig. 19-7 ① Spark plug gap
② Ground electrode

(3) If necessary, adjust the gap to a standard value of **0.024~0.028 in. (0.6~0.7 mm)** by bending the ground electrode. Check the electrods gap with a thickness gauge.

(4) If a spark plug tester is available, the plug should be tested to assure that its condition is satisfactory. Any plug that is found to be poor in performance should be replaced.

(5) Use the spark plug wrench to install the plug. Insert the plug into the wrench socket, position the threaded end of the plug squarely against the spark plug hole to prevent cross-threading and carefully screw the plug into the hole by turning the socket by hand until finger tight. Complete tightening by attaching the bar handle on the plug wrench and **torque 1/2~3/4 turn.**

Caution :

- **A plug which is cross-threaded into the plug hole will be hard to turn, attempt to forcibly screw in the plug will cause damage to the cylinder head.**
- **Refrain from over-torquing the spark plug as this will result in a change to the spark gap and also make it difficult to remove the plug.**
- **Do not forget to install the spark plug washer.**
- **Do not attempt to dry or remove soot from the plug by burning.**

6. Check and adjust ignition system

(1) Inspect the condition of the spark plug wiring and plug cap. Replace any wire showing signs of aging which is noted by cracks or by wear ; also replace any plug cap which is broken.

(2) Inspect in detail the wiring and connectors of other ignition components such as the ignition coil, high tension cords, breaker point contacts, and replace any items found to be defective. Tighten any loose terminals.

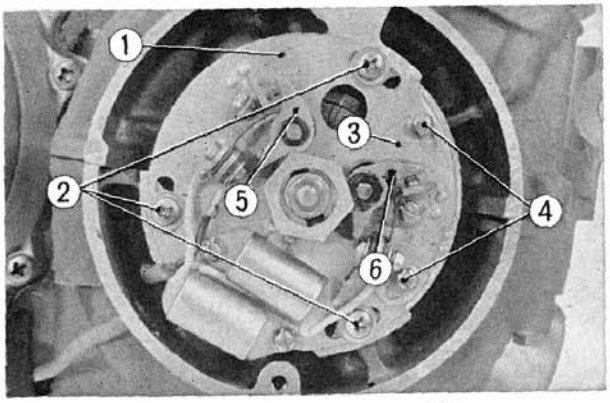


Fig. 19-8 ① Contact breaker assembly
② Base plate setting screws
③ Right base plate
④ Right base plate setting screws
⑤ 1.4 cylinder breaker points
⑥ 2.3 cylinder breaker points

(3) Inspect the breaker point contact surfaces. Remove the contact breaker point cover from the right side of the crankcase, turn the crankshaft in the clockwise direction until one set of breaker points is at maximum opening (point arm slipper resting on the peak of the cam lobe) and then check the condition of the point surfaces. The points may be further opened by a finger to enable better inspection. Do not force to open excessively, otherwise it may damage the point spring.

If the point surfaces are dirty or coated with grease, wipe off with a clean dry rag.

If the point surfaces are discolored and slightly become roughness, or pitted, use a point file to remove any metal built-up or scales and then wipe clean with a dry rag. Do not use any emery or sandpaper to clean the surfaces as the dust will become lodged between the points and cause trouble.

When the point surfaces are excessively burnt or deeply pitted, rather than dressing down the surfaces with a point file or an oil stone to obtain a smooth surface, replace the points in set. Further, a diagnosis should be conducted to determine the cause of this problem and corrected to prevent its reoccurence. (Refer to page 90)

(4) Inspect and adjust breaker point gap. Measure the point gap with a flat ended thickness gauge when the opening is at its maximum. The standard gap is **0.012~0.016 in. (0.3~0.4 mm).** If the gap is not in the limit, adjust it in accordance with the proper method. (Refer to page 90)

(5) Inspect point cam lubrication. If the cam lob oiling felt is dried supply a drop of engine oil by oil can. Do not lubricate too much or drop oil to other part of the contact breaker.

(6) Inspect and adjust ignition timing. If the timing light is available, check the ignition timing and the spark advance under engine operating condition. Ignition timing can also be checked statically by the use of the continuity timing light or by visually observing the timing marks to determine the instant when the breaker points open. Replace the contact breaker point cover and tighten screws securely. As the ignition timing will

affect to the engine performance, a precise adjustment is required when the timing is off from the standard setting. For adjustment refer to timing adjustment. (Refer to page 85~86)

(7) Observe the contact points while the engine is running and if a spark through the points is notable, test the condenser for capacity and insulating resistance. (Refer to page 90) Replace the condenser when it is unservicable.

7. Adjust valve tappet clearance

Drain the remaining gasoline from the tank or turn the tank valve to the OFF position and plug up the outlets of fuel lines to prevent gasoline from leaking. Remove the fuel tank, contact breaker point cover and tappet hole caps.

Use a thickness gauge and measure the valve tappet clearance. The **inlet valve should be 0.02 in (0.05 mm) and the exhaust valve 0.003 in (0.08 mm).** If any adjustment is required, do not forget to tighten the tappet adjusting screw lock nut after the adjustment is completed. (Refer to page 42~43)

The rubber gaskets for the tappet inspection holes cap should be replaced with new items.

8. Adjust cam chain

Perform the cam chain adjustment in accordance with the procedures outlined on page 38. Adjustment is made by loosening the tensioner lock nut and lock bolt, this will allow the tensioner applying proper tension to the cam chain. Tighten the lock bolt and nut to complete adjustment.

Caution:

Do not apply additional pressure on the tensioner push bar.

9. Service air cleaner

Remove the air cleaner and perform dusting in the following manner.

(1) Remove left side cover and remove the air cleaner lower case by loosening the wing nuts.

(2) Remove the air cleaner element and clean it by tapping lightly to loosen dust then using a soft brush, the remaining dust can be brushed from the outer element surface or apply compressed air from the inside of the element. **(Fig. 19-9)**

(3) Install the air cleaner lower case.

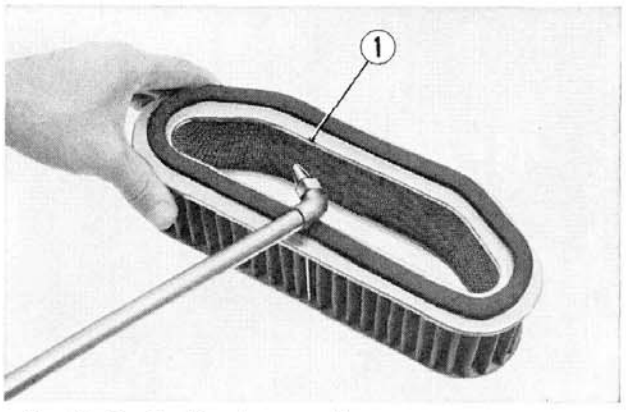


Fig. 19-9 ① Air cleaner element

10. Check and service fuel line and fuel valve

(1) Check the vent hole in the fuel tank cap to make sure that it is not clogged or restricting the free flow of air; in which case the vent hole should be cleaned or the cap gasket be replaced. The fuel tank and the fuel tube leading from the tank to the carburetor should be inspected for fuel leaks, sharp bend or kink in the fuel tube, or loosening of the tube clips.

(2) Check the operation of the fuel valve by positioning the cock lever to the OFF position, disconnecting the fuel tube at the carburetor, and then positioning the cock lever to the ON and RES position to make sure that there is fuel flow in both positions. If there is insufficient flow in either of the position, check the valve packing or other

valve components which may be causing the trouble and make the repair. Further, if there is fuel leak with the lever in the stop position, the valve packing is defective and should be replaced.

Caution: Whenever fuel has been spilled on the engine, it should be completely wiped off before starting the engine, or else, there may be possibility of a fire.

(3) Remove the fuel valve strainer cup and clean the strainer and cup with gasoline. If it is necessary to replace the strainer, the gasket should also be replaced. Tighten the strainer cup properly. When cleaning the strainer or when checking the valve for fuel flow, the fuel should not be permitted to spill on the floor but, rather, should be caught in some type of vessel so as not to create a fire hazard condition.

11. Adjust carburetor

(1) Operate the choke valve through the full operating range and check its condition. If there is any unsatisfactory condition, the cause should be determined and corrected. Next, start the engine and with it operating at idle speed, close the choke valve fully; if the engine does not stall out, the choke rod for the respective carburetors should be adjusted so that the choke valves are fully closed. (Refer to page 78)

To adjust the choke valve precisely, disconnect the fuel tank and the carburetor connecting tube, peep into the inlet port and check the clearance between choke valve and venturi when the choke valve is fully closed. The clearance should be 0.02 in (0.5 mm).

(2) Start the engine and allow to warm up for several minutes. Then check to see if the idling speed is 850-950 RPM with the tachometer relatively stable. If the speed is not within this range, make the adjustment with the throttle stop screws by turning all four screws equally within the range of 1/4 turn clockwise to increace speed. (Refer to page 78~80)

(3) Next, connect the vacuum gauge to each of the four carburetors and measure the vacuum pressure during idle speed. The pressure indications should be uniformly within the range of **20-22 cm HG** and the gauge needle should not swing excessively. If adjustment is necessary, it is performed with the pilot air screw and the throttle stop screw. **(Fig. 19-10)**

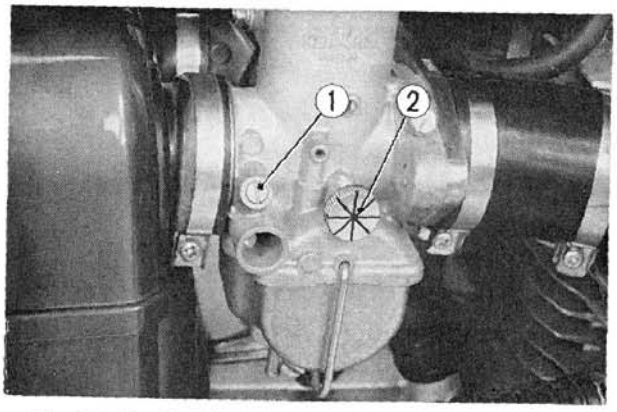


Fig. 19-10 ① Air screw
② Throttle stop screw

If in case where the vacuum gauge is not available, listen to the exhaust noise while slowly twisting the throttle grip to open throttle valve (approximatery 1/4 turn). If the noise is random or popping, adjust the air screws to synchronize exhaust pressure of each of the cylinder by placing a hand at the exhaust outlet. (Refer to page 80~81)

(4) Operate the throttle grip slowly and then rapidly for both accelerating to assure that the engine response is smooth. Also, perform the same check with the handle turned fully to both the right and left. If the condition is not normal, the problem is probably in the routing of the throttle cable or in its adjustment and should be corrected after the cause has been determined.

The standard throttle grip play is 10° to 15°. Adjust the throttle grip play at the throttle wire.

12. Oil tank and oil filter servicing

(1) The engine oil and the oil filter are replaced at the specified intervals. Check the oil

condition frequently and the filter during the oil change period and if it is found to require replacement at short intervals, then the change intervals should be made as necessary to suite the condition. (Refer to page 178).

(2) Check the oil level in the oil tank and if it is found to be low, the oil should be replenished with that of the specified grade.

(3) Check the oil pressure by removing the oil path bolt located on the right side of the crankcase, and install the pressure gauge. Operate the engine at 3,000 rpm and when the engine has attained the operating temperature, take the pressure reading. The pressure indication should be 50-64 PSI (3.4-4.5 kg/sp. cm). If the pressure is not normal, the cause of the trouble must be determined and corrected.

13. Check and adjust clutch

(1) Start the engine

Pull in the clutch lever and shift into low gear and check that the engine does not stall, nor the motorcycle starts to creep. Gradually release the clutch lever and open the throttle, and check that the motorcycle should start smoothly and gradually accelerate without slipage. If any trouble is found first adjust the clutch properly before proceeding further check.

(2) To adjust, perform the following steps.

a. Screw the clutch cable adjusting bolt Ⓐ, located at the clutch lever, all the way into the clutch lever bracket. **(Fig. 19-11)**

b. Turn the clutch cable adjusting bolt located at the clutch housing, in the direction Ⓐ to loosen the clutch cable. **(Fig. 19-12)**

c. Remove the clutch cover, loosen the clutch lifter adjusting screw lock nut, turn the clutch adjusting screw in the clockwise direction until a slight resistance is felt. From this position, turn the adjusting screw in the counter clockwise direction **1/4~1/2 turn**. Tighten the lock nut. **(Fig. 19-13)**

d. Turn the clutch cable adjusting bolt located at the clutch housing lower right side of the engine in the Ⓑ direction so that there is approximately 3/4 of free play at the clutch lever; then tighten the lock nut. **(Fig. 19-12)**

e. The remaining clutch lever free play is obtained by the clutch cable adjusting bolt.

(3) The nominal clutch lever free play is 0.4-1.0 in (10~25 mm) measured at lever end before the clutch starts to disengage.

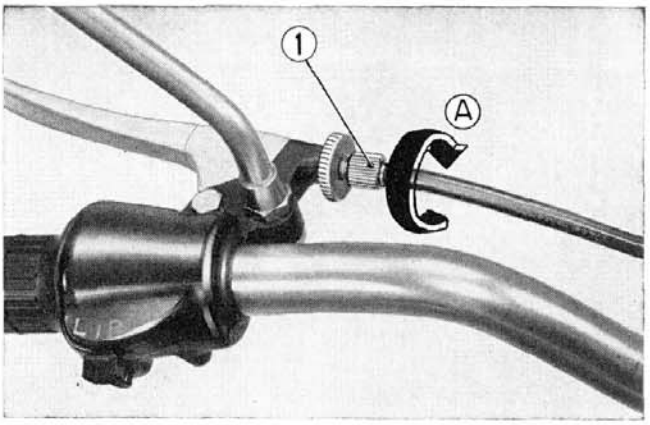


Fig. 19-11 ① Clutch cable adjusting bolt

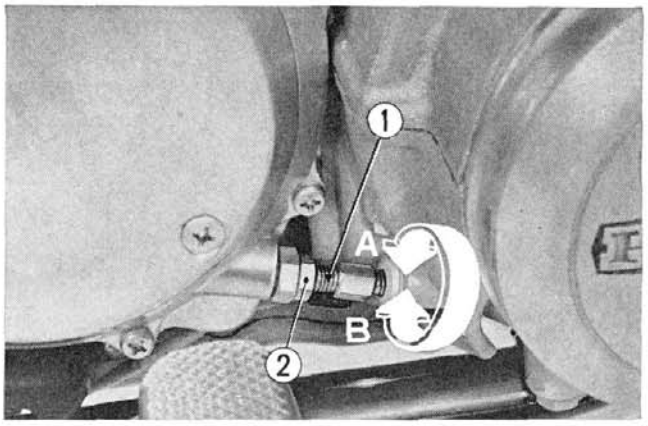


Fig. 19-12 ① Clutch cable adjusting bolt
② Lock nut

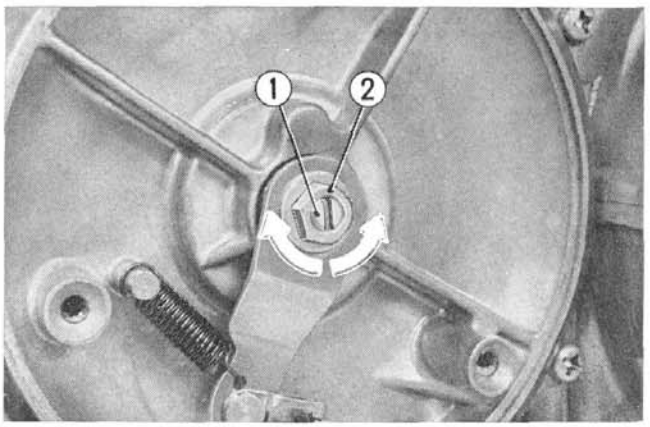


Fig. 19-13 ① Clutch adjusting screw
② Lock nut

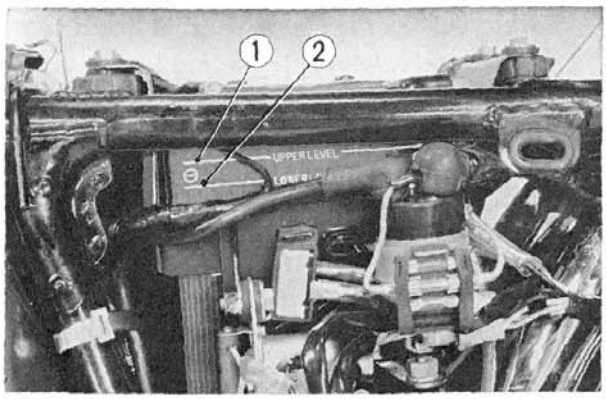


Fig. 19-14 ① Upper level mark
② Lower level mark

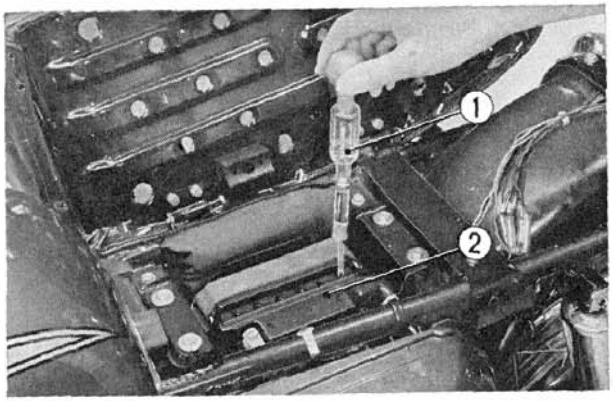


Fig. 19-15 ① Hydrometer
② Battery

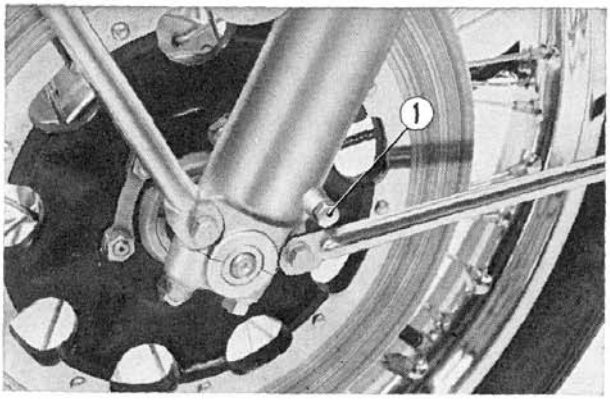


Fig. 19-16 ① Front fork drain plug

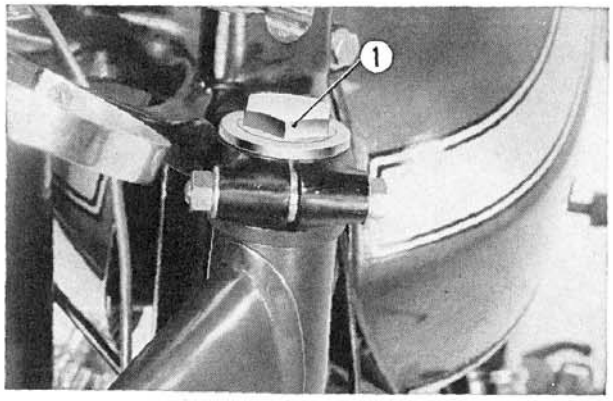


Fig. 19-17 ① Top filler plug

14. Service battery

(1) Remove the left cover by pulling free of the rubber mounts and by raising the seat. Observe the electrolyte level from the left side at the motorcycle. If it is necessary add distilled water carefully to bring the electrolyte level of the cells between the lower and upper marks. **(Fig. 19-14)**

(2) Remove the battery cell caps and check electrolyte specific gravity in each cell with a hydrometer. **(Fig. 19-15)**

If specific gravity reading drops below 1.200 at 68°F (20°C) the battery should be charged at a rate not to exceed 4.2 Amps, until the reading becomes between 1.260 and 1.280 at 68°F (20°C).

(3) Connect the voltmeter leads to the battery terminals, and measure the voltage. If the voltage is less than 12 V after correcting to 77°F (25°C) electrolyte temperature the battery should be throughly checked and the problem diagnosed.

The correction of voltage to 77°F (25°C) should be based on the following formula.

$V(77°F) = Vt + 0.0378(t - 77)$

$V(25°C) = Vt + 0.0378(t - 25)$

(V : measured value of voltage, t : average electrolyte temperature of all cells)

Based on the result of the battely test, determination should be made whether the generator and the regulator requires testing. If the condition of the battery tests satisfactory, it will not necessary to check charging system during tune-up.

(4) Inspect the condition of the both positive and negative battery terminals, positive terminal rubber cap, battery vent tube and the rubber band of the battery retainer, and if any of the items are defective, they should be replaced. Tighten all items securely.

Caution : Exercise extreme care in handling the battery as any battery electrolyte spilled on the painted surface will cause damage to the finish. Further, clean any dirt or corrosion from top of the battery.

15. Check and service front suspensions

(1) Check the front fork assembly by locking the front brake and pumping the fork up and down vigorously. In this case the motorcycle must not be on the main stand.

If there is a slight knock felt in the steering

head balls, adjust the steering head top nut to remove excessive play. In this case care should be taken so that it will not be tighten excessively (Refer to page 118)

(2) Change the oil in the front fork.
   a. Unscrew the front fork drain plug at the bottom of the fork cylinder, drain the oil by pumping the forks while plug is out. Replace the plug securely after draining. **(Fig. 19-16)**
   b. Remove the top filler plug and fill the front fork with **7.0~7.3 ozs. (220~230 cc) of premium quality of SAE 10 W-30 grade. (Fig. 19-17)**
   c. Securely tighten the top filler plug after filling.

(3) Check the following items and if there is any fault, correct before riding.
   a. Operation or attachment of the steering lock—repair or replace steering lock.
   b. Tightness of the front fork mounting bolts (four on the bottom of the cylinders and two on the steering stem plate), steering stem top plate bolts and four handle bar holder bolts or front fork cylinder—tighten the loose bolts.

16. Check and service rear suspension

(1) Lubricate grease nipples on the both side of the rear fork pivot shaft **(Fig. 19-18)** with **multi-purpose grease type NLGI No. 2** every 6 months or every 3000 miles (5000 km), whichever occurs first.

(2) Check the following items and if there is any fault, correct before riding.
   a. Deform or cracks in welding spots in the rear fork—repair or replace.
   b. Worn rear fork pivot bushing—replace bushing.
   c. Tightness of rear cushion mounting bolts (upper and lower bolts)—retighten.

17. Check front and rear wheels and tires

(1) Check the following items and if there is any fault, correct before riding.
   a. Tightness of spokes—retighten loose spokes with even torque.
   b. Deform of wheel rims—replace if run out exceeds the limit (refer to page 133).
   c. Wear of wheel bearings—replace.
   d. Bent of wheel axles—replace.

(2) Check wear of tire tread and if the depth of tread becomes less than 0.08 in (2.0 mm) on the rear tire and 0.06 in (1.5 mm) on the front tire replace the tire.

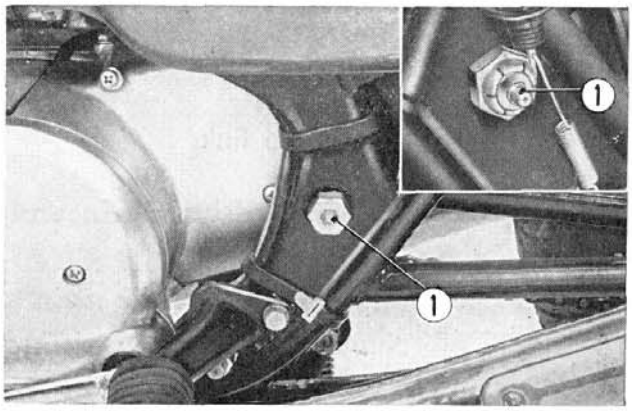


Fig. 19-18 ① Grease nipples

18. Check and service brakes

(1) Check the wear of the front brake friction pads by measuring the clearance between the front of the caliper and brake disc face by means of a thickness gauge.

If the clearance becomes less than **0.08 in (2.0 mm)** both friction pads should be replaced with new Honda genuine replacement pads as a set. **(Fig. 19-19)**

To replace the brake pads the brake caliper must be removed the front fork.

After replacing the brake friction pads remount the caliper to the front fork. (Refer to page 146)

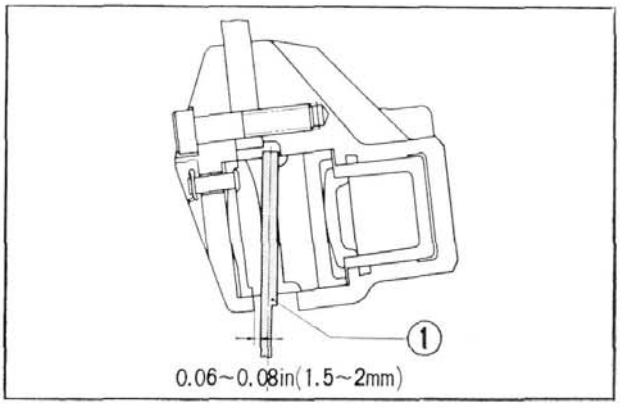


Fig. 19-19 ① Brake disc

(2) The brake caliper must be adjusted so that there is a small clearance between the fixed friction pad and the brake disc. (Refer to page 147~148)

(3) Check brake fluid seepage around the front brake system. If there is any symptom, repair it before riding.

(4) Check the operation of the front brake and if the feeling of lever motion is soft or spongy, or lever travel is excessive, bleed the front brake system. (Refer to page 138~139)

For bleeding the brake or for replenishing the reservoir use only **SAE type 70R3** brake fluid.

Caution: Take care so that the paint surface will not be contaminated by the brake fluid, or otherwise the paint surface will be affected by the fluid.

(5) Remove rear wheel and check the brake shoes for wear of linings. If the thickness of the lining becomes less than **0.08 in (2.00 mm)** at the most worn part, replace both brake shoes with new Honda genuine replacement brake shoes Replace the rear wheel. (Refer to page 148~149)

(6) Rear brake adjustment must be done by the rear brake adjusting nut to obtain the proper brake pedal free travel.

To adjust the rear brake free travel place the motorcycle on the main stand. Rotate the wheel by a hand and rate the distance of the pedal tip travel before the brake takes hold. Nominal free travel is approximately 1 in. (25 mm). Turn the adjusting nut clockwise for less free travel. After adjustment has been made make sure that the cut-out on the adjusting nut is seated on the brake arm pin.

Whenever the rear wheel is removed or the drive chain is adjusted check the brake pedal free travel.

(7) Check the following components for crack or deformation and take proper steps as necessary.

a. Rear brake arm and brake cam.
b. Rear brake panel
c. Rear brake rod
d. Brake pedal
e. Rear brake torque link

19. Check and service drive chain and sprockets

(1) Check and adjust slack of the drive chain according to the following procedure.

a. Place the motorcycle on the main stand. Move the chain up and down at midway point and check the total movement. It should be in 1/2 in to 1 in (10 mm to 25 mm).
b. When the adjustment is required remove the rear axle nut cotter pin and remove the rear axle nut. Loosen the two lock nuts on the drive chain adjusting bolts. Adjust the drive chain movement by equally rotating both adjusting bolts with the aid of scales marked on both sides of the rear fork.
c. Tighten the lock nuts of adjusting bolts and the axle nut to the specified torque of 58~72 ft. lb (8~10 kg·m). Install a new cotter pin and reinspect the slack of drive chain by rotating the rear wheel.
d. Drive chain should be checked and adjusted, at the specified intervals. If wear of the chain becomes exessive, replace it with a new chain of the same size.

(2) Servicing grease to the drive chain is done according to the following steps.

a. To remove the drive chain, first remove the transmission sprocket cover screws and cover. Remove the forward chain cover bolt and loosen rear chain cover bolt. Position the drive chain master link or joint on the rear wheel sprocket and remove the retaining clip with pliers. Do not bend or twist the clip.

b. Clean the chain thoroughly in a suitable solvent. Rinse in clean solvent and allow to dry. Inspect the chain for wear (joint sloppiness), stiffness and binding at the joints and broken or separated rollers. If any of these conditions exist, the chain should be replaced.

c. Immerse the chain in a pan or vessel containing a 10 to 1 ratio mixture of SAE 10W-40 engine oil and petroleum jelly (1/2 qt. oil to 5 oz. petroleum jelly) and heat to 150° to 250°F, (66~100°C) for approximately 10 minutes.

d. Remove the pan from the sources of heat and carefully agitate the immersed chain with a screw driver. When cool, remove the chain allowing it to hang over the pan and drain off excess lubricant. Use a cloth or rag to wipe off remaining excess lubricant.

e. Correctly route drive chain onto the sprockets using the rear sprocket to position the chain ends while installing the master link, link side plate and retaining clip. Note that the closed end of the retaining clip must face the direction of forward wheel rotation. **(Fig. 19-20)**

f. Adjust rear drive chain.

(3) Check the drive and driven sprockets for wear in the teeth and replace the worn sprocket with a new one when it is badly worn.

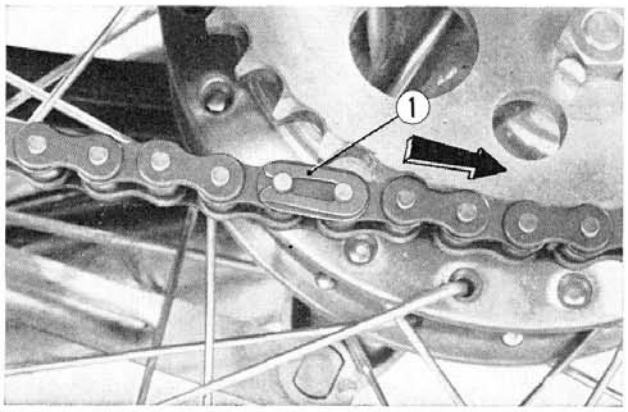


Fig. 19-20 ① Retaining clip

20. Check components of the body

(1) Visibly inspect the frame for crack and deformation on the motorcycle which was reported as it was collided or split over before. If any of these conditions exist, replace the frame with a new one or repair it properly so that the wheel alignment will not be changed.

(2) Check the exhaust pipe and muffler for gas leak and check oil tank and hose for oil seepage and correct fault as required.

21. Check and adjust lights, horn and instruments

(1) Check focusing of head light beam and adjust it according to the following process when it is necessary.

a. The vertical adjustment is made by loosening the bolts which mount the headlight assembly. The headlight is adjusted in the vertical direction so that the center of the beam inspects the ground at the point 164 feet (50 m) in front of the motorcycle with the motorcycle in the riding attitude.

b. The horizontal beam adjustment is made with the adjusting screw located on the left side of the headlight when facing the motorcycle. Turning the screw in will focus the beam toward the left side of the rider and turning the screw out will focus the beam toward the right side. Adjust

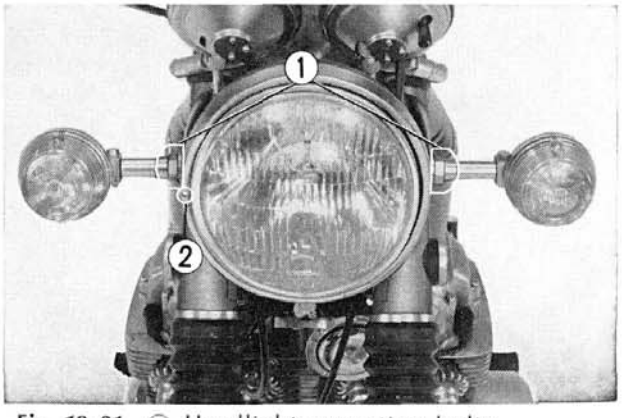


Fig. 19-21 ① Headlight mounting bolts
② Adjusting screw

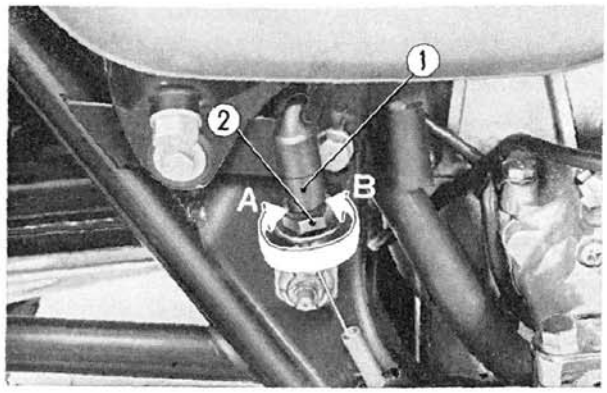


Fig. 19-22 ① Stop light switch
② Lock nut

the beam to coincide with the center line of the motorcycle. **(Fig. 19-21)**

(2) Check operation of stop light switchs on the front brake master cylinder and at the rear brake pedal separately. The one on the front brake is not adjustable and the other on the rear brake is adjustable. Therefore when the front brake switch become out of order it has to be replaced.

Adjust the rear brake stop light switch so that the stop light will come on when the brake pedal is depressed to the point where the brake just starts to take hold. If the stop light switch is late in switching on the stop light, screw in Ⓐ the switch lock nut and if the stop light comes on too early, screw out Ⓑ the switch lock nut. **(Fig. 19-22)**

(3) Check operation of turn signal lights and repair when it is necessary.

(4) Check horn, speedometer and tachometer for function and replace them when it is necessary