

Fig. 3-66 ① Plastigauge

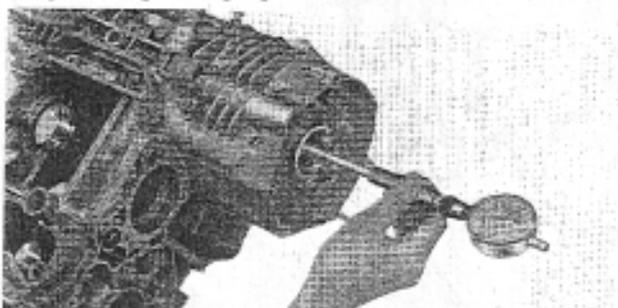


Fig. 3-67 Checking bearing seat inside diameter

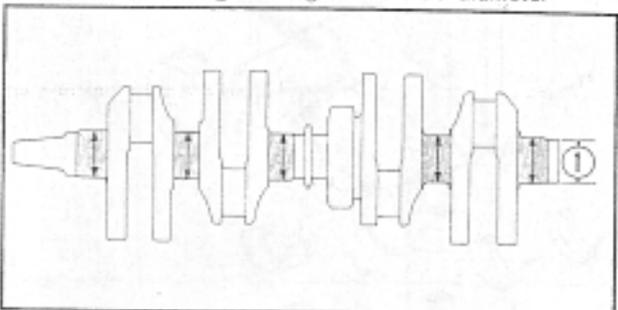


Fig. 3-68 ① Crankshaft journal outside diameter

Inspection

1. Check the crankshaft center journal for runout.
2. Check the crankshaft-to-crankshaft bearing clearance as follows:
 - 1) Place a piece of plastigauge on the bearing as shown, and install the crankshaft on it.
 - 2) Assemble the upper and lower crankcases by torquing the securing bolts to the specification.
 - 3) Remove the upper crankcase and measure the clearance by the plastigauge. If beyond specified limit, replace crankshaft bearing with a new one.
3. Select the crankshaft bearings in a selective set as follow:
 - 1) Remove the crankshaft bearings and tighten the upper and lower crankcases to the specified torque. Check the inside diameter of each bearing seat as shown.
 - 2) Measure the outside diameter of the crankshaft journals.
 - 3) Select out bearings on the basis of the readings taken in the steps 1) and 2) above. The bearings may be identified by a daub of color print on the side or the mark (alphabet) stamped on the rear side.

Unit: mm (in.)

Crankcase bearing I. D.	Crankshaft journal O. D.		
	31.99-32.00 (1.2594-1.2598)	31.98-31.99 (1.2590-1.2594)	31.97-31.98 (1.2586-1.2590)
35.000-35.008 (1.3780-1.3783)	D (yellow)	C (green)	B (brown)
35.008-35.016 (1.3783-1.3786)	C (green)	B (brown)	A (black)
35.016-35.024 (1.3786-1.3789)	B (brown)	A (black)	AA (blue)

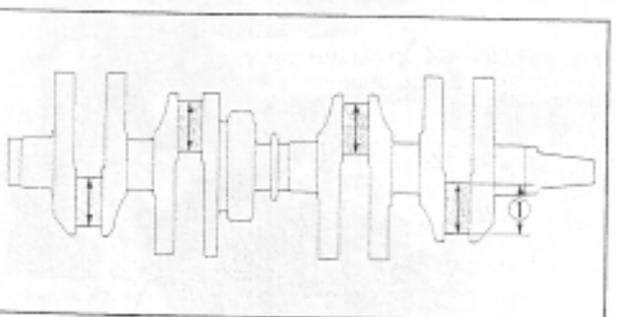


Fig. 3-69 ① Crankshaft pin outside diameter

4. Measure the inside diameter of the connecting rod small end.
5. Check the side clearance of the connecting rod big end.
6. Check the connecting rod big end-to-crankshaft journal clearance as follows:
 - 1) Remove the connecting rod bearing cap and place a piece of a plastigauge on the bearing surface. Torque the bearing cap bolts to specification.
 - 2) Remove the cap and measure the clearance by the plastigauge. If beyond the specified limit, replace bearing with a new one.

7. Select the connecting rod bearings in a selective set as follows:

- 1) Measure the outside diameter of the crankshaft pin.
- 2) Check to make sure the code number (1, 2 and 3) stamped on the connecting rod big end side is properly matched as shown.
- 3) After following the steps 1) and 2) above, select out the bearings referring to the identification table below.

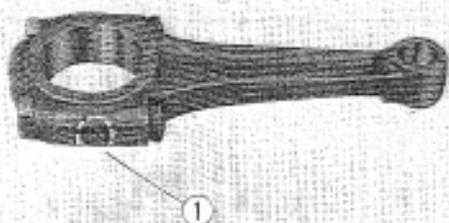


Fig. 3-70 ① Code No.

Unit: mm (in.)

Connecting rod code no.	Crankshaft pin O. D.		
	31.99-32.00 (1.2594-1.2598)	31.98-31.99 (1.2590-1.2594)	31.97-31.98 (1.2586-1.2590)
1	E (red)	D (yellow)	C (green)
2	D (yellow)	C (green)	B (brown)
3	C (green)	B (brown)	A (black)

NOTE:

The bearings must be installed with the tang facing toward the front (exhaust side).

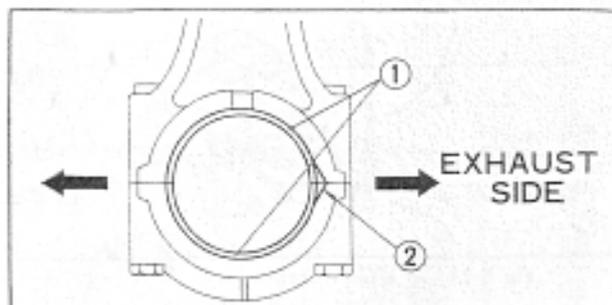


Fig. 3-71 ① Bearing ② Tang

8. Select the connecting rods

When replacing connecting rod with a new one, proceed matching the code mark (alphabet) stamped on the connecting rod big end side as shown.

NOTE:

The weight of the connecting rod does not include the weight of the bearings.

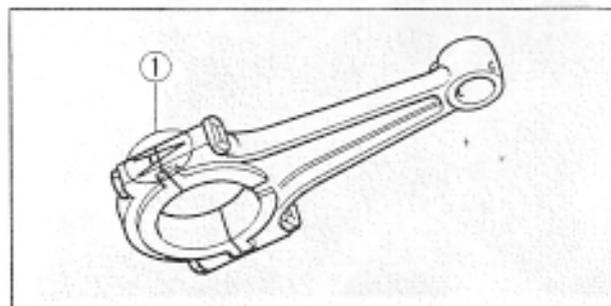


Fig. 3-72 ① Code mark

Reassembly

1. Apply a coat of liquid packing to the mating surfaces of the crankcases and install the bearings after the packing becomes dry.
2. Apply a coat of molybdenum disulfide compound or engine oil to the bearing surfaces.

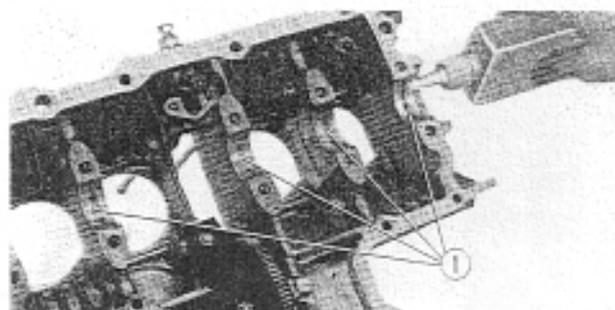


Fig. 3-73 ① Bearings

12. CRANKCASE

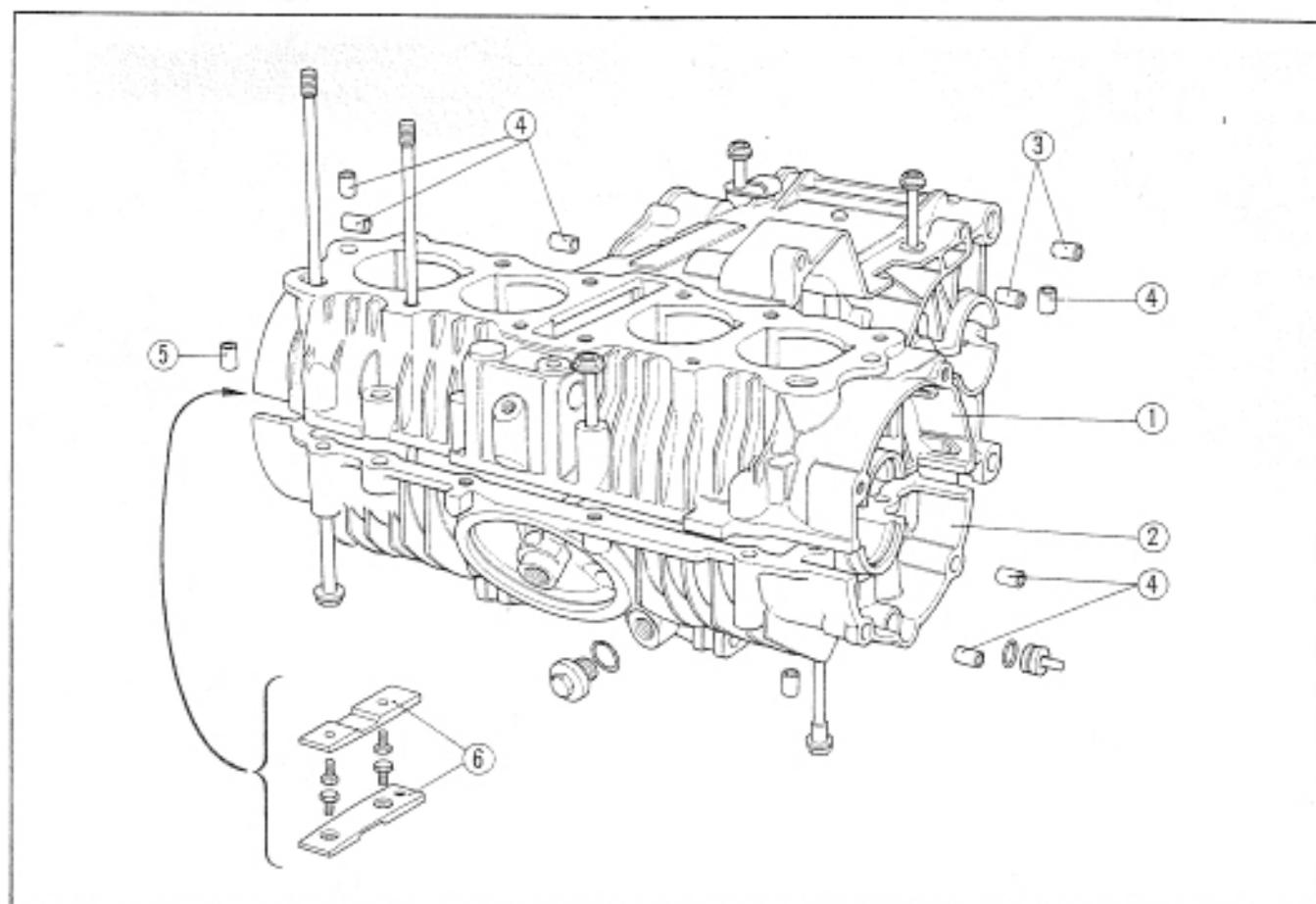


Fig. 3-74 ① Upper crankcase ③ Dowel pins (two), 8×30 ⑤ Dowel pins (two), 10×14
② Lower crankcase ④ Dowel pins (six), 8×14 ⑥ Primary-chain guides (two)



Fig. 3-75 ① Primary chain guide
② Recessed mark

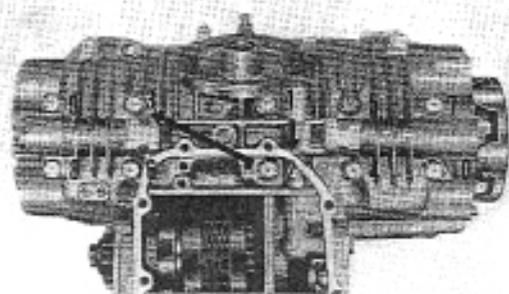


Fig. 3-76 Tightening sequence

Disassembly

1. Separate the upper and lower crankcases from each other. (See pages 23-24)

Inspection

1. Check the crankcase oil passage for clogging.
2. Check the primary chain guides for wear.

Reassembly

1. Install the primary chain guide with its recessed mark facing the transmission.
2. Apply a uniform coat of liquid packing to the crankcase mating surfaces.
3. Make sure all dowel pins are properly installed in their respective positions.
4. Tighten the ten UBS bolts on the crankcase in the sequence as shown in Fig. 3-76.
5. Use each bolt in its proper position.

13. CARBURETOR

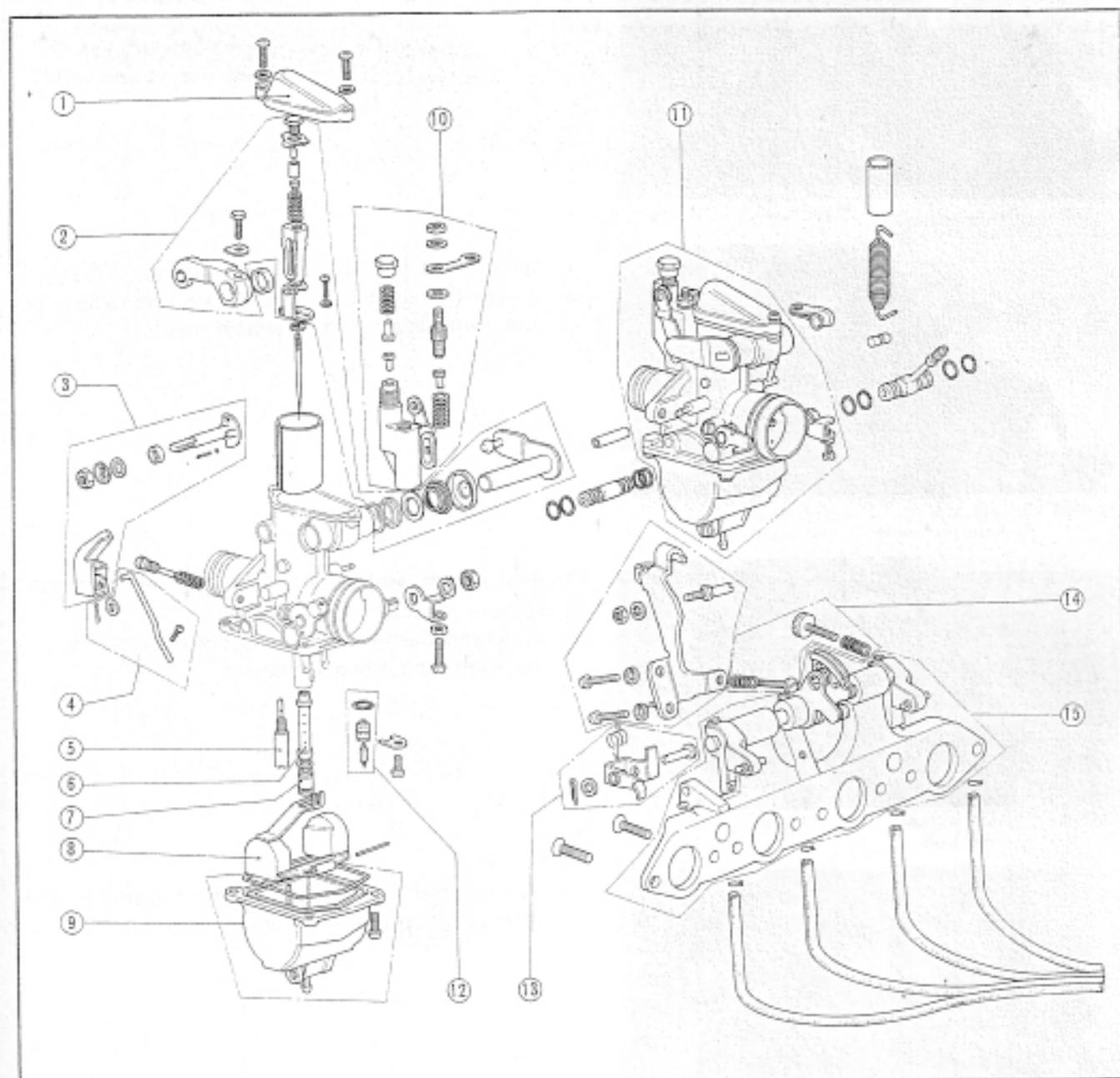


Fig. 3-77 ① Top set ⑥ Slow set ⑩ Float chamber set A ⑬ Link set
 ② Link arm set A ⑦ Jet needle set ⑪ Adjust holder set A ⑭ Screw set B
 ③ Link set ⑧ Main jet set ⑫ Carburetor assembly ⑮ Stay plate set
 ④ Choke rod set ⑨ Float set ⑬ Float valve set

• Carburetor Component Parts

The carburetor component parts are available in a set as shown in Fig. 3-77. It is recommended that its respective parts be replaced as a set so as to maintain a satisfactory performance of the carburetor.

Disassembly

1. Remove the carburetor assembly from the machine.
(See page 11)

Stay plate and carburetor body

2. Remove the throttle return spring from the link lever.

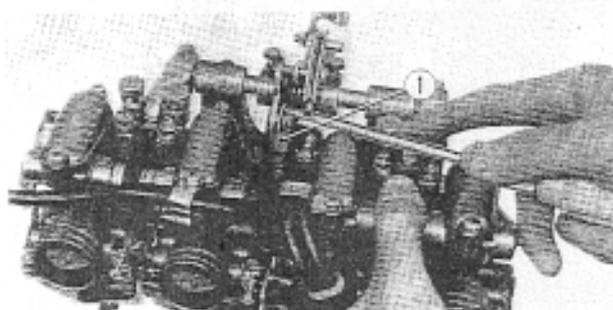


Fig. 3-78 ① Throttle return spring

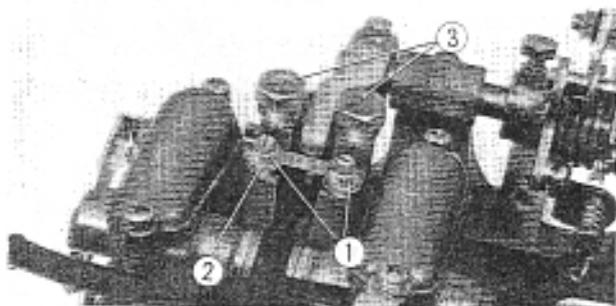


Fig. 3-79 ① Hex. nuts ② Dust plate B
③ Cap nuts

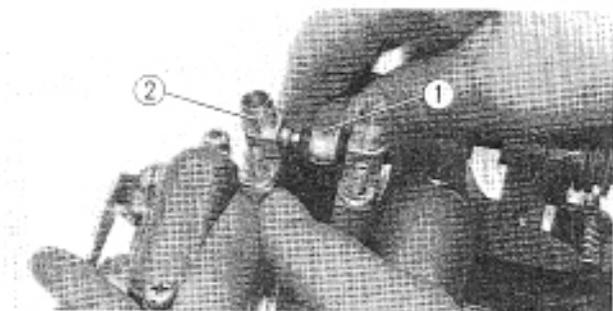


Fig. 3-80 ① Link arm
② Adjuster holder

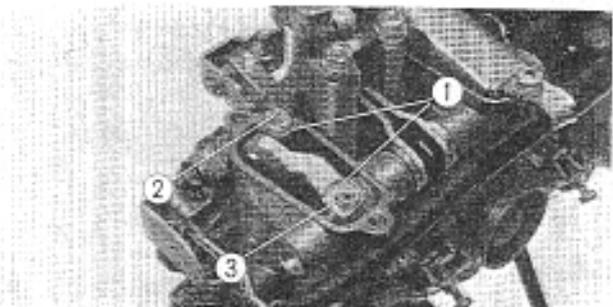


Fig. 3-81 ① Lock washers ② 4 mm bolt
③ 6 mm bolt

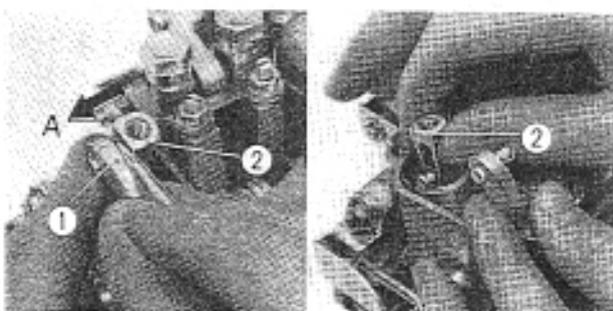


Fig. 3-82 ① Link arm ② Throttle shaft

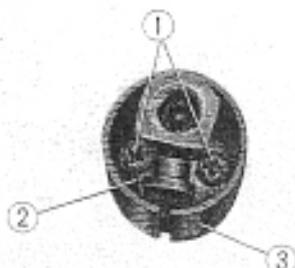


Fig. 3-83 ① 3 mm screws ② Valve plate
③ Throttle valve

- Remove the dust plate B by loosening hex. nuts, and loosen the cap nuts.

- Remove the link arm from the adjuster holders.
- Loosen the eight 6 mm flat screws and remove the four carburetors from the stay plate.

Throttle valves and jet needles

- Remove the carburetor top.
- Straighten the lugs of the lock washers to remove the 4 mm and 6 mm bolts.
- Pry out the link arm from the throttle shaft in direction A with a screwdriver.

- Loosen the two 3 mm screws and remove the valve plate from the throttle valve by turning the plate 90°.
- Remove the jet needle from the throttle valve.

Adjuster holders

1. Remove the carburetor from the plate. (Refer to the steps 1 through 5.)
2. Remove the adjusting screw from the adjuster holder. Then remove the holder from the lever.

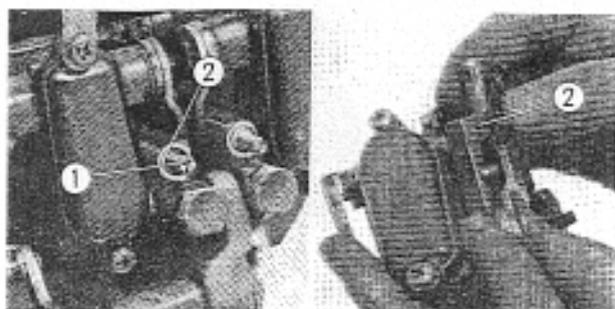


Fig. 3-84 ① Adjusting screw ② Adjuster holder

Float, main jet and slow jet

1. Remove the float chamber.
2. Remove the leaf spring, main jet and slow jet.

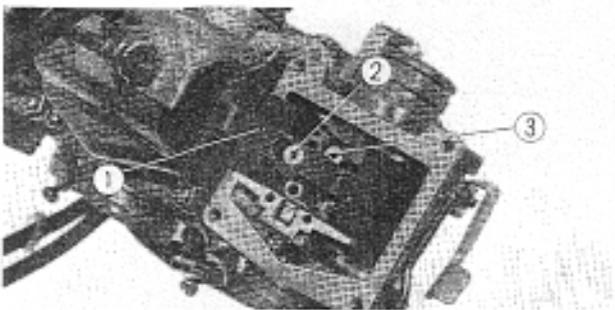


Fig. 3-85 ① Leaf spring ② Main jet ③ Slow jet

3. Pull out the float arm pin and remove the float.

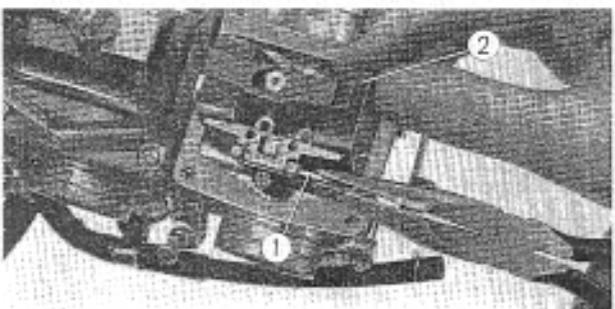


Fig. 3-86 ① Float arm pin ② Float

4. Remove the clip plate and remove the valve seat.

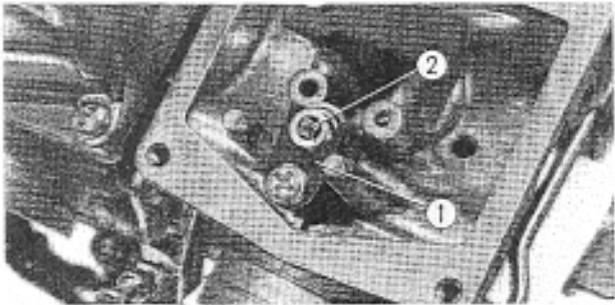


Fig. 3-87 ① Clip plate ② Valve seat

Inspection

1. Blow the main and slow jets to check them for clogging.
2. Adjusting fuel level

Move the float so that the float arm comes in a slight contact with the tip of the float valve, and check the height of the float with a float level gauge as shown. If out of specification, adjust by bending the float arm.

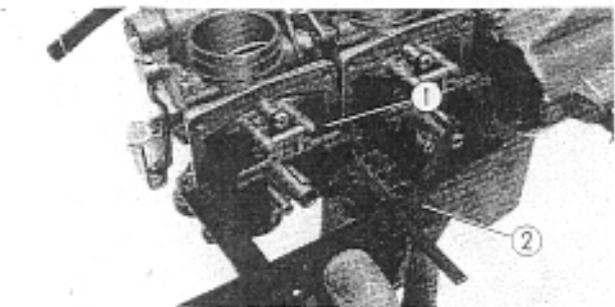


Fig. 3-88 ① Float ② Float level gauge

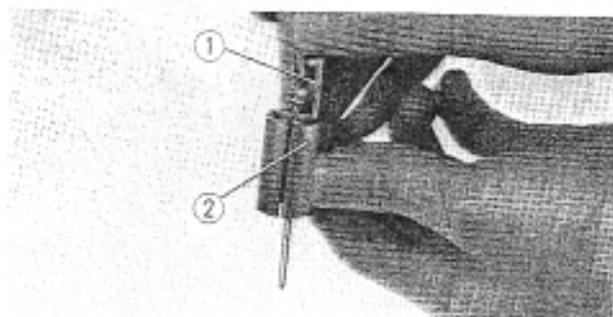


Fig. 3-89 ① Valve plate
② Throttle valve



Fig. 3-90 ① Cutaway part

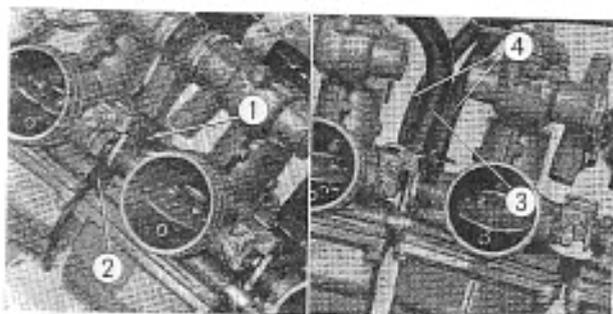


Fig. 3-91 ① Fuel tube (2.5×16) ③ Fuel tube
② Fuel joint ④ Fuel tube (3.5×600)

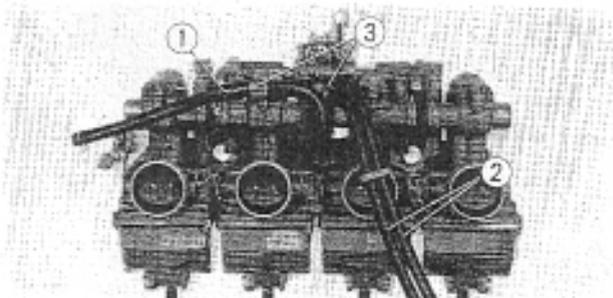


Fig. 3-92 ① Fuel tube ③ Clips
② Fuel tube (3.5×600)

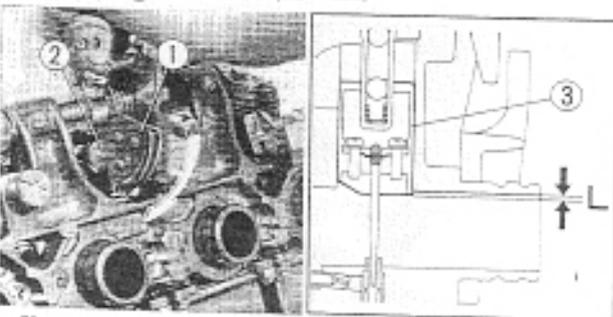


Fig. 3-93 ① Throttle lever ③ Throttle valve
② Adjusting screw

Reassembly

- Put the two 3 mm screws together with spring washers on the valve plate, and press the plate down in the throttle valve by aligning the protrusion of the valve plate with the slot of the throttle valve. Then turn the plate 90° toward the link arm side and tighten with the 3 mm screws.
- Install the throttle valve to the carburetor body by aligning the carburetor protrusion with the throttle valve slot. Check to make sure the cutaway part of the throttle valve is facing the choke valve side.
- Install the fuel tubes and fuel joint to the carburetor.
- Install and route each carburetor tube as shown in Fig. 3-92.
- Move the throttle lever until it contacts the adjusting screw, and check the throttle valve-to-throttle bore clearance (L). If out of specification (0~1.0 mm/0~0.04 in.), adjust the clearance by means of the adjusting screw.

IV. FRAME

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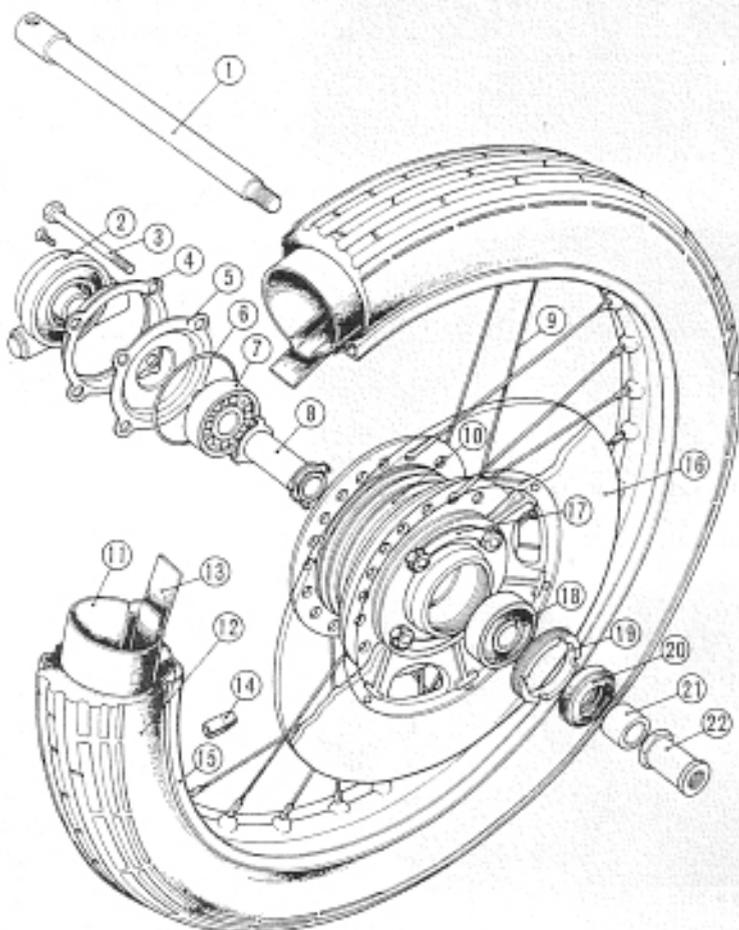
Honda4Fun

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1. FRONT WHEEL

Fig. 4-1

- ① Front wheel axle
- ② Speedometer gear box
- ③ Bolts (four) 8×90
- ④ Gear box retainer cover
- ⑤ Gear box retainer
- ⑥ Retainer O-ring
- ⑦ 6302U radial ball bearing
- ⑧ Front axle distance collar
- ⑨ Spokes (thirty-six)
- ⑩ Front wheel hub
- ⑪ Front wheel tube
- ⑫ Front wheel tire
- ⑬ Front tire flap
- ⑭ Wheel balance weight
- ⑮ Front wheel rim
- ⑯ Front brake disc
- ⑰ 8mm lock washer (two)
- ⑱ 6302U radial ball bearing
- ⑲ Front wheel bearing retainer
- ⑳ Dust-seal 22×36×8
- ㉑ Wheel side collar
- ㉒ Front wheel axle nut



Disassembly

1. Using a jack under the engine, raise the front wheel off the ground.
2. Remove the speedometer cable.
3. Loosen the axle holder retaining nuts and remove the front forks wheel from the front forks.

NOTE:

Do not operate the front brake lever with the front wheel removed.

4. Loosen the front wheel axle nut and remove the front wheel axle.
5. Straighten the lugs of the lock washers and remove the front brake disc.
 - 1) When the brake disc has been removed, the gear box retainer cover can be removed as an assembly.

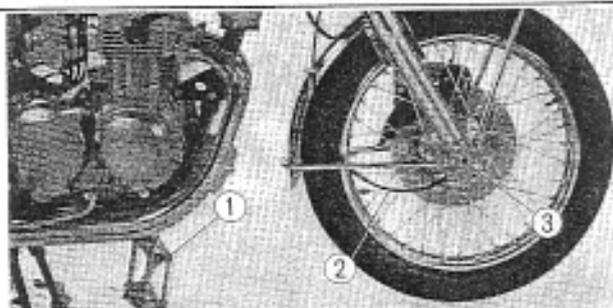


Fig. 4-2 ① Jack ② Speedometer cable ③ Axle holder



Fig. 4-3 ① Lock washer ② Brake disc

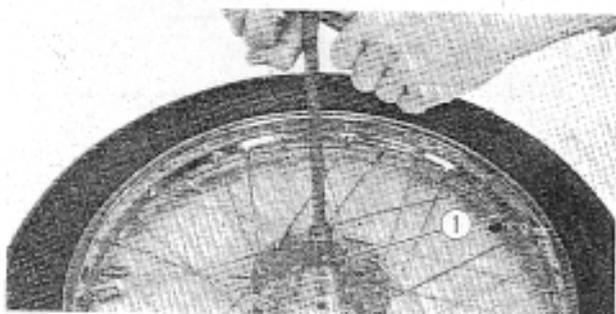


Fig. 4-4 ① Bearing retainer wrench

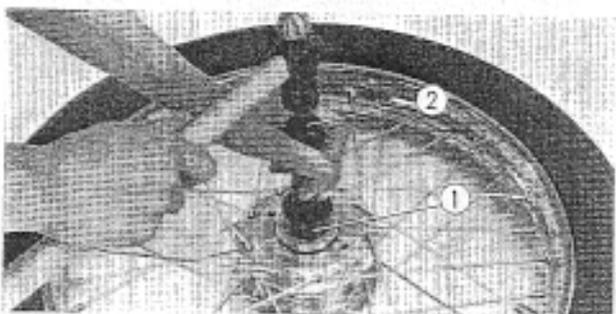
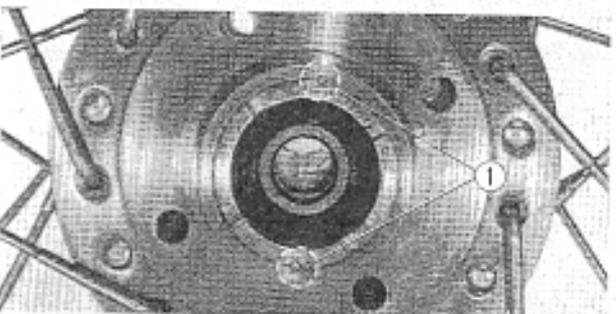
Fig. 4-5 ① Outer bearing driver attachment
② Driver handle

Fig. 4-6 ① Stake

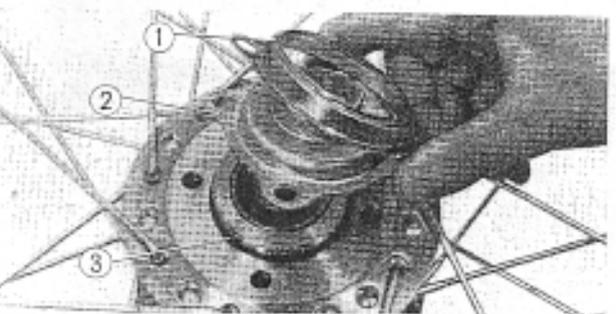
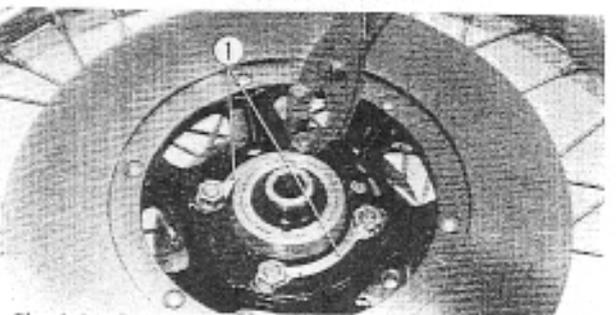
Fig. 4-7 ① Gear box retainer cover
② Gear box retainer
③ Retainer O-ring

Fig. 4-8 ① Lock washers

- Remove the dust seal and remove the bearing retainer with bearing retainer wrench (Tool No. 07088-32301).

Inspection

- Check the front axle for bend.
- Check the front wheel rim for face runout.
- Check the spokes for looseness, bend or any other damage.
Spoke torque specifications: 25~30 kg/cm (1.9~2.2 lbs-ft).
- Check the tire for cracks, excessive wear or any other damage.
- Check the tube valve for air leaks.
- Check the tire pressure.

Tire pressure specification: 1.8 kg/cm² (26 psi)

Reassembly

- Fill the ball bearings and the front wheel hub with grease. Drive the bearings in the hub.
 - Use the outer bearing driver attachment (Tool No. 07048-33301) and ball bearing driver handle (Tool No. 07048-61101) for the bearing installation.
 - Be sure to install the distance collar.
- Stake the bearing retainer at two places as shown.
- Check the retainer O-ring is properly installed. Install the gear box retainer and retainer cover with the 8 mm bolts. Then put the brake disc on the opposite side of the wheel hub.
- Install the brake disc to the wheel hub with the nuts.

NOTE:

Be sure to renew the lock washers. Bend the lugs of the washers properly after tightening the nuts.

5. Install the speedometer gear box in place to the gear box retainer.

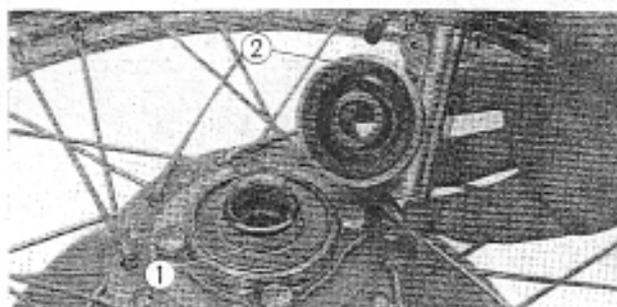


Fig. 4-9 ① Gear box retainer
② Speedometer gear box

6. Install the front wheel to the front forks.
Tighten the axle holder at the left side (brake disc side) first and then the one at the right side.
To prevent misalignment, tighten the front axle holder nut first, then tighten the rear nut until axle is clamped securely in place.

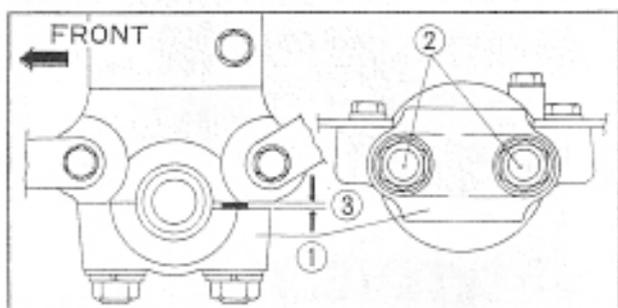


Fig. 4-10 ① Axle holder
② Axle holder nuts
③ Gap at rear

Wheel balancing

- Jack up the machine to clear the wheel of the ground.
Mark the side off the tire and lightly spin the wheel several times.
- If the mark comes to rest at the same point each time, it is an indication that wheel is out of balance.

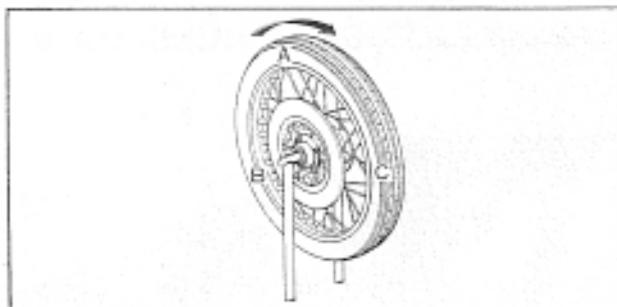


Fig. 4-11 Wheel balancing

- Install a balance weight to the nipple end of the spoke at the top of the wheel directly opposite the heaviest point (the bottom of the wheel).
The balance weights are available in four different weights 5, 10, 15 and 20 gr.
- Repeat the testing several times. If the wheel no longer stops at one place each time, it is completely balanced.
- The wheel balancing should be made with the brake disc installed.

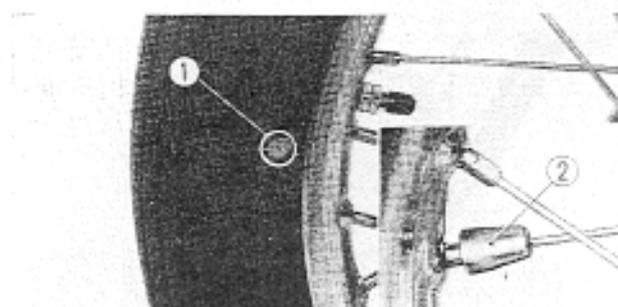


Fig. 4-12 ① Balance marking
② Balance weight

2. FRONT DISC BRAKE

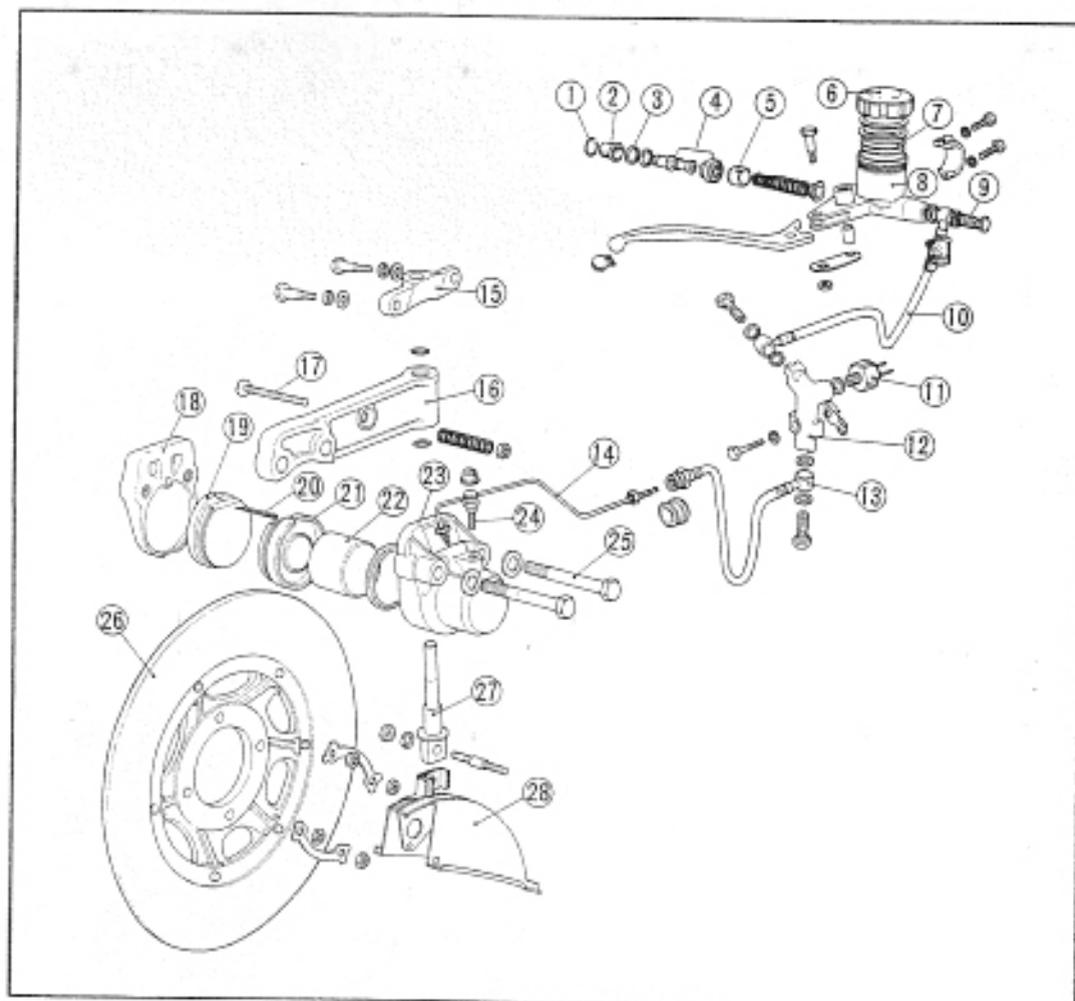


Fig. 4-13

- ① Boots stopper
- ② Boots
- ③ 18 mm internal circlip
- ④ Piston
- ⑤ Primary cup
- ⑥ Oil cup cap
- ⑦ Diaphragm
- ⑧ Master cylinder
- ⑨ Oil bolt
- ⑩ Front brake hose B
- ⑪ Stop switch
- ⑫ 3 way joint
- ⑬ Front brake hose A
- ⑭ Front brake pipe
- ⑮ Caliper holder joint
- ⑯ Caliper holder
- ⑰ Caliper adjust bolt
- ⑱ Caliper B
- ⑲ Pad B
- ⑳ Cotton pin 1.6×22
- ㉑ Pad A
- ㉒ Piston
- ㉓ Caliper A
- ㉔ Bleeder valve
- ㉕ Caliper securing bolts (two)
- ㉖ Front brake disc
- ㉗ Caliper holder
- ㉘ Disc cover

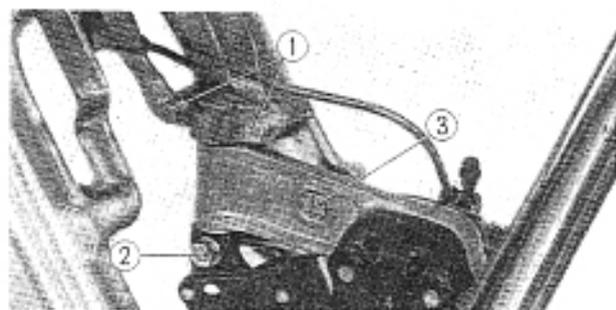


Fig. 4-14 ① 6 mm bolts ③ Caliper adjusting bolt
② 8 mm nut

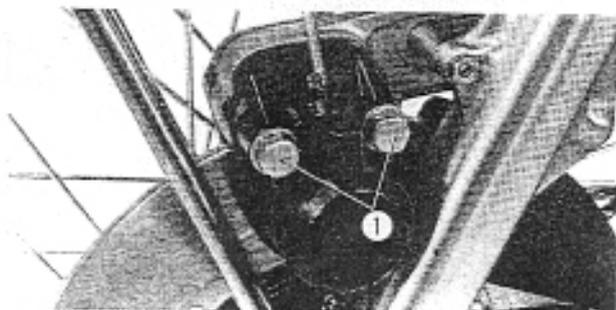


Fig. 4-15 ① Caliper securing bolts

Disassembly**Front brake disc**

1. Drain the brake fluid.
2. Disconnect the front brake pipe from the caliper.
3. Remove the front fender.
4. Loosen the caliper adjusting bolt and 8 mm nut to remove the disc cover and caliper assembly.
5. Loosen the two caliper securing bolts to separate the calipers A and B.