

Fig. 14-5 ① Caliper A ② Piston

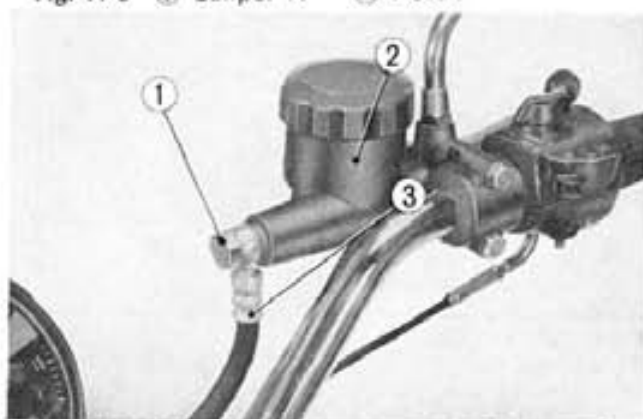
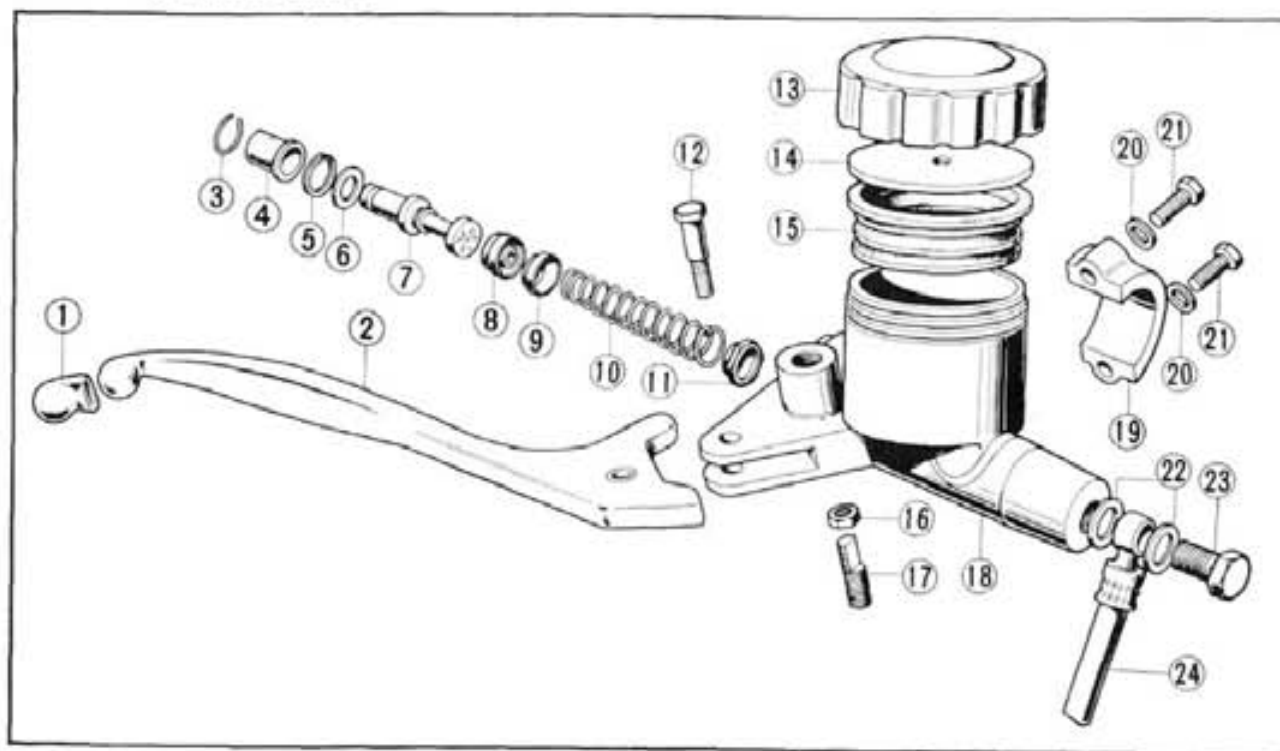


Fig. 14-6 ① Oil bolt ② Master cylinder ③ Oil hose

4. Remove the pad A, pad seat and cylinder piston from caliper A. (Fig. 14-5)
5. Remove the pad B from the caliper B by removing the cotter pin.
6. The master cylinder assembly removal can be performed in the following manner. First unscrew the oil bolt at the master cylinder. (Fig. 14-6)
7. Unscrew the two master cylinder setting bolts and remove the master cylinder from the right side handle grip.
8. Remove the stopper washer and boot from the master cylinder body. (Fig. 14-7)



- ① Brake lever cap
- ② Brake lever
- ③ Stopper washer
- ④ Boot
- ⑤ 18 mm internal circlip
- ⑥ 10.5 mm washer
- ⑦ Piston
- ⑧ Secondary cap

- ⑨ Primary cap
- ⑩ Spring
- ⑪ Check valve
- ⑫ Handle lever pivot bolt
- ⑬ Oil cup cap
- ⑭ Master cylinder plate
- ⑮ Diaphragm
- ⑯ 8 mm hex nut

- ⑰ Lever adjusting bolt
- ⑱ Master cylinder body
- ⑲ Master cylinder holder
- ⑳ 6 mm spring washer
- ㉑ 6 mm hex bolt
- ㉒ Oil bolt washer
- ㉓ Oil bolt
- ㉔ Front brake hose

Fig. 14-7

9. Remove the circlip from the master cylinder body using the special circlip pliers (Tool No. 07914-3230000). (Fig. 14-8)
10. Next, remove 10.5 mm washer, piston, secondary cup, primary cup, spring and check valve. (Fig. 14-7)

c. Inspection

1. Brake friction pads

If the clearance between the front of the caliper and brake disc face becomes **0.06~0.08 in. (1.5~2 mm)**, friction pads should be replaced with new Honda genuine friction pads. (Refer to page 185)

Both friction pads (the one which is on the caliper piston and the other on the opposite side) should be changed in set at the same time.

2. Front disc brake inspection

Raise the stand, push the motorcycle, apply the brake lever and check to make sure that the front brake is fully operational. If a large stroke of the lever is required before the braking becomes effective, the cause may be either low brake fluid in the system or air may be present in the system; in which case, check the reservoir and replenish the fluid if necessary or if air bleeding is required, refer to the section on bleeding of braking system (page 138~139). This should automatically correct the level breaking stroke.

However, if the length of the free stroke is excessively large, brake lever adjustment may be necessary.

Loosen the brake lever adjusting lock nut and turn the adjusting bolt to obtain the proper play.

After completing the adjustment, do not forget to tighten the lock nut. (Fig. 14-9)

3. Caliper cylinder piston

Accurately measure the caliper cylinder using inside dial gauge, and the piston using a micrometer. When the clearance between piston and the cylinder is greater than **0.004 in. (0.11 mm)**, the worn parts

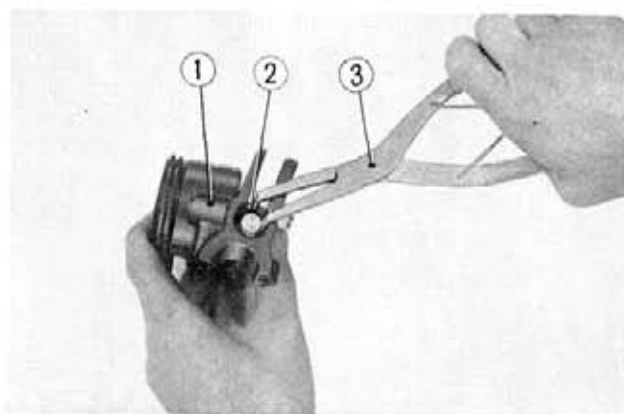


Fig. 14-8 ① Master cylinder body
② Circlip
③ Special pliers

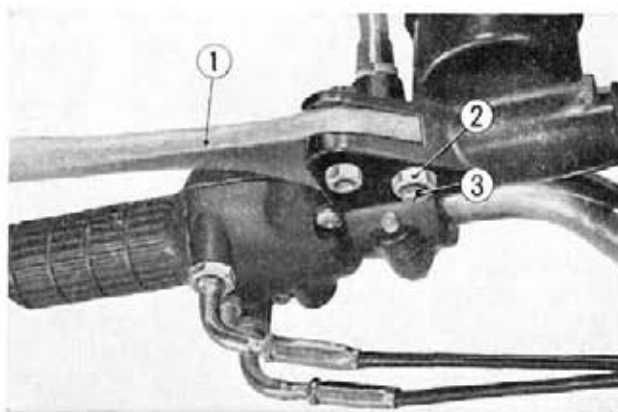


Fig. 14-9 ① Front brake lever
② Lock nut
③ Brake lever adjusting bolt

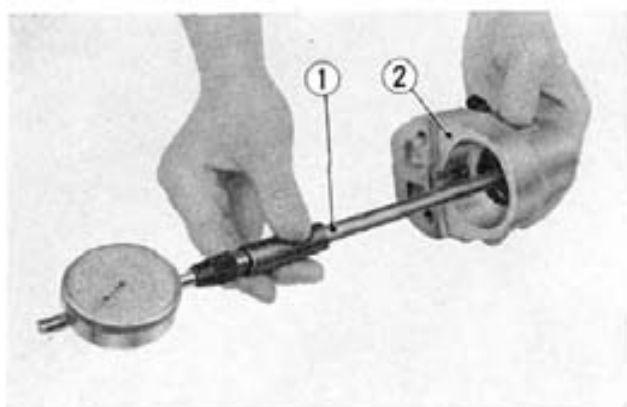


Fig. 14-10 ① Cylinder gauge
② Caliper cylinder

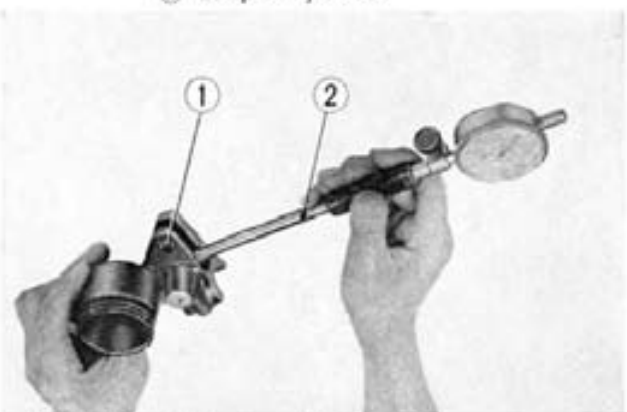


Fig. 14-11 ① Master cylinder body
② Inside dial gauge

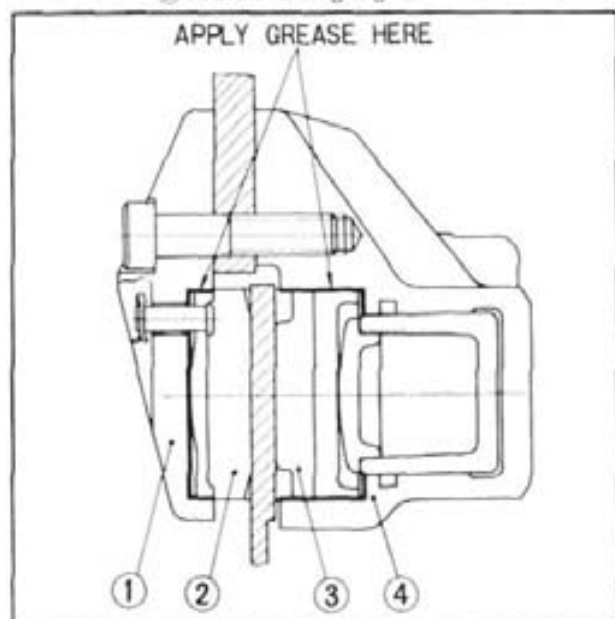


Fig. 14-12 ① Caliper B ③ Pad A
② Pad B ④ Caliper A

3. Install the front wheel (Refer to page 133~134).

4. Bleeding the brake system

The brakes must be bled with great care subsequent to work performed on the brake system, when the lever becomes soft or spongy or when lever travel is excessive. This procedure is best performed by two mechanics.

a. Remove the dust cap from the bleeder valve and attach bleeder hose. (Fig. 14-13)

should be replaced. (Fig. 14-10)

Inspecting item	Serviceable limit
Cylinder	Replace if beyond 1.504 in. (38.215 mm)
Piston	Replace if under 1.500 in. (38.105 mm)

4. Master cylinder piston (Fig. 14-11)

Accurately measure the cylinder using an inside dial gauge, and the piston using a micrometer. If the clearance between the cylinder and piston is greater than **0.0045 in. (0.115 mm)**, the worn parts should be replaced.

Inspecting item	Serviceable limit
Master cylinder	Replace if beyond 0.553 in. (14.055 mm)
Master cylinder piston	Replace if under 0.549 in. (13.940 mm)

5. Check seal of the caliper piston and if found to be damaged, replace with a new part.

6. Check the oil hose for damage, if it is defective, replace it with new part.

d. Reassembly

1. Before mounting the pads A and B, apply a small amount of the specified grease (0.3~0.5 g) evenly on the caliper as shown in Fig. 14-12. When mounting the pads, take care not to smear the braking surface of the pad with grease. The applied grease serves to prevent dust and water from entering the pad sliding surface, as well to lubricate the sliding surface in order to ensure the smooth operation of the pads.

Note: Use silicon sealing grease (temperature range of $-67\sim 392^{\circ}\text{F}$, $-55\sim 200^{\circ}\text{C}$). Do not use molybdenum grease known as brake grease.

2. Mount the component parts into the caliper and assemble it on the front fork bottom case.

Place the free end of the bleeder hose into a glass container.

- b. Remove the reservoir cap and fill the reservoir with **DOT 3** or **SAE J1703a BRAKE FLUID**. Place the cap on the reservoir to prevent the entry of dust. (Fig. 14-14)
- c. As shown at right, attach a rubber of about 15mm thick to the end of the handle grip to decrease the stroke as measured at the tip of the handle lever.

Rapidly pump the brake lever several times until pressure can be felt, holding the lever tight, open the bleeder valve by about one half turn and squeeze the lever all the way down. Do not release the lever until the bleeder valve has been closed again.

Repeat this procedure until bubbles cease to appear in the fluid at the end of the hose. Do not allow the fluid reservoir to become empty during the bleeding operation as this will allow air to enter the system again. Replenish the fluid as often as necessary while bleeding.

- d. Remove the bleeder hose, tighten the bleeder valve and install the bleeder valve dust cap. Tighten the reservoir cap after filling brake fluid to proper level.

- e. Check for proper effect of bleeding and absence of leaks while holding pressure against the brake lever.

When the hydraulic brake system has been drained, the reservoir should be first filled with brake fluid.

Open the bleeder valve by one half turn, squeeze the brake lever, close the valve and release the brake lever. This procedure must be repeated in this sequence until hydraulic fluid begins to flow through the bleeder hose. Having filled the hydraulic system with fluid, proceed with the actual bleeding operation.

Note:

- Brake fluid which has been pumped out of the system must not be used again.
- Brake fluid will damage the paint finish and meter cases.
- The hydraulic fluid level in the reservoir must be checked at regular intervals and replenished whenever low. Use only **SAE TYPE 70R3 BRAKE FLUID** in this system.

5. Brake caliper adjustment

The brake caliper must be adjusted so that there is a small clearance between the fixed friction pad and the brake disc. This adjustment is made in the following manner. (Fig. 14-15)

- a. Raise the front wheel off the ground using a suitable prop.

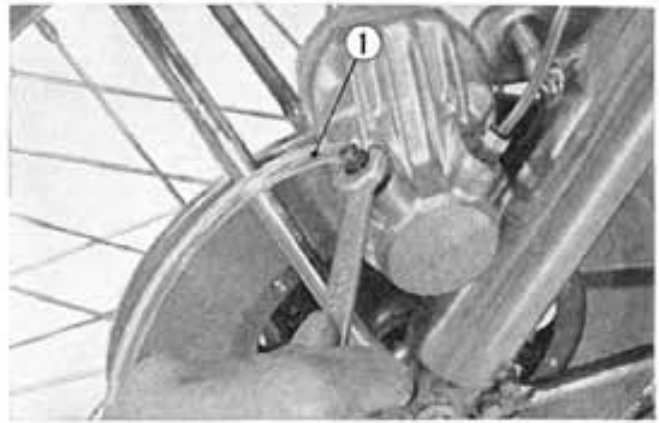


Fig. 14-13 ① Bleeder hose

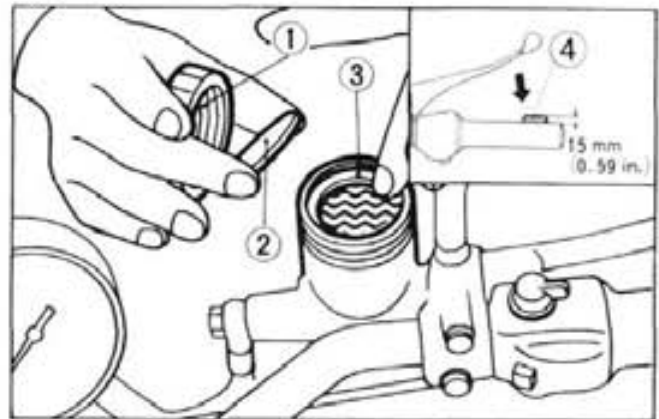


Fig. 14-14 ① Reservoir cap ② Washer ③ Diaphragm ④ Rubber

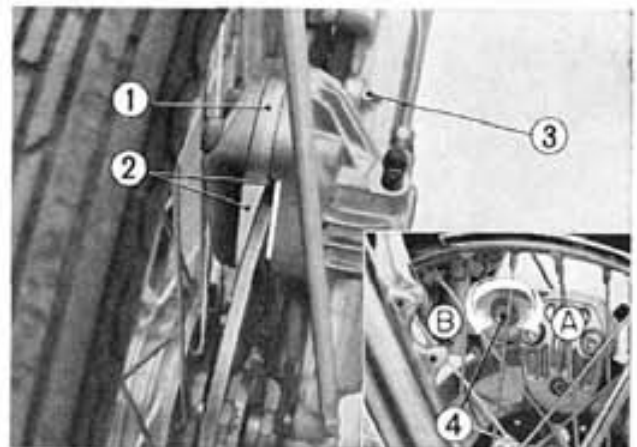


Fig. 14-15 ① Brake caliper ② Friction pads ③ Stopper colt lock nut ④ Stopper bolt

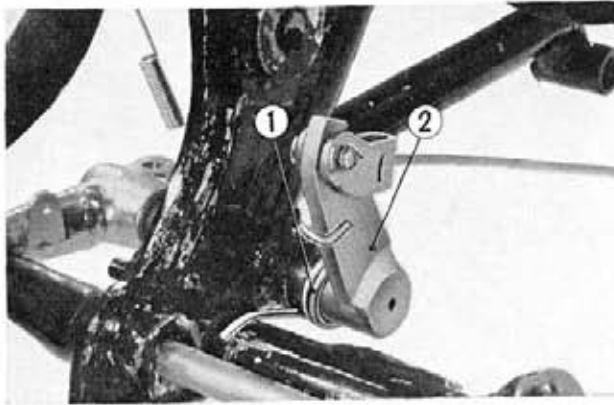


Fig. 14-16 ① Rear brake return spring
② Rear brake shaft

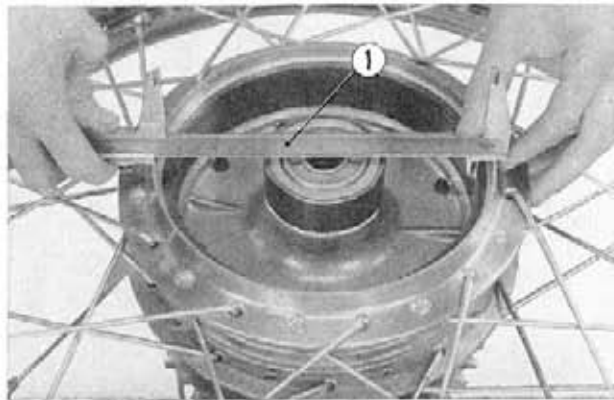


Fig. 14-17 ① Vernier caliper

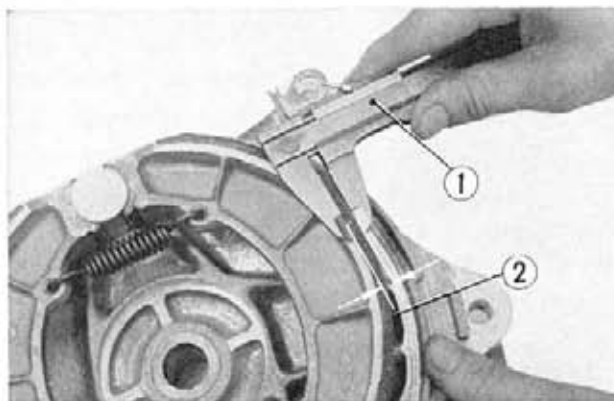


Fig. 14-18 ① Vernier caliper
② Rear brake shoe

- b. Loosen the caliper stopper bolt lock nut.
- c. Turn the stopper bolt in direction Ⓐ until the friction pad contacts the brake disc. When the wheel is rotated some resistance should be noticed.
- d. While rotating the front wheel, turn the stopper bolt in direction Ⓑ until the front wheel rotates freely.
- e. Turn the stopper bolt in direction Ⓑ 1/8 ~ 1/4 turn further and tighten the lock nut.

14-3 REAR BRAKE

a. Description

The rear brake has a large 7.09 in. (180 mm) diameter drum, providing a large friction surface for an effective braking performance.

b. Disassembly

1. Unscrew the rear brake pedal mounting bolt, disconnect the stop switch spring and remove the rear brake pedal from the shaft.
2. Unscrew the rear brake adjuster nut and remove the rear brake rod from the rear brake arm.
3. Unhook the rear brake return spring, and remove the rear brake shaft. (Fig. 14-16)
3. Remove the rear brake shoe from the rear wheel in accordance with page 130.

c. Inspection

1. Rear brake lining

Measure the rear brake drum diameter with a vernier caliper and if it is greater than 7.205 in. (183 mm), the rear wheel should be replaced. (Fig. 14-17)

Further, the rear wheel should also be replaced, if there are severe grooves in the drum.

2. Rear brake shoes

Measure the thickness of the brake shoe with a vernier caliper and if it is less than 0.080 in. (2.0 mm) the shoe should be replaced. Further, shoe should also be replaced, if there is severe uneven wear to the lining. (Fig. 14-18)

d. Reassembly

1. Connect the rear brake rod to the rear brake shaft.

2. Hook the rear brake return spring and connect the rear brake shaft to the frame.
3. Install the rear brake rod on the rear brake arm.
4. Install the rear brake pedal and tighten the setting bolt. (Fig. 14-19)
5. Mount the rear wheel in accordance with group rear wheel on page 138.
6. To check the rear brake pedal free travel, raise the rear wheel off the ground by placing the motorcycle on the main stand. Rotate the wheel by hand and note the distance the pedal tip travel before the brake takes hold. Nominal free travel is approximately 1 in. (25 mm) (Fig. 14-20). If adjustment is necessary, make the adjustment by turning the adjusting nut. Turn clockwise for less free travel, counterclockwise for greater free travel. (Fig. 14-21)

Note: Make sure that the cut-out on the adjusting nut is seated on the brake arm pin after the final adjustment has been made. If the rear wheel assembly has been moved forward or rearward, as during drive chain adjustment, the rear brake may require adjustment.

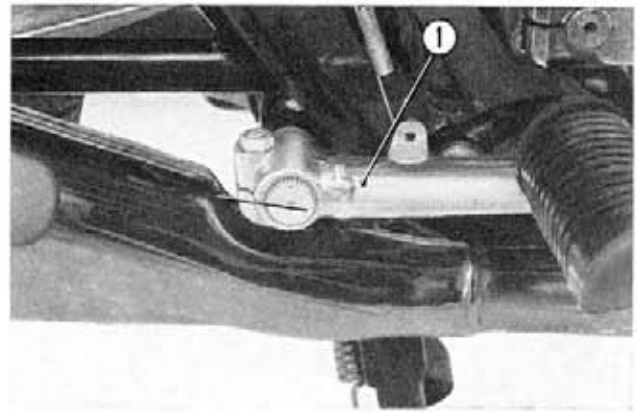


Fig. 14-19 ① Rear brake pedal

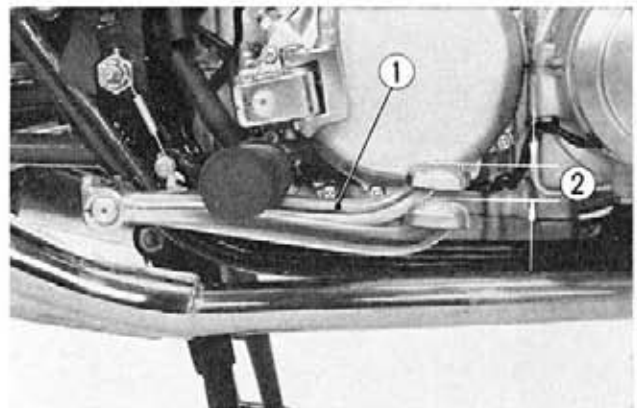


Fig. 14-20 ① Rear brake pedal
② Rear brake pedal free travel

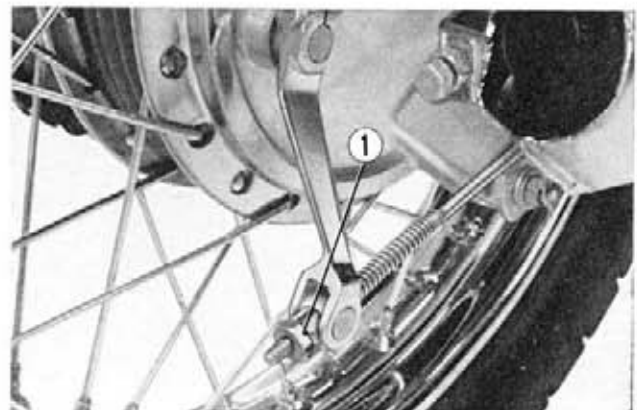


Fig. 14-21 ① Rear brake adjusting nut

BODY, OIL TANK, AIR CLEANER AND EXHAUST SYSTEM

GROUP

15

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15-1. GENERAL DESCRIPTION

DIAGNOSIS



Trouble	Probable Cause	Remedy
Handle pull to one side	Bent frame	Repair or replace
Poor high speed operation	Dirty air cleaner	Clean or replace

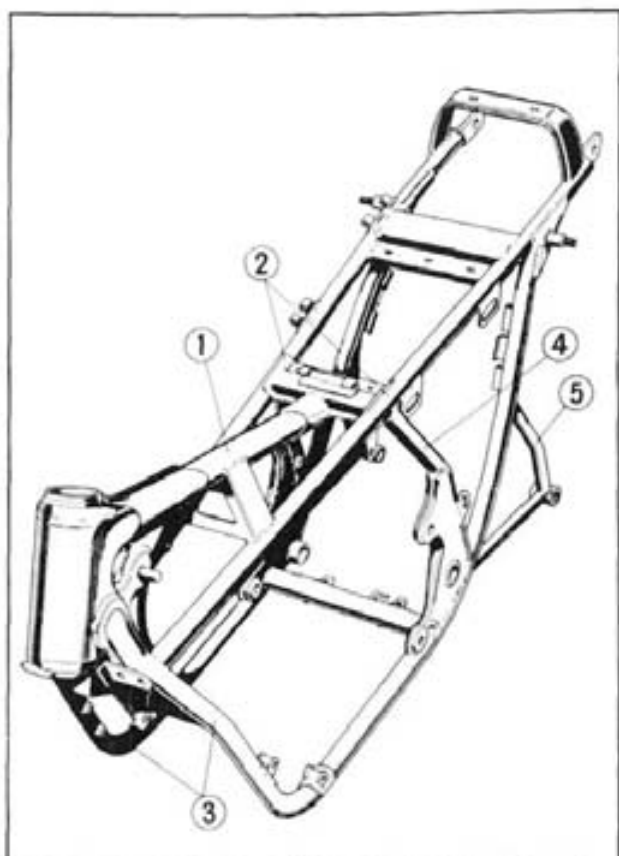


Fig. 15-1 ① Main pipe ② Sub tube ③ Under sub tube ④ Center pipe ⑤ Muffler setting stay

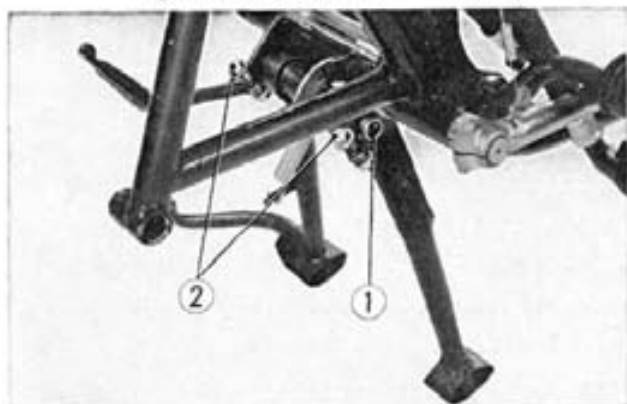


Fig. 15-2 ① Cotter pin ② Main stand mounting bolts

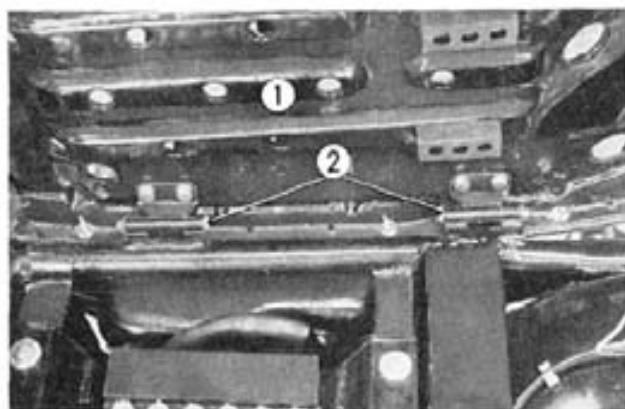


Fig. 15-3 ① Seat ② Seat hinge bars

15-2. BODY

a. Description

The frame of the CB750 is of a double cradle steel tubing construction with a triple down tube head pipe section to provide the higher rigidity required for high speed riding. (Fig. 15-1)

b. Disassembly

1. Refer to engine removal section on page 17~18 to remove the engine.
2. Refer to steering group on page 117~118 to remove the handle, steering stem.
3. Refer to wheel group on page 132 and 137 to remove front and rear wheels.
4. Refer to suspension group on page 120 and 125 to remove the front and rear suspensions.
5. Refer to electrical instrument group on page 160~167 to remove the electrical still going.
6. Remove the cotter pin from the main stand shaft collar and remove the two mounting bolts. (Fig. 15-2)
7. Unhook the main stand spring and remove the main stand.
8. Remove the two seat hinge bars and remove the seat from the frame. (Fig. 15-3)
9. Remove the two 6mm and two 8mm bolts and separate the rear fender, rear fender B from the frame.
10. Remove the upper and lower ball races from the steering head. Use wood blocks to prevent damage when driving out. (Fig. 15-4)

c. Inspection

1. Check for bend and damage to the frame and repair using a press. (Fig. 15-5 shows the dimensions of the frame body.)
2. Check the damages to the lower and top ball races and replace if necessary.

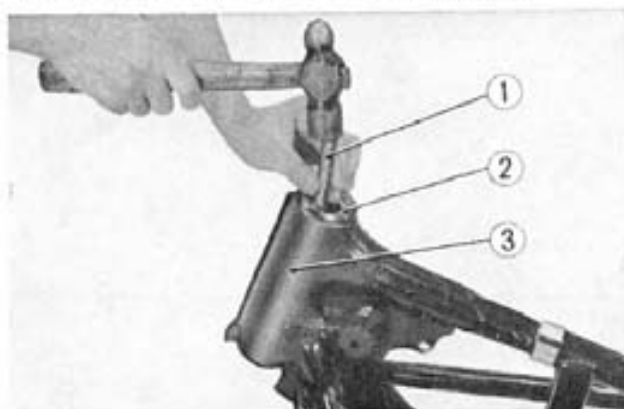


Fig. 15-4 ① Wooden drift ② Ball race ③ Head pipe

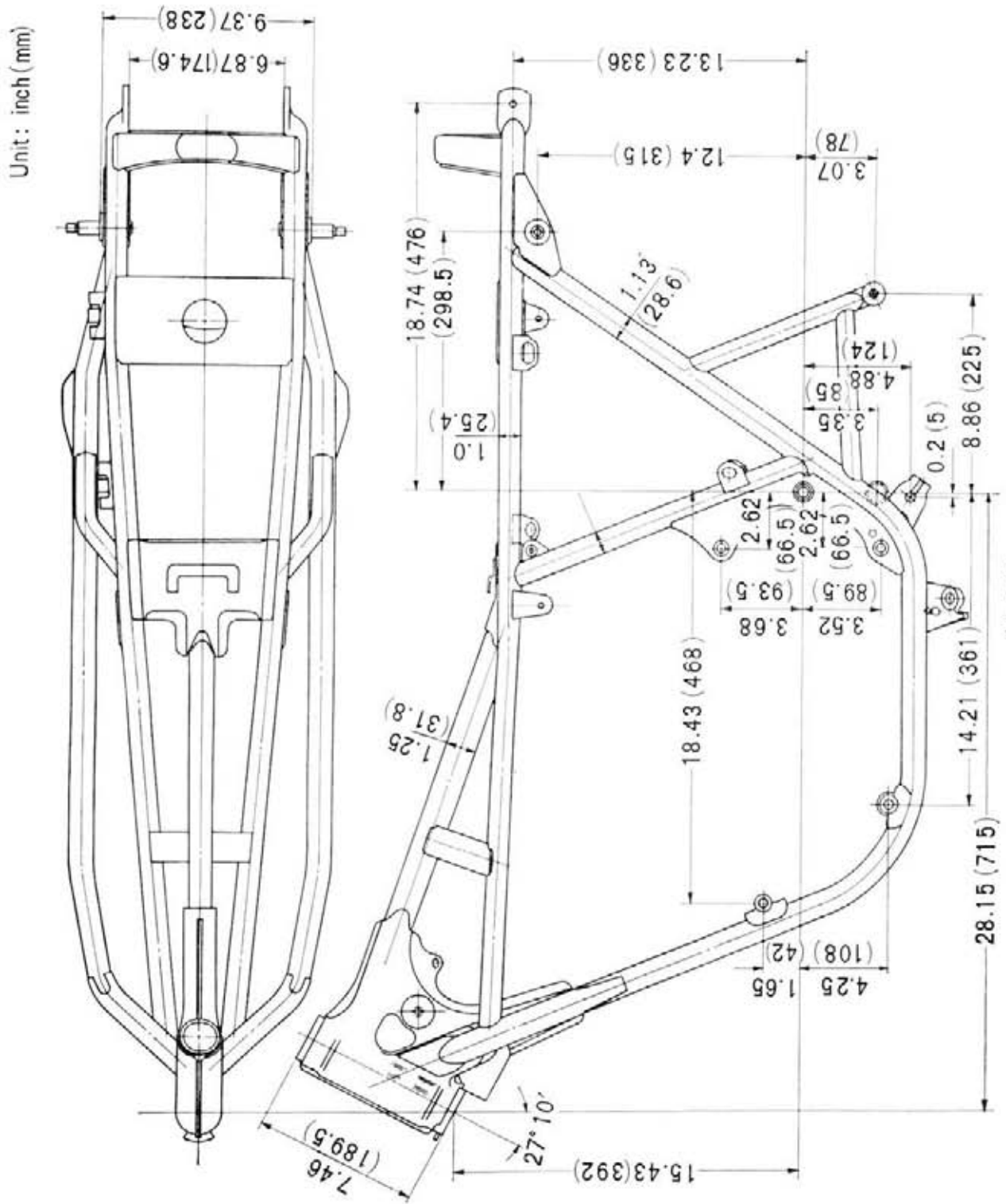


Fig. 15-5

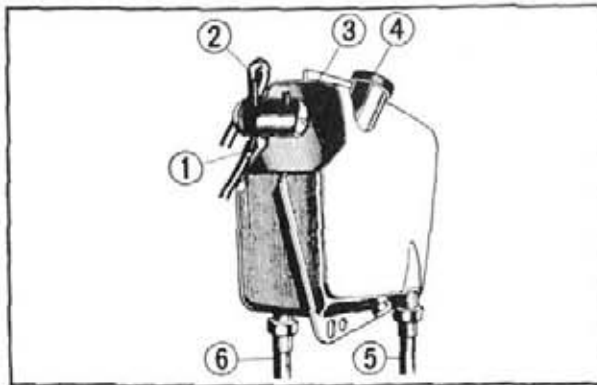


Fig. 15-6 ① Breather tube A
② Oil tank breather pipe
③ Breather chamber
④ Oil filter cap
⑤ Oil hose B (scavenge side)
⑥ Oil hose A (delivery side)



Fig. 15-7 ① Oil tank drain plug

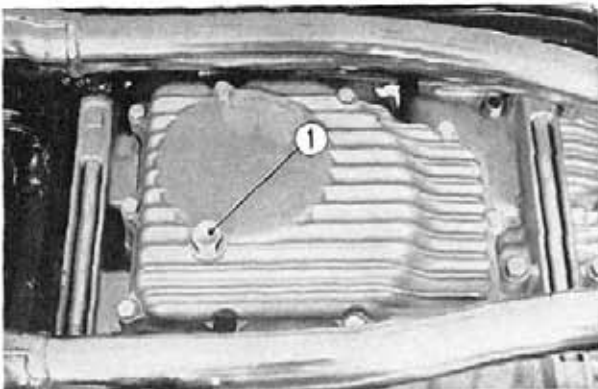


Fig. 15-8 ① Crankcase oil drain plug

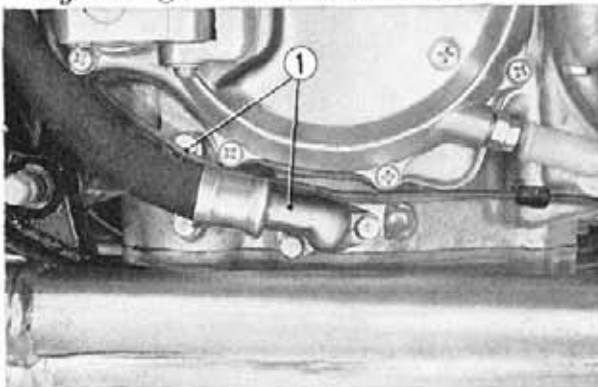


Fig. 15-9 ① Engine oil hoses

3. Inspect the main stand damage, crack bent and repair if condition is serious, the main stand should be replaced.

d. Reassembly

1. Install the upper and lower steering ball races fully into the steering head.
 2. Assemble the rear fender and rear fender B on the frame with the 6mm and 8mm bolts (2 of each).
 3. Refer to the electrical and instrument group on page 161~170 and install the electrical equipments.
 4. Place the main stand against the bracket and insert the main stand shaft and then torque the two mounting bolts.
- Note:** These bolts should not be over tightened.
5. Install a new cotter pin and lock.
 6. Install the seat with the two hinge bars.
 7. Refer to the suspension group on page 121 and 125 and install front and rear suspensions.
 8. Refer to the wheel group on page 133 and 138 and install front and rear wheels.
 9. Refer to the steering group on page 118~119 and install handle steering stem.
 10. Refer to the engine installation on page 19, install the engine and also install fuel tank and oil tank.

15-3. OIL TANK

a. Description

The oil tank is mounted on the right side center of the motorcycle and connected to the engine with two hoses. As shown in Fig. 15-6, the oil from the engine is routed through hose B under pressure and is returned to the oil tank: in the reverse, the oil flows through hose A to the engine.

A breather chamber is incorporated within the tank where the oil and air is separated. The air is released through the breather pipe to the atmosphere while the oil entering the breather chamber is returned to the engine through the breather tube A.

b. Disassembly

1. Remove the oil tank cover.
2. Remove the oil tank and crankcase drain plugs, and drain the oil. (Fig. 15-7, 8)
3. Disconnect the two oil hoses at the engine fittings. (Fig. 15-9)

4. Remove the three oil tank mounting bolts and dismount the oil tank. (Fig. 15-10)

c. Inspection

1. Check the oil tank for damages and defects, and replace if tank is leaking.
2. Check the oil hoses fittings for tightness and free from leaks.

d. Reassembly

1. Install the breather pipe and oil hoses securely on the tank.

Note: Make sure that hoses A and B are installed in their respective locations. (Fig. 15-11)

2. Make sure that the oil tank is mounted on the rubber mounts and install three mounting bolts.
3. Install the oil hoses to their respective fittings on the engine.

Note: Make sure not to forget the 15 mm O ring.

4. Install and tighten both the oil tank and crankcase drain plugs.
5. Refill tank with oil (refer to page 178).

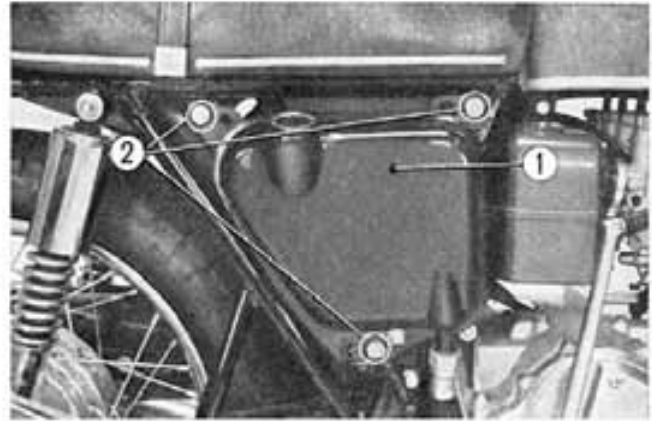


Fig. 15-10 ① Oil tank
② Oil tank mounting bolts

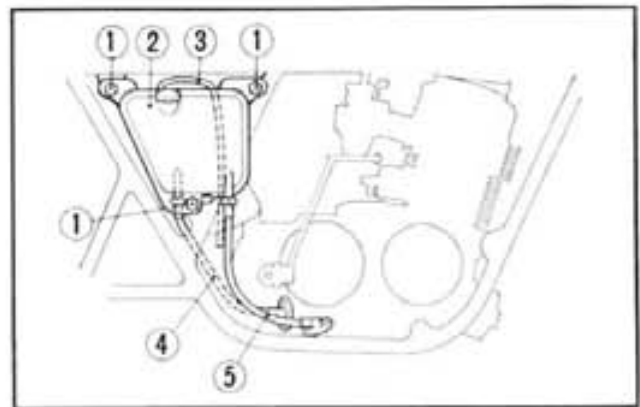


Fig. 15-11
① 6 mm bolts ④ Oil hose A (delivery side)
② Oil tank ⑤ Oil hose B (scavenge side)
③ Breather tube A

15-4. AIR CLEANER

a. Description

The air cleaner is mounted at the center of the motorcycle under the fuel tank. The air cleaner element is of filter paper. The clean air which passes through the air cleaner is fed to the each carburetor. (Fig. 15-12)

Courtesy of  Honda4Fun
www.honda4fun.com www.honda4fun.com

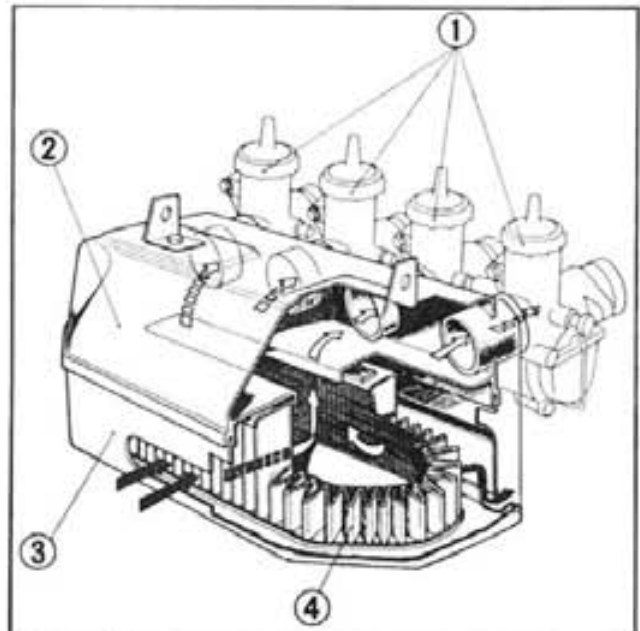


Fig. 15-12 ① Carburetors
② Air cleaner case
③ Air cleaner cover
④ Air cleaner element

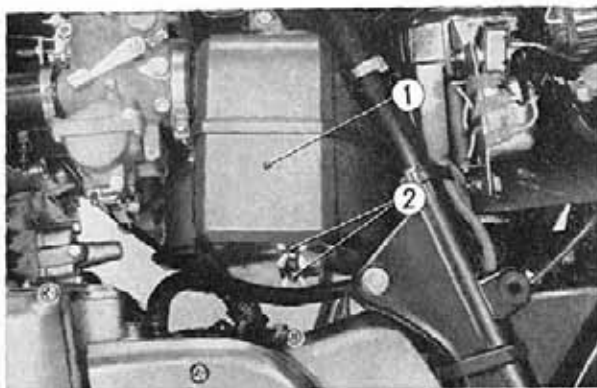


Fig. 15-13 ① Air cleaner cover ② Wing nuts

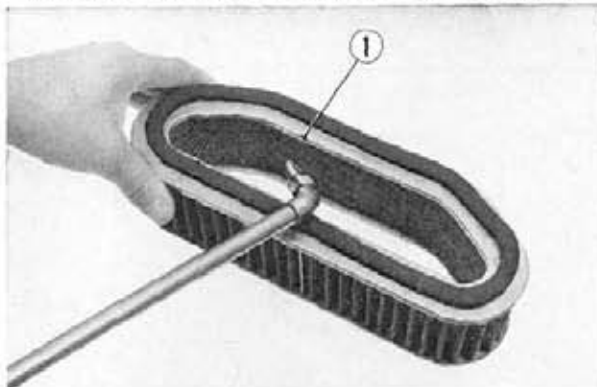


Fig. 15-14 ① Air cleaner element

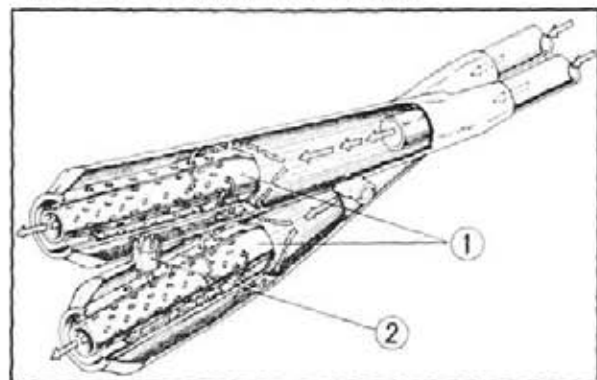


Fig. 15-15 ① Exhaust muffler
② Muffler connecting tube

to the reduction in exhaust back pressure. (Fig. 15-15)

b. Disassembly

1. Loosen the 8 mm bolt on the exhaust joint and remove the pillion step bolt on both sides at the same time.
2. Loosen the muffler connecting band and disassemble the mufflers.

c. Inspection

1. Inspect the muffler gasket for damage.
2. Inspect the muffler for cracks, dents and other defects.

d. Reassembly

1. Install the exhaust pipe gasket on the cylinder head and mount the exhaust flange on the head with two 8 mm screws.
2. Install the exhaust pipe joint on the exhaust flange and mount the muffler to the frame with pillion step bolt and 8 mm bolt.

Note: Make sure that the muffler connecting tube is connecting the upper and lower sections of the muffler. (Fig. 2-9 on page 19)

b. Disassembly

1. Remove the air cleaner cover by loosening the two wing nuts and remove the air cleaner element. (Fig. 15-13)
2. Remove the air cleaner upper case by loosening the four air cleaner hose clamp screws and the two mounting bolts.

c. Inspection

1. Dust on the air cleaner element can be removed by tapping lightly and blowing off the loose dust particles with compressed air. (Fig. 15-14)
2. Inspect the air cleaner element to make sure that it is not damaged or clogged by soilage.
3. Also inspect the bonded section to make sure that the joints are not cracked or open.

d. Reassembly

1. Install the air case by screwing the two air cleaner case setting bolts.
2. Install the air cleaner to the carburetors and clamp the hoses with screws.
3. Install the air cleaner element together with the air cleaner cover and mount with the two wing nuts.

15-5 EXHAUST SYSTEM

a. Description

The CB 750 mounts on individual muffler for each of the four cylinders.

Though the mufflers have only a small expansion chamber capacity, the unique design of the exhaust system provides effective silencing without sacrifice to power output by joining the two mufflers on each side with muffler connecting tube at the silencing compartments. This effect provides an added silencing capacity, with a minimum of power loss due

BODY ELECTRICAL AND INSTRUMENTS

GROUP 16

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16-1 GENERAL DESCRIPTION

DESCRIPTION

The following equipments are installed on the motorcycle to insure safe riding. Also included are control to operate these equipments.

- Speedo/tachometer
- Lighting equipments
- Switches
- Horn
- Flasher relay
- Wire harness

SPECIFICATIONS

Headlight type Headlight bulb	Sealed lamp 12 V-50/40 W
Tail/stop light blub Turnsignal light bulb Meter lamp bulb	12 V-7/23 W 12 V-25 W 12 V-3 W
Flasher relay type Horn	Signal-stat 142 Curling type

DIAGNOSIS

Trouble	Probable Causes	Remedy
Lights do not operate	1. Broken filament of bulb 2. Poor contact of socket 3. Low charge battery 4. Defective wires	Replace bulb Repair Charge battery Repair or replace
Turn signal light does not operate	1. Defective flasher relay 2. Broken filament of bulb 3. Poor contact of socket 4. Defective wires	Replace Replace Repair Repair or replace
Horn does not operate	1. Low charge battery 2. Poor contact of switch 3. Defective wires	Charge battery Repair Repair or replace

16-2 SPEEDO/TACHOMETER

a. Description

Speedometer and tachometer are separate units. The speedometer including the odometer and the trip meter is driven from the front wheel through a flexible shaft. Tachometer is driven off the camshaft, also through a flexible shaft. Constructions of both the speedometer is shown in Fig. 16-1.

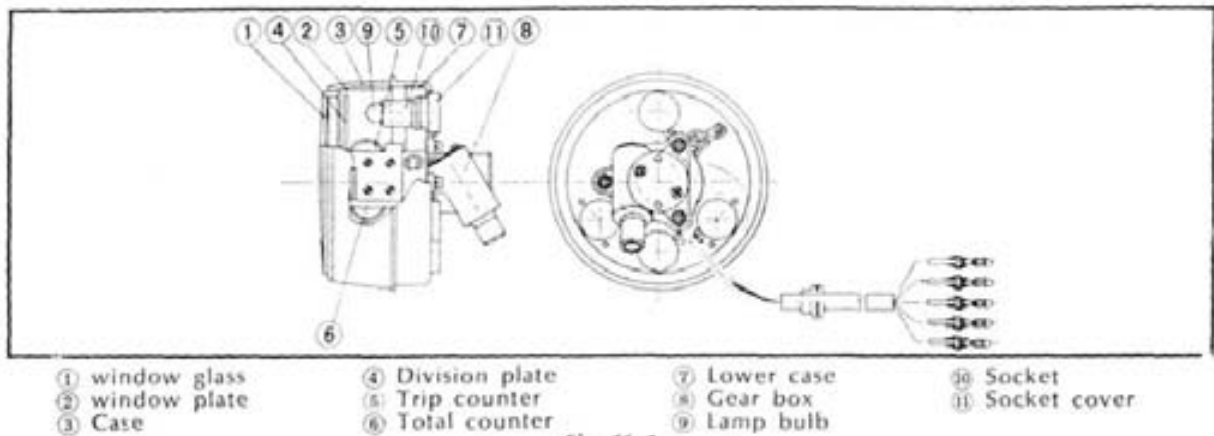


Fig. 16-1

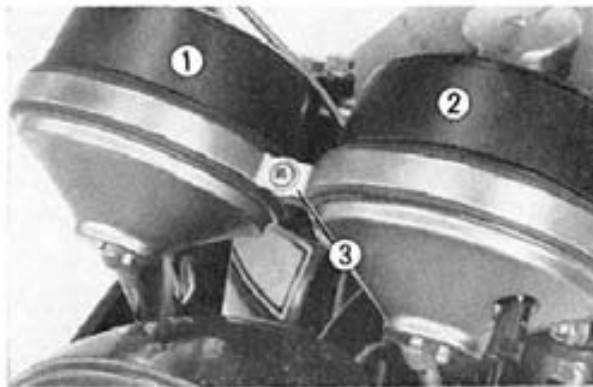


Fig. 16-2 ① Tachometer ② Speedometer ③ Setting screw

b. Disassembly

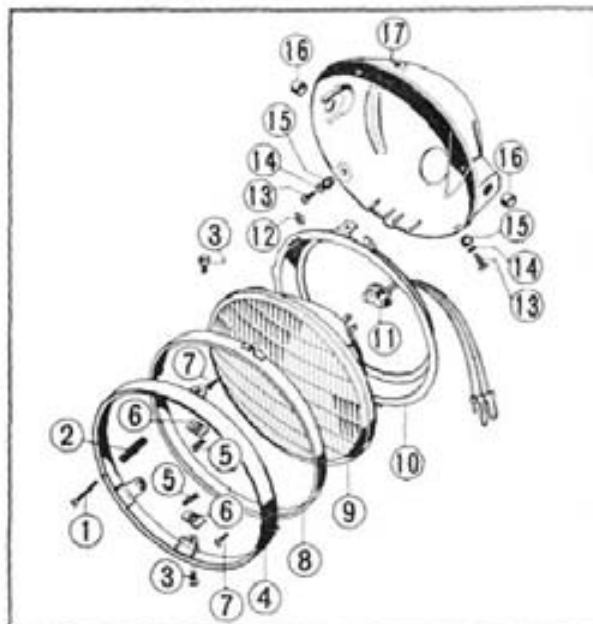
1. Remove the headlight unit in accordance with 16-3. b on page 161, and disconnect the electrical leads which are from the speedo/tachometer.
2. Disconnect the speedometer and tachometer cables from back of the respective meter.
3. Loosen the meter setting screw and remove the meter from the meter bracket. (Fig. 16-2)
4. Remove the meter under plate by unscrewing the two cross screws and remove the meter bulbs.

c. Inspection

1. Inspect the respective meter for defect or crack.

d. Reassembly

Perform the reassembly in the reverse order of disassembly.



- | | |
|-------------------------|----------------------------|
| ① Beam adjusting screw | ⑩ Mounting ring |
| ② Beam adjusting spring | ⑪ Headlight cord socket |
| ③ Unit holder screw | ⑫ Beam adjusting nut |
| ④ Headlight rim | ⑬ 5 mm cross screw |
| ⑤ 5 mm cotter pin | ⑭ 5 mm spring washer |
| ⑥ Unit holder nut | ⑮ Headlight setting collar |
| ⑦ 3 mm cross screw | ⑯ Headlight case collar |
| ⑧ Retaining ring | ⑰ Headlight case |
| ⑨ Sealed beam unit | |

Fig. 16-3

16-3 HEADLIGHT

a. Description

The headlight is of sealed beam type and adjusted in the vertical and horizontal directions. (Fig. 16-3)

c. Disassembly

1. Loosen the three headlight mounting screws and remove the headlight unit from the headlight case.
2. Disconnect the leads from the headlight unit. (Fig. 16-4)
3. Unscrew the two headlight units setting screws, the beam adjusting screw and remove the unit from the headlight rim. (Fig. 16-5)
4. Loosen the two headlight screws and remove the beam unit. (Fig. 16-5)

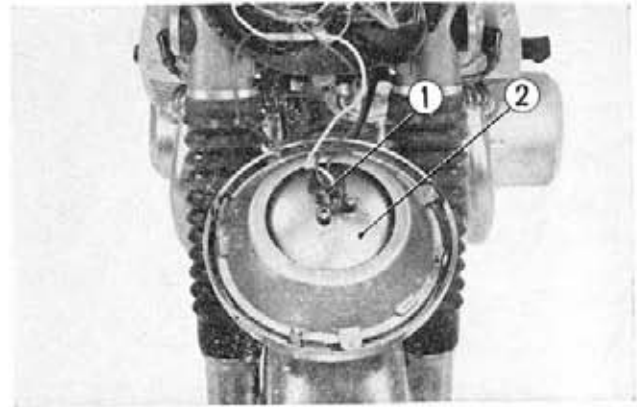


Fig. 16-4 ① Headlight socket ② Headlight unit

c. Inspection

1. If the headlight is inoperative, remove the headlight unit and check for broken filament either visually or with a tester.
If the filament is broken, replace it with a specified headlight unit.
2. Also check the condition of the wiring and if they are damaged or frayed, make a repair or replace the wiring.

d. Reassembly

Perform the reassembly in the reverse order of disassembly.

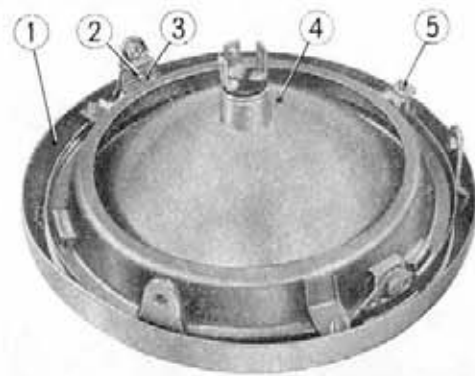


Fig. 16-5 ① Headlight rim ② Cotter pin ③ Headlight beam unit screw ④ Headlight beam unit ⑤ Adjusting screw

16-4 TAIL/STOPLIGHT

a. Description

The tail/stoplight contains two filaments within a bulb. (Fig. 16-6)

b. Disassembly

1. Disconnect the tail/stoplight leads at the connectors and then remove the tail/stoplight bracket. (Fig. 16-7)
2. Remove the taillight lens and then remove the tail/stoplight bulb. (Fig. 16-8)

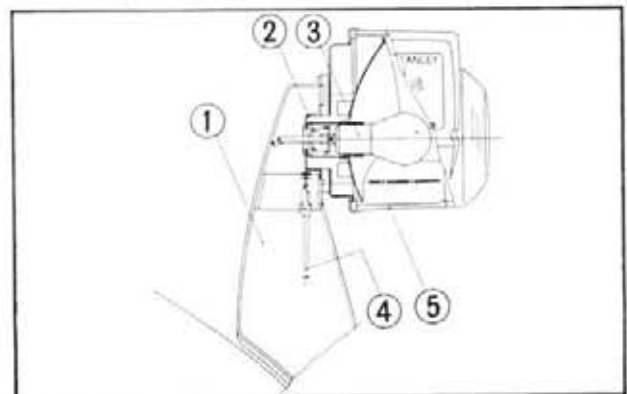


Fig. 16-6 ① Number plate bracket ② Taillight socket ③ Taillight bulb ④ Taillight ground cord ⑤ Taillight lens

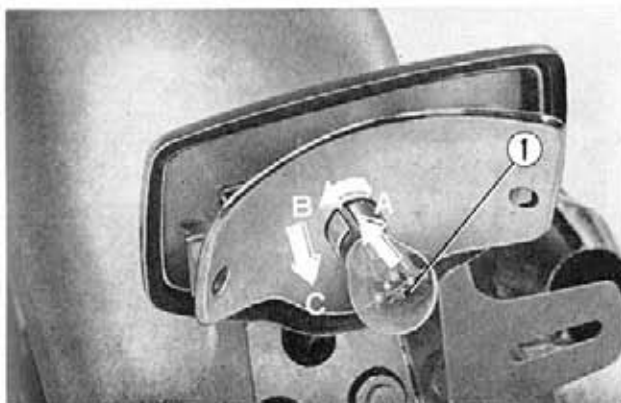


Fig. 16-8 ① Tail/stoplight bulb



Fig. 16-7 ① Lead connectors ② Taillight bracket screws

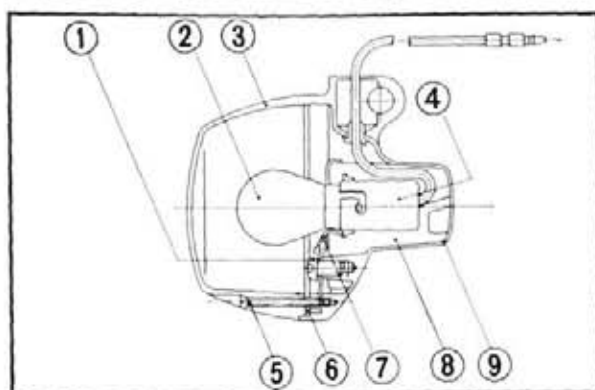


Fig. 16-9 ① Cross screw ⑥ Lens packing
② Turn signal light bulb ⑦ Socket holder
③ Turn signal light lens ⑧ Socket cushion
④ Turn signal light socket ⑨ Turn signal light base
⑤ Oval screw

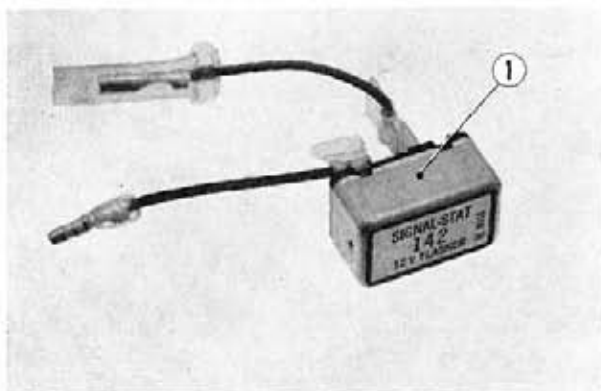


Fig. 16-10 ① Signal-stat flasher relay

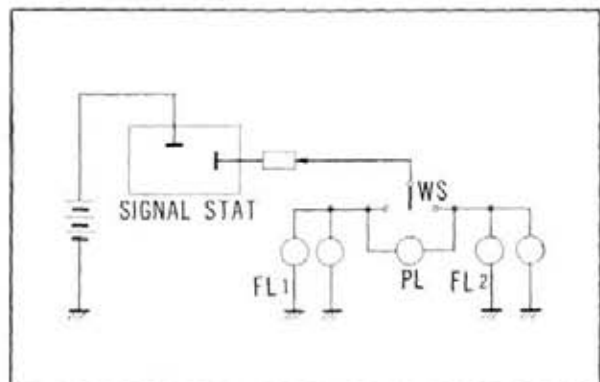


Fig. 16-11 Wiring diagram of signal stat

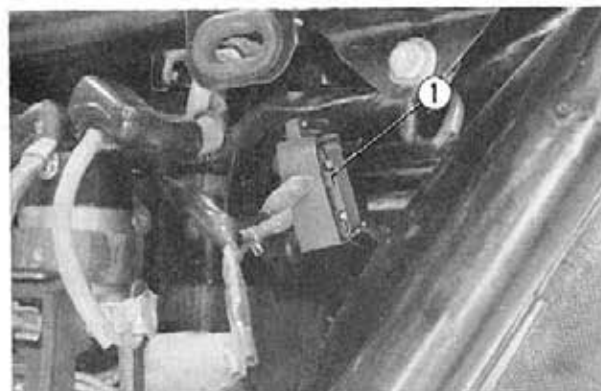


Fig. 16-12 ① Signal stat

c. Inspection

When the bulb does not operate, remove the bulb and check for broken filament visually or with a tester and if found defective, replace the bulb with one that is of a specified rating.

d. Reassembly

Perform the reassembly in the reverse order of removal.

Note: When installing the taillight lens, do not overtighten the screws, as this may damage the lens.

16-5 TURN SIGNAL LIGHT

a. Description

A large type turn signal light is used. (Fig. 16-9)

b. Disassembly

The removal procedure is identical with that of the tail/stop light described on page 161.

c. Inspection

1. If the bulb is inoperative, remove the bulb and check for broken filament and if found to be defective, replace the bulb with one of specified rating.
2. Check the wiring for loose connectors or break in the wires and if found defective, repair or replace.

d. Reassembly

Perform the reassembly in the reverse order of removal.

16-6 FLASHER RELAY

a. Description

The signal-stat 142 flasher relay is used on this model. (Fig. 16-10)

b. Disassembly

1. Remove the battery cover.
2. Disconnect the electrical leads from the signal stat and remove it.

c. Inspection

1. Make sure that the turn signal light bulb of the proper rating is used. If bulbs of different rating are used, the flashing rate will be affected.
2. Check the operation of the flasher relay.

When the turn signal light flashing rate is not uniform, the flasher relay should be checked. Disconnect the leads from the left terminal of the relay and connect it to a 12 V-25 W bulb. If the flashing rate is between 65 to 90 cycles per minute, the relay is satisfactory.

Note: During the test make sure that the flasher is properly ground.

3. Switch on the turn signal switch and if the lamp stays on continuously and accompanied by a buzzing noise in the relay, check to make sure that the relay is properly ground or that the ground lead is not broken.
4. When the flasher switch is turned on, and the lamp does not flash, flasher bulb is probably defective. Check the bulb immediately.

d. Reassembly

Perform the installation in the reverse order of removal.

16-7 MAIN IGNITION KEY SWITCH**a. Description**

This switch controls the entire electrical circuit including the OFF, ON (riding) and the parking position. (Fig. 16-13)

	BAT (red)	IG (black)	TL 1 (brown/white)	TL 2 (brown)	Function	Key removal
OFF					Electrical equipments are inoperative and the engine cannot be started	Removal
I	○—○		○—○	○	Electrical equipments are operative, the engine will start.	Not removal
II	○			○	Parking light is operative, engine cannot be started.	Removal

b. Disassembly

1. Remove the fuel tank.
2. Unscrew the main ignition key switch lock nut. (Fig. 16-14)
3. Disconnect the switch connector and remove the switch. (Fig. 16-14)

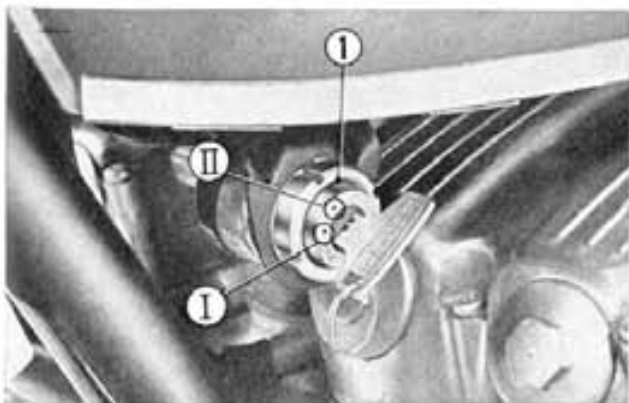


Fig. 16-13 ① Main ignition key switch

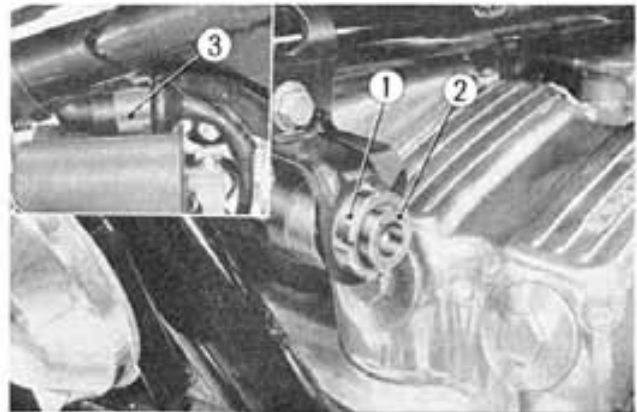


Fig. 16-14 ① Lock nut
② Main ignition key switch
③ Connector

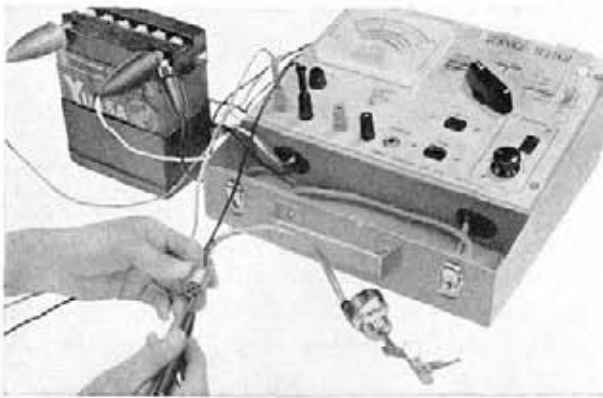


Fig. 16-15 Continuity test of the main key switch

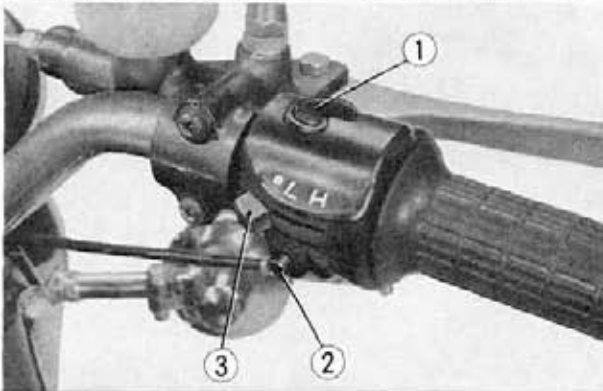


Fig. 16-16 ① Ignition switch
② Starter switch
③ Headlight control switch

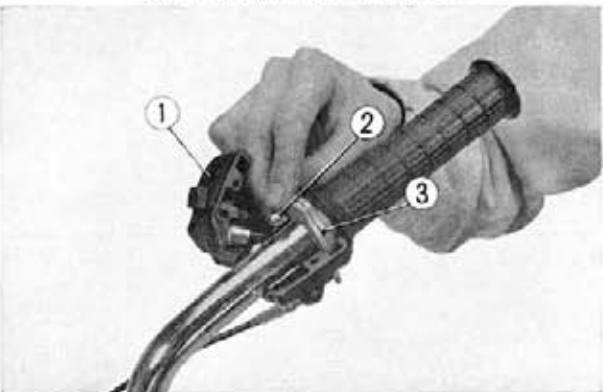


Fig. 16-17 ① Starter lighting ignition switch assembly
② Throttle cable
③ Throttle control

Turn the main key switch to the on position and set the headlight control switch to the red dot position; the headlight and taillight will not be on.

In the L position the headlight low beam will be on; In the H position the headlight high beam will be on. Further, the taillight will be on in both the H and L positions.

2. Push the starter button and check to see if the starting motor turn over.

d. Reassembly

Perform the reassembly in the reverse order of disassembly.

Note: When installing the switch lower half on the handle, make sure that the pin is inserted into the handle bar stopper hole and is tightened together with the switch upper half.

c. Inspection

1. Continuity test

Perform a continuity check to determine if there is a break in the switch lead or defective condition of the contacts. Insert the leads into the X terminal of the tester, turn the selector knob to the continuity position and then turn the main key switch to the on position using the key. Apply the test leads across the points to be checked; if the red continuity lamp is lit, the continuity condition is satisfactory. If the lamp does not come on, it indicates an open circuit. (Fig. 16-15)

d. Reassembly

Perform the installation in the reverse order of the removal.

16-8 STARTER LIGHTING IGNITION SWITCH

a. Description

The starter lighting ignition switch is incorporated in the right handle bracket. (Fig. 16-16)

b. Disassembly

1. Loosen the two switch mounting screws and separate the switch bracket at the right of the handle bar.
2. Disconnect the throttle cable from the throttle control and then remove the throttle cable connector from the switch lower side. (Fig. 16-17)
3. Disconnect the wiring within the headlight case and remove the switch assembly.

c. Inspection

1. Check to make sure that the respective switch positions are functioning properly.

16-9 TURN SIGNAL LIGHT/ HORN SWITCH

a. Description

The turn signal light/horn switch is located on the left handle bar adjacent to the grip. The upper switch is the turn signal light switch and the lower is the horn button switch. (Fig. 16-18)

b. Disassembly

1. Remove the headlight unit and disconnect the wiring within the headlight case.
2. Unscrew the two switch mounting screws and disassemble the switch upper and lower halves.

c. Inspection

1. Turn the main key switch to the on position and set the turn signal control switch to the L position. The turn signal lights on the left side should be flashing and when the switch to the R position the right hand turn signal lights should be flashing.
2. Set the main key switch to the on position and when the horn button is pressed, the horn should operate.

d. Reassembly

Perform the reassembly in the reverse order of disassembly.

Note: When assembling the switch lower half on the handle, make sure that the pin is inserted into the handle bar stopper hole and then tighten together with the switch upper half.

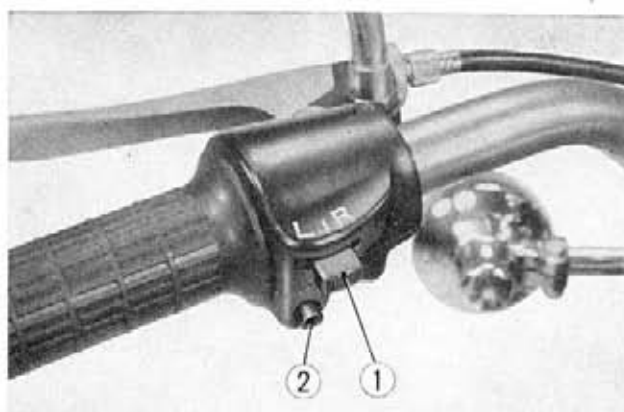


Fig. 16-18 ① Turn signal switch ② Horn button

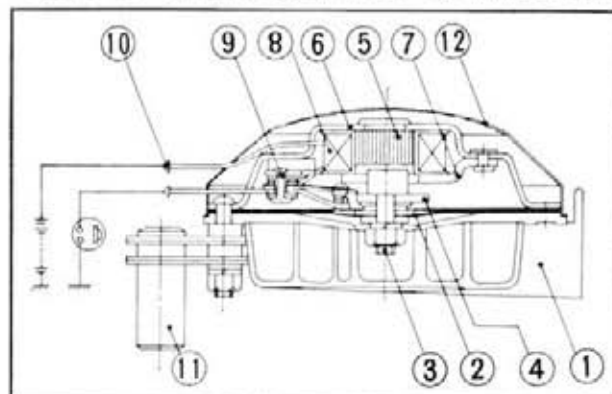


Fig. 16-19 ① Curling horn ⑦ Core plate
② Diaphragm ⑧ Coil
③ Pole B ⑨ Contact assembly
④ Armature ⑩ Coupler (black)
⑤ Pole A ⑪ Horn clamp
⑥ Case ⑫ Cover

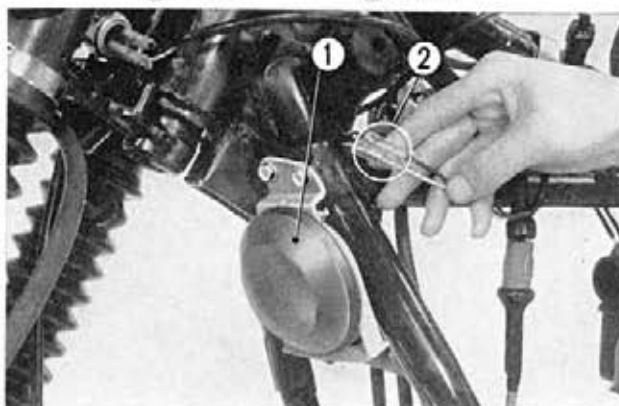


Fig. 16-20 ① Horn ② Lead connectors

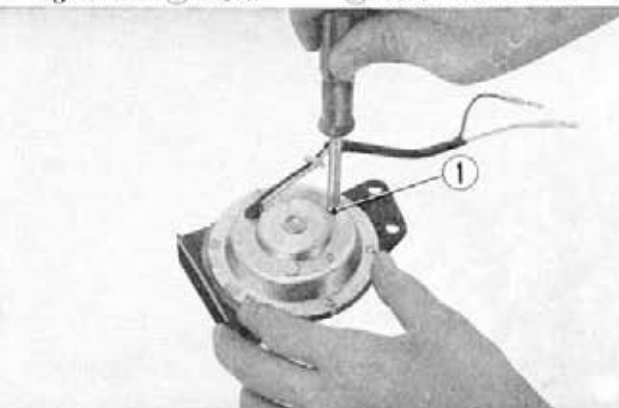


Fig. 16-21 ① Adjusting screw

16-10 HORN

a. Description

The horn is of a curling type. The action of the electronic magnet within the horn sets up the specified vibrating frequency of a metal diaphragm and this produces the sound.

The construction of the horn is shown in (Fig. 16-19).

b. Disassembly

1. Disconnect the electrical leads. (Fig. 16-20)
2. Remove the horn by unscrewing the two bolts from the frame. (Fig. 16-20)

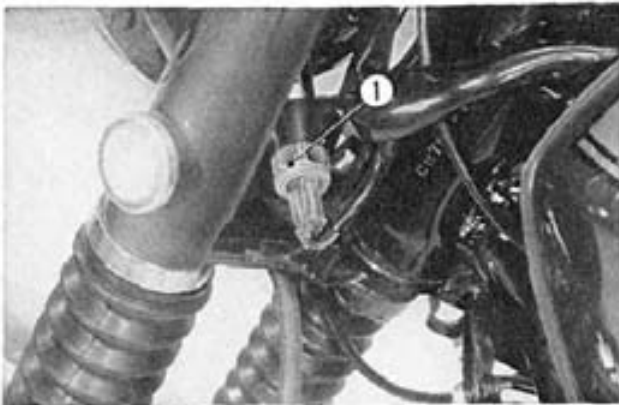
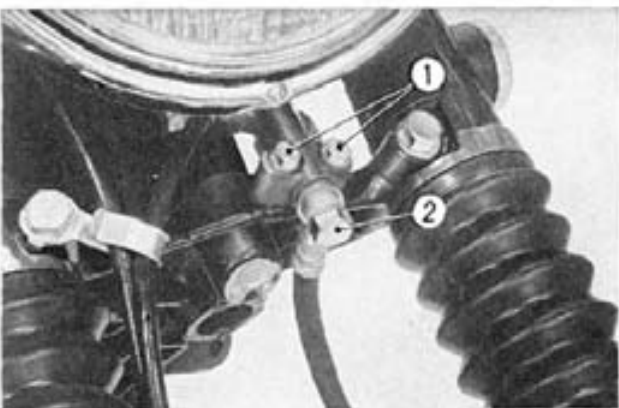
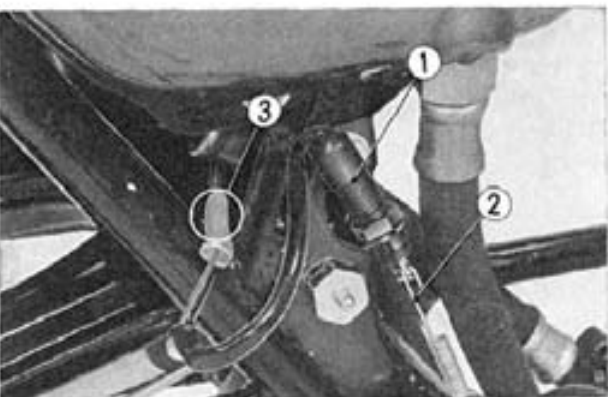


Fig. 16-22 ① Stop switch

Fig. 16-23 ① Joint mounting bolt
② Joint boltFig. 16-24 ① Stop light switch
② Stop switch spring
③ Leads connectors

Note: The horn is accurately adjusted to produce the desired sound, therefore, the horn should not be disassembled if it is operating properly.

c. Inspection

If there is a change in pitch of the sound or if the loudness has decreased, check the horn by connecting it to a fully charged battery. If the quality of the sound is still poor, remove the horn cover and adjust by turning the adjusting screw. Turning the screw to the right will increase the loudness.

(Fig. 16-21)

d. Reassembly

Perform the reassembly in the reverse order of disassembly.

16-11 STOP SWITCH (FRONT)

a. Description

The front switch is actuated by the brake oil pressure and is located at the brake hose joint. (Fig. 16-22)

b. Disassembly

1. Remove the electrical leads from the front stop switch.
2. Loosen the joint mounting bolts and remove the front stop switch from the joint. (Fig. 16-23)

c. Inspection

1. Check to make sure that the stoplight is on when the front brake lever is applied, if the light will not be on the stop switch should be replaced.

d. Reassembly

Perform the reassembly in the reverse order of the disassembly.

16-12 STOP SWITCH (REAR)

a. Description

The stoplight switch is a pull type switch operated by the brake pedal. (Fig. 16-24)

b. Disassembly

Disconnect the wiring and remove the stoplight switch from the bracket.

c. Inspection

1. Adjusting the position of the stoplight switch operation. (Fig. 16-24)

- a. First, check the adjustment of the rear brake pedal in accordance with the procedure on page 149 to make sure that the brakes are properly adjusted.
- b. Turn on the main key switch (main key switch position "red" dot).
- c. Adjust the stoplight switch so that the stoplight will come on when the brake pedal is depressed to the point where the brake just starts to take hold. If the stoplight switch is late in switching on the stoplight, screw in the switch lock nut, and if the stoplight comes on too early, screw out the switch lock nut.
- d. **Reassembly**
Perform the reassembly in the reverse order of the disassembly.

16-13 OIL PRESSURE SWITCH

a. Description

The oil pressure switch is mounted on the upper crankcase behind the cylinder. When the oil pressure is over 56.9~85.3 lbs/in² (4~6 kg/cm²), the switch operates.

b. Disassembly

1. Remove the oil pressure switch from the upper crankcase. (Fig. 16-25)
2. Disconnect the electrical lead.

c. Inspection

The oil pressure warning lamp does not come on when the main key switch is switched on or the lamp does not go off when the engine is started, it is indication that the oil pressure switch is defective.

d. Reassembly

Perform the installation in the reverse order of the removal.

16-14 NEUTRAL SWITCH

a. Description

The neutral switch is mounted under the lower crankcase.

This switch operates the neutral indicator lamp located on the tachometer.

b. Disassembly

1. Unscrew the neutral switch screw and disconnect the electrical lead.
2. Remove the neutral switch mounting bolt from the lower crankcase and remove the neutral switch. (Fig. 16-26)

c. Inspection

1. Check to make sure that the green neutral pilot lamp comes on when the gear is shifted into the neutral position by the gear change pedal.
2. Check the operation and condition of the neutral switch.

d. Reassembly

Perform the installation in the reverse order of the removal.

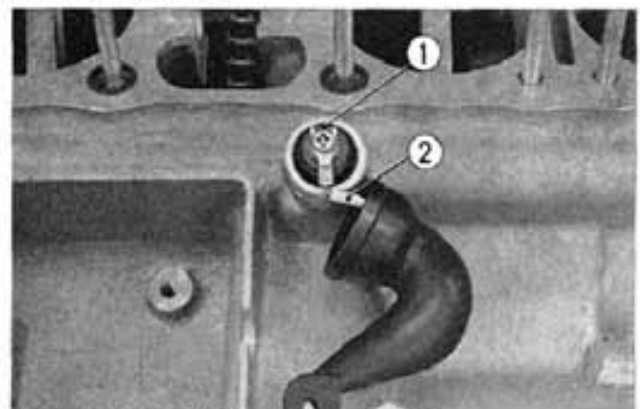


Fig. 16-25 ① Oil pressure switch
② Electrical lead

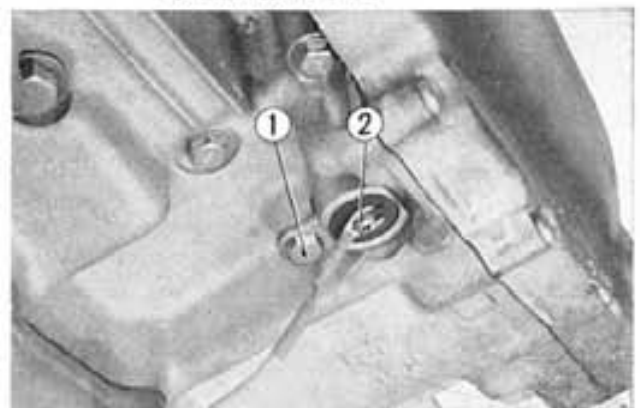


Fig. 16-26 ① Neutral switch mounting bolt
② Neutral switch

16-15 WIRE HARNESS

a. Description

The respective circuits in the wire harness are coded with different colors to make it easy to service electrical system.

b. Disassembly

1. Open the seat and remove the fuel tank.
2. Remove the headlight and disconnect the leads installed of the inside of the head light case.

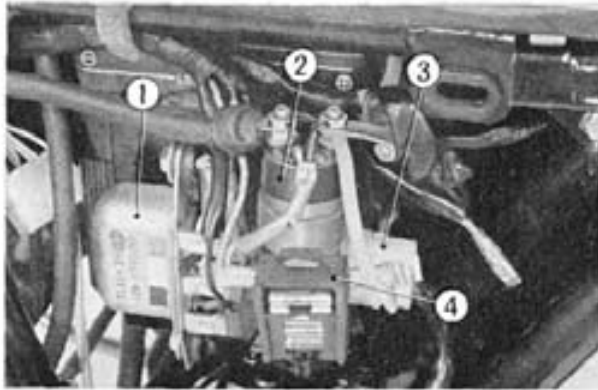


Fig. 16-27 ① Regulator
② Starter magnetic switch
③ Rectifier connector
④ Fuse case

3. Disconnect the ignition coil leads.
4. Disconnect the horn leads.
5. Disconnect the front stop switch leads.
6. Disconnect the main key switch leads.
7. Disconnect the generator connector.
8. Disconnect the contact breaker/stop switch leads.
9. Remove the battery cover, and then remove the following parts; regulator, starter magnetic switch, rectifier connector, fuse case and signal stat. (Fig. 16-27)
10. Remove the leads on the rear fender. (Fig. 16-28)
11. Remove the wire harness bands, and then remove the wire harness from the frame.

c. Inspection

1. Perform the continuity test for each socket connected wire leads in the same color. (Fig. 16-29)
2. If the wire harness tape is torn or deteriorated, replace it.

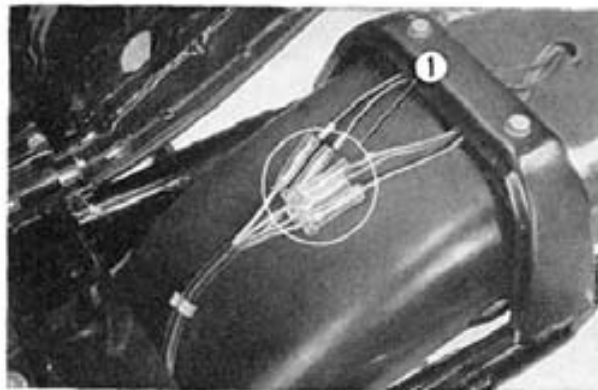


Fig. 16-28 ① Electric leads

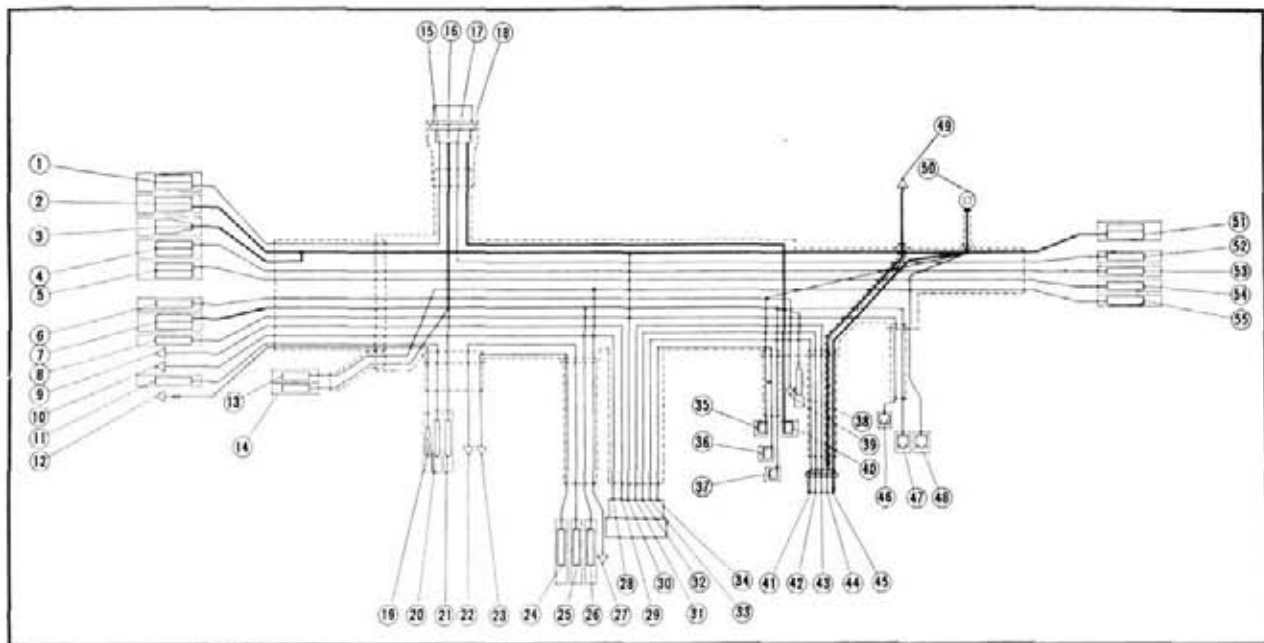


Fig. 16-29

No.	Lead color	Connection	No.	Lead color	Connection
①	Brown/White	Speedometer lamp, Beam selector switch, Tachometer lamp	②4	Yellow	Contact breaker
②	Green	Headlight, Speedometer, Tachometer	②5	Blue	"
③	Green	R. L front turn signal light	②6	Black	"
④	Light blue	R. front turn signal light, starter switch, turn signal pilot lamp	②7	Green/Yellow	Stop switch
⑤	Orange	Turn signal pilot lamp, L. front turn single light, Starter/turn signal switch	②8	Light green/Red	Neutral switch
⑥	Yellow/Red	Starter/turn signal switch	②9	Blue/Red	Oil pressure switch
⑦	Black	Neutral pilot lamp, Oil pressure lamp, Head light beam selector switch, ignition switch	③0	Green	A. C generator
⑧	Grey (white tube)	Starter switch, Turn signal switch	③1	Yellow	"
⑨	Blue/Red	Oil pressure lamp	③2	"	"
⑩	Light green/Red	Neutral pilot lamp	③3	"	"
⑪	Light green	Horn switch, Beam selector switch	③4	White	"
⑫	Black/White	Ignition switch	③5	Green	Regulator
⑬	Green/Yellow	Front stop switch	③6	White	"
⑭	Black	Front stop switch	③7	Black	"
⑮	Brown/White	Main key switch	③8	Black	Starter magnetic switch
⑯	Black	"	③9	Yellow/Red	"
⑰	Brown	"	④0	Red	Fuse
⑱	Red	"	④1	Yellow	Silicon rectifier
⑲	Black/White	Ignition coil	④2	"	"
⑳	Light green	Horn	④3	"	"
㉑	Black	Horn. ignition coil	④4	Red/White	"
㉒	Blue	Ignition coil	④5	Green	"
㉓	Yellow	Ignition coil	④6	Grey	Winker relay
			④7	Black	"
			④8	Green	—
			④9	Red/White	Starter magnetic switch
			⑤0	Green	Frame body
			⑤1	Green	Tail/stop light, turn signal light
			⑤2	Brown	Tail light
			⑤3	Light blue	R. rear turn signal light
			⑤4	Orange	L. rear turn signal light
			⑤5	Green/Yellow	Stop light

d. Reassembly

Perform the reassembly in the reverse order of disassembly by connecting each lead correctly in place. (Fig. 16-30)

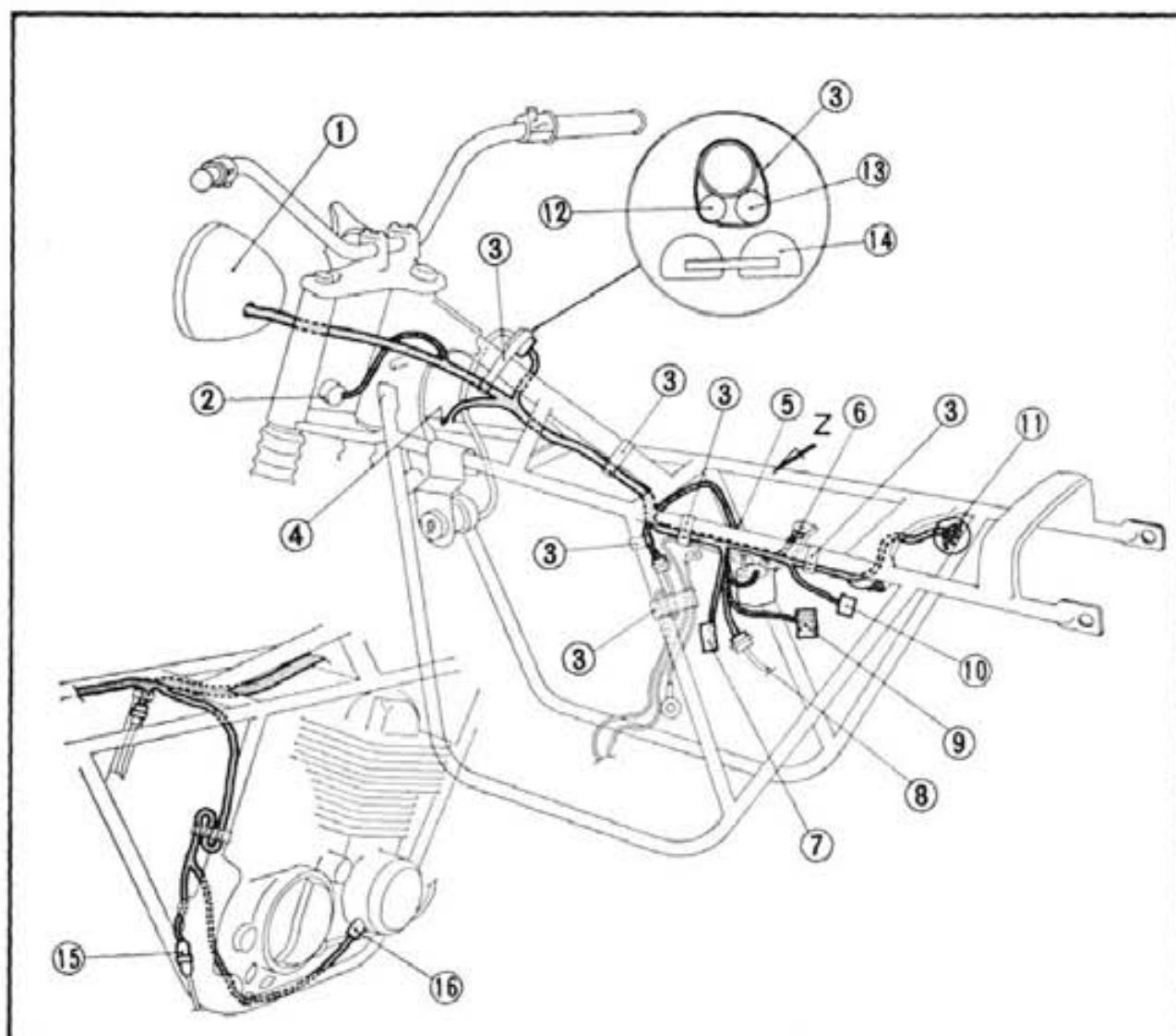


Fig. 16-30

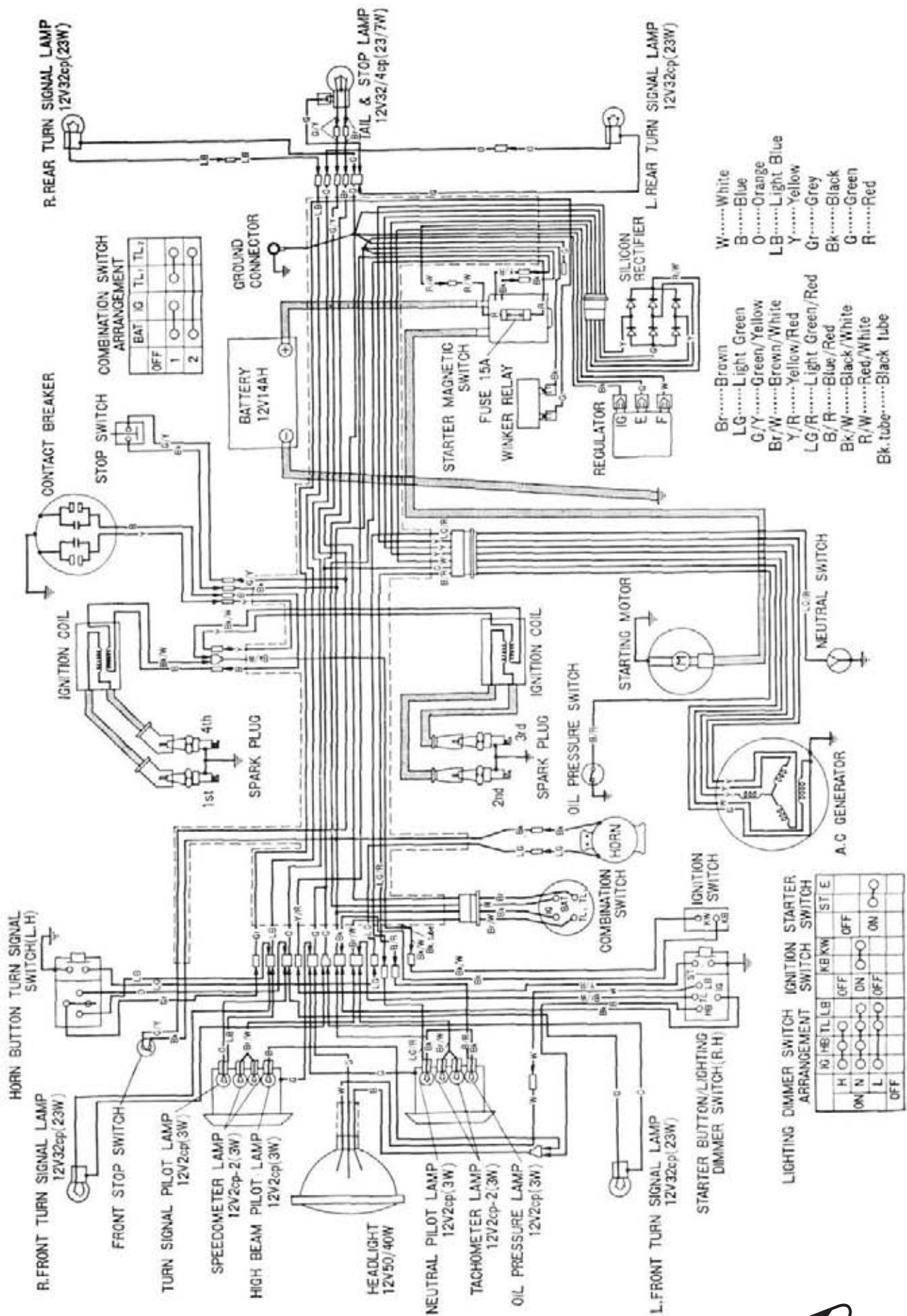
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|--------------------------------------|--|
| ① Headlight | ⑨ To fuse |
| ② Stop switch (front) | ⑩ To flasher relay |
| ③ Wire harness band | ⑪ To tail/stop light and turn signal light |
| ④ To horn and ignition coil | ⑫ Wire harness |
| ⑤ To stop switch and contact breaker | ⑬ Main key switch coupler |
| ⑥ To battery | ⑭ Ignition coil |
| ⑦ To regulator | ⑮ Stop switch (rear) |
| ⑧ To rectifier | ⑯ To contact breaker points |

WIRING DIAGRAM

GROUP

17





ENGINE TUNE-UP

GROUP

18

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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.

- 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.
- 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.

Refer to page 33~35 for repair procedures.

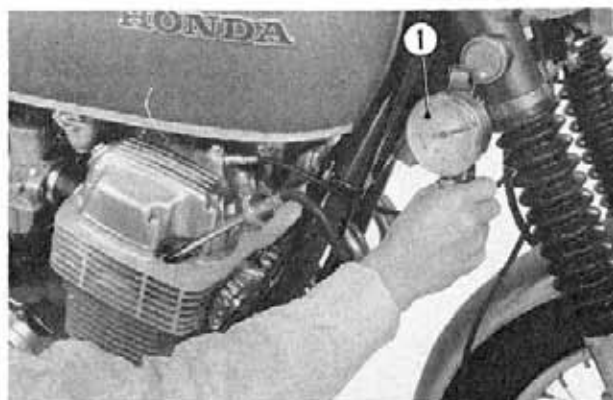


Fig. 18-1 ① Compression gauge

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

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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 500 miles	3 months 1,500 miles	6 months 3,000 miles	12 months 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 dealer, 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

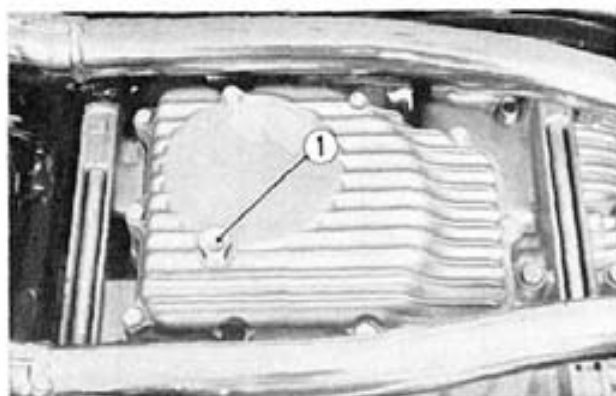


Fig. 19-2 ① Crankcase oil drain plug



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

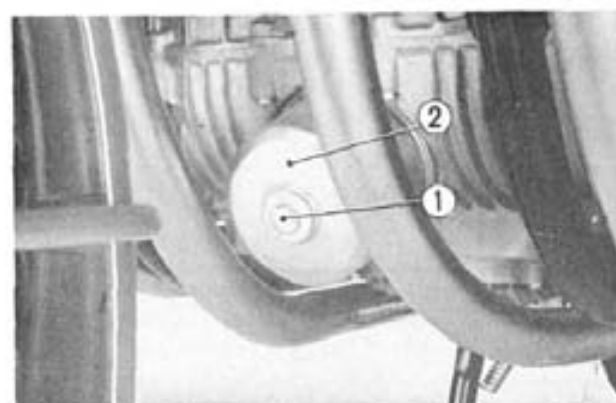


Fig. 19-4 ① Oil filter retaining bolt ② Oil filter cover

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)

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)

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.
- (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 electrodes 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.

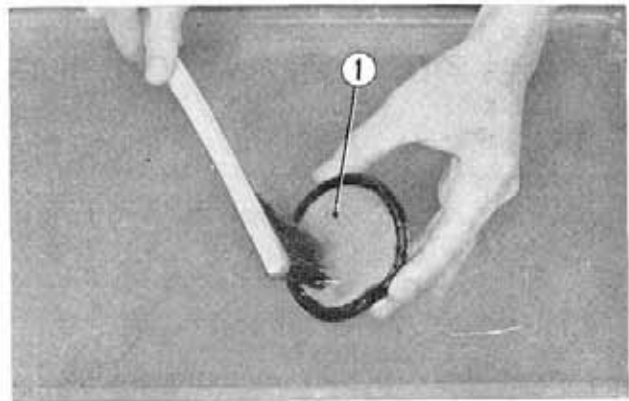


Fig. 19-5 ① Oil strainer

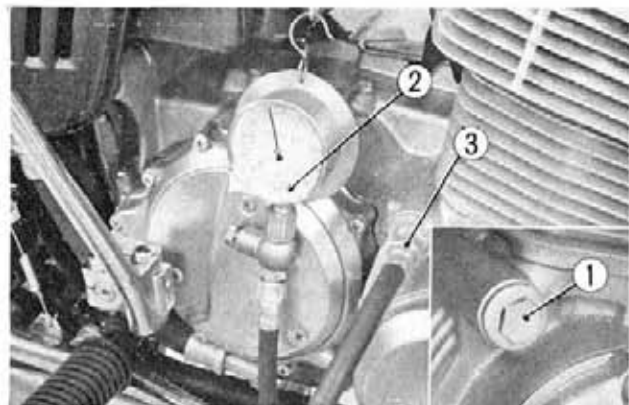


Fig. 19-6 ① Oil path cap ② Oil pressure gauge ③ Adapter

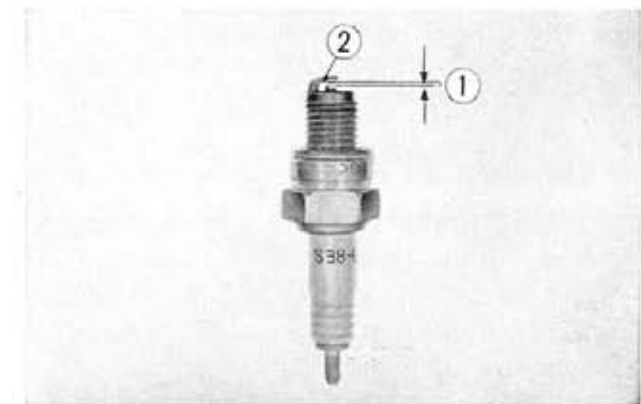


Fig. 19-7 ① Spark plug gap ② Ground electrode

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.

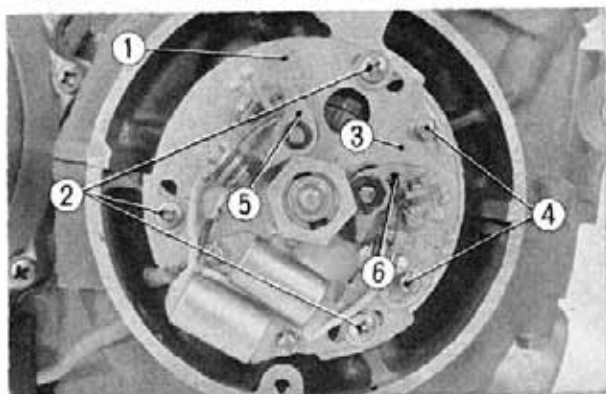


Fig. 19-8 ① Contact breaker assembly
 ② Base plate setting screws
 ③ Right base plate
 ④ Right base plate setting screws
 ⑤ 1.4 cylinder breaker points
 ⑥ 2.3 cylinder breaker points

- (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 recurrence. (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.

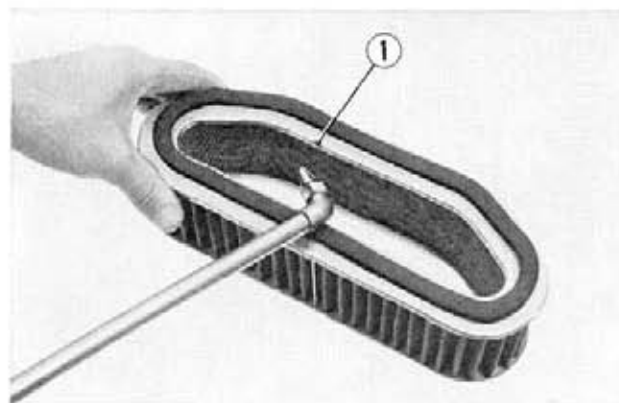


Fig. 19-9 ① Air cleaner element

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 increase 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.

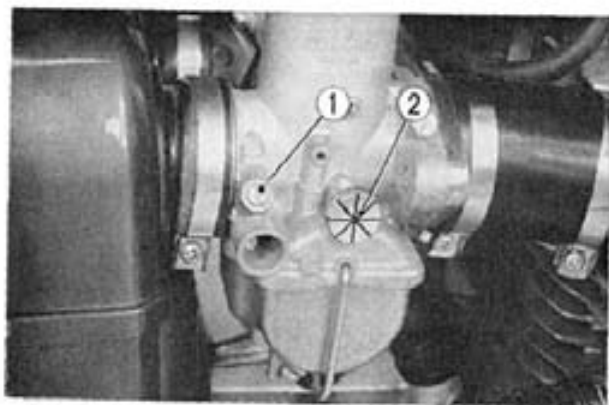


Fig. 19-10 ① Air screw
② Throttle stop screw

(Fig. 19-10)

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 (approximately 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.

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 slippage. 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 ①, 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 ① 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 $1/4 \sim 1/2$ 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 ② 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.

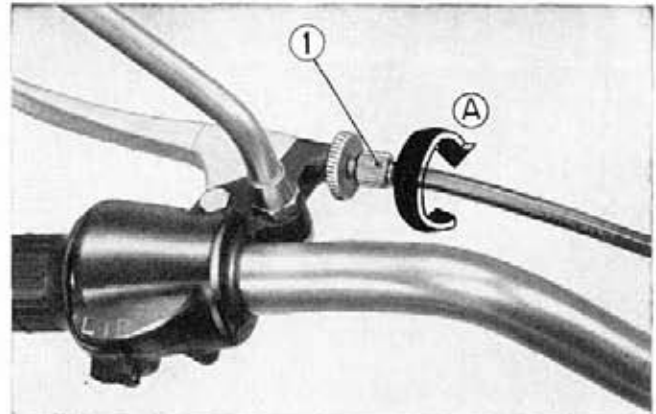


Fig. 19-11 ① Clutch cable adjusting bolt

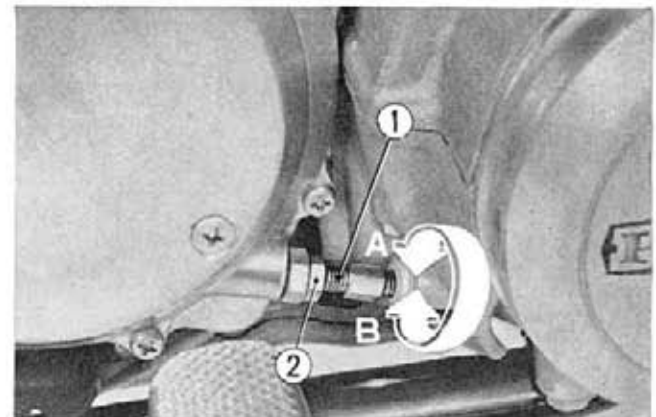


Fig. 19-12 ① Clutch cable adjusting bolt
② Lock nut

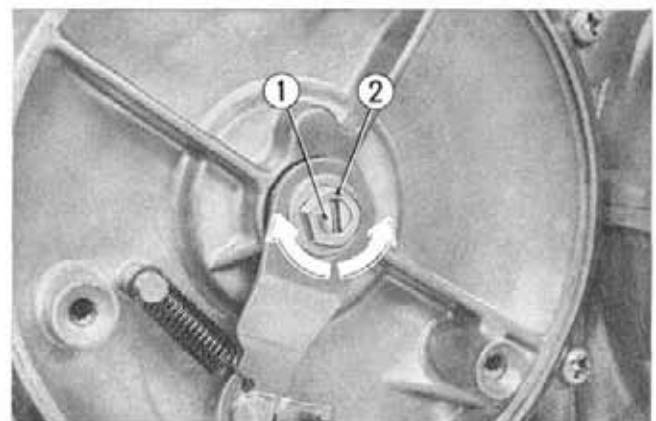


Fig. 19-13 ① Clutch adjusting screw
② Lock nut

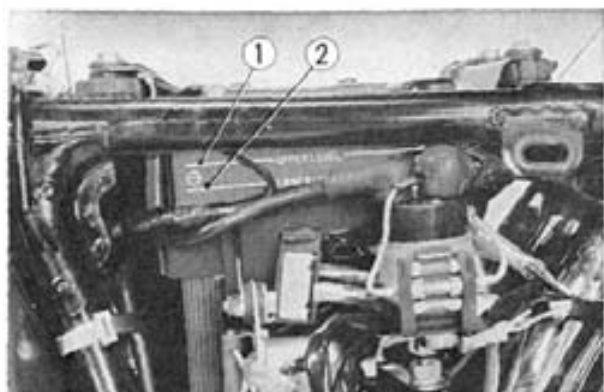


Fig. 19-14 ① Upper level mark
② Lower level mark



Fig. 19-15 ① Hydrometer
② Battery

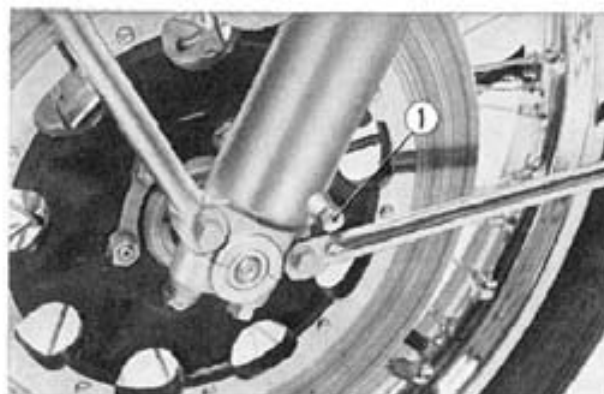


Fig. 19-16 ① Front fork drain plug

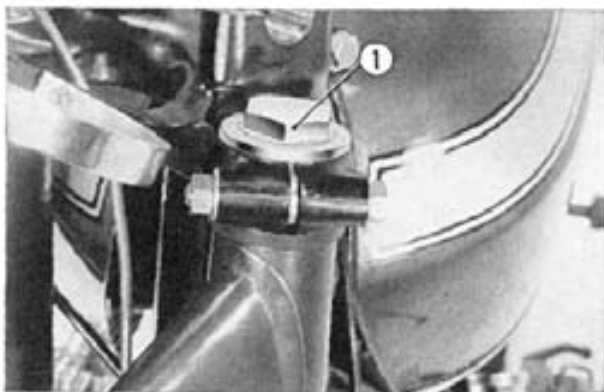


Fig. 19-17 ① Top filler plug

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 4.2Amps, 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 thoroughly checked and the problem diagnosed.

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

$$V(77^{\circ}\text{F}) = V_t + 0.0378(t - 77)$$

$$V(25^{\circ}\text{C}) = V_t + 0.0378(t - 25)$$

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

Based on the result of the battery 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.

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)

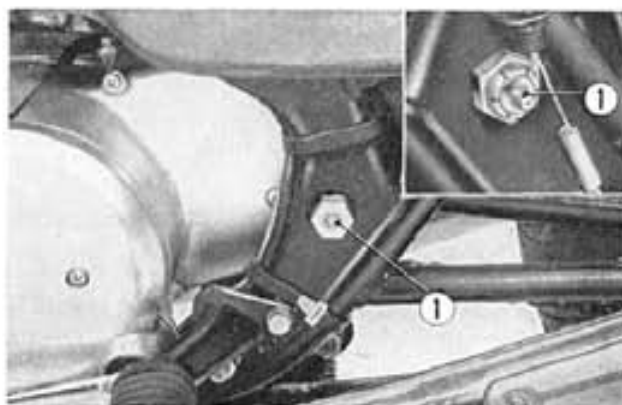


Fig. 19-18 ① Grease nipples

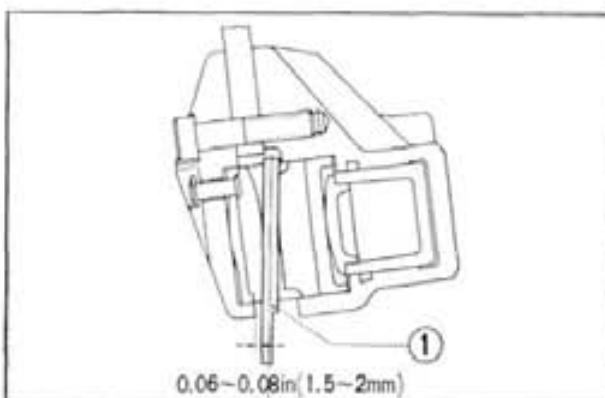


Fig. 19-19 ① Brake disc

- (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 excessive, 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.

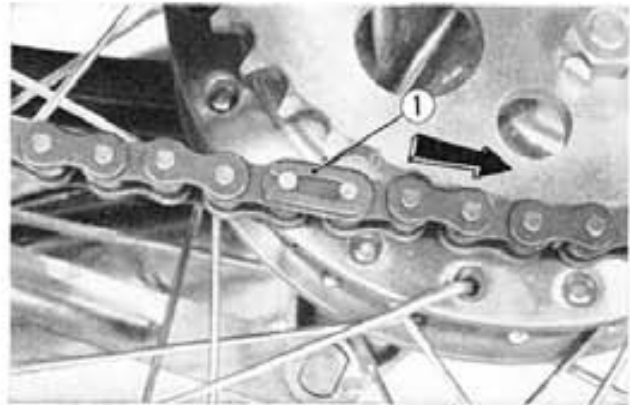


Fig. 19-20 ① Retaining clip

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

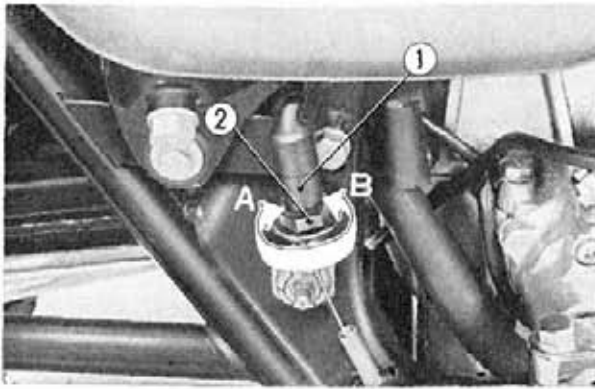


Fig. 19-22 ① Stop light switch
② Lock nut

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

- (2) Check operation of stop light switches 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 ② the switch lock nut and if the stop light comes on too early, screw out ② 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

COMPARISON OF CB750K1 to CB750

ENGINE MECHANICAL

LUBRICATION SYSTEM

DRIVE CHAIN OILER

The oil which lubricates the chain is fed from the center of the shaft, through the porous sintered oil reserve element ⑦, along the outer surface of the rubber orifice ⑤, out the oil passage ④ and along the surface of the drive sprocket.

To simplify the procedure for regulating the feed of the lubricant, it is performed by the adjusting screw ① in the chain oiler. Turning the screw clockwise (A direction) will force the rubber orifice against the oil reserve element, causing it to expand and restricting the flow of oil around the rubber orifice. Turning the adjusting screw counter clockwise (B direction) will permit the rubber orifice to shrink toward its normal size and allow greater oil flow. In other words, the change in the diameter of the rubber orifice regulates the amount of oil to lubricate the drive chain.

ADJUSTMENT PROCEDURE

1. Remove the rear crankcase.
2. Wipe the oil on the drive chain thoroughly with a rag.
3. The adjusting screw is adjusted to maximum oil flow on all motorcycles leaving the factory. After riding for a short period, if excessive oil is noticed by indication of chain oil on the rim, fender, spokes etc., turn the adjusting screw about 1/4 turn in the clockwise direction and recheck the oil flow condition after riding for one minute at 50~70 mph (80~110 kph). The adjustment is proper if the chain link plates and rollers are

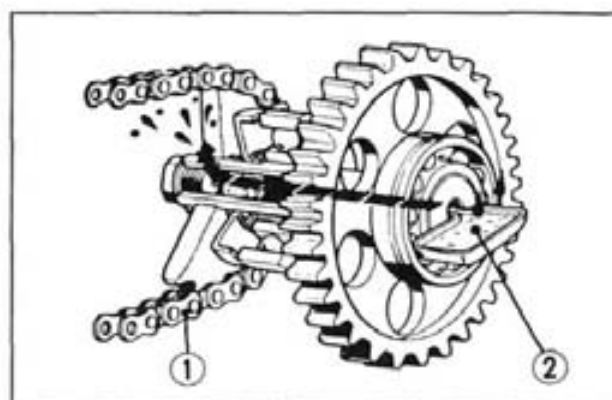


Fig. 20-1 ① Drive chain
② Oil guide

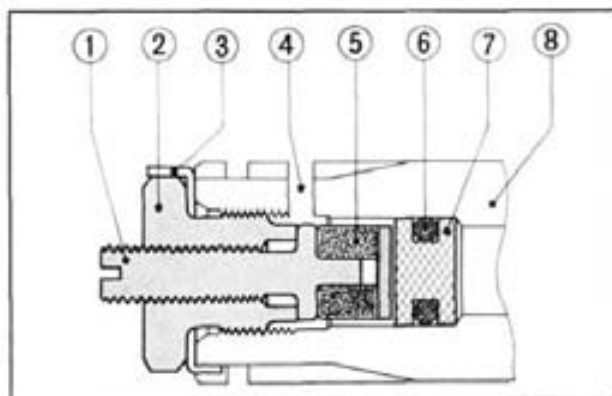


Fig. 20-2 ① Adjusting screw
② Final shaft plug
③ 14 mm lock washer
④ Oil passage
⑤ Rubber orifice
⑥ 6.5x3 O-Ring
⑦ Oil reserve element
⑧ Final driven shaft

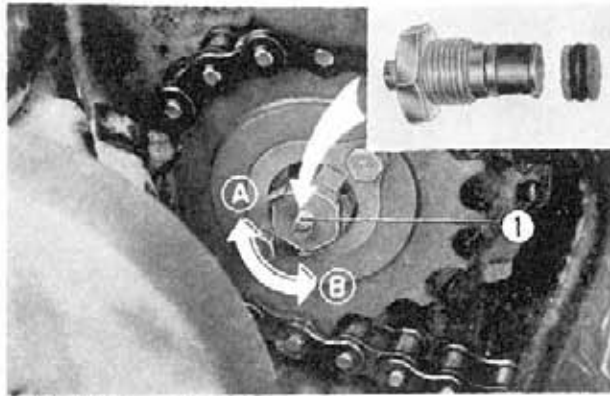


Fig. 20-3 ① Adjusting screw

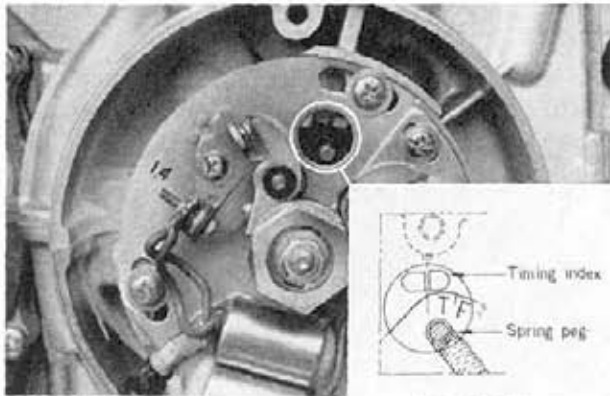
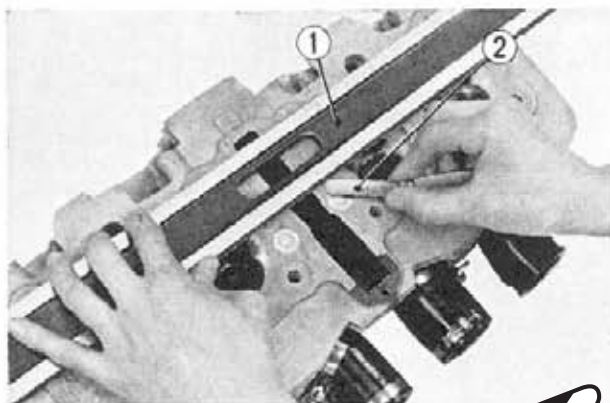


Fig. 20-4 Point cam position at 15° ATDC

2. Remove the point cover, and use a 23 mm box wrench to rotate the crankshaft to the "T" position for cylinders #1 and #4 (1.4).
3. Check the both valves of #1 cylinder. If both valves are free, proceed to next step; if either or both of the valves are tight, rotate the crankshaft 360°, and then proceed with the next step.
4. Rotate the crankshaft clockwise until the spring peg on the advancer assembly at the 1.4 position is just to the right of a line from the timing index. (Fig. 9) This position is 15° ATDC 1.4.
At this point, the slack in the cam chain will be on the tensioner side, thus assuring effective tensioner operation.
5. Loosen the cam chain tensioner lock nut, and back out the setting screw until the tensioner arm is released and moves in to take up the slack.

Note: The tensioner is automatic. Do not use additional pressure to remove the tensioner arm.

6. Retighten the setting screw and lock nut, re-install point cover and tappet covers.

Fig. 20-5 ① Stretch
② Thickness gauge

wet with oil and the other areas are free from excessive oil.

4. Readjust the screw if necessary until the proper oiling condition is obtained.

SUPPLEMENT LUBRICATION

Drive chain rollers and side plates must be properly lubricated at all times. Sustained high-speed driving or improper adjustment of the chain oiler may cause inadequate lubrication. If the rollers or side plates are dry or show evidence of rust, apply a high-quality chain lubricant according to the manufacturer's instructions.

CAM CHAIN TENSIONER

A loose cam chain causes a loud clattering noise. It may also affect valve timing, resulting in performance loss.

A recommended crankshaft position for adjusting the cam chain tensioner is that when the crankshaft is rotated to 15° ATDC of cylinders #1 and #4, immediately after cylinder #1 has fired.

Adjustment

1. Remove the tappet covers from the #1 cylinder.

CYLINDER HEAD

When measuring the flatness of the cylinder head, place a straight across the measuring surface of the cylinder head.

Check the clearance with a thickness gauge at several points and make sure the head not to be warped.

Item	Standard value	Serviceable limit
Clearance	0.002 in. (0.05 mm max.)	0.009 in. (0.25 mm max.)

Rework the cylinder head or replace with new one if beyond the serviceable limit.