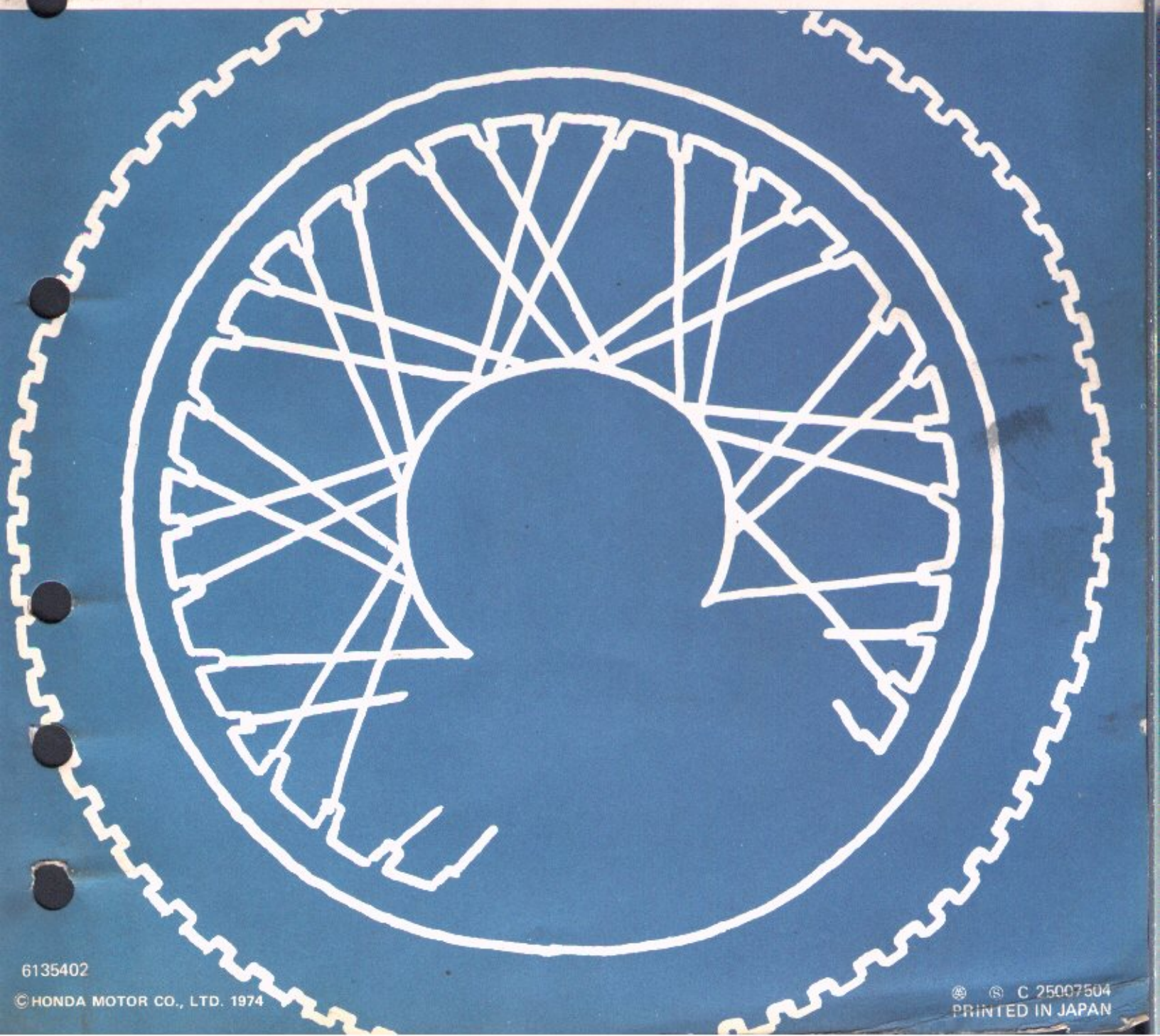
SHOP MANUAL

HONDA

CB200 · CL200



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2. Major adjustment of the front brake can be made with the front wheel adjuster. To adjust, loosen the lock nut and turn the adjusting nut either in or out as necessary. Rotation of the adjusting nut in the direction (A) decreases the play, and vice versa.

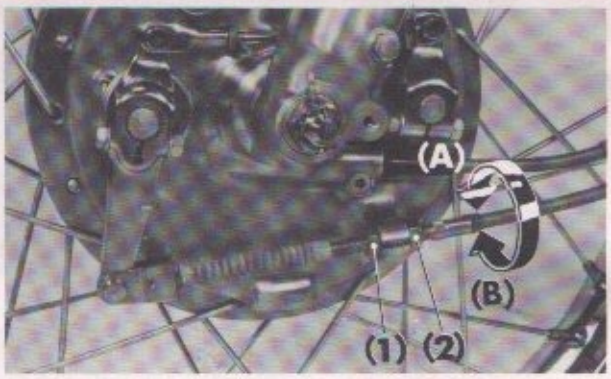


Fig. 2–20 (1) Lock nut
(2) Front brake adjusting nut

3. Minor adjustment is done by turning the front brake cable adjuster at the front brake lever. To adjust, loosen the lock nut and turn the adjuster in the direction (A) to decrease the play. Turning the adjuster in the direction (B) increases the play.

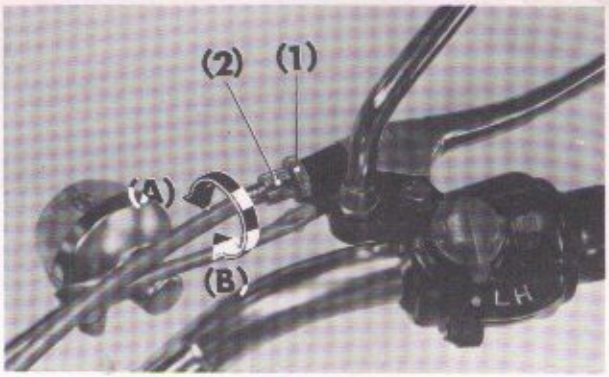


Fig. 2–21 (1) Lock nut
(2) Front brake cable adjuster

10. REAR BRAKE

1. Check the brake pedal play.
Standard play: 20–30mm (0.8–1.2–in.)
2. To adjust the play, loosen the lock nut and adjust the pedal free height with the brake pedal stopper bolt.

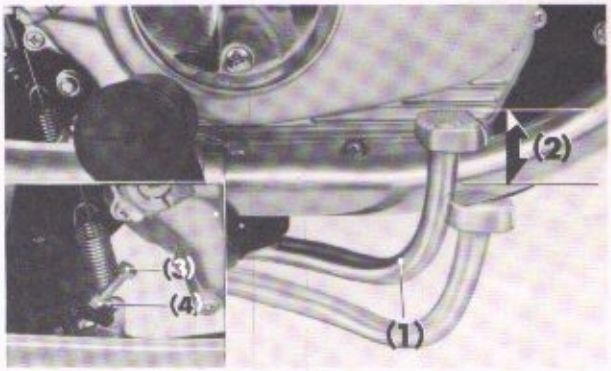


Fig. 2–22 (1) Rear brake pedal (2) Free play
(3) Pedal stopper bolt (4) Lock nut

3. Adjust the brake pedal play by turning the brake adjusting nut either in or out as necessary. To decrease the play, rotate the nut in the direction (A), and vice versa.

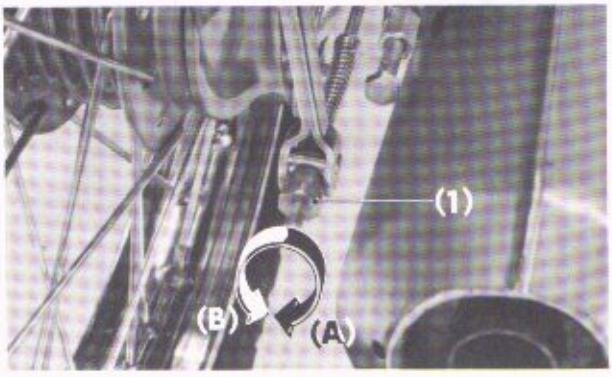


Fig. 2–23 (1) Rear brake adjusting nut

Assembly

Piston ring

1. Use the piston rings of the same marking in a set. Install the rings to the piston so that the markings are facing upward.
2. When a new ring is used, check it for smooth fit in the piston ring groove. It should slide freely around the entire ring circumference without binding.
3. Position the rings so that their gaps of the top, second and oil rings are staggered 120°, each being apart from the direction at right angles to the piston pin.

NOTE: Do not install the top and second rings conversely.

Piston

1. Install the piston with the arrow mark facing toward the front (exhaust side) of the engine.
2. Assemble the piston, connecting rod and piston pin with new piston pin clips.

NOTE:

Put a rag or the like in the cylinder bore of the crankcase to prevent the clips from falling in the crankcase.

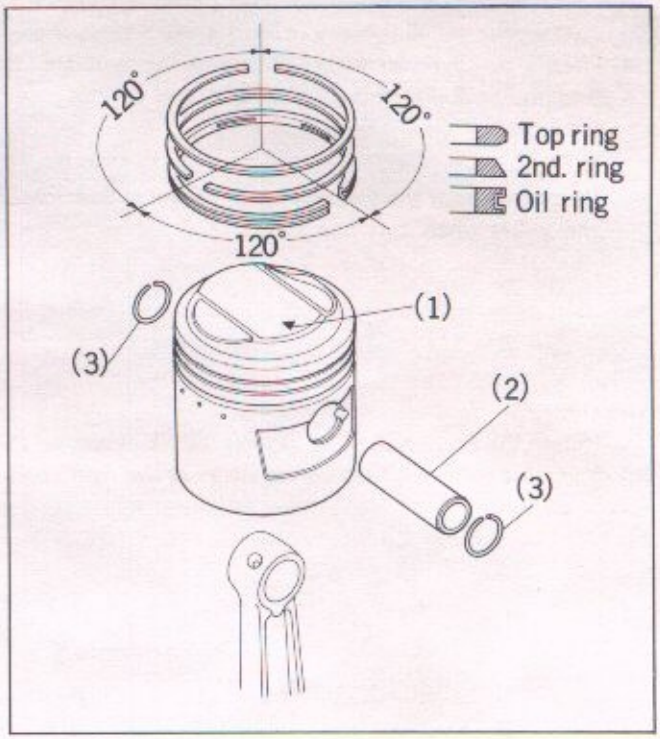


Fig. 3–15 (1) Piston head mark (2) Piston pin (3) Piston pin clip

Cylinder

1. Install two knock pins and cylinder gasket to the cylinder surface of the upper crankcase.
2. Place "Piston Bases" (Tool No. 07958–2500000) between the pistons and crankcase. Passing the cam chain down through the cylinder, slowly lower the cylinder over the pistons. Hold the piston rings with "Piston Ring Compressors" (Tool No. 07954–3230000) while lowering the cylinder bores.
   Remove the piston bases and piston ring compressors when the rings enter the cylinder bores.

NOTE:

Liberally apply clean engine oil to the piston rings before installation.

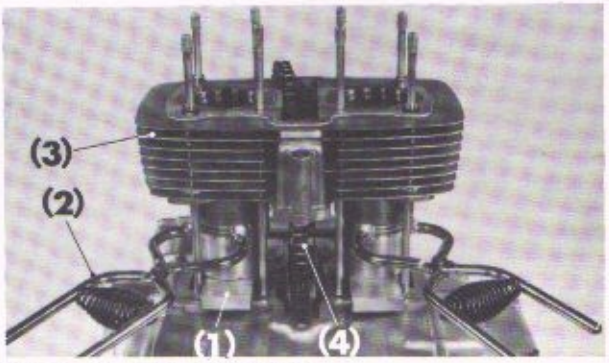


Fig. 3–16 (1) Piston base (2) Piston ring compressors (3) Cylinder (4) Cam chain

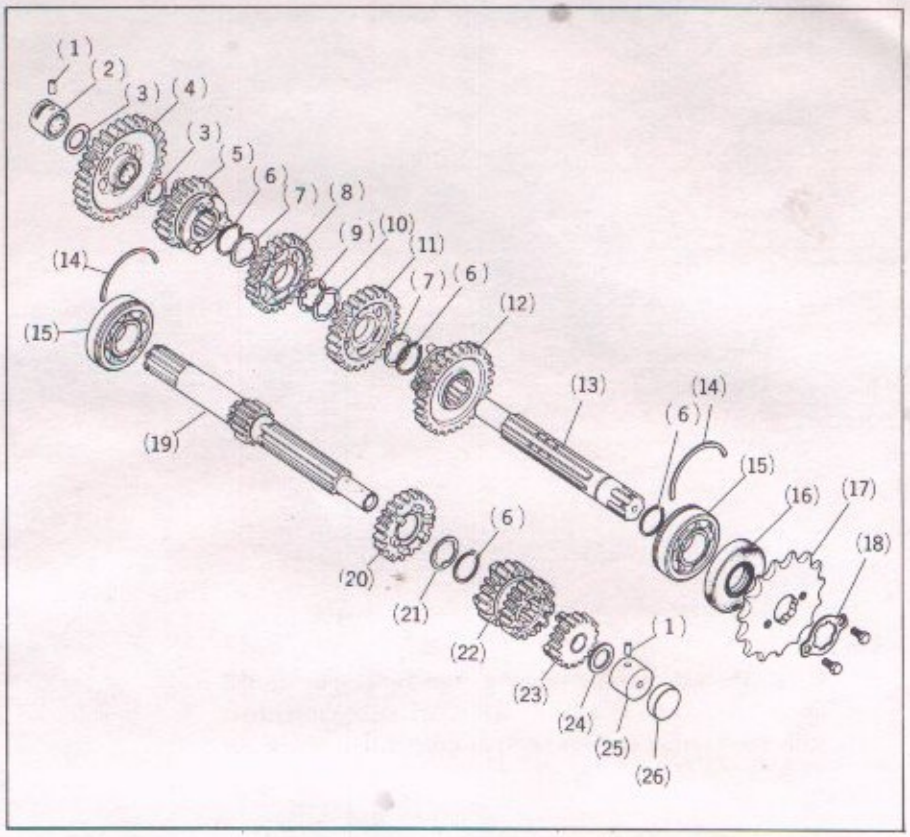
Cylinder head

1. Use "Valve Guide Driver" (Tool No. 07942–1180100) when driving a new valve guide. After driving, ream to size with "Valve Guide Reamer" (Tool No. 07984–2000000).
2. Install the valves so that the narrow-pitch ends of the valve springs are on the valve spring seat side.

Fig. 3–17 (1) Valve guide driver

7. TRANSMISSION

Fig. 3–46



(1) Knock pin
(2) Bearing bushing (16 mm)
(3) Thrust washer (16 mm)
(4) Countershaft first gear (36T)
(5) Countershaft fifth gear (24T)
(6) Snap ring (20 mm)
(7) Thrust washer A
(8) Countershaft fourth gear (27T)
(9) Lock washer (20 mm)
(10) Thrust washer B (20 mm)
(11) Countershaft third gear (29T)
(12) Countershaft second gear (32T)
(13) Transmission countershaft
(14) Ball bearing set ring A
(15) Ball bearing (6304HS)
(16) Oil seal (20 × 52 × 9 mm)
(17) Drive sprocket (15T)
(18) Drive sprocket fixing plate
(19) Transmission mainshaft (13T)
(20) Mainshaft fifth gear (25T)
(21) Thrust washer A (20 mm)
(22) Mainshaft shifting gear (20T, 23T)
(23) Mainshaft second gear (17T)
(24) Thrust washer (15 mm)
(25) Bearing bushing A (15 mm)
(26) Oil seal (25 × 8 mm)

Disassembly

1. Drain the engine thoroughly.
2. Remove the right and left engine crankcase covers.
3. Remove the oil filter, clutch and oil pump.
4. Place the engine with the upper crankcase side down; remove nine 6mm bolts and nine 8mm bolts.
5. Remove the lower crankcase while disengaging the shift arm pawl from the shift drum.

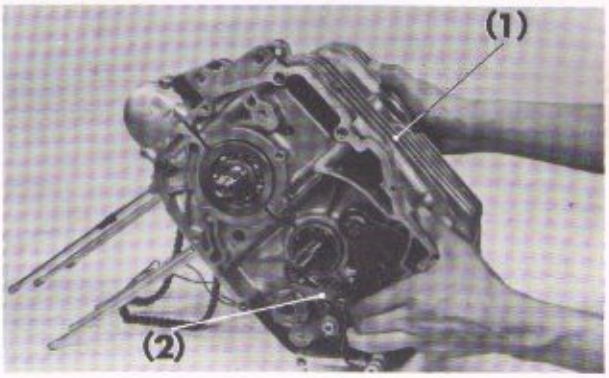


Fig. 3–47 (1) Lower crankcase (2) Gear shift arm

6. Remove the mainshaft and countershaft from the upper crankcase.

NOTE:
Measure each backlashes in gears before removal.

Inspection

1. Check the gears for backlash.

Standard value: 1st, 2nd and 3rd : 0.089–0.179mm (0.0035–0.0070-in.)
4th and 5th: 0.094–0.188mm (0.0037–0.0074-in.)
Service limit: 0.2mm (0.0079-in.)

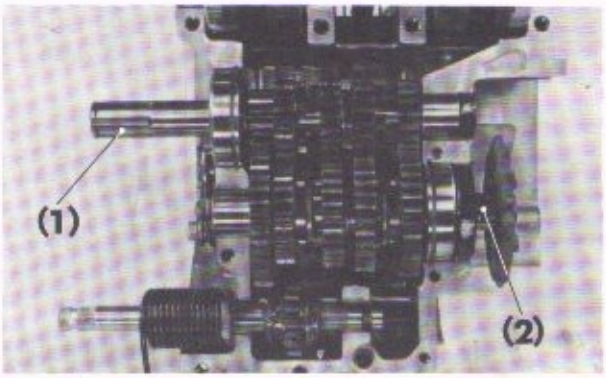


Fig. 3–48 (1) Mainshaft (2) Countershaft

6. Remove the speedometer gear box.
7. Remove the screws and take out the gear box retainer cover, gear box retainer and O-ring.
8. Remove the oil seals from the wheel hub and speedometer gear box.

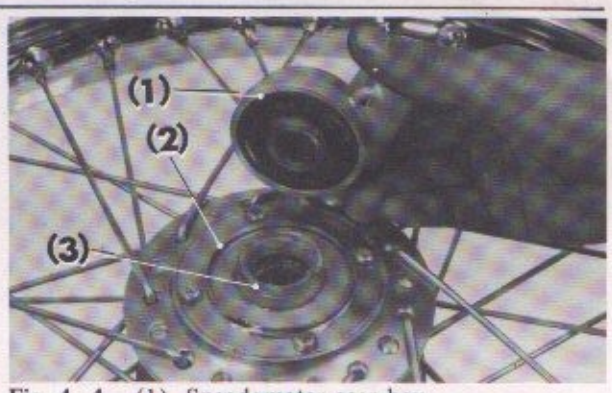


Fig. 4–4 (1) Speedometer gear box
(2) Gear box retainer cover
(3) Gear box retainer

9. Using "Bearing Retainer Wrench" (Tool No. 07910–3230100), remove the bearing retainer.
10. Remove the ball bearings and distance collar from the wheel hub.

Inspection

1. Check the front wheel axle for bending.
   Standard value: 0.01mm (0.0004-in.) max.
   Service limit: 0.2mm (0.0079-in.)
2. Check the front wheel rim for face runout. (Before disassembling).
   Standard value: 0.5mm (0.0197-in.) max.
   Service limit: 2.0mm (0.0787-in.)
3. Check the spokes for looseness, bend or any other defects.
4. Check the brake disc for warpage.
   Place the brake disc on a surface plate with the indicating needle of a dial indicator resting against the brake disc. Measurements should be taken in several places over the brake disc by moving the indicator needle as necessary.
   Standard value: 0.05mm (0.0020-in.) max.
   Service limit: 0.2mm (0.0079-in.)
5. Check the brake disc for face runout.
   Shake the brake disc by hand while holding the axle.
   Standard value: 0.05mm (0.0020-in.) max.
   Service limit: 0.3mm (0.0118-in.)
6. Measure the thickness of the brake disc.
   Standard value: 4.9–5.1mm (0.1929–0.2008-in.)
   Service limit: 4.0mm (0.1575-in.)

Fig. 4–5 (1) Bearing retainer wrench

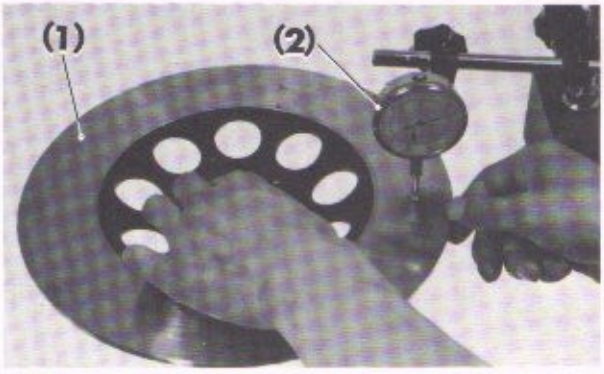


Fig. 4–6 (1) Brake disc (2) Dial gauge

Assembly

1. Hand pack the wheel bearings and wheel hub with grease. Drive the ball bearings into place in the hub using "Bearing Driver" (Tool No. 07945–3330100) and "Driver Handle" (Tool No. 07949–6110000).

   NOTES:
   a. **Do not forget to install the distance collar.**
   b. **Install the bearings with the seal side toward the outside.**

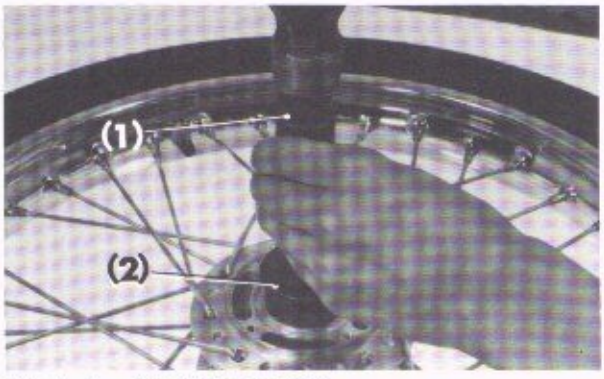


Fig. 4–7 (1) Driver handle
(2) Outer bearing driver attachment

3. Install the brake cams with the punch mark on the end face toward the inside.
4. Sparingly apply grease to the brake cams before installing the brake shoes.

   NOTE:
   Avoid grease getting on the brake linings and brake drum, as this would affect the proper operation of the brake.
5. Install the brake arms with the matching mark on the brake arm lined up with that on the brake cam.

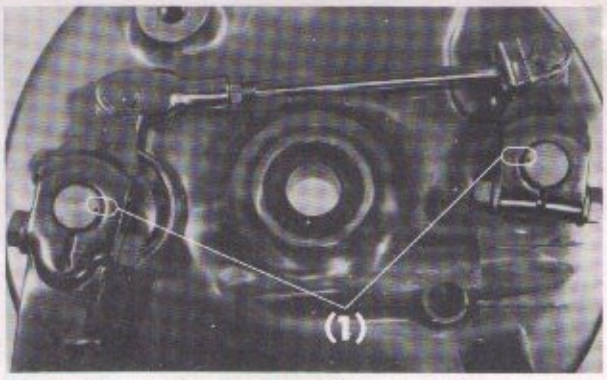


Fig. 4–39 (1) Punch mark

6. Connect the brake stopper arm to the brake panel; secure with new lock washer.
7. Adjust the brake.

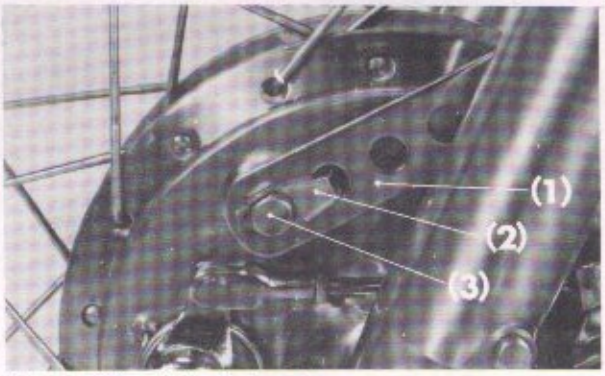


Fig. 4–40 (1) Brake stopper arm
(2) Lock washer (3) Bolt

MEMO

Rear Fork

1. Remove the rear wheel. (See page 48)
2. Remove the rear shock absorbers. (See page 56)
3. Remove the bolts securing the drive chain case in place; take out the chain case.
4. Unscrew the self-locking nut; withdraw the rear fork pivot bolt. Remove the rear fork from the frame.
5. Remove the dust seal cups, dust seal rubbers and rear fork collars from the rear fork.

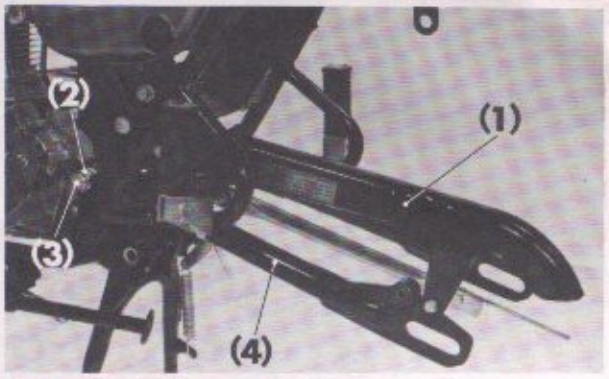


Fig. 4–72 (1) Drive chain case (3) Pivot bolt
(2) Self-locking nut (4) Rear fork

Inspection

1. Check the free length of the rear shock absorber spring.
   Standard value: 196.7mm (7.7441-in.)
   Service limit: 185mm (7.2835-in.)
2. Check the rear damper for distortion or oil leaks.
3. Check the rear stopper rubber for cracks or damage.
4. Check the rear fork center collar-to-bushing clearance.
   Standard bushing I.D.: 20.000–20.052mm (0.7874–0.7894-in.)
   Service limit: 20.2mm (0.7953-in.)
   Standard center collar O.D.: 19.927–19.960mm (0.7845–0.7858-in.)
   Service limit: 19.9mm (0.7835-in.)

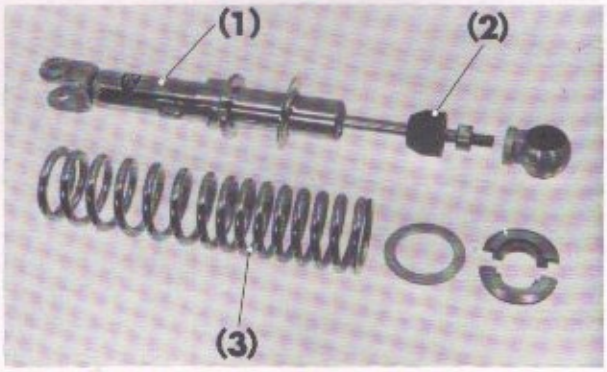


Fig. 4–73 (1) Rear shock absorber
(2) Rear stopper rubber
(3) Rear shock absorber spring

Assembly

1. Apply a coating of grease to the rear fork center collar before installation. Install the rear fork to the frame.
2. Reaching from the right side, install the rear fork pivot; secure with the self-locking nut.
   Torque specifications: 600–700 kg-cm (43.4–50.6 lbs-ft.)

Fig. 4–74 (1) Rear fork pivot bolt

3. Using "Rear Shock Absorber Compressor" (Tool No. 07959–3290000), compress the rear shock absorber spring and pull up the upper joint. Install the spring seat stopper to secure the spring.

   NOTE:
   Install the rear shock absorber spring so that the end with the large pitch is at the bottom.

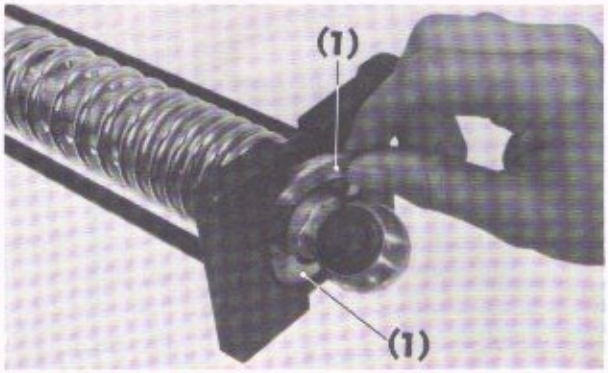


Fig. 4–75 (1) Spring seat stopper

Silicon diode rectifier

Check each diode for continuity with a radio tester in high-reading range. If current flow only in one direction (from cathode to anode), the diode is normal. Current flow in both directions or no current is a sign of malfunction of the diode.

To determine that the rectifier is in good condition, follow the instructions given below. Connect the negative probe of the tester to the terminal (4) (green), and positive probe to the terminal (1) (yellow), (2) (red and white), or (3)(pink). If the needle swings, it is an indication that the diode is normal.

In like manner as above, connect the positive probe to the terminal (2) and negative probe to the terminal (1), (3) or (4).

The diode is correct if continuity exists.

Continuity should not exist between any terminals or combinations other than those described above.

NOTE:

a. **Do not use a megger as a high voltage generated in the megger will damage the diodes.**

b. **Make sure of proper battery polarity when connecting. Connection in reverse polarity will shorten the battery service life or cause a high current flow throughout the electrical system, resulting in damage to the diodes or burning up the harness.**

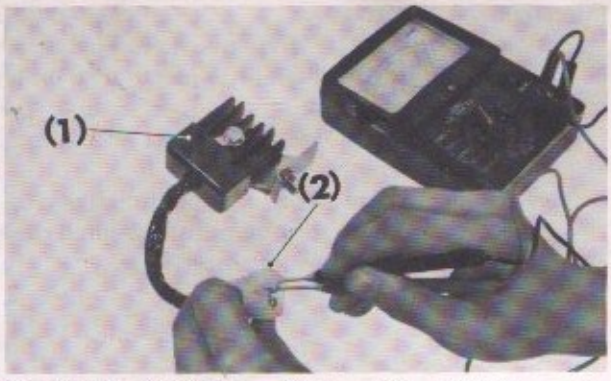


Fig. 5–14 (1) Silicon diode rectifier (2) Connector

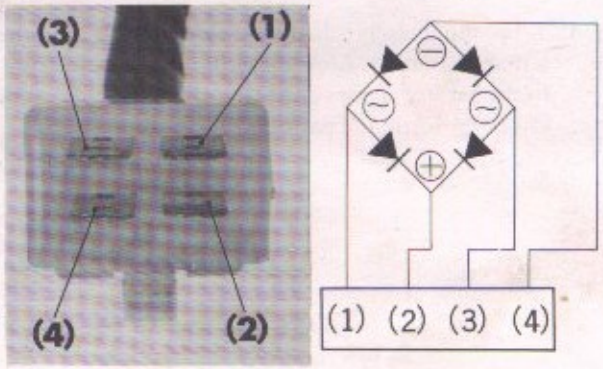


Fig. 5–15 (1) Yellow lead (2) Red/white lead (3) Pink lead (4) Green lead

Regulator

Make connections as shown in Fig. 5-16. Gradually lower the line voltage by operating the knob of the variable resistor. If the needle of the ammeter swings at 14–15V, the regulator is correct. If the needle swings at less than 14–15V, this could be due to internal problems. The regulator will have an open circuit if the ammeter needle does not swing at all even if the voltage is raised going over the above values. The regulator must be replaced with a new one.

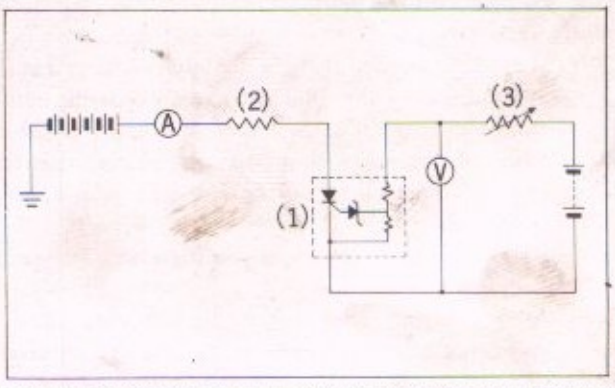


Fig. 5–16 (1) Regulator (2) Resistor (to keep current below 3A) (3) Variable resistor (to adjust voltage)

Battery

Type	12N9–4B
Voltage	12V
Capacity	9AH

Measuring specific gravity of electrolyte

Measure the specific gravity of electrolyte in each cell with a hydrometer. Recharge the battery when the reading taken is below 1.200 at 20°C or 68°F. When measuring the hydrometer, hold the gauge vertically and take the highest level as shown.

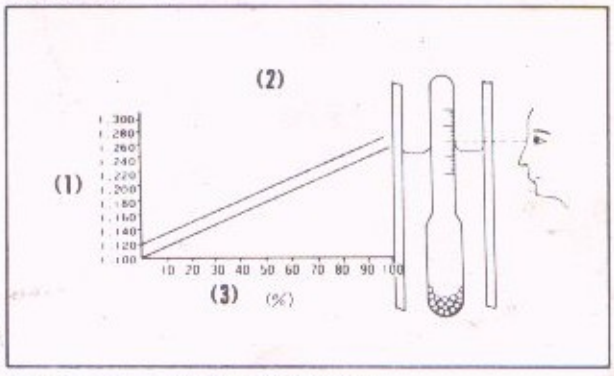


Fig. 5–17 (1) Specific gravity (2) Relationship between specific gravity and residual charge (3) Residual charge

3. TIGHTENING TORQUE STANDARD

Engine

Tightening point	Thread dia.	Torque	
		kg-cm	lbs-ft
Crankcase and crankcase cover	6mm P1.0	70–110	5.1–8.0
Cylinder head	8mm P1.25	180–220 (Apply oil to nuts before tightening.)	13.0–16.0
Carburetor insulator to cylinder head	6mm P1.0	80–120	5.8–8.7
Cam sprocket	7mm P1.0	170–230	12.3–16.6
AC generator rotor	10mm P1.25	350–450	25.3–32.5
Tappet adjusting nut	5mm P0.5	70–110	5.1–8.0
Upper and lower crankcases	8mm P1.25	200–260	14.5–18.8
Cylinder head cover	6mm P1.0	90–140	6.5–10.1

Frame

Tightening point		Thread dia.	Torque	
			Kg-cm	lbs-ft
Steering stem nut		23mm P1.0	800–1.000	57.9–72.3
Fork top bridge slit		8mm P1.25	180–250	13.0–18.1
Handlebar holder		8mm P1.25	180–250	13.0–18.1
Front fork bottom bridge slit		8mm P1.25	180–250	13.0–13.1
Spoke	Front wheel	–	15–30	1.1–2.2
	Rear wheel	–	15–30	1.1–2.2
Rear fork pivot bolt		14mm P1.5	600–700	43.4–50.6
Front fork axle nut		14mm P1.5	600–800	43.4–57.9
Engine hanger bolt		8mm P1.25	180–250	13.0–18.1
Rear axle nut		14mm P1.5	700–900	50.6–65.1
Brake arm		6mm P1.0	80–100	5.8–7.2
Rear shock absorber		10mm P1.25	250–350	18.1–25.3
Step holder		8mm P1.25	180–250	13.0–18.1
Gear change pedal and kick arm		6mm P1.0	80–100	5.8–7.2