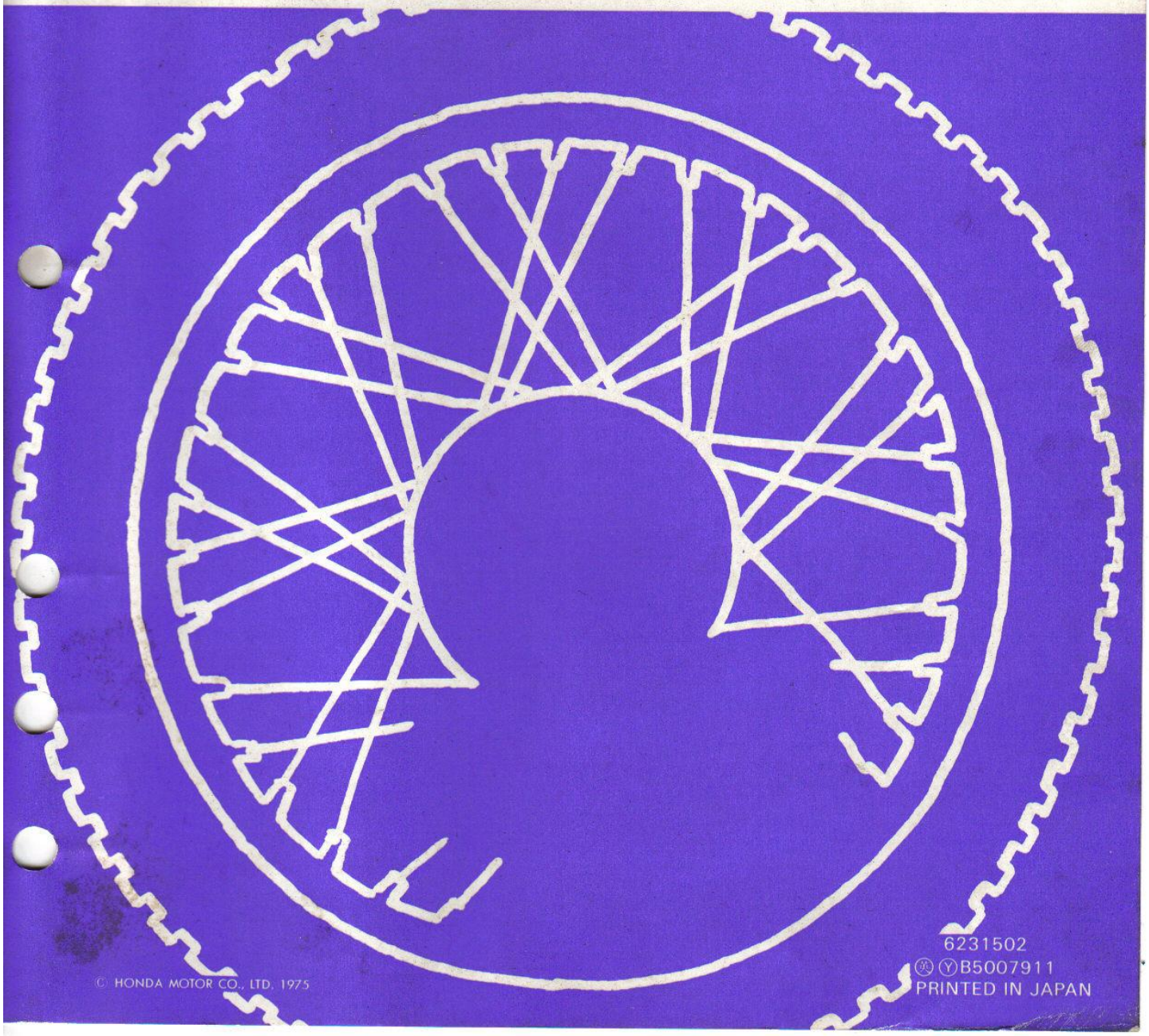
SHOP MANUAL

HONDA 175

CB175
CL175
SL175



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FOREWORD

This Shop Manual is compiled as a guide to servicing the HONDA 175. It provides the mechanic with correct maintenance technology. Further, the sales personnel will also obtain the technical knowledge.

The manual is divided into ten sections. Each section is grouped by disassembly, adjustment, and repair paragraphs.

At the back of this manual are listed the major modifications to CB/CL 175K6, K7.

The normal service repairs can be covered with great efficency by following the instruction.

This Shop Manual is applicable to all model serial Numbers shown below.

CL175K5	Engine No. 6000001~	CB175K5	Engine No. 6000001~
	Frame No. 6000001~		Frame No. 6000001~
CL175K6	Engine No. 7000001~	CB175K6	Engine No. 7000001~
	Frame No. 7000001~		Frame No. 7000001~
CL175K7	Engine No. 8000001~	CB175K7	Engine No. 8000001~
	Frame No. 8000001~		Frame No. 8000001~
SL175K1	Engine No. 1000001~	SL175K1	Engine No. 2000001~
	Frame No. 1000001~		Frame No. 2000001~

The descriptions and specifications in this manual were in effect at the time this manual was approved for printing.

HONDA MOTOR CO., LTD.
SERVICE PUBLICATION OFFICE

HONDA 175

MODEL CB175. CL175. SL175

CONTENTS

1. PROCEDURE OF PERFORMING THE WORK

1. When performing an overhaul, the disassembled parts should be separated in their respective groups so that all the parts will not become mixed.
2. All packing, gaskets, O ring, cotter pins and deformed snap rings which have been removed should be replace with new items when reassembling.
3. All engine parts should be cleaned after disassembly. The friction surfaces of metal and bearing must be coated with oil.
4. When replacing the parts, the normal repairs should be performed with special tools.
5. All nuts, bolts and screws are torqued starting from those of large diameter and from inside to outside symmetrically.
6. Refer to torque values shown in the following table.

Unit : kg-m (ft-lb)

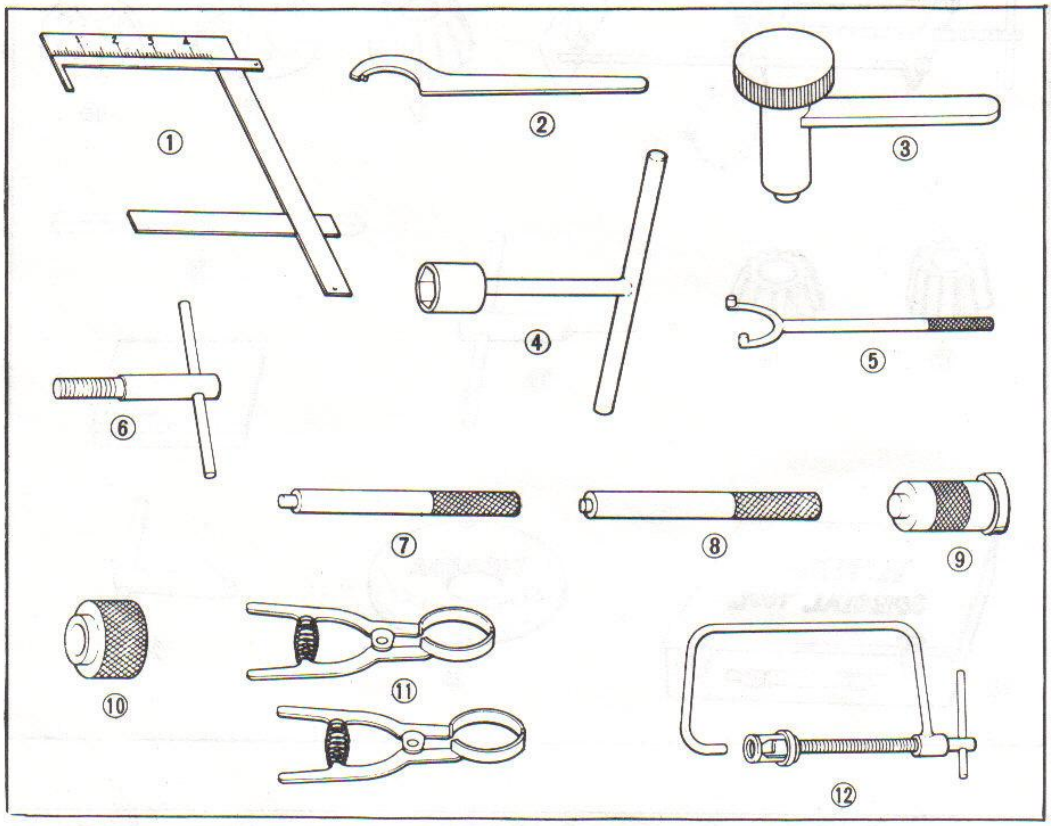
Engine		Frame	
Item	Torque values	Item	Torque values
Cylinder head	1.8— 2.2 (11.5—14.5)	Front axle nut	7.0— 9.0 (50.6—65.0)
Spark advancer	0.8— 1.2 (5.8— 8.7)	Rear axle nut	7.0— 9.0 (50.6—65.0)
Carburetor to cylinder head	0.7— 0.85 (5.0— 6.1)	Rear fork pivot bolt	5.0— 6.0 (36.0—43.3)
Cylinder mount bolt, 6 mm	1.2— 1.8 (8.6—13.0)	Engine mounting bolt	3.0— 4.0 (21.7—29.0)
R. L. crank case cover	0.8— 1.2 (5.8— 8.7)	Handle mounting bolt	0.9— 1.2 (6.5— 8.7)
Case	1.6— 2.1 (11.5—12.2)	Steering stem nut	9—12 (65.0—86.7)
A.C. generator rotor	1.6— 2.1 (11.5—12.2)	Handle top bridge lock nut	3.0— 4.0 (21.6—28.9)
A.C. generator stator mounting screw	0.8— 1.2 (5.8— 8.7)	Rear cushion mounting bolt	2.0— 3.5 (14.4—25.3)
R. L. cam shaft holder	0.7— 0.85 (5.0— 6.1)	F.R. brake torque link mounting bolt	1.5— 2.5 (10.8—18.0)
Oil filter cover screw	0.3— 0.4 (2.1— 2.9)	Final drive sprocket	1.9— 2.4 (13.7—17.3)
Oil filter (lock nut, 16 mm)	4.0— 5.0 (29.0—36.0)	Final driven sprocket	2.2— 2.7 (15.9—19.5)
Primary drive gear	6.5— 8.0 (47.0—57.8)	Foot step bar mounting bolt	1.5— 2.5 (10.8—18.0)
Cam chain tensioner adjusting bolt	0.3— 0.5 (2.1— 3.6)	Gear shift arm, kick starter mounting bolt	0.8— 1.2 (5.6— 8.7)

Standard parts

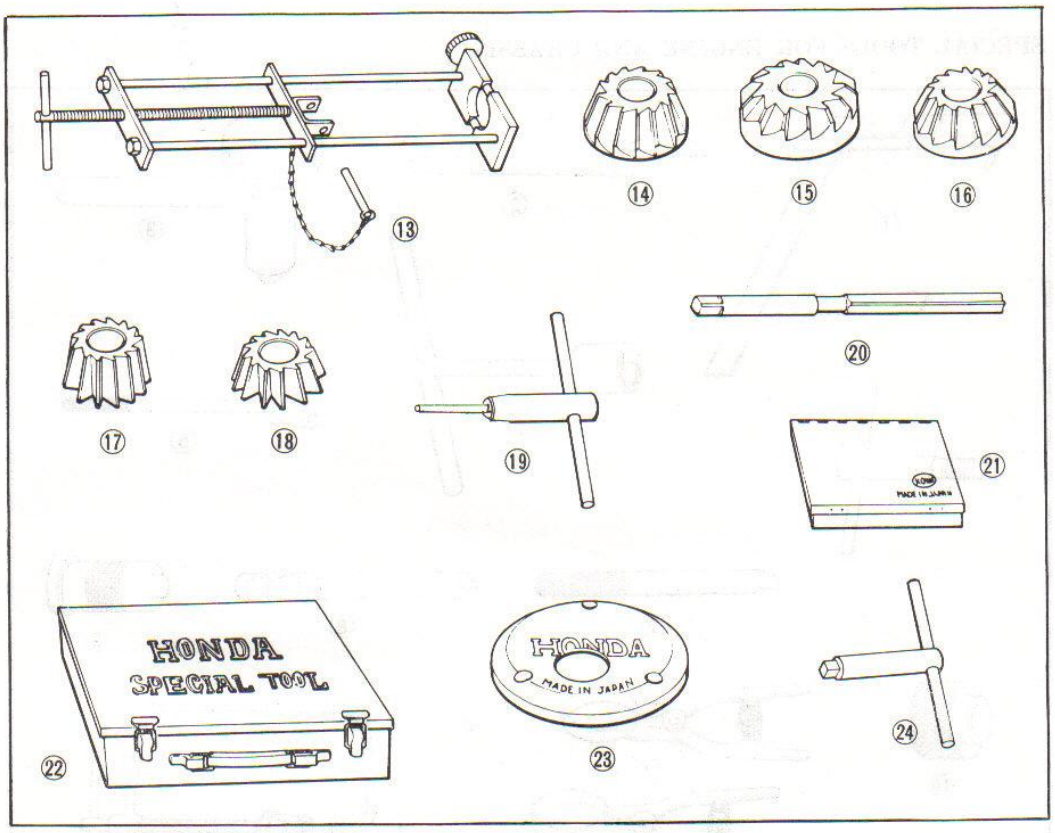
Bolt hex. 8 mm	2.3—2.8 (16.6—20.2)
Bolt hex. 6 mm	0.8—1.2 (5.7—8.6)
Screw cross, 6 mm	0.8—1.2 (5.7—8.6)
Nut, 6 mm	0.8—1.2 (5.7~8.6)
Screw cross, 5 mm	0.3—0.4 (2.1—2.9)

2. SPECIAL TOOLS

SPECIAL TOOLS FOR ENGINE AND CHASSIS



No.	Tool No.	Tool Description	Q'ty	Remarks
①	07401-0010000	Gauge float level	1	
②	07902-2000000	Spanner, pin 48 mm	1	
③	07908-0010000	Wrench, tappet adjusting	1	
④	07916-2400000	Wrench, lock nut 16 mm	1	
⑤	07922-2350000	Holder, drive sprocket	1	
⑥	07933-2160000	Puller, rotor	1	Dynamo
⑦	07942-2160100	Drive, valve guide	1	
⑧	07942-3290100	Remover, valve guide	1	
⑨	07945-2160000	Driver, bearing	1	
⑩	07947-3550000	Guide, fork seal	1	Front fork
⑪	07954-2350000	Compressor, piston ring	1	
⑫	07957-3290000	Compressor, valve spring	1	



No.	Tool No.	Tool Description	Q'ty	Remarks
⑬	07959-3290000	Compressor, sohck absover	1	
⑭	07980-2350100	Cutter, 90°	1	
⑮	07980-2350300	Cutter, flat	1	
⑯	07980-2350400	Cutter, flat	1	
⑰	07980-2350500	Cutter, interior	1	
⑱	07980-2350600	Cutter, interior	1	
⑲	07981-2350000	Holder, seat cutter	1	
⑳	07984-2000000	Reamer, valve guide	1	
㉑	07797-0510100	Case, seat cutter	1	
㉒	07797-2920300	Case, special tool	1	
㉓	07999-2350000	Cover, tunning inspection	1	
㉔	07917-3230000	Wrench, Holder set	1	

3. MAINTENANCE OPERATIONS

1. TAPPET ADJUSTMENT

The inspection and adjustment must be performed while the engine is cold.

1. Move the seat hinge plate to open the seat.
2. Remove the fuel tank.
3. Unscrew and remove the tappet hole caps.
4. Remove the dynamo cover.
5. Turn the crankshaft so that the "T" mark aligns with index mark on the stator and the piston is in the compression stroke.

   Note:
   The piston in the compression stroke can be determined by feeling the rocker arms for clearance.
6. Check tappet clearances with a thickness gauge and if the adjustment is necessary, loosen the lock nut and adjust the clearance with the tappet adjust screw.

   Tappet clearances: 0.05 mm (0.002 in.) for both intake and exhaust.
7. Turn the crankshaft 360° in the counter-clockwise and perform the same procedure for other tappet.

   Note:
   When tightening the lock nut, make sure the tappet clearance will not be disturbed. Recheck the tappet clearance.

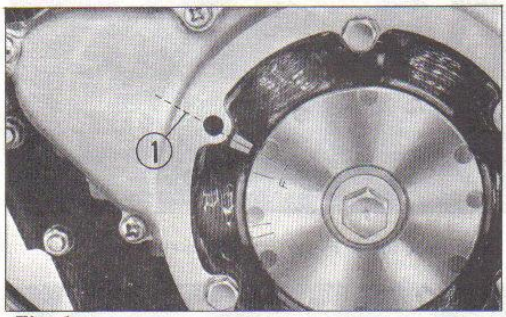


Fig. 1.
① "T" aligning mark

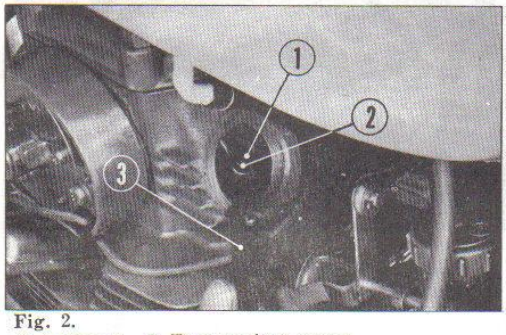


Fig. 2.
① Lock nut ② Tappet adjust screw
③ Thickness gauge

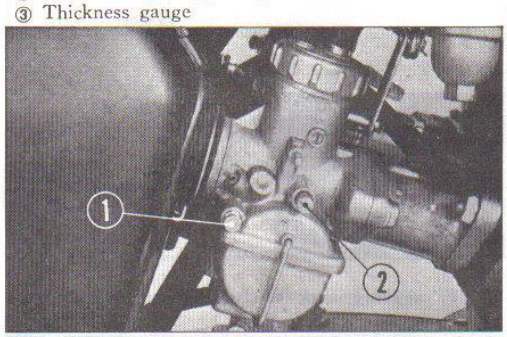


Fig. 3.
① Pilot air screw ② Throttle stop screw

2. CARBURETOR ADJUSTMENT

(Idle adjustment)
Warm up the engine before setting the engine idle speed and make the idle adjustment.

1. Adjust the throttle stop screws on both carburetors to give idle speed of **1.200 rpm.**
2. Turn the pilot air screw in and out to locate the position where engine rpm is highest.
3. Perform the same procedure for other carburetor.
4. Turning the pilot air screw in will provide a rich fuel mixture, turning it out will give a lean fuel mixture. If engine rpm has incresed by the adjustment of air screws, set the engine rpm to proper idle speed by using the throttle stop screws.
5. To obtain the optium idling condition, adjust the pilot air screws within the range of **1/8** to **1/4** turn both directions.

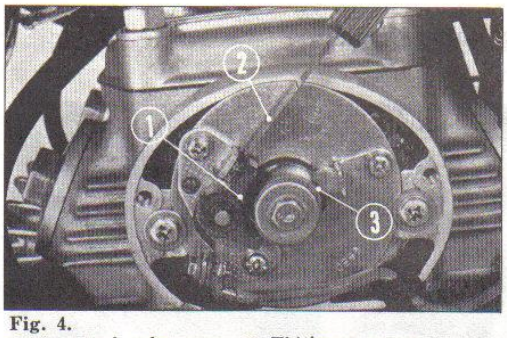


Fig. 4.
① Contact breaker arm ② Thickness gauge
③ Cam

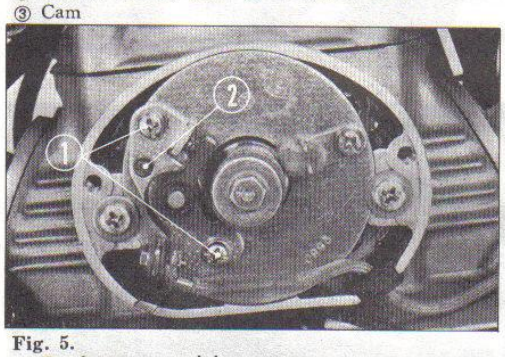


Fig. 5.
① Breaker arm retaining screws
② Adjusting screw (a)

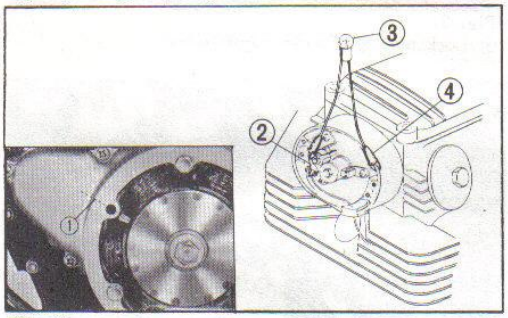


Fig. 6.
① "F" aligning mark ② Breaker arm spring
③ Ground to earth ④ Bulb

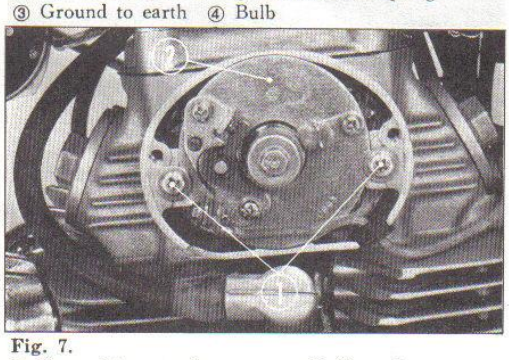


Fig. 7.
① Base plate mounting screws ② Base plate

3. BREAKER POINT AND IGNITION TIMING ADJUSTMENT

Adjust breaker point gap before performing the igniton timing adjustment.

A. Breaker point gap

1. Remove the point and dynamo covers. Turn the crankshaft until the breaker arm slipper is on the highest point of cam lobe.
2. Measure point gap with a thickness gauge.
   Breaker point gap: 0.3~0.4 mm (0.012~0.016 in.)
3. If it is necessary to make adjustment, loosen the breaker arm retaining screws, insert a screwdriver in the adjusting screw slot (a) and pry to adjust the above value. Retighten the screw securely after setting was performed.

Note:
When the point contact surfaces are pitted or dirty, grind the contacts using a point file or oil stone to remove contamination.

B. IGNITION TIMING ADJUSTMENT

1. Connect a 12V—3W lamp across the line and disconnect the contact breaker cord at the connector.
2. Set the combination switch to "ON" position.
3. Turn the rotor slowly. If "F" mark on the rotor and index mark on the stater are in line and the lamp goes out at this position, the ignition timing is correct.
4. If it is necessary to adjust the ignition timing, loosen two base plate mounting screws and move the base plate. Turning the base plate clockwise will retard the timing and counter clockwise will advance it.
5. Turn the crankshaft 360° counterclockwise, adjust the ignition timing for right side cylinder in the order of items 1 to 4.

4. CLUTCH ADJUSTMENT

Check the clutch free play at the end of the clutch lever. The play should be **1—2 cm (2/5—3/4 in.)**. Adjust the play in accordance with the following procedure, if it is necessary to adjust.

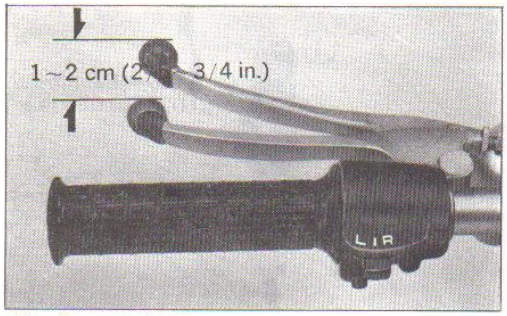


Fig. 8.

1. Loosen the clutch lever adjuster to make the cable free.

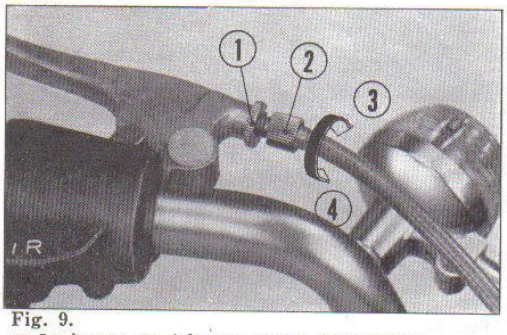


Fig. 9.
① Lock nut ② Adjuster screw ③ Increase
④ Decrease

2. Loosen the lock bolt and turn the adjuster counter clockwise to make play decrease, and turn 1/4—1/8 back from this position and tighten the lock bolt.
3. Tighten the clutch lever adjuster.

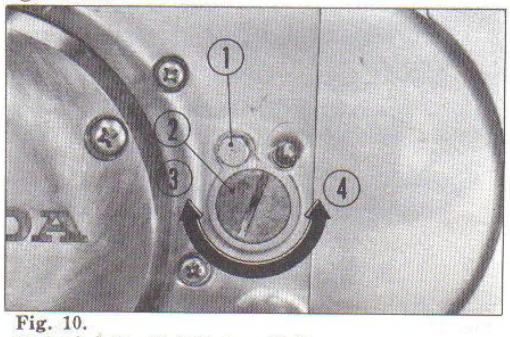


Fig. 10.
① Lock bolt ② Adjuster ③ Increase
④ Decrease

4. Minor adjustment can be performed with the adjuster after loosened the lock nut at the clutch lever. (Fig. 10)
   Turn the adjuster clockwise will increase the play and counter clockwise will decrease the play.

   Note:

   Make sure that the clutch does not fully engage and will not slip, and gear shifting is performed smoothly while engine is running.

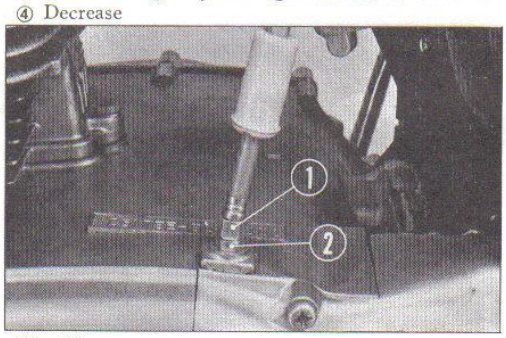


Fig. 11.
① Lock nut ② Adjuster

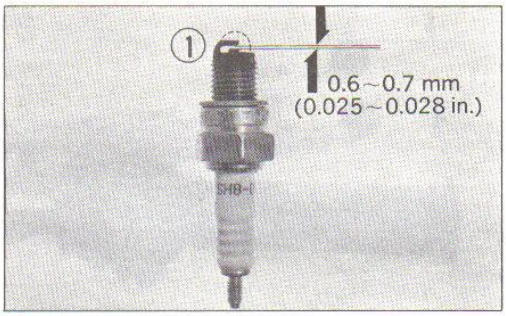


Fig. 12.
① Electrode

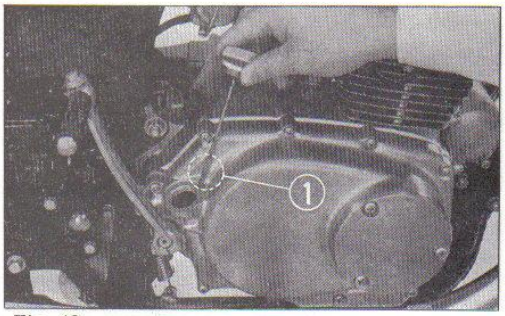


Fig. 13.
① Oil level gauge

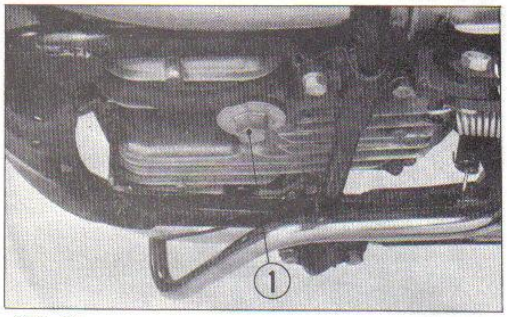


Fig. 14.
① Drain plug

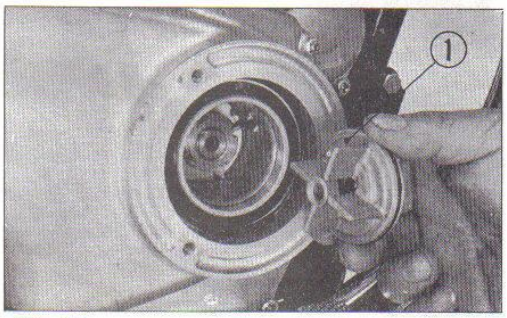


Fig. 15.
① Rotor cap

5. SPARK PLUG INSPECTION

Remove the spark plug with a spark plug wrench, and check the gap between the electrodes and check insulator for damage.

1. If the plug is carboned up, it should be cleaned with a spark plug cleaner or a wire brush.
2. Check the gap with a thickness gauge and adjust the ground electrode by bending. The standard clearance is **0.6~0.7 mm (0.025—0.028 in.)**.
3. Check the plug gasket and replace with new one if damaged.
   The standard plugs are **D-8HS (NGK)** or **X-22FS (DENSO)**.

6. ENGINE OIL CHANGE

The oil change is better performed while the engine is warm as this will expedite through draining of oil.

1. Remove the oil cap and remove the drain plug to drain oil.
2. Replace the drain plug and fill with a brand name oil **SAE 10W-30.**
   Quantity : 1.5 ℓ (1.58 qt.)

Checking the oil level

Place the dipstick in its hole, but not screwing it in. In this position oil level shows the lower mark (**1.2 ℓ , 1.23 pt.**), fill oil.

7. OIL FILTER CLEANING

1. Remove the oil filter cover.
2. Unscrew the 6 mm screw and remove the rotor cap using 8 mm bolt.
3. Clean the rotor cap and rotor inside.
4. Clean them by blowing compressed air.

Note:

- **When the oil filter cover is removed, oil comes out from the crankcase inside.**
- **Before installing the rotor cap, set the knobs on the rotor cap into the grooves of rotor inside wall.**
- **When installing the oil filter cover, push the oil guide metal on the filter cover and make sure its spring motion is smoothly. Execise care that inlet and outlet ports on oil filter cover are positioned respectively.**

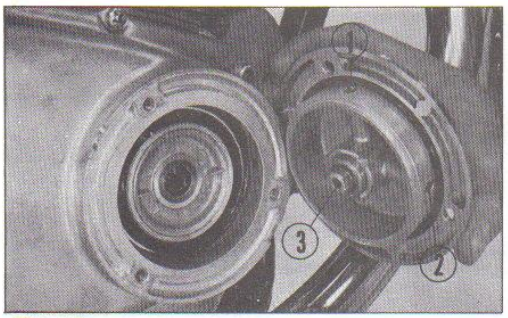


Fig. 16.
① Inlet port ② Exhaust port ③ Oil guide metal

8. AIR CLEANR ELEMENT SERVICING

1. Take off the air cleaner cover and unscrew the mounting bolt.
2. Loosen the air cleaner connecting clamp.
3. Unscrew the 6 mm bolts to remove the air cleaner cover and element togeather.

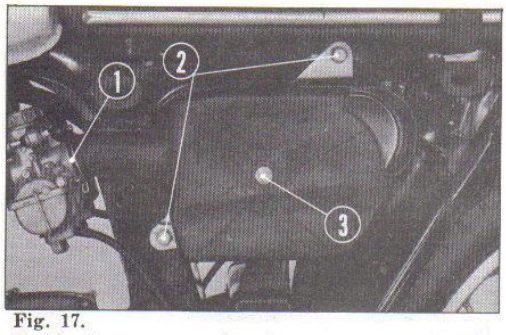


Fig. 17.
① Air cleaner connecting clamp
② 6 mm, mounting bolts ③ Setting bolt

4. **(CB 175, CL 175)**
Tap the air cleaner element and blow its inside with compressed air.

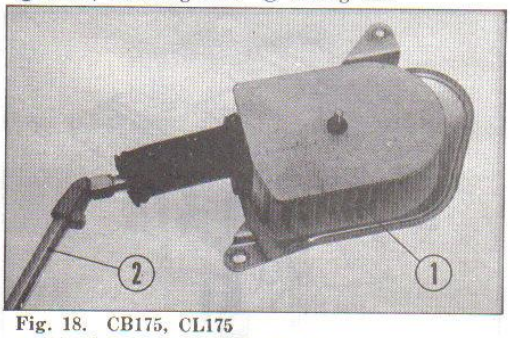


Fig. 18. CB175, CL175
① Air cleaner element ② Nozzle

5. **(SL 175)**
Unscrew two 6 mm bolts and mounting bolt to take off the air cleaner element.

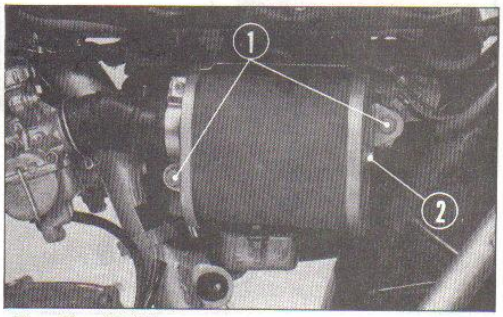


Fig. 19. SL175
① 6 mm bolts ② Mounting bolt

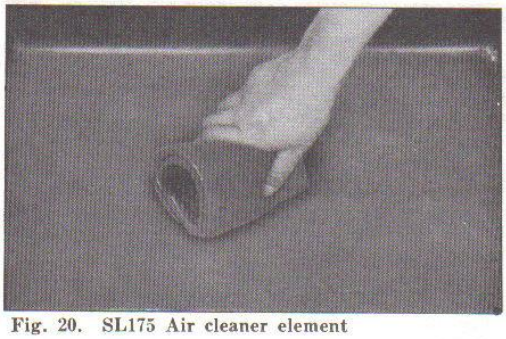


Fig. 20. SL175 Air cleaner element

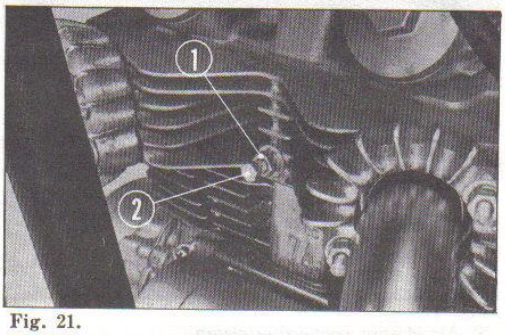


Fig. 21.
① Lock nut ② Adjuster screw

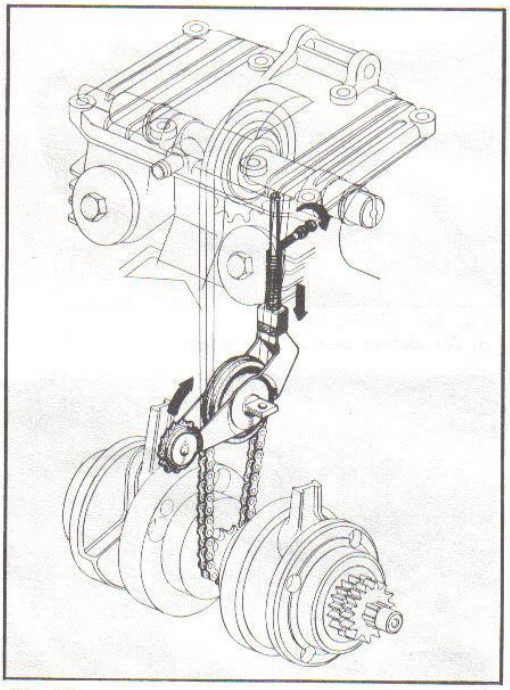


Fig. 22.

6. (**SL 175**)
Wash the element in solvent and then allow to dry. Apply a small quantity of oil **SAE 10W—30** or **10W—40** on the element and install it.

9. CAM CHAIN ADJUSTMENT

The CB175, CL175 and SL175 are equipped the adjustable cam chain tensioner. The great cam chain slack cause the engine noise, engine powerless and out of valve timing.

Adjustment procedure

1. Loosen the lock nut and adjuster screw. Then the cam chain is tensioned automatically.
2. Tighten the adjuster screw until it hits the tensioner bar. Tighten the lock nut after completing the adjustment.

10. FUEL SYSTEM INSPECTION

Inspect the fuel tank, fuel cock, carburetor and fuel piping system for any fuel leaks.

Note:
If fuel is spilled at any time during the replacement of fuel system component, it should be cleaned up immediately as it is a fire hazard.

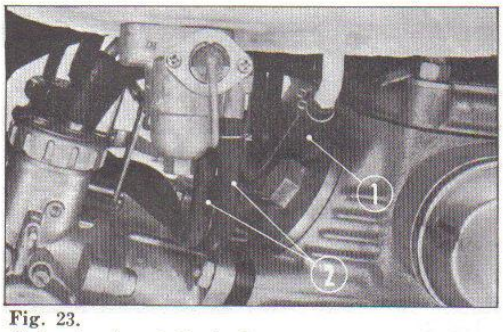


Fig. 23.
① Level tube ② Fuel tube

11. BRAKE ADJUSTMENT

(Front wheel)

1. Check the brake free play at the end of the brake lever. The play should be **2—3 cm (3/4—1.1/8 in.)**. If it is not within this range, adjust it in accordance with the follwoing procedure.

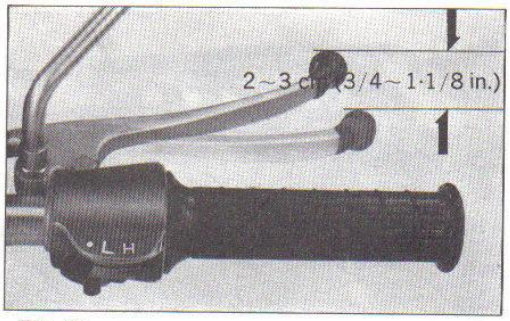


Fig. 24.

2. Turn the adjuster nut clockwise to reduce play in the brake lever. Minor or fine adjustment can be made with adjuster nut on the clutch lever.

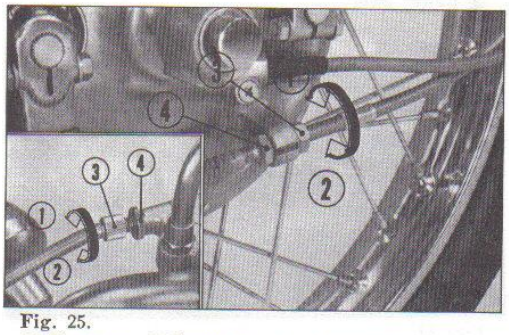


Fig. 25.
① Decrease ② Increase ③ Adjuster nut
④ Lock nut

(Rear wheel)

1. Check the brake free play at the end of the brake pedal. The play should be **2—3 cm (3/4—1.1/8 in.)**. If it is not within this range, adjust it in accordance with the following item 2.

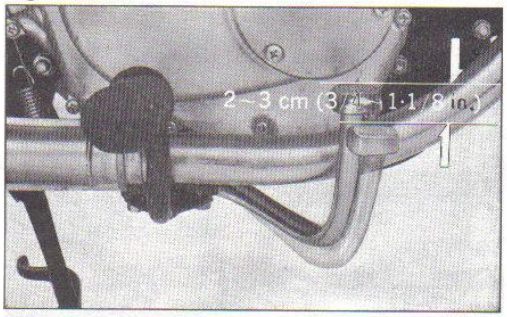


Fig. 26.

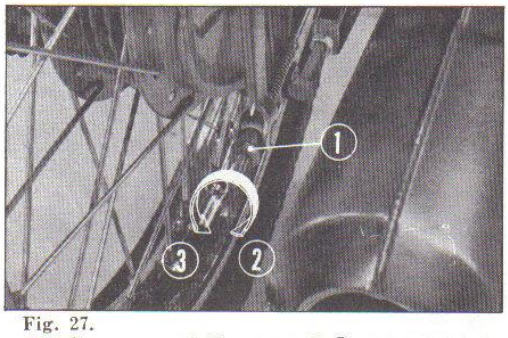


Fig. 27.
① Adjuster nut ② Decrease ③ Increase

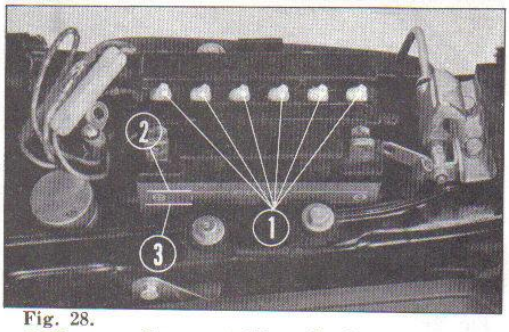


Fig. 28.
① Battery cell caps ② Upper level
③ Lower level

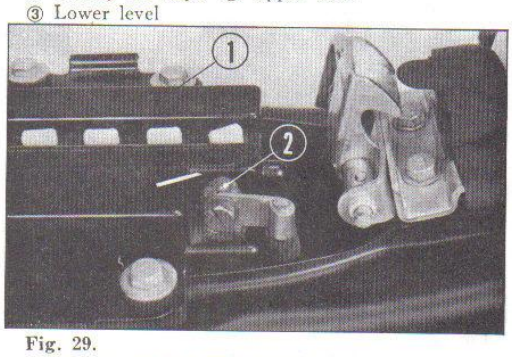


Fig. 29.
① Battery ② Battery terminal

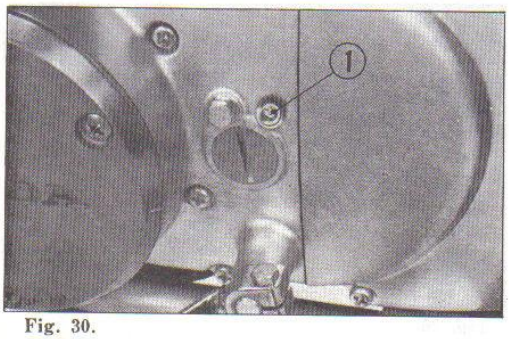


Fig. 30.
① Grease nipple

2. Turn the adjuster nut clockwise to reduce the amount of play in the brake pedal. Minor or fine adjuster can be made with adjuster nut on the brake lever.

12. BATTERY INSPECTION

1. Unlock the seat catcher under the seat and open the seat. Check the level of battery electrolyte to level indicator marks on battery case.
2. If the electrolyte level is low, remove the cell caps to refill it.
3. Add distilled water to bring electrolyte level to upper level and check it to be kept between upper and lower level in the cells.

Note:

- **Alway fill with distilled water.**
- **Check to make sure the vent tube is not pinched.**
- **When disconnecting the wire harness, first disconnect it from the negative battery terminal.**
- **Apply grease to protect the corrosion around the battery terminals.**

13. LUBRICATION

A. Through the grease nipples

The grease nipples provided on the rear fork shaft and around the clutch adjuster through which greasing can be performed with the grease pump. Use a high quality grease and lubricate until it comes out from the nipples.

B. The parts which are not required to lubricat periodically.

Even though it is not necessary to lubricate periodically, grease to the following parts when disassembling.

Steering ball bearing, cone race, throttle grip, front and rear wheel bearings, gear shift pedal and breake pedal.

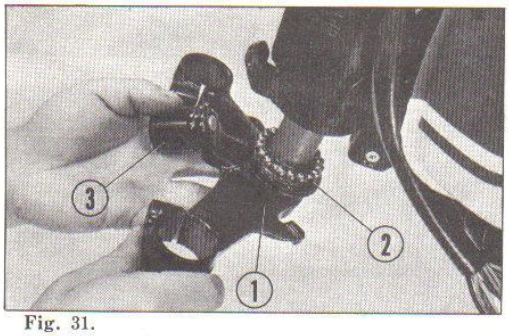


Fig. 31.
① Steering stem ② 6 mm dia. bearing
③ Steering handle lock

14. FRONT FORK OIL REPLACEMENT

1. Remove the fork bolts and remove the drain plug to drain oil. Actuate the fork for complete draining.
2. Flash out the interior using solvent.

   Note:

   Do not use gasoline for cleaning.
3. Reinstall the drain plug and tighten before refilling with new oil.

   Recommended oil: SAE 10W—40

   Capacity: CB175 / CL175 140 cc (4.7 ozs)

   SL175 180 cc (6.1 ozs)
4. Replace the fork bolt.
   Torque to **7.0—8.0 kg-m (50.6—57.8 ft-lbs)**

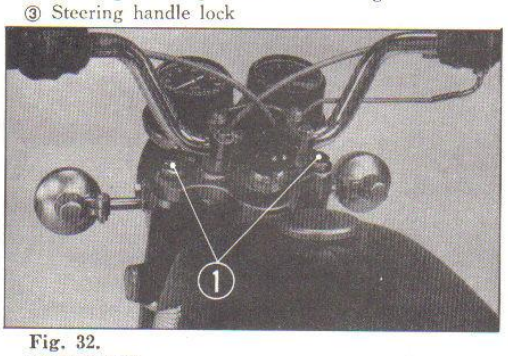


Fig. 32.
① Fork bolt

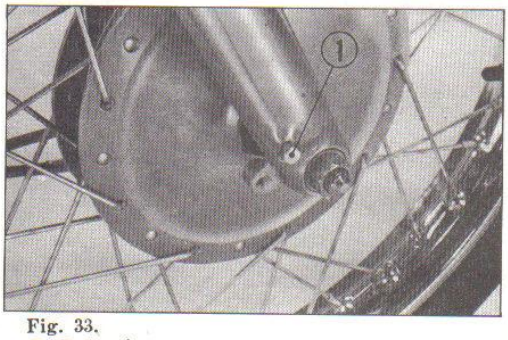


Fig. 33.
① Drain plug

15. CYLINDER COMPRESSION CHECK

Low compression and pressure leak will cause unstable engine rpm and loss of power. Check compression using the cylinder compression gauge.

1. Remove the spark plug.
2. Insert the rubber tip of compression gauge into the spark plug hole and operate the kick starter while holding the throttle grip fully open.

   Note:

   Perform the check after warming up the engine.

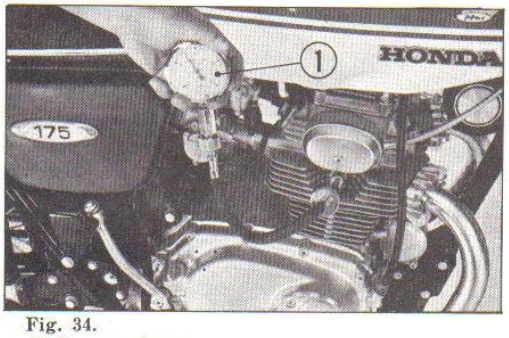


Fig. 34.
① Compression gauge

3. The normal compression pressure is **12 kg/cm (170 psi)**.

(Low compression)

It is due to one of the following causes. Leaking valve, defective or sticking piston rings, blown cylinder head gasket and improper tappet adjustment.

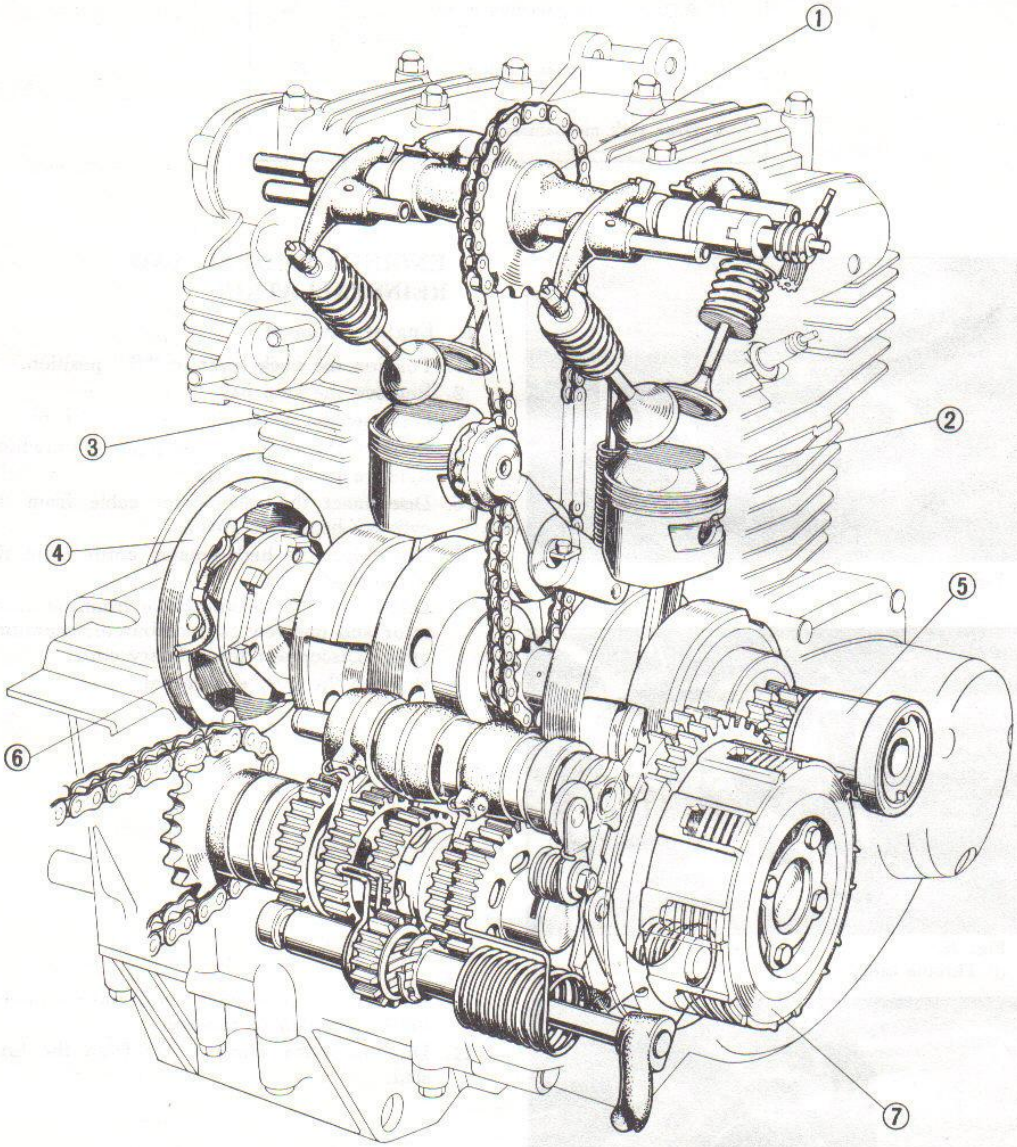
(High compression)

It is due to excessive carbon deposits on the combustion chamber or on the piston head.

Engine must be disassembled for complete inspection or repair in these cases.

4. ENGINE

CONSTRUCTION



① Cam shaft ② Piston ③ Valve ④ A.C. generator ⑤ Oil filter
⑥ Crankshaft ⑦ Clutch

1. WORK WHICH CAN BE PERFORMED WITHOUT REMOVING THE ENGINE.

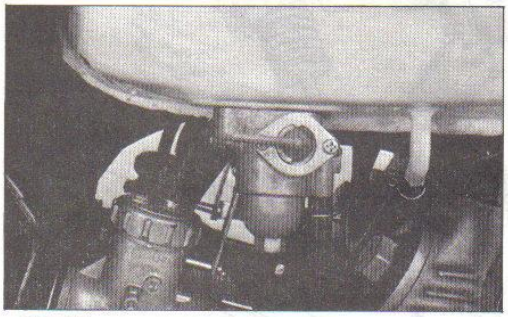


Fig. 35.

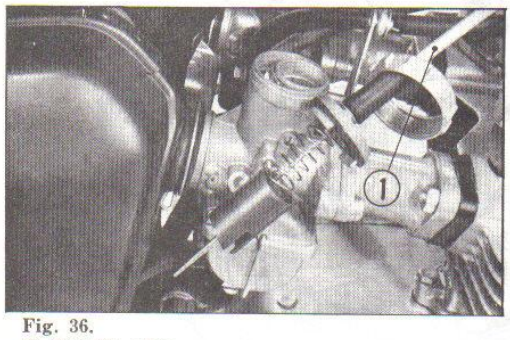


Fig. 36.
① Throttle cable

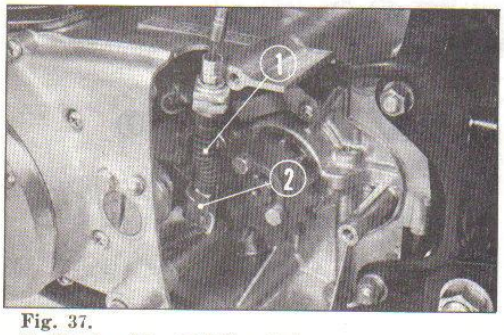


Fig. 37.
① Clutch cable ② Lifter sled

2. ENGINE REMOVAL AND REINSTALLATION

A. Engine Removal

1. Position the cock lever to "S" position.
2. Remove the step bar.
3. Unscrew the drain plug to drain the oil.
4. Remove the both exhaust pipes and mufflers.
5. Remove the kick pedal.
6. Disconnect the tachometer cable from the cylinder head side cover.
7. Disconnect the high tension cords from the spark plugs.
8. Disconnect the throttle cable from the carburetor and unscrew four carburetor mounting nuts. Disconnect the primary cord.
9. Remove the gear shift pedal.
10. Remove the drive chain cover and disconnect the drive chain to remove.
11. Disconnect the clutch cable from the lifter sled.

12. Remove the fuel tank.
13. Open the seat and disconnect the starting motor cable from the magnetic switch.
14. Disconnect the coupler from wire harness.

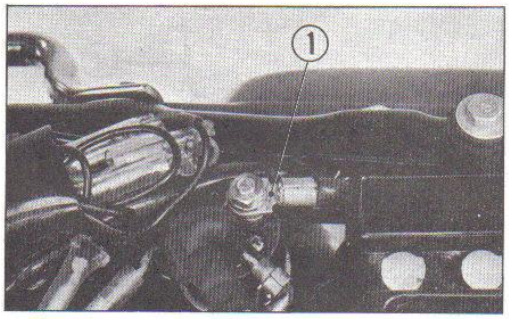


Fig. 38.
① Starting motor cable

15. Place a block under the engine, remove nine nuts from the engine hanger bolts and remove engine hanger bolts while supporting the engine.

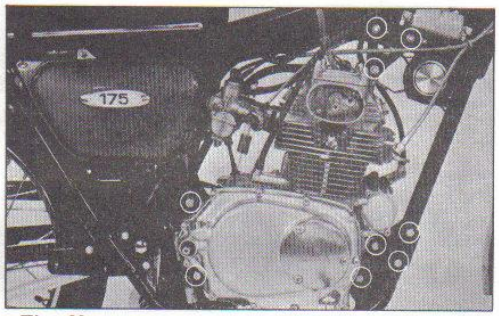


Fig. 39.
Engine hanger bolts

B. Engine reinstallation

1. Reinstall engine in the reverse order of removal.
2. To simplify installation, use the " T " handle screwdriver to hang the engine temporarily followed by installing the support bolt.
3. Temporarily install the exhaust pipe joint and muffler and then perform the final torquing.
4. When connecting drive chain, make sure that the chain joint clip is properly installed.

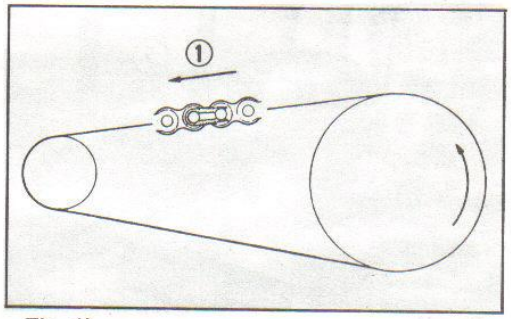


Fig. 40.
① Direction of rotation

3. CYLINDER, CYLINDER HEAD AND PISTON

A. Disassembly

1. Remove eight 8 mm screws and remove the head cover.
2. Remove the dynamo cover.
3. Remove the spark plugs.
4. Turn the A.C. generator rotor so that it is at top dead center and the cam chain joint link can be disconnect.

Note :

- **Do not drop the chain joint link into the bottom.**
- **Use clothes to protect its dropping.**

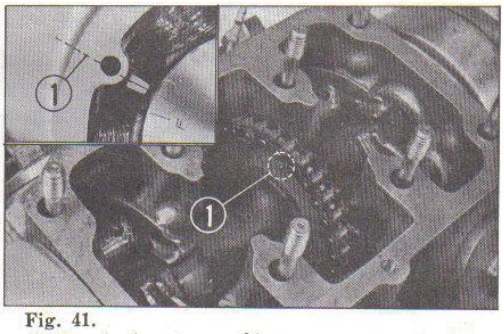


Fig. 41.
① Top dead center marking

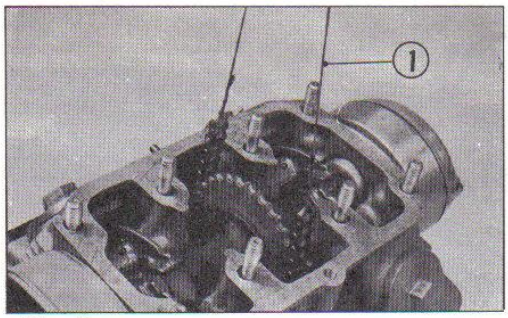


Fig. 42.
① Wire

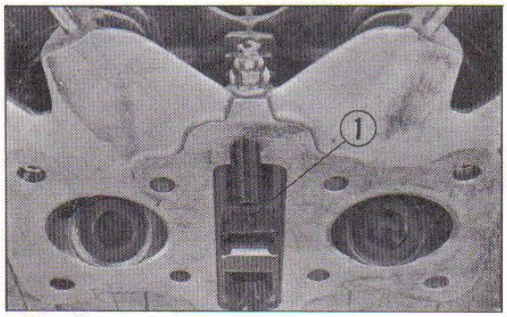


Fig. 43.
① Tensioner push bar

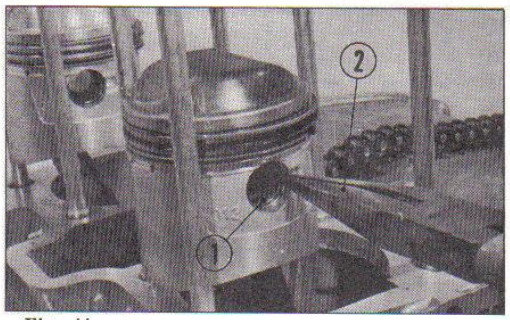


Fig. 44.
① Piston pin clip ② Long nose pliers

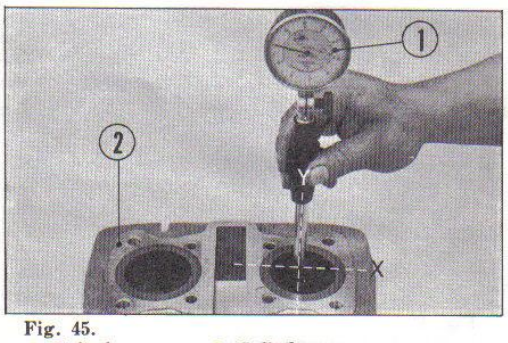


Fig. 45.
① Cylinder gauge ② Cylinder

To simplify work, hang the cam chain with wire.

5. The cylinder head can be removed after the cam chain was disconnected.

6. Unscrew 6 mm bolts and lift off the cylinder.

Note :
If it is difficult to remove, tap the cylinder base with a wooden hammer to loosen. Exercise care not to strike the cylinder with a hard blow as the cooling fins may be damaged.

7. Unscrew the tensioner mounting bolts to pull out the tensioner push bar.

8. Unscrew two 6 mm bolts to remove the cam chain guide roller.
9. Remove piston pin clip and piston pin, and then separate the piston from the connecting rod.

Note :
When removing the piston pin clip and piston, exercise care not to drop the clip into the crankcase.

10. Remove the piston rings.

B. Inspection

1. Measure the cylinder bore.
Measure the dia. of cylinder bore in both the X and Y directions at the top, center and bottom of the cylinder.

mm (in.)

Item	Standard value	Serviceable limit
Bore dia.	52.00–52.01 (2.0472–2.0476)	52.1 (2.0512)

If the cylinder bore is less than **54.1 mm (2.1299 in.)**, rebore and hone the cylinder and replace with oversize piston. The standard clearance between the piston and the cylinder should be **0.01–0.05 mm (0.0004–0.0020 in.)** at the skirt.
The oversize pistons are available in the oversize of **0.25, 0.50, 0.75, 1.0 mm (0.010, 0.020, 0.030, 0.040 in.)**

2. Measure the piston diameter.
   Measure the piston at the skirt.

mm (in.)

Item	Standard value	Serviceable limit
Piston Dia.	51.95–51.97 (2.0452–2.0471)	51.90 (2.0433)

Replace if beyond the serviceable limit.

3. Measure the piston ring side clearance using a thickness gauge.

mm (in.)

Item	Standard value	Serviceable limit
Piston ring side clearance	0.015–0.045 (0.0005–0.0017)	0.6 (0.0236)

Replace if beyond the serviceable limit.

4. Measure the piston ring gap
   Insert the piston ring into the cylinder and then measure the ring gap using a thickness gauge.

mm (in.)

Item	Standard value	Serviceable limit
Ring gap	0.15–0.40 (0.0059–0.0157)	0.8 (0.0315)

Replace if beyond the serviceable limit.

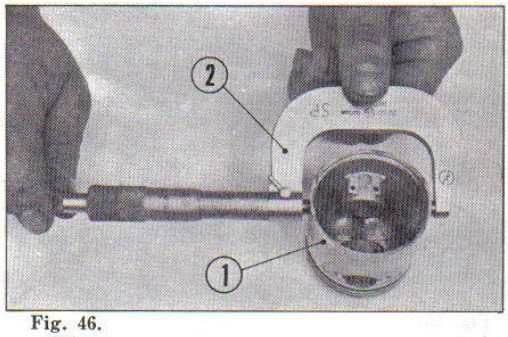


Fig. 46.
① Piston ② Micrometer

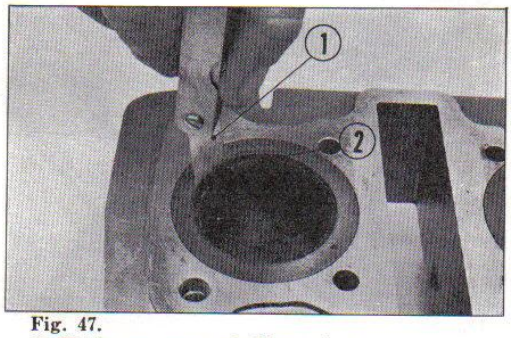


Fig. 47.
① Thickness gauge ② Piston ring

C. Reassembly

1. Assemble the piston ring on the piston.

Note :

- **The ring marking located adjacent to the gap should be toward the top.**
- **When installing new piston rings, roll the rings over their respective piston ring grooves to make sure that the ring side clearances are adequate. Rings should roll smoothly.**

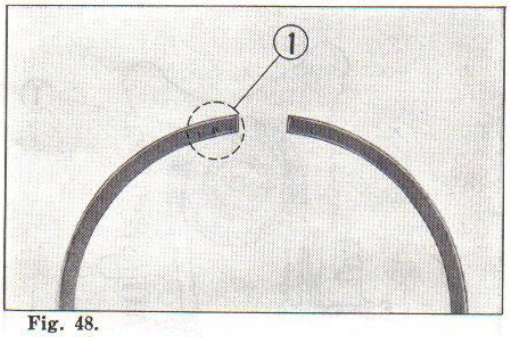


Fig. 48.
① Piston ring marking

2. Install the piston.

Note :

- **Install the piston so that the IN marking on the piston head is toward the rear.**
- **Replace all piston pin clips with new items.**

3. Space the piston ring gaps equally apart (**120°**) and then install the cylinder.

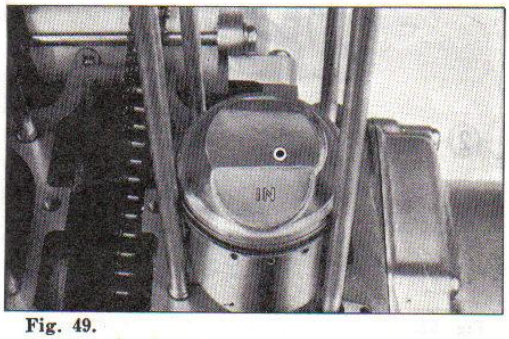


Fig. 49.
① Piston head marking

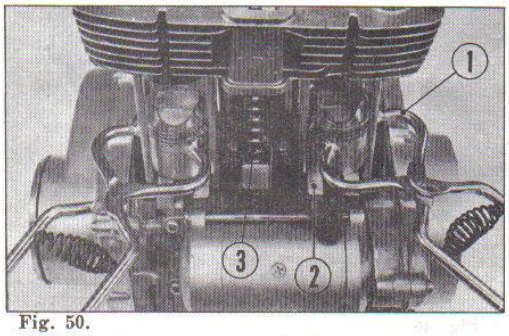


Fig. 50.
① Piston ring compressor ② Piston base
③ Cam chain

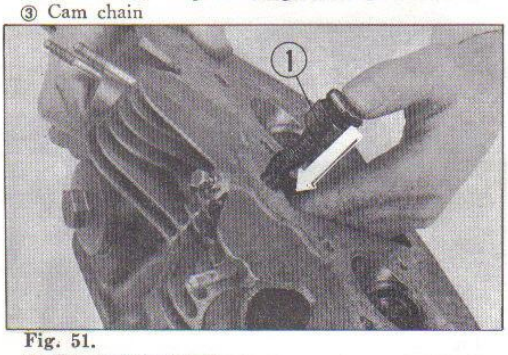


Fig. 51.
① Tensioner set bolt

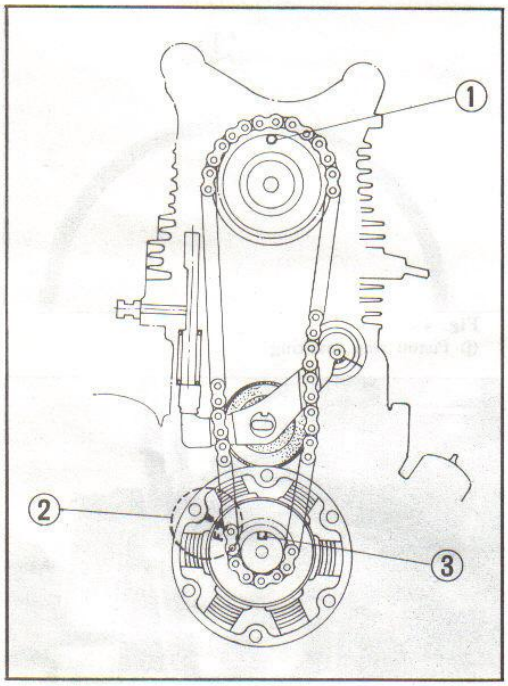


Fig. 52.
① Identical marking ② "T" mark
③ 4 mm, knock pin

4. Reinstall the cam chain guide roller.
5. Reinstall two dowel pins and O ring.
6. Assemble the cylinder with a gasket and install the cam chain. When assembling the cylinder with pistons, use the piston ring compressor for better work.

7. Reinstall three dowel pins and O ring.
8. Reinstall the tensioner push bar.

9. Install the cylinder head gasket.
10. Install the cam chain through the cylinder head.
11. The cam chain joint link must be installed so that the cutout is pointing in the opposite direction of rotation.

Note :

- **When installing the cam chain, execise care to set the timing to the top-dead-center.**
- **Do not drop the chain joint clip into the cylinder case.**
- **Use a new cylinder gasket when reassembling.**

11. Loosen the chain tensioner mounting bolt to check the cam chain tension.

Note :

- **The loosen cam chain causes the noise, and make sure the chain tension to be kept properly.**
- **Do not forget to install the 3.4×1.20 ring.**

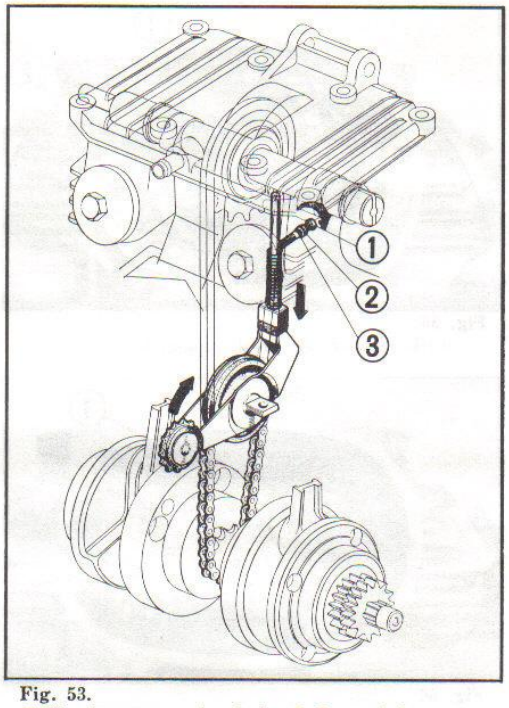


Fig. 53.
① Tensioner mounting bolt ② 5 mm, bolt
③ 3.4×1.20 ring

12. Torque the cylinder head bolts in accordance with Fig. 54.

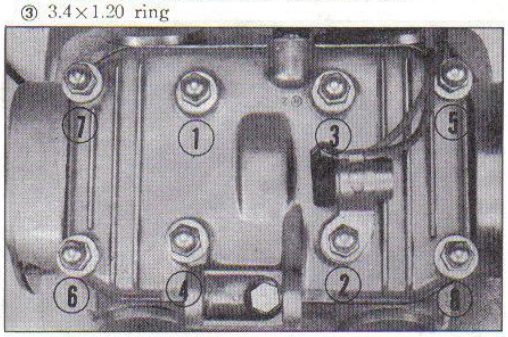


Fig. 54.
Tightening sequence

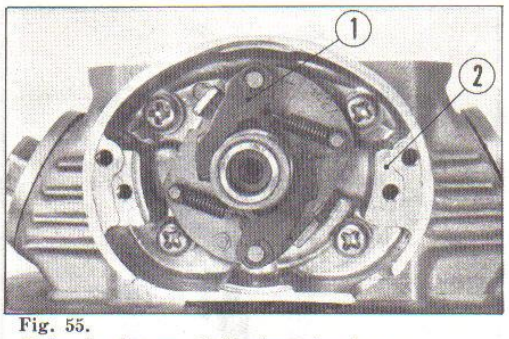


Fig. 55.
① Spark advance ② Breaker piont base

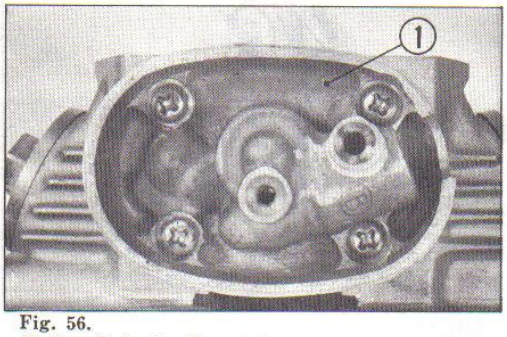


Fig. 56.
① R. cylinder head cover

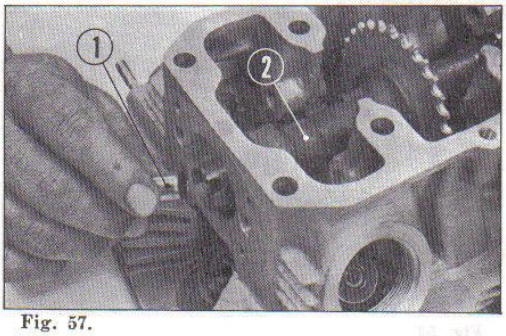


Fig. 57.
① 12 mm, dowel pin ② Camshaft

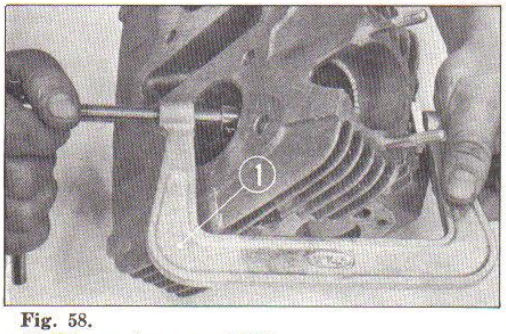


Fig. 58.
① Valve spring compressor

4. VALVE REMOVAL

A. Disassembly

1. Remove the cylinder head. (See page 17)
2. Unscrew two flat head screws to remove the breaker point cover.
3. Unscrew two 5 mm screws to remove the contact breaker.
4. Unscrew 5 mm bolts to remove the spark advance.
5. Unscrew four 6 mm screws to remove the breake point base.
6. Unscrew four 6 mm screws to remove the R. cylinder head cover.
7. Remove the tappet adjusting hole caps and pull out the rocker arms.
8. Detach the carburetor insulator and packing.
9. Pull out 12 mm dowel pin and then remove the camshaft.
10. Compress the valve spring with valve spring copmressor and remove valve cotters and valve spring. The valve can be removed.

B. Inspection

1. Measure the clearance between valve and valve guide. Insert the valve into the valve guide and measure the play along both the X and Y axes by applying the dial gauge.
   Inlet valve with TIR greater than 0.08 mm (0.0032 in.) or exhaust valve with TIR greater than 0.10 mm (0.0039 in.) should have either the valve or guide replaced.

mm (in.)

Item	Standard value	Serviceable limit
Valve stem dai.	IN 5.48–5.49 (0.2157–0.2161)	5.42 (0.2139)
	EX 5.46–5.47 (0.2149–0.2153)	5.40 (0.2126)

2. Valve guide replacement
   Remove and reinstall valve guide using a valve guide driver (Tool No. 07046-21601, 07047-04001).

   Note:
   Use an oversize replacement guide, and run a reamer through the valve guide to assure that the guide will be of standard diameter after replacing the valve guide.

3. Valve face dimensional check
   Apply thin coating of red lead or bluing on the valve face, press valve against the valve seat and rotate. Remove and check to see if there is a uniform width impression of the valve face.

mm (in.)

Item	Standard value	Serviceable limit
Valve seat width	0.7–1.0 (0.028–0.0394)	1.8 (0.0709)

   If there is uneven contact, the valve seat should be cut by first using the valve seat interior cutter followed by the top cutter and then finished with the 90° seat cutter.

   Caution:
   Use the valve seat grinder (tool No. 07782-0020000, A set) to correct the valve seat width and contact from the following serial number.
   E No. {CB175E-7037397~ / CB175E-8006794~
   Read carefully the instruction provided with the valve seat grinder.

4. Valve spring

mm (in.)

Item	Standard value	Serviceable limit
Free length	Outer 31.8 (1.2520)	30.6 (1.2047)
	Inner 30.2 (1.1890)	27.9 (1.0984)

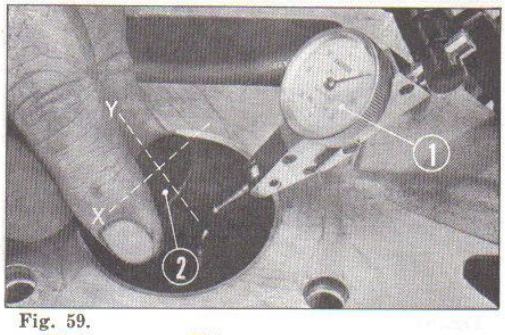


Fig. 59.
① Dial gauge ② Valve

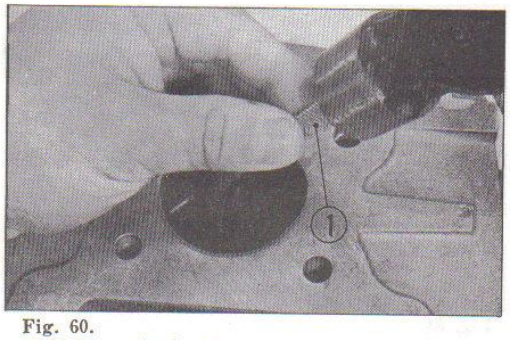


Fig. 60.
① Valve guide driver

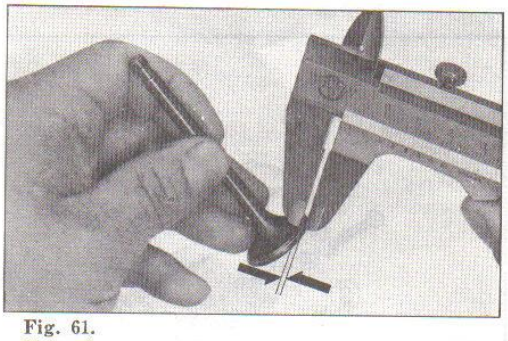


Fig. 61.
Valve face

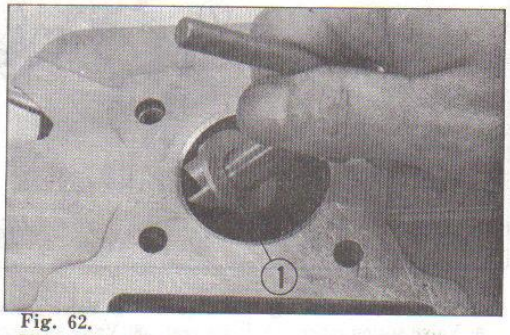


Fig. 62.
Valve seat cutter

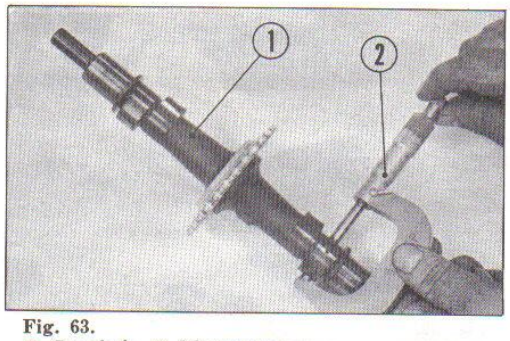


Fig. 63.
① Camshaft ② Micrometer

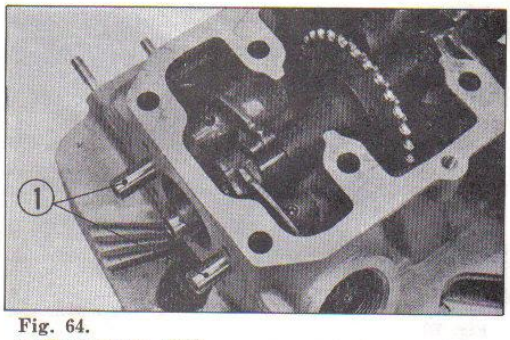


Fig. 64.
① Rocker arm shaft

5. Measure the cam base circle and camshaft lift height.

mm (in.)

Item		Standard value	Serviceable limit
Base circle		21.00 (0.8267)	—
Camshaft lift	IN	4.06 (0.1598)	3.90 (0.1535)
	EX	3.87 (0.1523)	3.70 (0.140)

C. Reassembly

1. Clean all parts with solvent or kerosene and perform the reassembly in the reverse order of disassembly.
2. Insert the valve rocker arm shaft.
3. When installing the rocker arm, turn the adjust screw full back.
4. After assembling was performed, adjust the tappet clearance.

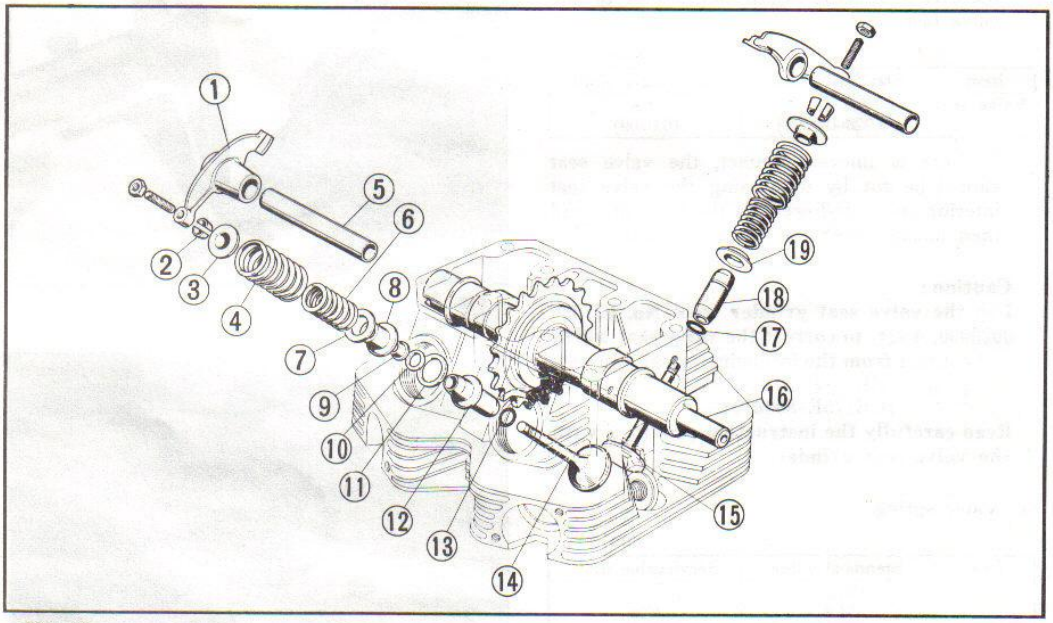
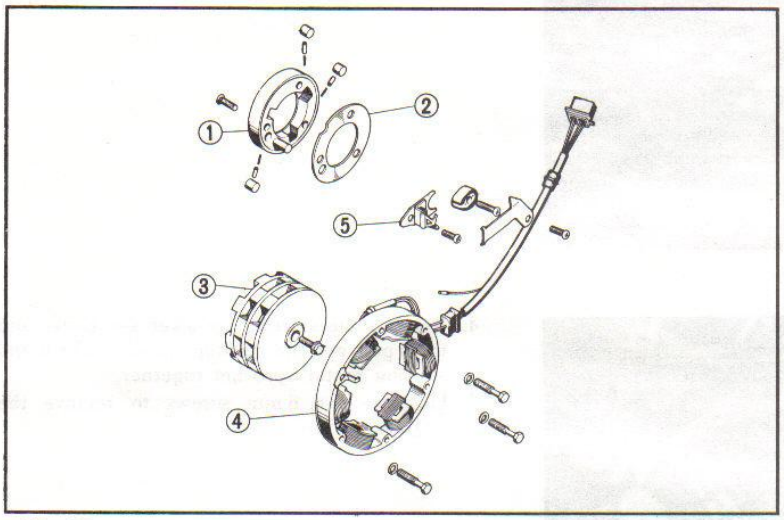


Fig. 65.
① Valve rocker arm ② Valve cotter ③ Valve spring retainer ④ Valve spring (Outer) ⑤ Rocker arm seat ⑥ Valve spring inner ⑦ Inner seal ⑧ Valve stem seal cap ⑨ Valve stem seal ⑩ Stem seal rubber cushion ⑪ Valve spring seal B ⑫ Inlet valve guide ⑬ 9.5×1.60 ring ⑭ Exhaust valve ⑮ Inlet valve ⑯ Camshaft ⑰ Valve guide clip ⑱ Inlet valve guide ⑲ Valve spring seat

5. A.C. GENERATOR AND STARTING CLUTCH



① Starting clutch outer
② Starting clutch side plate
③ Rotor
④ Stator
⑤ Neutral switch stator

Fig. 66.

A. Disassembly

1. Disconnect the neutral lead wire harness and remove the dynamo cord clamp from stator.

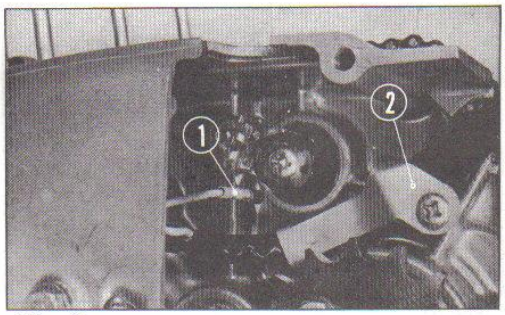


Fig. 67.
① Neutral lead wire harness
② Dynamo cord clamp

2. Remove the L. crankcase cover with the stator. Unscrew three 6 mm bolts to remove the stator. Remove the clutch lifter sled.

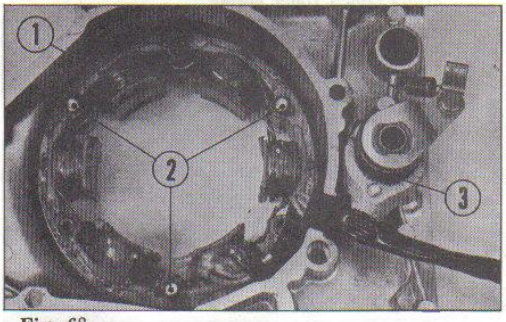


Fig. 68.
① Stator ② 6 mm bolt ③ Clutch lifter sled

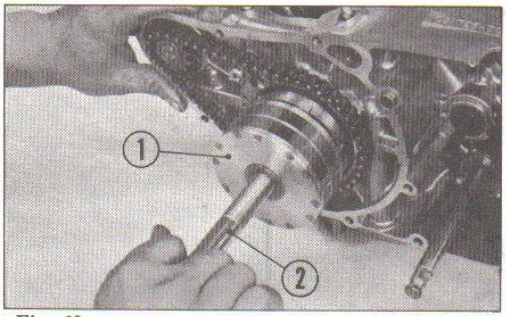


Fig. 69.
① Rotor ② Rotor puller

3. Screw the rotor puller in until the rotor can be removed.

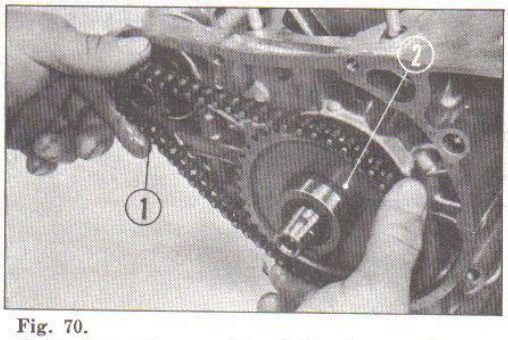


Fig. 70.
① Starting motor sprocket ② Starting sprocket

4. Remove the starting sprocket set plate, and then pull out the starting sprocket, chain and starting motor sprocket together.
5. Unscrew two 6 mm screws to remove the starting motor.

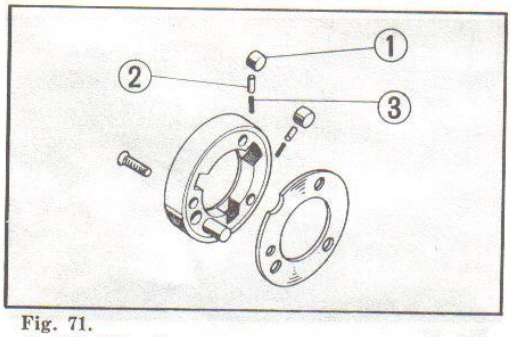


Fig. 71.
① 10.2×9.5 roller
② Starting clutch roller spring cap
③ Starting clutch roller spring

B. Inspection

1. Check for scratch or wear the starting clutch roller, roller cap and clutch outer.
2. Check the roller and roller spring to act smoothly.

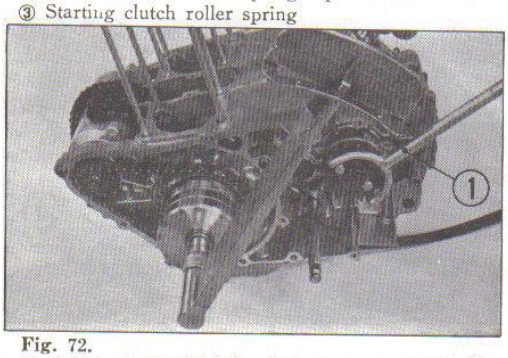


Fig. 72.
① Drive sprocket holder

C. Reassembly

Perform the reassembly in the reverse order of disassembly.

1. When installing the dynamo rotor, align 4 mm knock pin and key groove in line and then fix the rotor by turning in the direction of rotation.
2. Tighten the dynamo rotor lock nut by holding the sprocket with the drive sprocket holder tool.
   Torque to 2.6–3.2 kg-m (18.80–23.14 ft-lb).

6. OIL PUMP, OIL FILTER AND CLUTCH

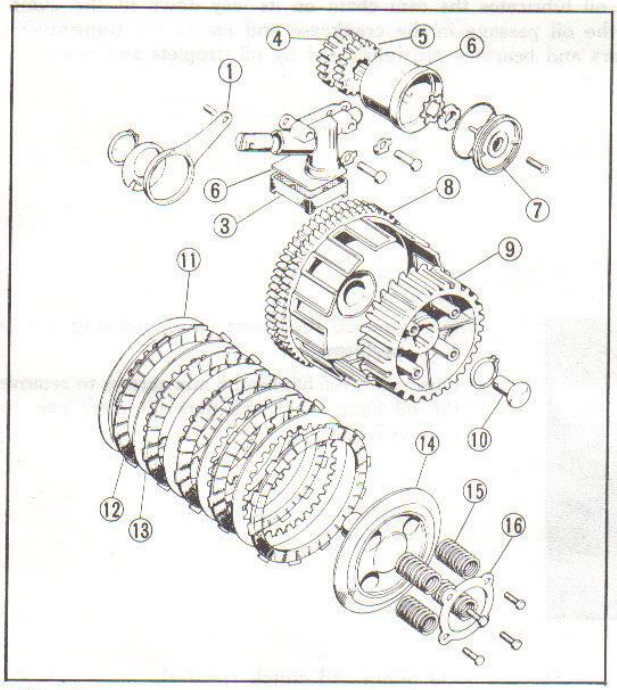


Fig. 73.

① Pump rod
② Oil pump body
③ Pump filter screen
④ Primary drive gear (L)
⑤ Primary drive gear (R)
⑥ Oil filter rotor
⑦ Oil filter cap
⑧ Clutch outer complete
⑨ Clutch center
⑩ Clutch lifter joint piece
⑪ Clutch plate B
⑫ Clutch friction disc
⑬ Clutch plate
⑭ Clutch pressure plate
⑮ Clutch spring
⑯ Clutch spring retaining plate

The oil is picked up from the crankcase sump and routed through the oil passage to the oil filter where the impurities are removed by the centrifugally operating oil filter. The cleaned oil is then pressured fed through the upper crankcase to all the crankshaft bearing. The oil which enters the right and left crankcase outer rigs is separated into two routes, one is fed to the roller bearing and the other enters the crankshaft to lubricate the connecting rod large end through the holes drilled in the crankshaft journals. The connecting rod small end is lubricated by oil mist.

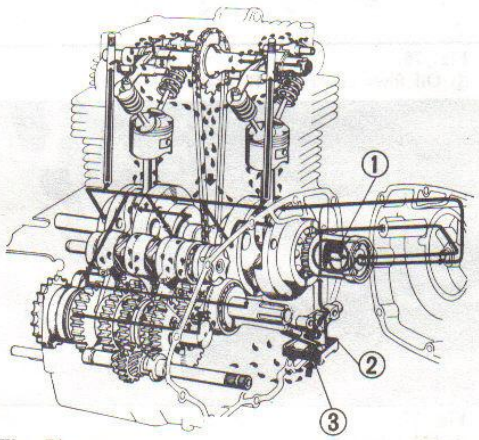


Fig. 74.
① Centrifugal oil filter ② Plunger type oil pump
③ Oil filter screen

The oil from the upper crankcase oil passage is separated into two paths, one of the paths delivers oil to the top of the cylinder head through the cylinder stud bolts. This oil is fed into the camshaft from the rocker arm and lubricated. The oil lubricates the cam chain on its way down to the sump. The other oil path feeds the oil through the oil passage in the crankcase and enters the transmission to lubricate the free gears. The other gears and bearings are lubricated by oil droplets and mists.

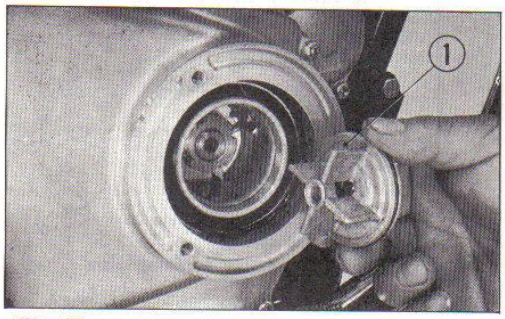


Fig. 75.
① Oil filter cap

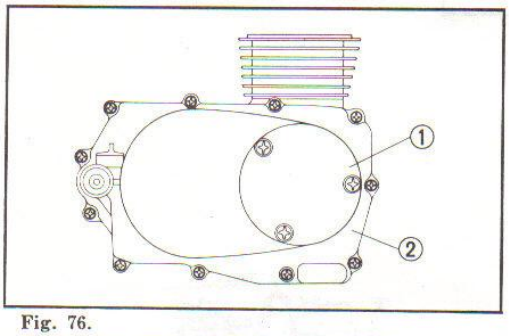


Fig. 76.
① Oil filter cover ② R. crankcase cover

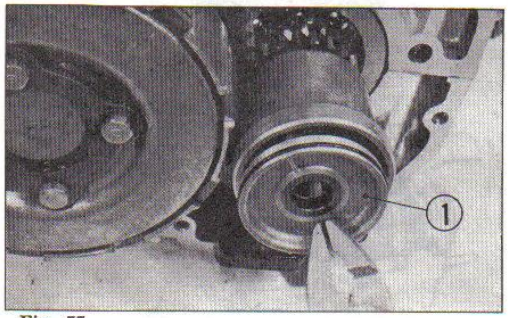


Fig. 77.
① Oil filter cap

The engine on the frame, the following works can be performed.

- Unscrew three flat head 6 mm screws to remove the oil filter cover and then oil filter can be removed.

- Oil pump and clutch removal.

1. Unscrew 6 mm bolt to remove the kick starter pedal.
2. Unscrew four 8 mm bolts to remove the step bar.
3. Remove the crankcase cover.

A. Disassembly

1. Unscrew ten 6 mm screws to remove the R. crankcase cover and take off the packing and dowel pin.
2. Unscrew 6 mm bolt to pull out the oil filter cap with the pliers.

3. Flatten 16 mm tongued washer with screw-driver to unlock it from the lock nut.
4. Remove the lock nut with special tool lock nut wrench. Use a wooden piece and srop to turn the gear as shown in figure.

Note :
Do not use a steel bar to prevent for scratch or damage.

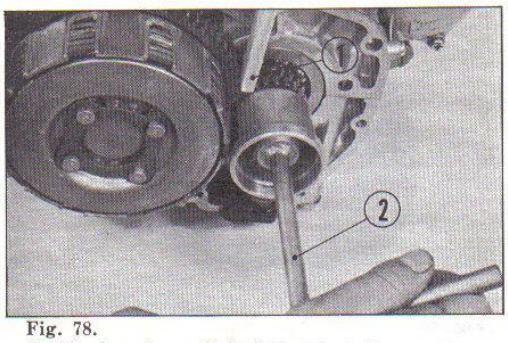


Fig. 78.
① Wooden piece ② Lock nut wrench

5. Pull out the oil filter rotor.
6. Remove the primary drive gear.
7. Unscrew four 6 mm bolts to remove the clutch lifter plate.

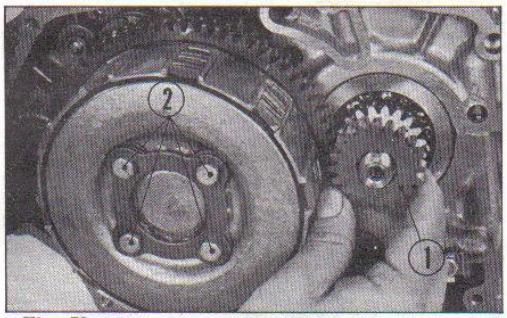


Fig. 79.
① Primarly drive gear ② 6 mm, bolts

8. Remove the 20 mm set ring to remove the clutch center with the friction disc at the same time.

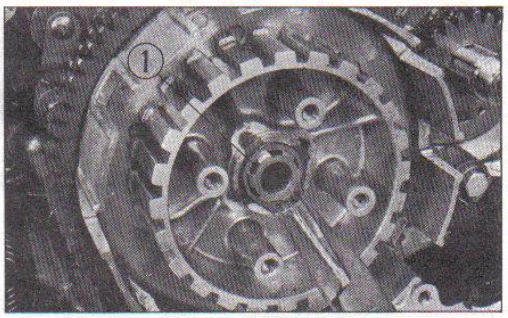


Fig. 80.
① 20 mm, set ring

9. Flatten the 6 mm oil pump mounting lock washer to remove two 6 mm bolts.
10. Remove the clutch outer and oil pump together.

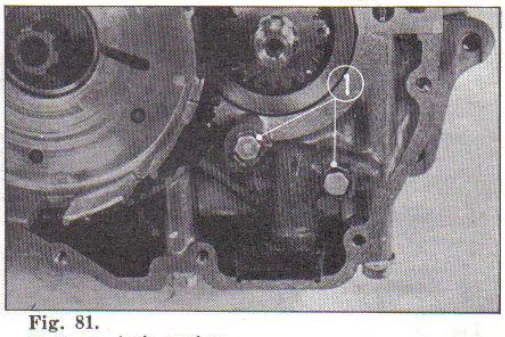


Fig. 81.
① 6 mm, lock washer

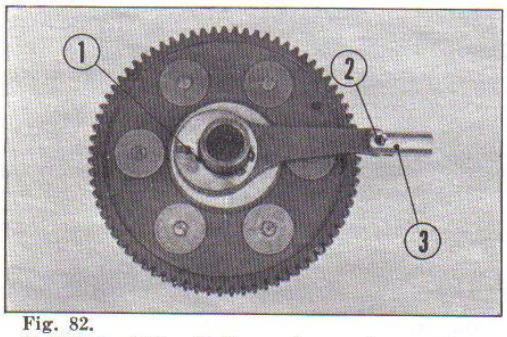


Fig. 82.
① 26 mm, circlip ② Pump plunger pin
③ Plunger

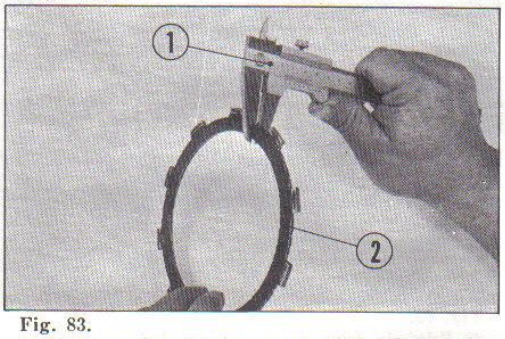


Fig. 83.
① Vernier caliper gauge ② Clutch friction disc

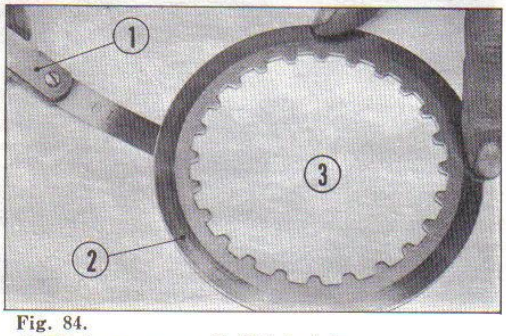


Fig. 84.
① Thickness gauge ② Clutch plate
③ Surface plate

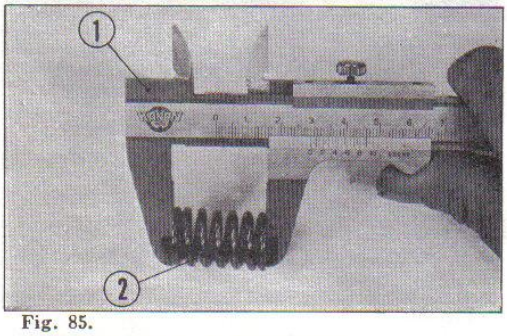


Fig. 85.
① Vernier caliper ② Clutch spring

11. Remove the 26 mm circlip and remove the pump rod installed in the clutch outer.
12. Extract the pump plunger pin and remove the plunger at the tip of the pump rod.

B. Inspection

1. Measure the clutch friction disc thickness.

mm (in.)

Item	Standard value	Serviceable limit
Thickness	3.0 (0.1181)	2.9 (0.1141)

Replace if beyond the serviceable limit.

2. Check the clutch plate for damage, wear and bending. Replace with new one if badly worn or damaged.

3. Check the warpage of the clutch plate on the surface plate using a thickness gauge.

mm (in.)

Item	Standard value	Service plate
Warpage	0.15 (0.0059)	0.35 (0.0120)

Replace if beyond the serviceable limit.

4. Measure the free length of the clutch spring.

mm (in.)

Item	Standard value	Serviceable limit
Free length	35.5 (1.3976)	34.2 (1.3465)

5. Check the clearance between the clutch center and main shaft.

6. Measure the clearance between the oil pump rod and clutch outer.

mm (in.)

Item	Standard value	Serviceable limit
Clearance between pump rod and clutch outer	0.025–0.075 (0.0009–0/0029)	0.15 (0.0059)
Clearance between pump rod and plunger	0.030–0.063 (0.0011–0.0024)	0.15 (0.0059)

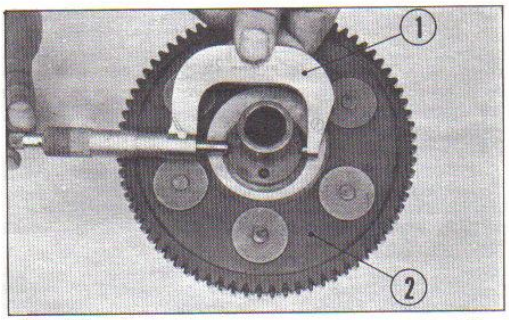


Fig. 86.
① Micrometer ② Clutch outer

7. Measure the backlash of primary gear.

mm (in.)

Item	Standard value	Serviceable limit
Backlash	0.023–0.070 (0.0009–0.0027)	0.12 (0.0047)

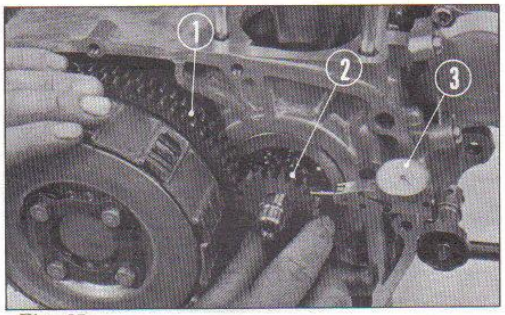


Fig. 87.
① Primary driven gear ② Primary drive gear
③ Dial gauge

8. Proper operation of the oil pump can be checked by loosening the left rear cylinder head cap nut. (Fig. 88) If oil seeps out, the lubrication is normal. Check the following points if there is absence of oil.
   - Loosen oil pump mounting bolts.
   - Broken gaskets.
   - Excessive clearance of plunger.
   - Scratch of the steel ball valve.
   - Clogged oil pump filter.

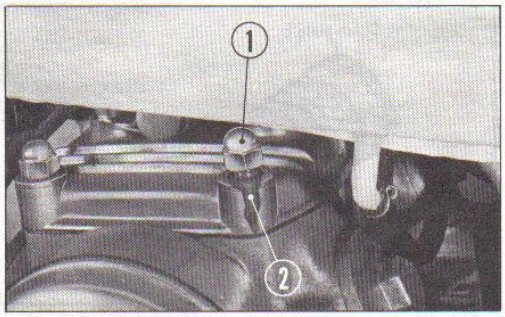


Fig. 88.
① 8 mm, cap nut ② Oil seepage

C. Reassembly

1. Install the primary drive gear.
2. Install the clutch outer and oil pump together. Do not forget to install the oil pump and packing.

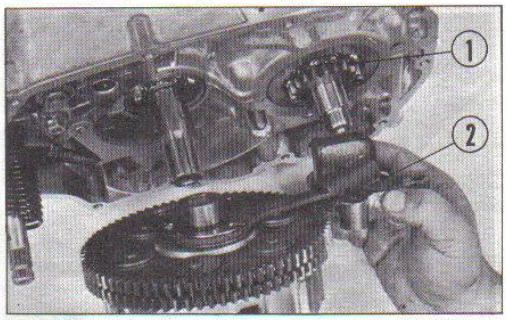


Fig. 89.
① Primary drive gear ② Oil pump packing

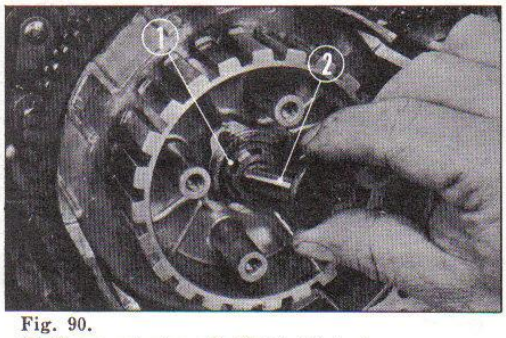


Fig. 90.
① 20 mm, set ring ② Clutch joint piece

3. Install the clutch center and 20 mm set ring.
4. Insert the clutch joint piece.

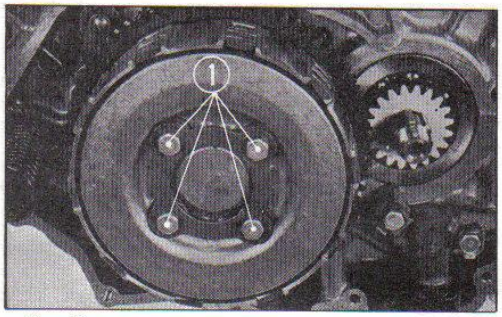


Fig. 91.
① 6 mm, bolt

5. Assemble the clutch friction discs and clutch plates on the clutch center and set the clutch pressure plate after aligning the splines.
   Note :
   Do not install the clutch plates B in the revearse side.
6. Install the clutch springs and tighten them with 6 mm bolt each.

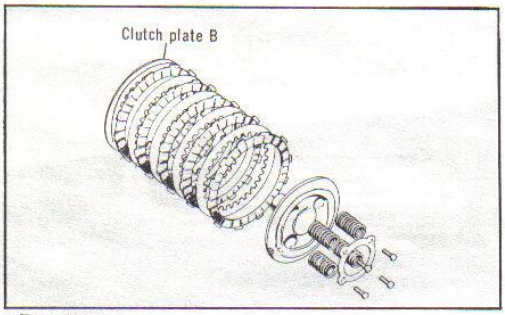


Fig. 92.

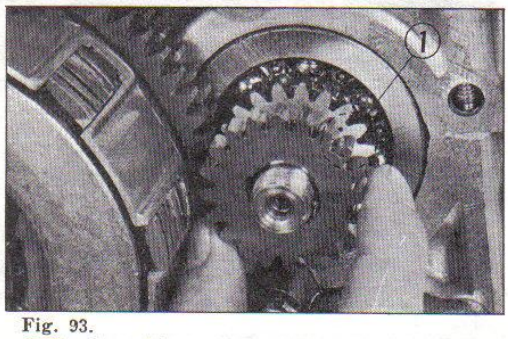
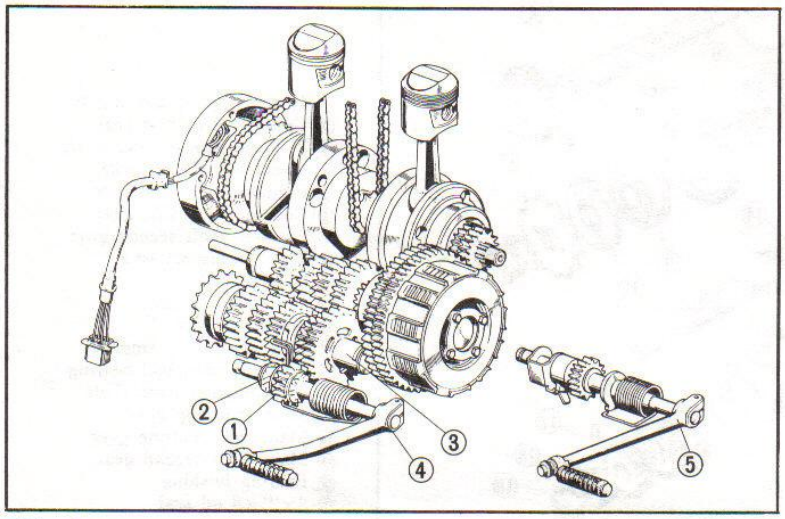


Fig. 93.
① Ponch marking

7. Before installing the primary drive gears, align the ponch markings on gears.
   Torque to 6.5–8.0 kg-m (47.057.8 kg-m)
8. Assemble the oil filter.

7. TRANSMISSION AND KICK STARTER

The CB175, CL175 and SL175 utilize a five speed gear transmission. The CB175 and CL175 provide the thread type kick starter and the SL175 provides the ratchet type starter.



① Kick starter pinion
② Counter shaft first
③ Counter shaft
④ Thread type for CB175 and CL175
⑤ Rachet type for SL175

Fig. 94.

A. Disassembly

1. Remove the cylinder head, cylinder and pistons. (See page 17)
2. Remove the A.C. generator and starting clutch. (See page 25)
3. Remove the oil pump, oil filter and clutch. (See page 27)
4. Remove the kick starter spring.

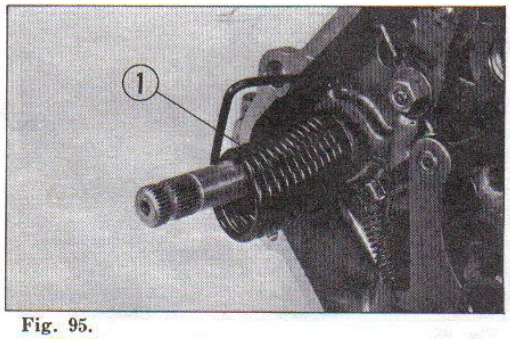


Fig. 95.
① Kick starter spring

5. Place the upper crankcase to down side.
6. Unscrew nine 6 mm and nine 8 mm under crankcase bolts.
7. Pull out the gear shift arm.
   Remove the counter shaft and main shaft.

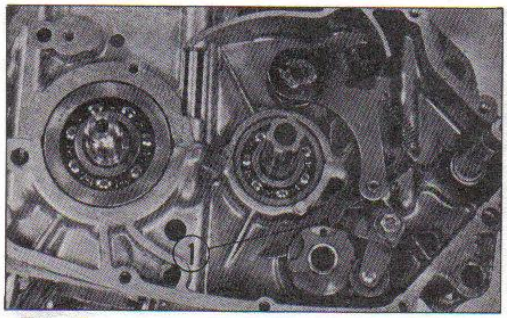
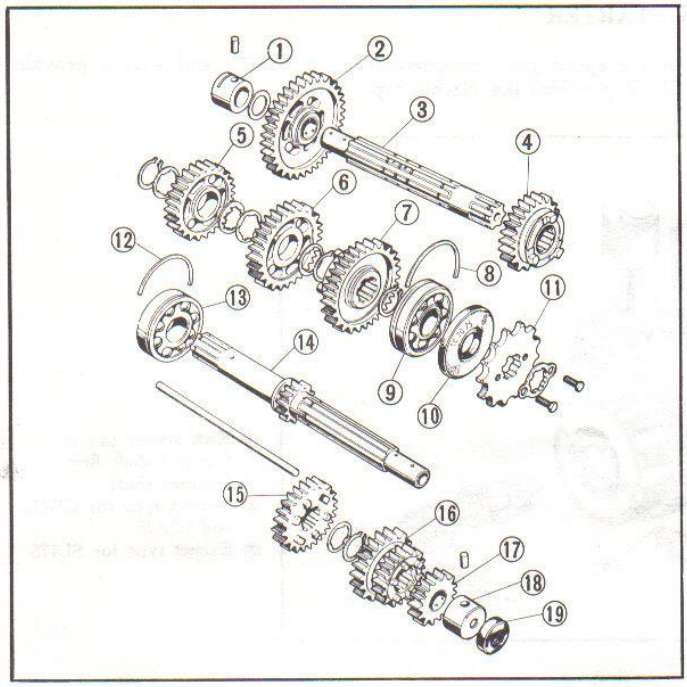


Fig. 96.
① Gear shift arm



① 16 mm bearing bushing B
② Counter shaft first gear
③ Transmission counter shaft
④ Counter shaft top gear
⑤ Counter shaft frrst gear
⑥ Counter shɐft side gear
⑦ Counter shaft second gear
⑧ Ball bearing set ring
⑨ 6304HS ball bearing
⑩ 20×52×9 oil seal
⑪ Drive sprocket
⑫ Ball bearing set ring A
⑬ 6304HS radial ball bearing
⑭ Transmission main shaft
⑮ Main shaft top gear
⑯ Main shaft shifting gear
⑰ Main shaft second gear
⑱ Bearing bushing
⑲ 8×25×8 oil seal

Fig. 97.

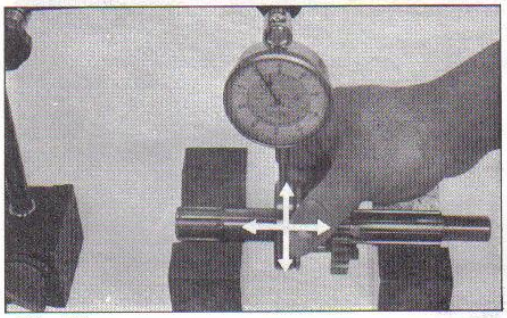


Fig. 98.

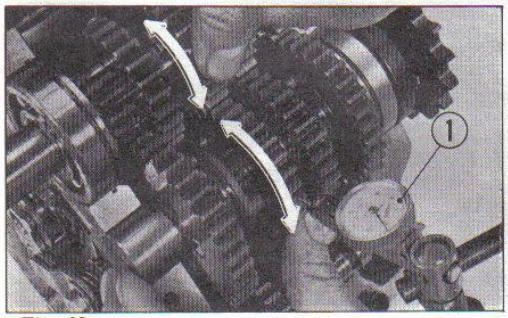


Fig. 99.
① Dial gauge

B. Inspection

1. Measure the bearing clearances on the main shaft and counter shaft.

mm (in.)

Item	Standard value	Serviceable limit
Axial clearance	0.05 (0.0020)	0.1 (0.0040)
Radial clearance	0.01–0.025 (0.0004–0.0010)	0.05 (0.0020)

2. Measure the backlash of each gear using a dial gauge.

mm (in.)

Item	Standard value	Serviceable limit
Backlash	0.045–0.16 (0.0017–0.0062)	0.2 (0.0787)

C. Reassembly

1. Assemble the main shaft and counter shaft onto the upper crankcase while positioning the ball bearing and gear shift fork guide pin to the shaft bearing.

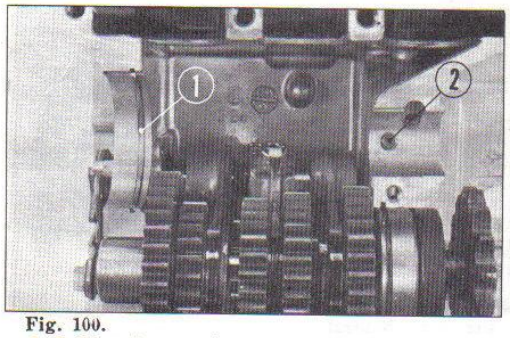


Fig. 100.
① Ball bearing set ring
② Gear shift fork guide pin

2. Assemble the kick starter spindle.

   Note :
   Hook the friction spring end into the groove on the upper crankcase.

3. Fit the main shaft and counter shaft onto the upper case, and check to see the operation in the neutral position.

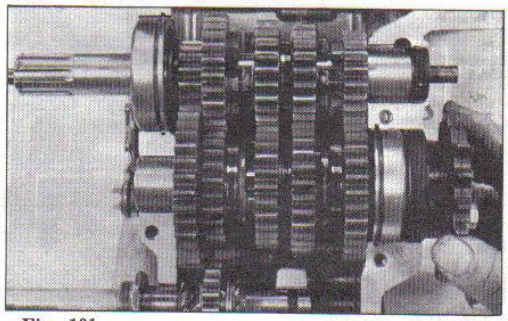


Fig. 101.

4. Apply the adhesive onto the matching surface of lower crankcase.

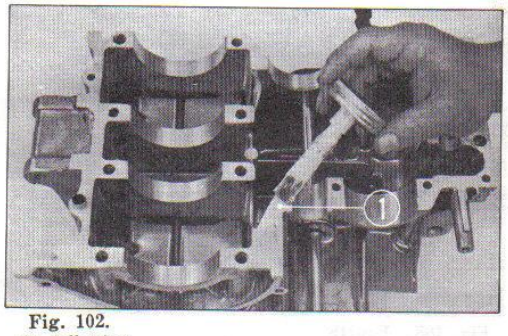


Fig. 102.
① Adhesive

5. Attach the starting motor cable clamp to the crankcase and carefully tighten the crankcase mounting bolts.

   Tightening torque :
   8 mm, bolt 1.6–2.1 kg-cm (11.5–12.2 lb-ft)
   6 mm, bolt 0.8–0.9 kg-cm (5.8–6.5 lb-ft)

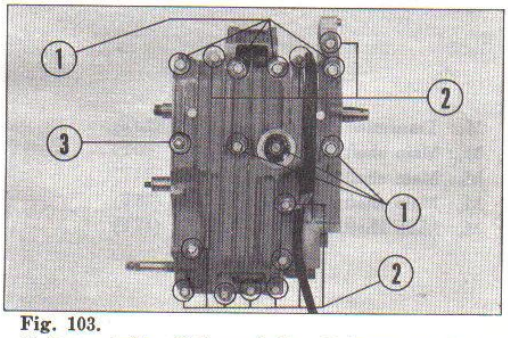


Fig. 103.
① 6 mm, bolts ② 8 mm, bolts ③ 8 mm, cap nut

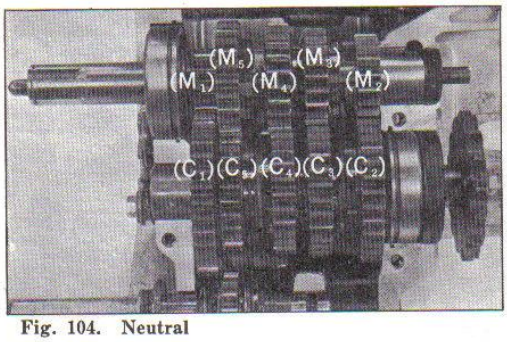


Fig. 104. Neutral

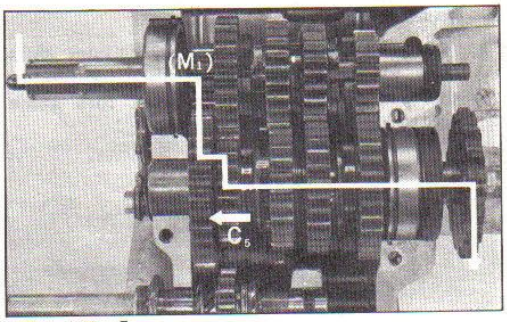


Fig. 105. Low

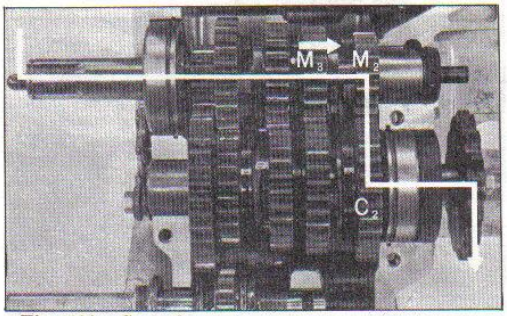


Fig. 106. Second

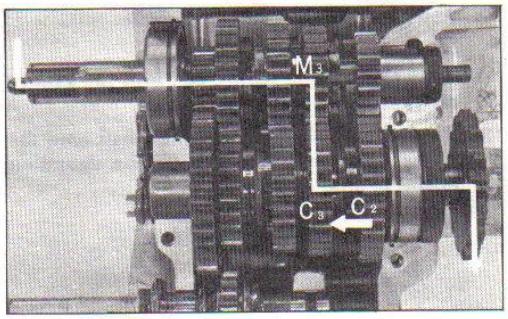


Fig. 107. Third

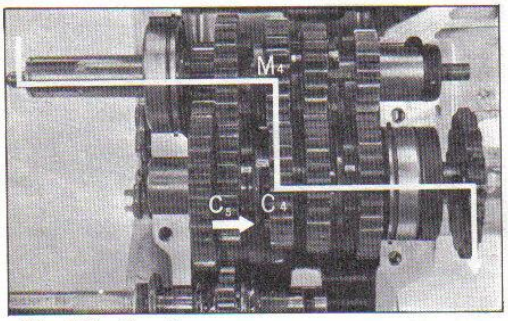


Fig. 108. Fourth

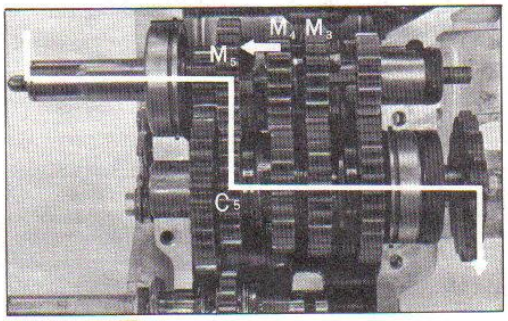


Fig. 109. Top

M_1 : Transmission low gear	(13T)	C_1 : Counter shaft low gear	(36T)
M_2 : Main shaft second gear	(20T)	C_2 : Counter shaft second gear	(29T)
M_3 : Main shaft third gear	(23T)	C_3 : Counter shaft third gear	(27T)
M_4 : Main shaft fourth gear	(25T)	C_4 : Counter shaft fourth gear	(25T)
M_5 : Main shaft top gear	(17T)	C_5 : Counter shaft top gear	(32T)

8. GEAR SHIFT MECHANISM

The gear shift mechanism consists of gear shift plate, three gear shift forks, gear shift drum, gear shift cam and gear shift drum stopper. When the gear shift pedal is depressed, the gear shift spindle is rotated and the gear shift pawl on the end of the gear shift arm engages with the gear shift pin on the right side of the gear shift drum and causes it to turn.

A groove machined on the surface of the drum is forming a cam, and the drum is rotated, the shift fork riding in the groove is actuated by the contour of the groove to perform the gear shifting.

Further, a gear shift return spring brings the pedal back to the original position and prepares for the next gear operating.

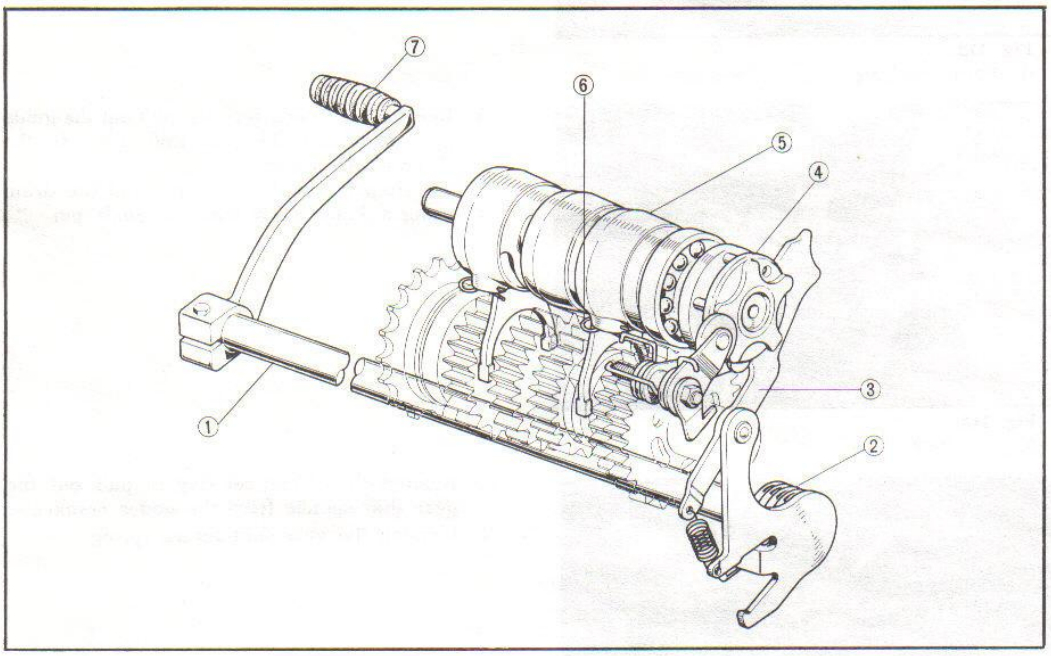


Fig. 110.
① Gear shift spindle ② Gear shift return spring ③ Gear shift arm part ④ Gear shift drum pin part
⑤ Gear shift fork ⑥ Gear shift guide pin clip ⑦ Change pedal

A. Disassembly

1. Remove the cylinder head, cylinder and piston. (See page 17)
2. Remove the A.C. generator and strating clutch. (See page 25)
3. Remove the oil pum, oil filter and clutch. (See page 27)
4. Disassemble the transmission gear and remove the kick starter spindle. (See page 33)
5. Remove the neutral switch rotor on the right side of the gear shift drum and remove the stator.

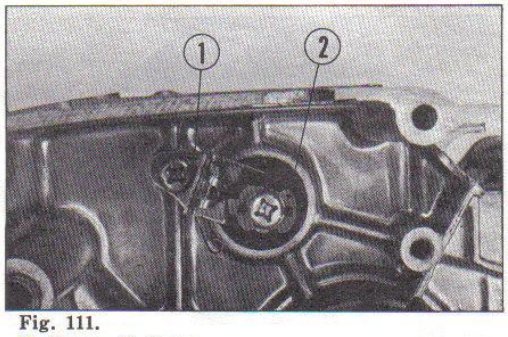


Fig. 111.
① Stator ② Rotor

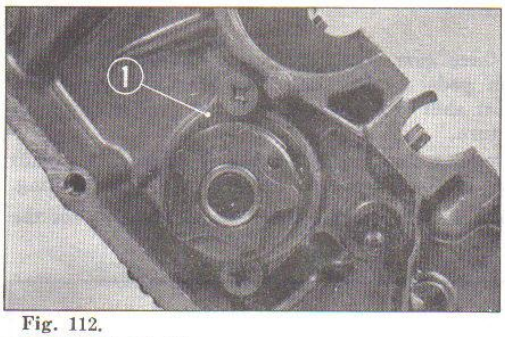


Fig. 112.
① Bearing set plate

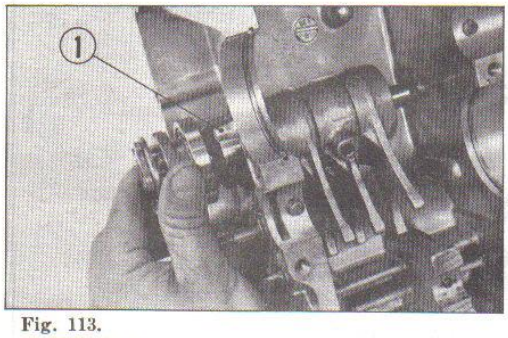


Fig. 113.
① Shift drum

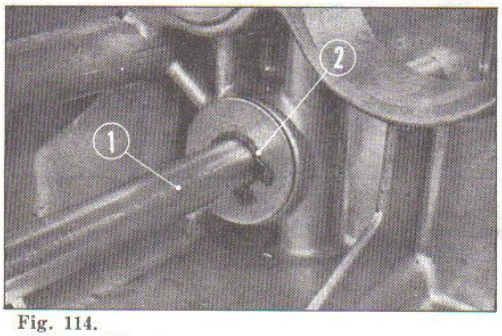


Fig. 114.
① Gear shift spindle ② 12 mm, set ring

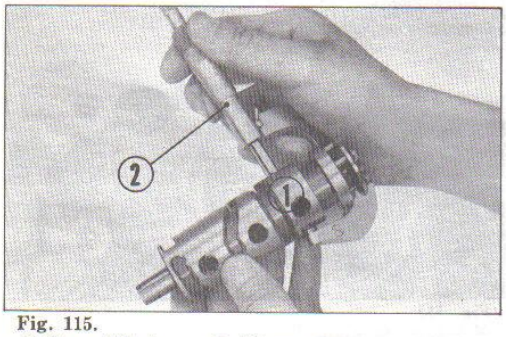


Fig. 115.
① Gear shift drum ② Micrometer

6. Unscrew 6 mm screw to remove the shift drum stopper plate.
7. Pull out the shift drum stopper pin.
8. Unscrew two flat head 6 mm screw to temove the bearing set plate.

9. Remove the guide pin clip, pull out the guide pin and remove the gear shift drum to the R. crankcase cover.
   To simplify tee removal, pull out the drum using a 3 mm screw with the guide pin.

10. Remove the 12 mm set ring to pull out the gear shift spindle from the under crankcase.
11. Unhook the gear shift return spring.

B. Inspection

1. Measure the gear shift drum with a micrometer and caliper pauge.

mm (in.)

Item	Standard value	Serviceable limit
Outside dia.	33.950–33.975 (1.3366–1.3376)	33.9 (1.3346)
Groove width	6.1–6.2 (0.2401–0.2440)	6.5 (0.2559)

2. Measure the gear shift fork using the cylinder gauge for inside diameter and a vernier caliper gauge for thickness.

mm (in.)

Item	Standard value	Serviceable limit
Inside diameter	34.0–34.025 (1.3386–1.3395)	34.075 (0.1341)
Thickness C_2O_3	5.36–5.44 (0.2110–0.2141)	5.0 (0.1968)
Thickness M_3–M_4		

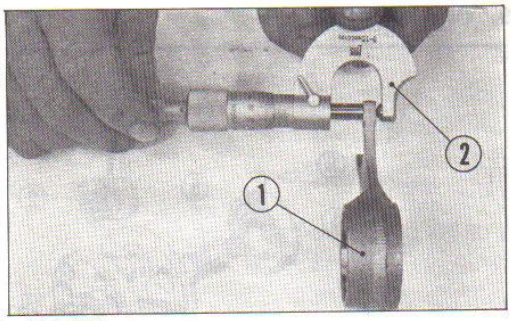


Fig. 116.
① Gear shift fork ② Micrometer

C. Disassembly

1. Insert the gear shift drum through the upper crankcase right side and install it on the crankcase. Install them in order of R.C.L. fork from the left case cover side.
   Execise care to install the center shaft fork "C" and guide pin in fitting direction. If they are not installed properly, the guide pin clip hits the gear.

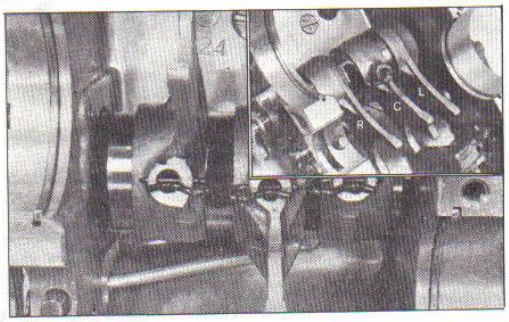


Fig. 117.

2. Reinstall the bearing set plate.
3. Reinstall the shift drum stopper.

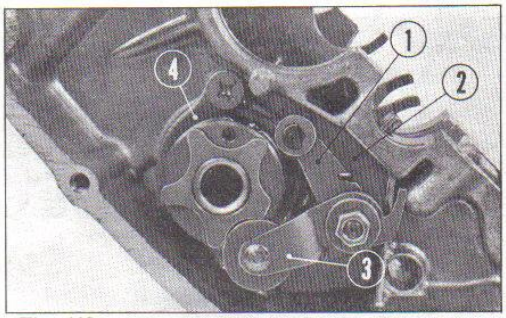


Fig. 118.
① Shift drum stopper arm ③ Shift drum stopper
② Shift drum stopper arm

4. Assemble the neutral switch rotor and stator. Make sure that the convex part of neutal rotor is inserted in the groove of gear shift drum.

5. Insert the gear shift spindle from the right side under crankcase, insert the gear shift spindle side stopper from the left side and then lock in position with 12 mm circlip.

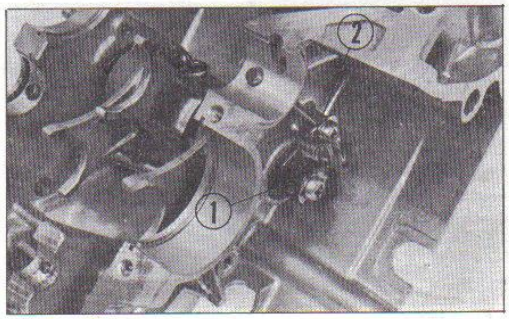
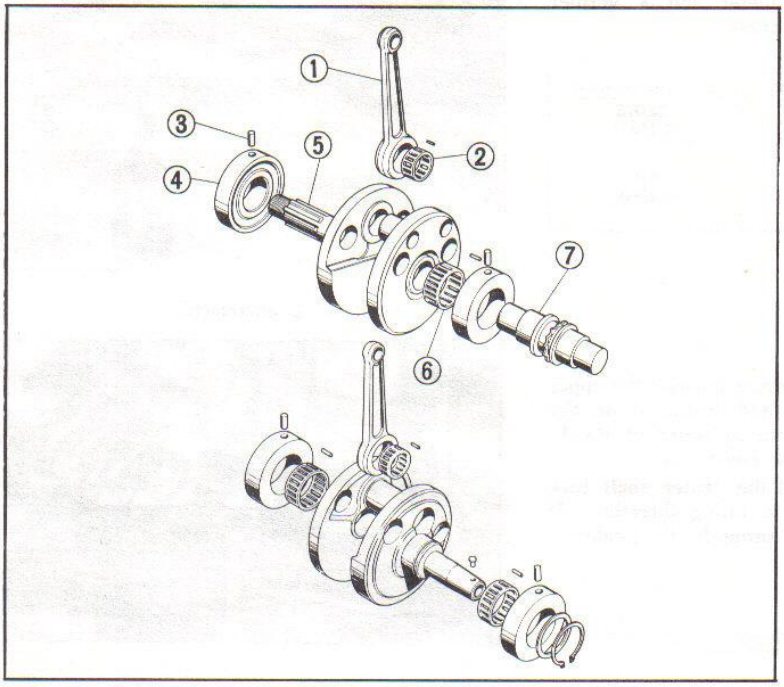


Fig. 119.
① Neutral rotor ② Neutral stator

9. CRANKSHAFT



① Connecting rod
② Connecting rod roller retainer
③ 6×12.5 knock pin
④ 6305 SHS bearing
⑤ R. crankshaft
⑥ Center bearing roller retainer
⑦ Center crankshaft

Fig. 120.

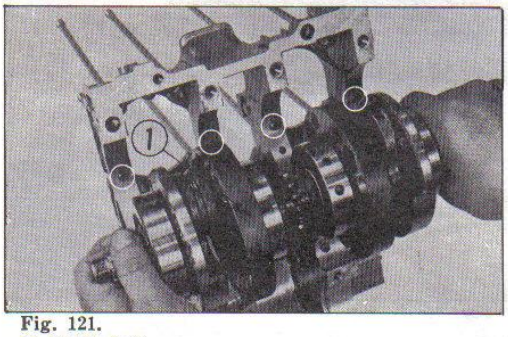


Fig. 121.
① Crankshaft

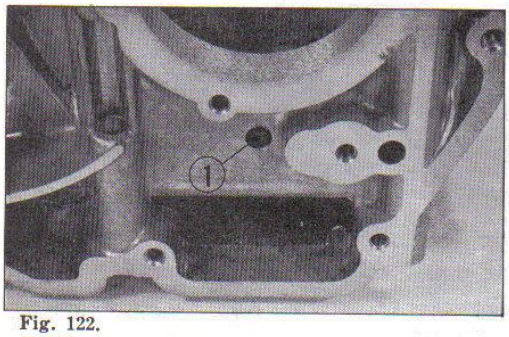


Fig. 122.
① Oil separater bar

A. Disasssembly

1. Remove the cyliner head, cylinder and pistons. (See page 17.)
2. Remove the A.C. generator and starting clutch. (See page 25.)
3. Remove the oil pump and oil filter clutch. (See page 27.)
4. Disassemble the transmission gear and remove the kick starter. (See page 33.)
5. Remove the gear shift fork. (See page 37.)
6. Remove the crankshaft.
7. Remove the oil separater bar from the lower crankcase and pull out the oil separator.

B. Inspection

1. Measure the runout of the crankshaft using a dial gauge. Support the crankshaft at bearing C and D with V block, and check the runout of A, B, E and F part
   Support R. L. bearing holder with V block and check the runout of C and D part.

mm (in.)

Item		Standard value	Serviceable limit
Amount of ruonout	A, B, E, F	0.1 (0.0039)	0.3 (0.0118)
	G, H	0.02 (0,0007)	0.15 (0.0059)

Replace the bearings or crankshaft if beyond the serviceable limit.

2. Measure the clearance of the connecting rod big end.

mm (in.)

Item	Standard value	Serviceable limit
Side clearance	0.07–0.33 (0.0027–0.0129)	0.60 (0.0236)

Replace if beyond the serviceable limit.

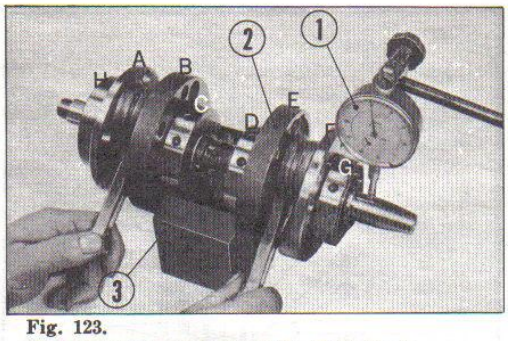


Fig. 123.
① Dial gauge ② Crankshaft ③ V block

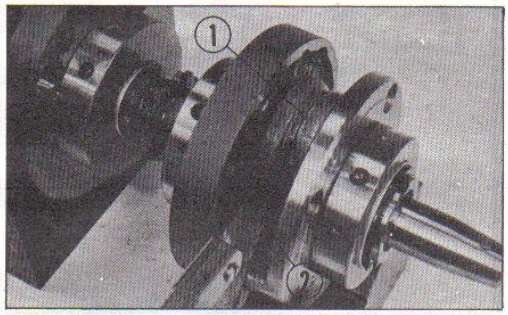


Fig. 124.
① Connecting rod ② Thickness gauge

C. Reassembly

1. When installing the crankshaft, position the knock pin hole on the crankshaft bearing to the respective knock pin on the crankcase.
2. Install the oil separator and set bar.

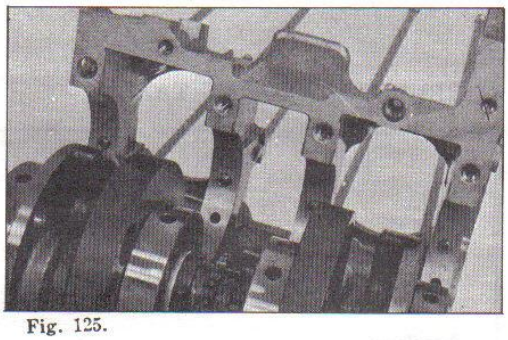


Fig. 125.

10. CARBURETOR

Float level adjustment

1. Set the carburetor on its side.
2. Raise the float lightly with the finger tip and locate the position of the float where the float arm and the float valve are either barely touching or provided with a clearance of 0.1 mm (0.003 in.)
3. In this position, the height of the float above the carburetor body should be 21 mm (0.827 in.). Carefully bend the float arm if it is necessary to adjust.

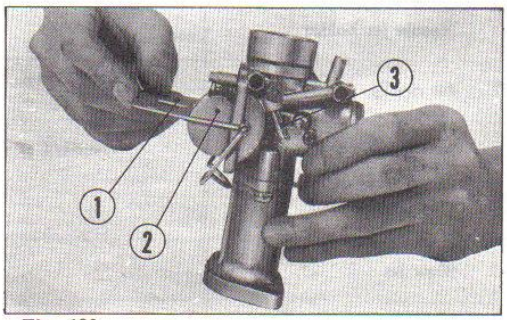


Fig. 126.
① Fuel level gauge ② Float ③ Carburetor

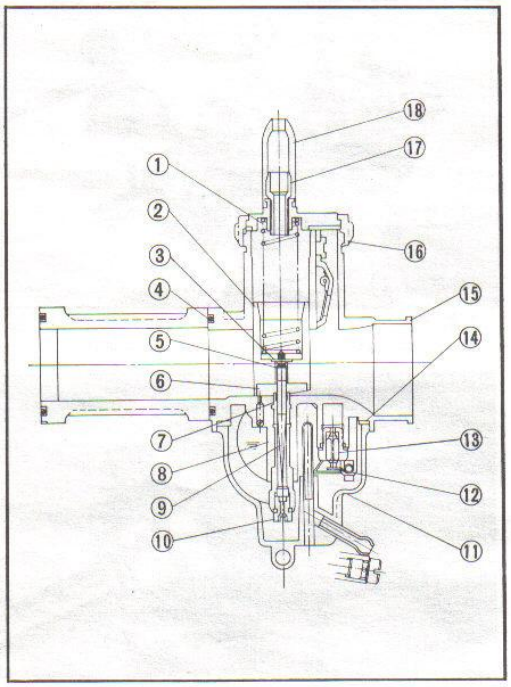


Fig. 127.

① Coil spring
② Throttle valve
③ Needle clip plate
④ O ring
⑤ Bar clip
⑥ Jet needle
⑦ Jet needle holder
⑧ Float
⑨ Main jet holder
⑩ Main jet
⑪ Float chamber body
⑫ Arm pin
⑬ Valve seat
⑭ Float chamber washer
⑮ Body
⑯ Cap
⑰ Cable adjuster
⑱ Rubber cap

CARBURETOR SETTING TABLE

Item	CB175	CL175	SL175
Main jet	# 98	# 90	# 92
Air jet	#150	#100	#150
Needle jet	2.6×3.8 dia.	2.6×3.6 dia.	2.6×3.8 dia.
Needle jet holder	2.6 inside dia.		
Jet needle	2.°30×3 step 2.525 dia.	3.°00×3 step 2.515 dia.	3.°00×2 step 2.545 dia.
Air screw	7/8±1/4	1/4±1/8	1.1/8±1/8
Throttle valve	#2.5 cutaway (1.2 width×0.2 depth)		
Slow jet	#38, 0.9 dia.×2×4		
Fuel level	21 mm		

5. CHASSIS

1. FRONT BRAKE AND FRONT WHEEL

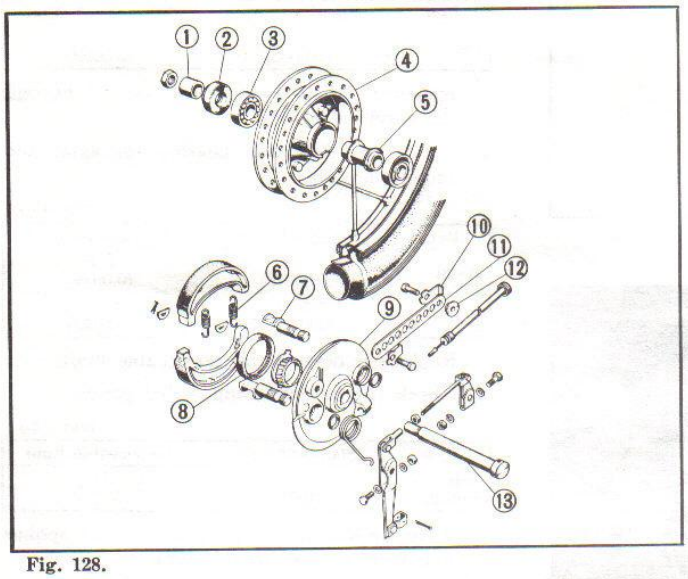


Fig. 128.

① Front wheel sie collar
② 26427 oil seal
③ 6302 R. ball bearing
④ Front wheel hub
⑤ Front axle distance collar
⑥ Front brake shoe spring
⑦ Front brake cam
⑧ 54667 oil seal
⑨ Front brake panel
⑩ 8.2 mm tongued washer
⑪ Front brake stopper arm
⑫ Front brake stopper arm collar
⑬ Front wheel axle

A. Disassembly

1. Place an appropriate stand under the engine.
2. Disconnect the front brake cable.
3. Disconnect the speedometer cable from the gear box assembly.
4. Unscrew the front brake torque bolt to separate the front brake stopper arm from the brake panel.
5. Remove the front wheel axle nut, extract the front wheel axle and then drop the wheel. Unhook two brake shoe spring and then disassemble the brake shoes from the brake panel.
6. Remove the oil seal and two 6302 ball bearings, and then pull out the front axle distance collar.

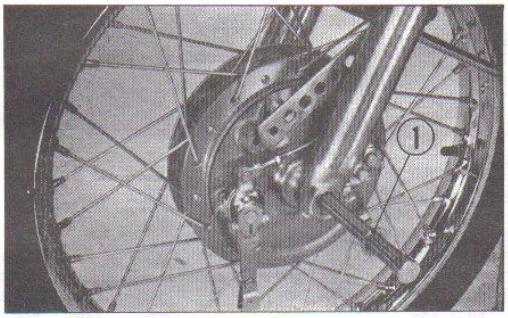


Fig. 129.
① Front wheel axle

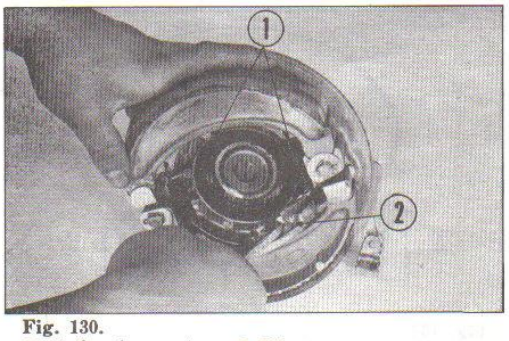


Fig. 130.
① Brake shoe spring ② Pliers

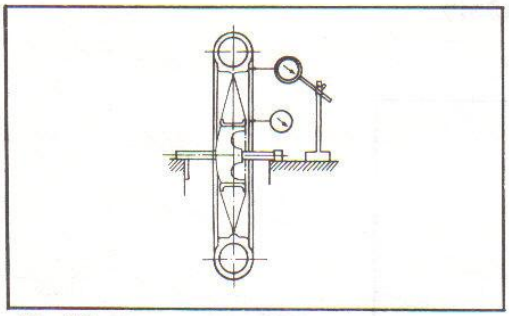


Fig. 131.

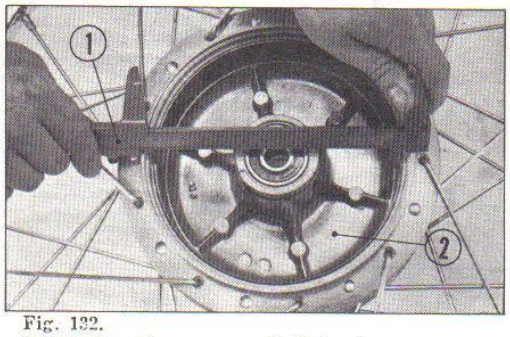


Fig. 132.
① Vernier caliper gauge ② Brake drum

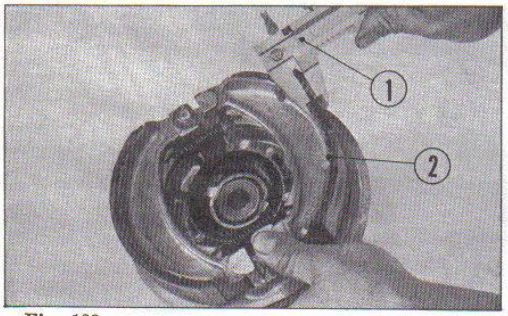


Fig. 133.
① Vernier caliper gauge ② Brake lining

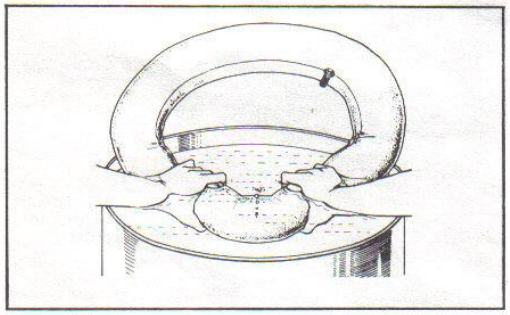


Fig. 134.

B. Inspection

1. Check the front axle for bend.

mm (in.)

Item	Standard value	Serviceable limit
Bend	0.01 (0.0003)	0.15 (0.0059)

Repair or replace with new one if beyond the serviceable limit.

2. Check the 6302 ball bearing for axial and radial clearance.

mm (in.)

Item	Standard value	Serviceable limit
Axial	0.05 (0.0019)	0.1 (0.0039)
Radial	0.002–0.007 (0.00007–0.00027)	0.05 (0.0019)

Replace if beyond the serviceable limit.

3. Check rim runout using a dial gauge.

mm (in.)

Item	Standard value	Serviceable limit
Side runout	0.5 (0.020)	3.0 (0.120)

True the wheel rim by tightening the spokes if beyond the serviceable limit.

4. Check wear of brake drum using a caliper.

mm (in.)

Item	Standard value	Serviceable limit
Inside dia. of drum	159.8–160 (6.2913–6.2992)	162 (6.3779)

5. Check wear of brake lining.

mm (in.)

Item	Standard value	Serviceable limit
Lining thickness	5 (0.1969)	4 (0.1575)

Replace if beyond the serviceable limit.

6. Check spokes for bent and damage. Straighten the bent spokes and replace the broken spokes with new one.
7. Check brake panel for buckling and other damages. If damaged, replace with new one.
8. Check oil seal for wear, buckling and damage. If damaged or worn, replace with new one.
9. Check speedometer gears for wear. If worn, replace with new one.
10. Check both the exterior and interior of tire for damage, and imbedding of nail. Replace with new one if worn or damaged.
11. Check for air leaks around the valve stem and tube. If leaking, repair or replace with new one.

C. Reassembly

1. Inflate the tube with amall amount of air and install the tire on the rim by forcing the bead of the tire on the inside of the rim.

   Note :

   - **After the tire has been installed, inflate with about 1/3 specified pressure and then tap the tire all around with wooden hammer to relieve pinching of fold.**
   - **The valve stem is in alignment with the wheel axle and then tighten the stem lock nut. Make sure there is no air leaks around the stem.**

2. Apply grease to the 6302 ball bearings and the inside of the wheel hub. Insert the distance and assemble the ball bearings into the wheel hub.

   Note :

   The ball bearings are equipped with a dust seal, therefore, make sure that it is installed in the proper direction.

   Correct tire pressure : 1.8 kg/cm² (26 psi.)

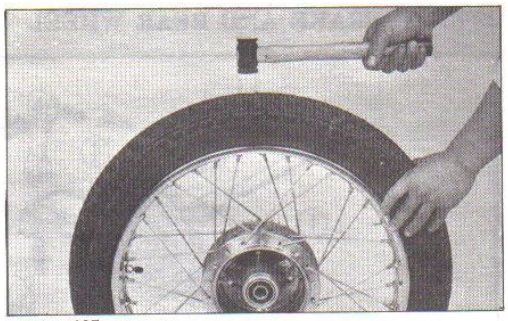


Fig. 135.

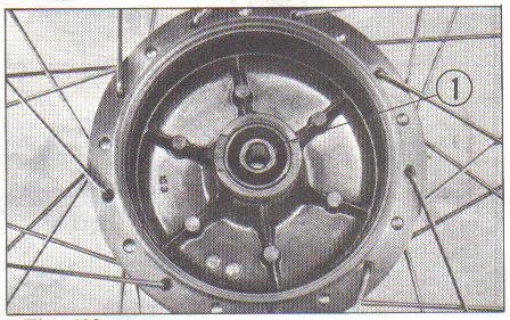


Fig. 136.
① 6302 ball bearing

3. Assemble the brake cam into the front brake panel, hook the brake shoe springs onto the brake shoes and then assemble the brake shoes on the brake panel.
4. Install the brake arm.
5. Assemble the brake panel on the front wheel hub. Install the front brake stopper arm on the brake panel. Align the recessed section of the panel to the protruding section of the front fork. Assemble the oil seal and side collar on the side of the bearing retainer and then mount it on the front axle with a nut.
6. Connect the speedometer cable.
7. Connect the front brake cable to the brake arm and adjust the play.
8. Simple adjustment can be performed with the adjuster nut of brake lever.

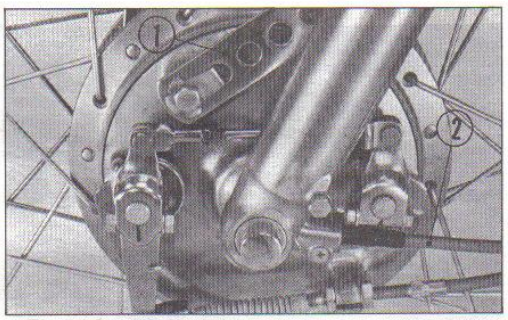


Fig. 137.
① Front brake stopper ② Speedometer cable

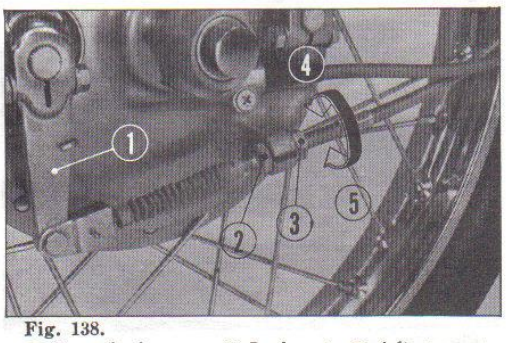
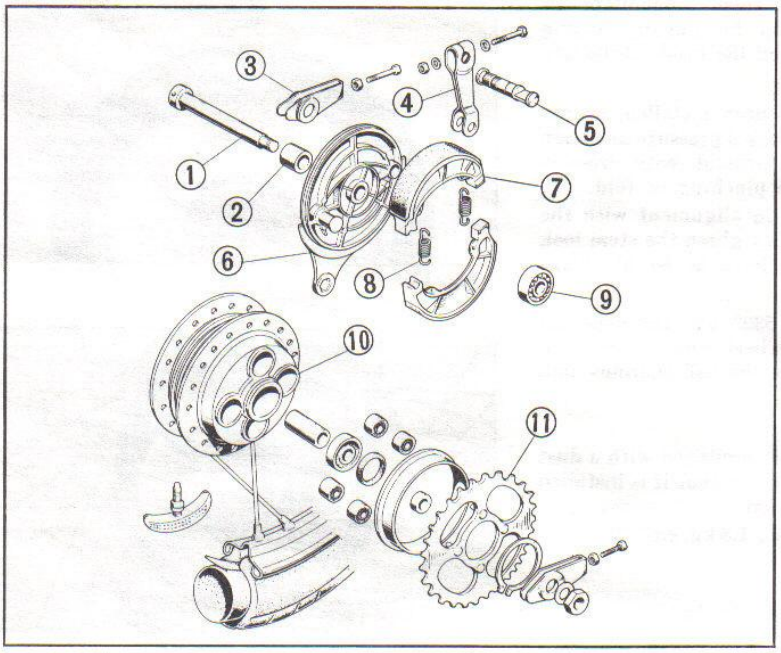


Fig. 138.
① Front brake arm ② Lock nut ③ Adjuster nut
④ Decrease ⑤ Increase

2. REAR BRAKE AND REAR WHEEL



① Rear wheel axle
② Rear brake panel side collar
③ Drive chain adjuster
④ Rear brake arm
⑤ Rear brake cam
⑥ Rear brake panel
⑦ Front brake shoe
⑧ Front brake shoe spring
⑨ 6303 ball bearing
⑩ Rear wheel hub
⑪ Final driven sprocket

Fig. 139.

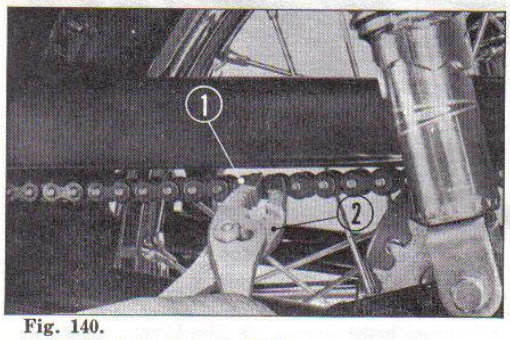


Fig. 140.
① Drive chain link ② Pliers

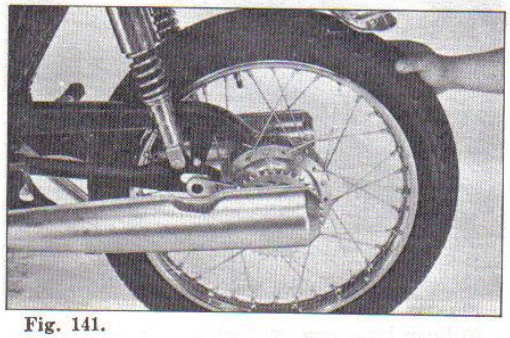


Fig. 141.

A. Disassembly

1. Place an appropriate stand under the engine.
2. Remove the rear brake rod.
3. Unfasten the drive chain link and disconnect the chain.
4. Remove the rear brake arm bolt to separate the rear brake arm from the brake panel.
5. Unscrew the axle nut and pull out the rear axle.
6. Remove the rear wheel.
7. Disassemble the brake panel from the wheel hub. Remove the brake arm from the panel, pull out the brake cam, disconnect the spring and then remove the brake shoes.
8. Straighten the tongued washer, loosen the four mounting bolts, unfasten the circlip and then remove the final driven sprocket.
9. Remove the oil seal, 6302 ZZ ball bearings and rear axle distance collar from the hub.

B. Inspection

1. Check the rear axle for bend.

mm (in.)

Item	Standard value	Serviceable limit
Bend	0.01 (0.0003)	0.2 (0.0007)

Repair the bent axle or replace with new one if beyond the serviceable limit.

2. Check the bearings for wear.

mm (in.)

Item	Standard value	Serviceable limit
Axial	0.05 (0.0019)	0.1 (0.0039)
Radial	0.002–0.007 (0.00007–0.00027)	0.005 (0.0019)

Replace if beyond the serviceable limit.

3. Check rim runout using a dial gauge.

mm (in.)

Item	Standard value	Serviceable limit
Side runout	0.5 (0.0197)	3.0 (0.0081)

True the wheel rim by tightening the spokes or replace if beyond the serviceable limit.

4. Check wear of brake drum using a caliper.

mm (in.)

Item	Standard value	Serviceable limit
Drum inside dia.	139.8–140 (5.5039–5.5118)	142 (5.5905)

Replace if beyond the serviceable limit.

5. Check wear of brake lining.

mm (in.)

Item	Standard value	Serviceable limit
Lining thickness	4.5–4.8 (0.1771–0.1889)	4.00 (0.1575)

Replace if beyond the serviceable limit.

6. Check the spokes for damage, bent and loosening. Tighten the loose spokes, straighten the bent spokes and replace the broken spokes with new one.
7. Check the brake panel for buckling and other damages. If damaged, replace with new one.
8. Check the oil seal for damage, wear and buckling. If worn or damaged, replace with new one.
9. Check the tire for damage, and imbedding of wire and nails on both exterior and interior. If damaged or worn, replace with new one.
10. Check around the valve stem and tube for air leaks. If leaking, repair or replace with new one.

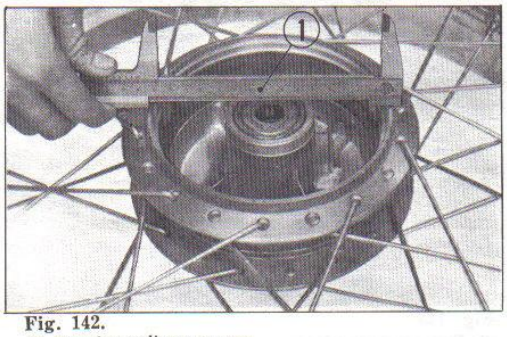


Fig. 142.
① Vernier caliper gauge

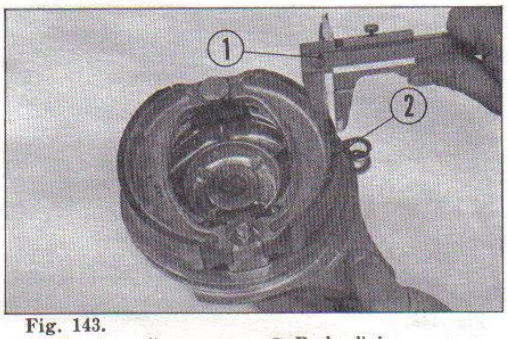


Fig. 143.
① Vernier caliper gauge ② Brake lining

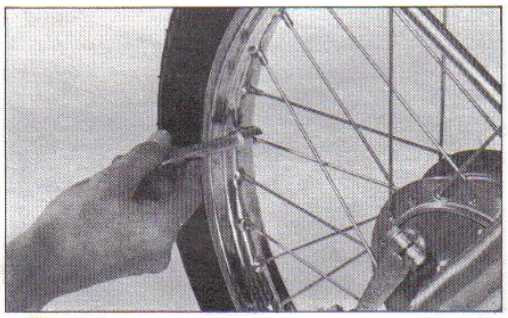


Fig. 144.

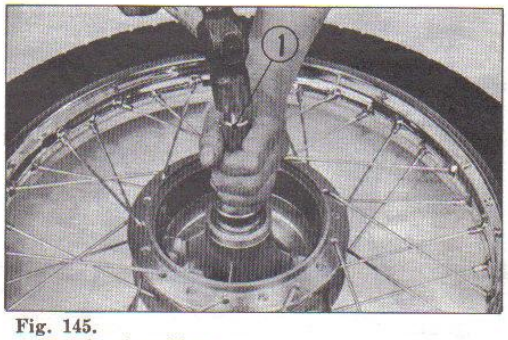


Fig. 145.
① Ball bearing driver

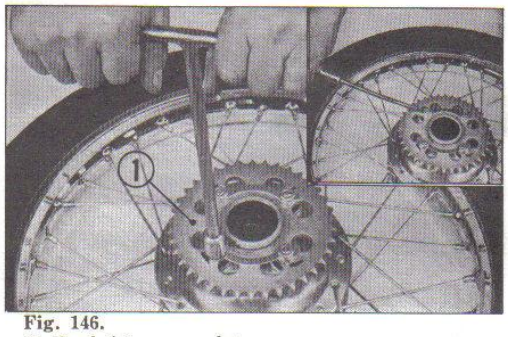


Fig. 146.
① Final driven sprocket

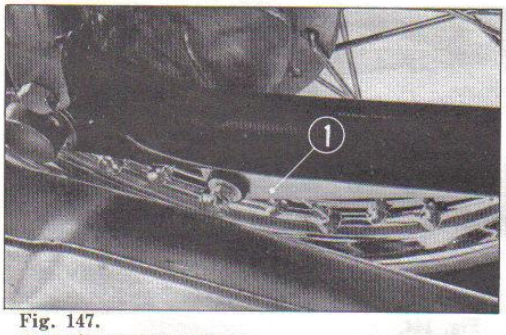


Fig. 147.
① Brake stopper arm

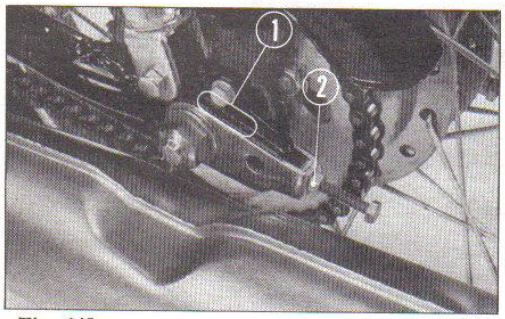


Fig. 148.
① Index mark and side scale ② Adjuster nut

C. Reassembly

1. Inflate the tube with a small amount of air and install the tire on the rim by forcing the bead of the tire on the inside of rim.

   Note :
   - **After the tire has been assembled, inflate with 1/3 specified pressure air and then tap tire all around with a wooden hammer to relieve any pinching or folds in the tube.**
   - **The valve stem is in alignment with wheel axle and tighten stem lock nut not to cause leaks around the stem.**
2. Apply grease to the 6302 ZZ ball bearings and inside of the wheel hub. Insert the distance collar and assemble the ball bearings into the wheel hub.
3. Mount the final drive sprocket on the rear wheel hub and install the tongued washers and four nuts. After tightening the nuts, bend the tab on tongued washer to lock it. Install the circlip finally.
4. Mount the brake panel with shoes on the rear wheel hub.
5. Insert the right and left side collars into side of oil seal and then install rear wheel on the rearfork with the axle.
6. Mount the rear brake stopper arm on the rear brake panel.
7. Install and connect drive chain, and after completing the adjustment, tighten the rear axle nut.

   Note :
   The cutout of chain joint link should be pointing in the opposite direction to the direction of rotation. When adjusting the chain, the chain adjuster indicator on both right and left sides should be at identical locations.
   Chain slack : 1–2 cm (2/5–3/4 in.)
   Correct tire pressure : 2.0 kg/cm² (28 psi.)

8. Connect the rear brake rod with the brake arm and then adjust the brake play.

Note :
The play in the brake pedal should be 2-3 cm (1/4-1.1/8 in.).

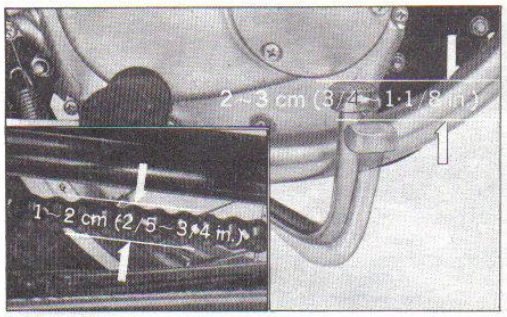


Fig. 149.

3. STEERING UNIT

A. Disassembly

1. Disconnect the front brake cable from brake lever.
2. Disconnect the clutch cable at the handle clutch lever.

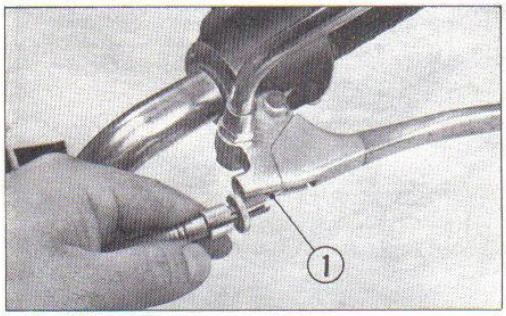


Fig. 150.
① Clutch cable

- When replacing the front brake cable, pull out a cotter pin, loosen the lock nut, turn the adjuster nut clockwise, loosen the cable and disconnect the cable end.

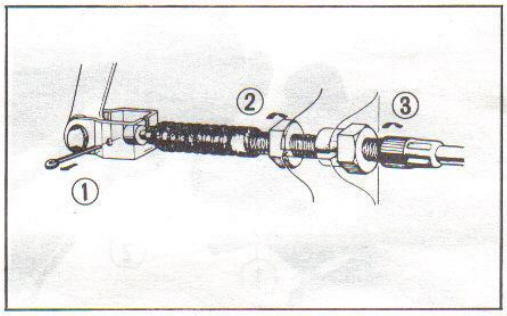


Fig. 151.
① Cotter pin ② Lock nut ③ Adjuster nut

3. Disconnect the throttle cable from the throttle grip.
4. Remove the headlight and disconnect the wire harness in the head light case.

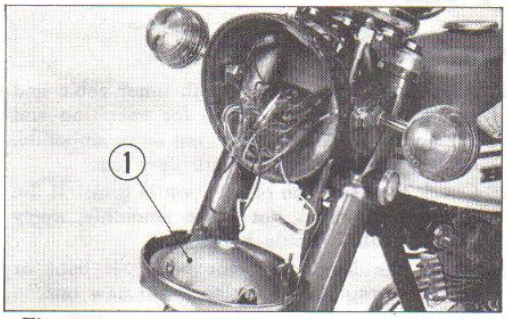


Fig. 152.
① Headlight

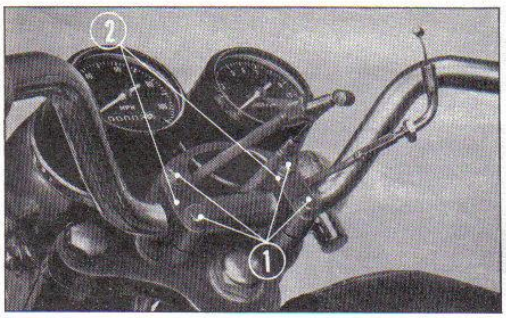


Fig. 153.
① 8 mm, bolts ② Handlebar upper holder

5. Unscrew four 8 mm bolts to remove the handlebar upper holder and handlebar.
6. Remove the front wheel.
7. Unscrew two 12 mm bolts to remove the headlight case. Unscrew four 6 mm bolts to remove the front fender.

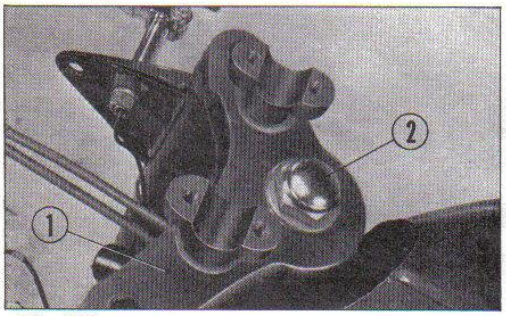


Fig. 154.
① Fork top bridge ② Steering stem nut

8. Remove the fork bolt, loosen four 14mm fork mounting bolts on the steering stem and then drop front fork out the bottom.
9. Loosen the steering stem nut and remove the fork top bridge.

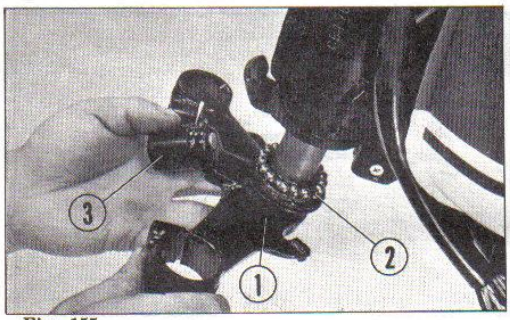


Fig. 155.
① Steering stem ② 6 mm dia., steel ball
③ Handle lock

10. Loosen the steering head top nut and then drop the steering stem out the bottom.
When removing the steering stem, exercise care not to drop and lose the 6 mm dia. steel balls (18 pcs. each).
11. Remove the bolts and separate the handle lock from steering stem. Insert the engine key into the lock, turn counterclockwise and remove the lock piston.

B. Inspection

1. Check the condition of both inner cable and casing of the control cables for operation and damages. If the cable does not move smoothly, apply grease or replace with new one.
2. Check the operation of the throttle grip. If the throttle grip does not move smoothly, apply grease to the throttle hinge.
3. Check the handle bar for bend. If bent or twisted, straghten or replace with new one.
4. Inspect the steel balls for wear or cracks. If worn or damaged, replace with new one.
5. Inspect the steering top cone, bottom cone and other ball races for wear. If worn, replace the cones, races and steel balls together.
6. Inspect the steering head dust seal for wear and damage. If worn or damaged, replace with new one.
7. Check the steering stem for bend and twist. If bent or damaged, repair or replace with new one.
8. Inspect the thread for damage and deformation. If damaged, replace with new one.
9. Check the action of the handle lock spring. If it does not act properly, replace with new one.

C. Reassembly

1. Mount the handle lock on the steering stem.
2. Apply grease on the ball races, set the steel balls on ball races, insert the steering stem into the steering head of frame, mount the top cone race and tighten the head top nut with special tool.

Note :

Wash the cone race, ball race and steel balls with solvent and apply grease on their friction surfaces. When assembling parts, execise care not to drop the steel balls.

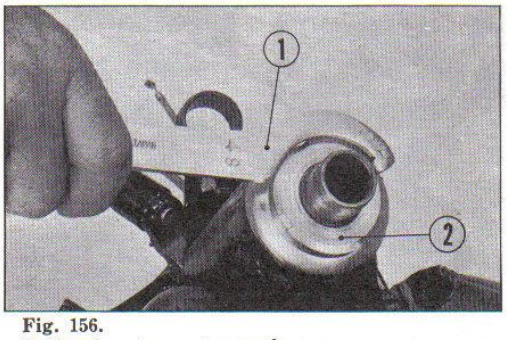


Fig. 156.
① Steering stem nut wrench
② Steering head top nut

Note :

Before completely torquing the steering head top nut, first assemble the fork top bridge, front fork, headlight case, front fender and the front wheel in that order; tighten the top nut so that the steering handle is neither too tight nor too loose when it is moved fully to the right and left.

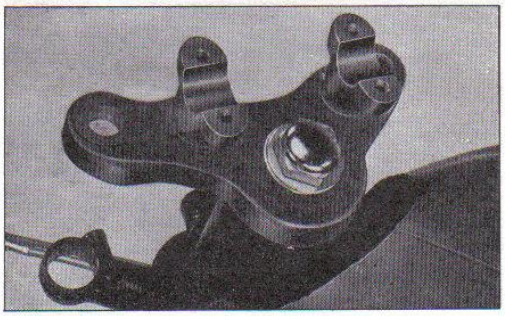


Fig. 157.

3. Install the fork top bridge, front fork and wheel.
4. Connect the throttle, clutch and front brake cables.
5. Route the control cables and wire harnesses through their respective positions and then install the steering handle bar.

Note :

Make sure that the cables and harnesses are not binding when the steering handle is moved fully to both sides.

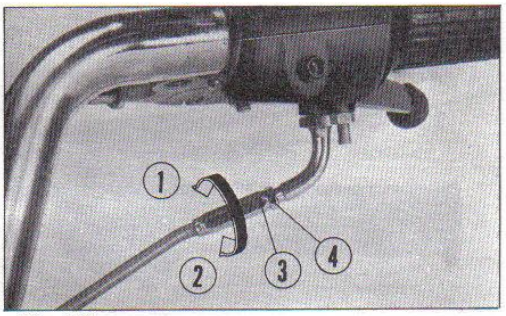


Fig. 158.
① Decrease ② Increase ③ Adjuster nut
④ Lock nut

6. Connect the wire harnesses.
7. Adjust the play in all the cables.
   - When adjusting the throttle cable, loosen the lock nut and turn the adjuster nut shown in Fig. 158, and adjust the play in the throttle cable.

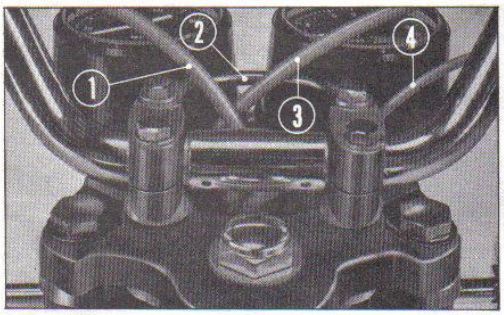


Fig. 159.
① Clutch cable ② Cable holder ③ Brake cable
④ Throttle cabel

- From the handle bar side, route the clutch cable, throttle cable in that order.
- When routing the cables, execise care not to make scratch on the headlight case and head pipe of frame.

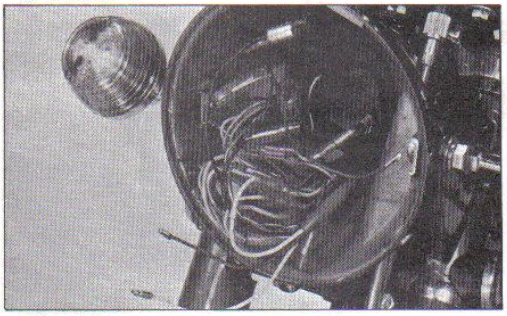


Fig. 160.

Reconnect wire harness with same colour wire harness within the headlight case.

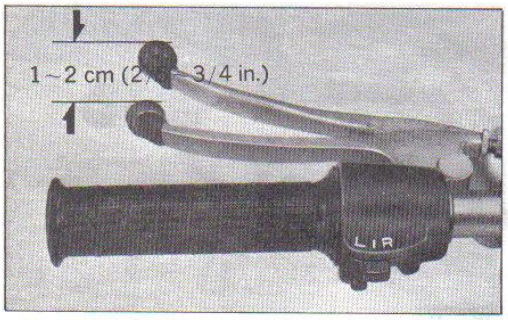


Fig. 161.

Throttle cable
(**twist grip to full travel**) **90°–100°**
(**play**) **10°– 15°**
Front brake cable
(**at end of lever**) **2–3 cm (3/4–1 1/8 in.)**
Clutch cable
(**at end of lever**) **1–2 cm (2/5–3/4 in.)**

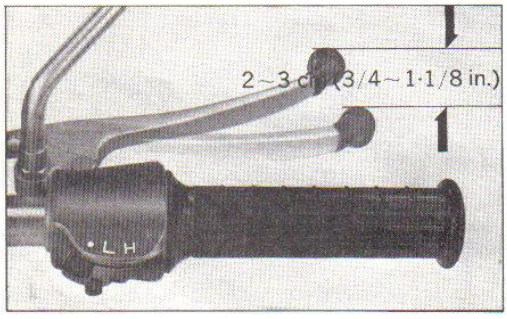


Fig. 162.

4. FRONT SUSPENSION

CB175, CL175 SL175

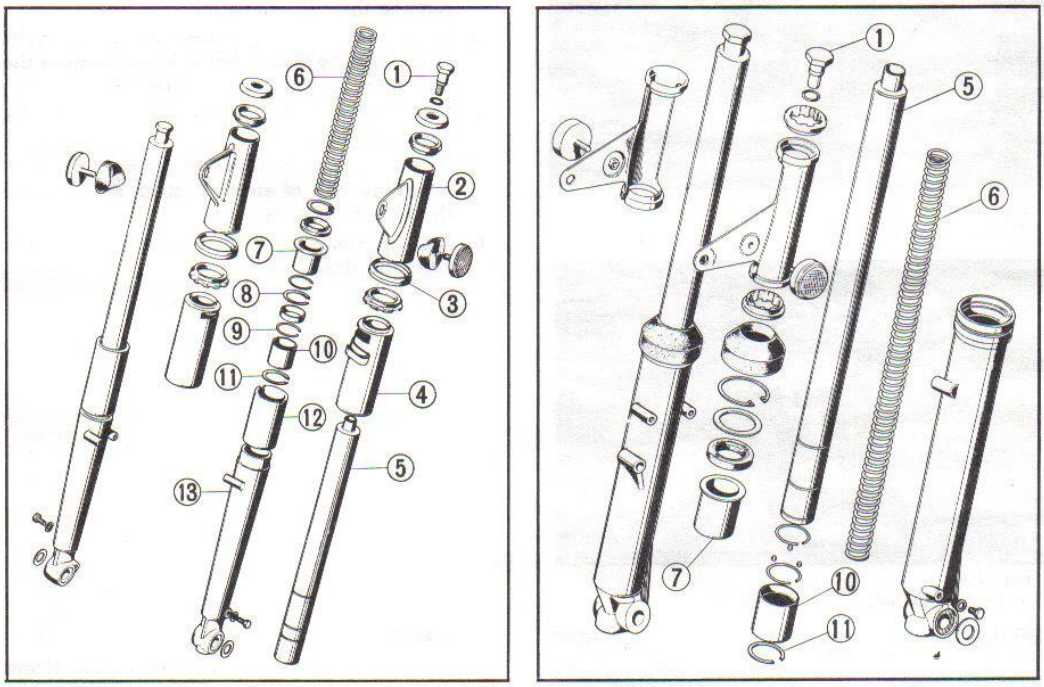


Fig. 163.
① Front fork bolt ② L. front fork upper ③ Front fork rib ④ L. front fork under cover
⑤ Front fork pipe complete ⑥ Front fork spring ⑦ Front fork pipe guide ⑧ Front fork valve stopper
⑨ Piston stopper ring ⑩ Front fork piston ⑪ Front fork piston circlip ⑫ Front fork upper cover cap
⑬ Front fork bottom case.

A. Construction

It is of a telescopic type with bottom case of alluminium alloy to reduce unspring weight. The long stroke provides good stability and handling on rough road.

The oil damper is filled with SAE 10W-30.

mm (in.)

Item	CB175, CL175	SL175
Stroke	100 (3.936)	150 (5.905)

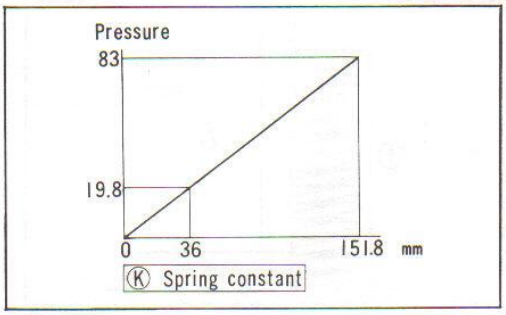


Fig. 164.
Front fork spring characteristic

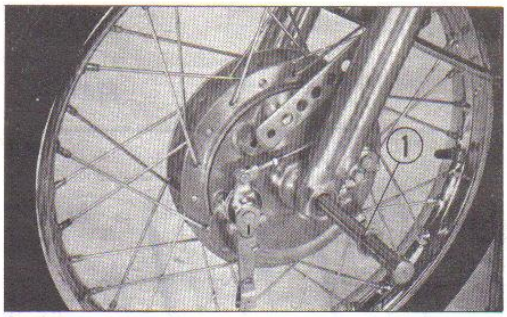


Fig. 165.
① Front wheel axle

Fig. 166.
① Front fork bolt

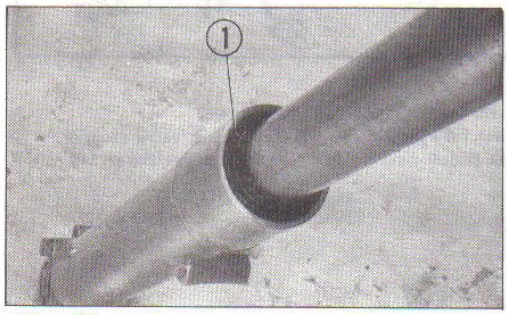


Fig. 167.
① 41 mm, circlip

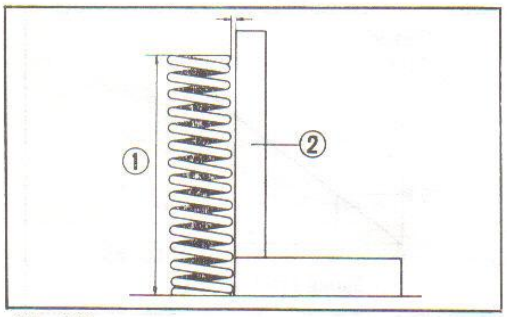


Fig. 168.
① Free length ② Square

B. Disassembly

1. Remove the front wheel. (See page 43)
2. Remove the headlight case, disconnect the turn signal connector within the case and remove the turn signal.
3. Loosen the headlight case mounting bolts from both right and left side and remove the case from the fork upper case.
4. Unscrew four bolts to remove the front fender from the fork.
5. Remove the front fork bolt, loosen the fork mounting bolt of steering stem and remove the fork to bottom.
6. Loosen 6 mm oil drain plug from the bottom case and drain oil.
7. **(CB175)**
   Remove the front fork under cover and 41 mm circlip and then disassemble the fork bottom case.
   (CL175, SL175)
   Remove the front fork boot and 41 mm circlip and then disassemble the fork bottom case.

C. Inspection

1. Measure the front fork spring.

mm (in.)

Item	Standard value	Serviceable limit
Free length	409.3 (16.114)	376 (14.803)

Check the spring for tilt.

Item	Standard value	Serviceable limit
Tilt	5 (0.1968)	8 (0.3149)

2. Check wear of front fork piston.

Item	Standard value	Serviceable limit
Outside dia.	35.425–45.450 (1.3946–1.3955)	35.400 (1.3937)

Replace if beyond the serviceable limit.

3. Check the front fork oil seal for damage. If damaged, replace with new one.
4. Check the front fork bottom case and fork pipe for bend or crack. If badle damaged, replace with new.

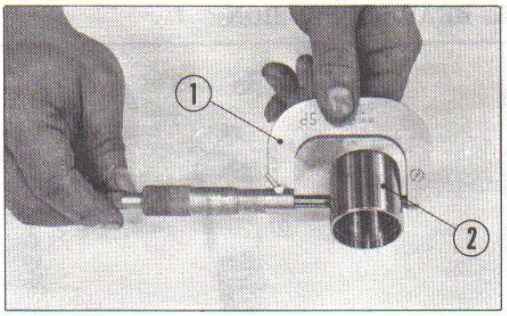


Fig. 169.
① Micrometer ② Front fork piston

D. Reassembly

1. Assemble the piston stopper and piston on the front fork pipe.
2. Fill the front fork bottom case with SAE 10W–30.

   CB175, CL175 : 135–145cc (4.5–4.8ozs.)
   SL175 : 175–185cc (5.8–6.2ozs.)
3. Insert the front fork pipe assembly into the bottom case, install the oil seal and circlip, and assemble the front fork spring into the fork pipe so that the end with the large pitch is at the bottom.
4. Attach the headlight case stay between the fork top brodge and steering stem and install the front fork as a unit. Tighten the front fork mounting bolts.

   (**CB175**)

   Attach the front fork upper and lower covers and install the front fork as a unit. Tighten the front fork bolts and mounting bolts.

   (**CL175, SL175**)

   Attach the front fork upper cover and fork boots, and install the front fork as a unit. Tighten the front fork bolts and mounting bolts.
5. Install the headlight case and front fender. After reassembling, lift up the steering and compress the front fork and make sure there are no noise from fork inside. If any, disassemble front forks and inspect all parts, replace defective parts with new items. After reassembling, check both for mounting position vertically.

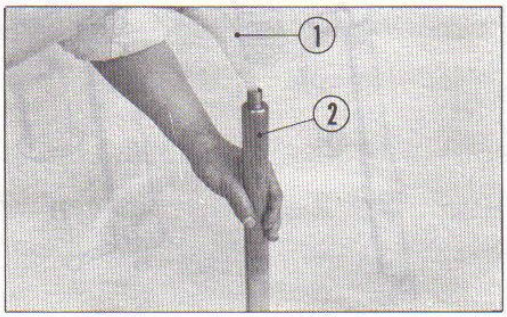


Fig. 170.
① Oiler ② Front fork pipe

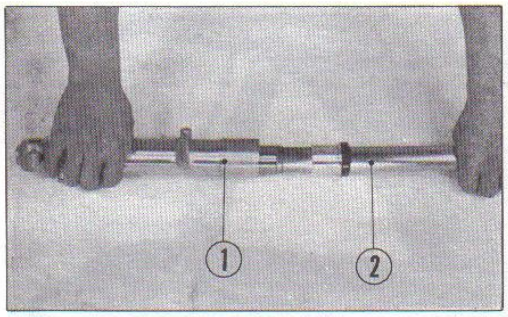
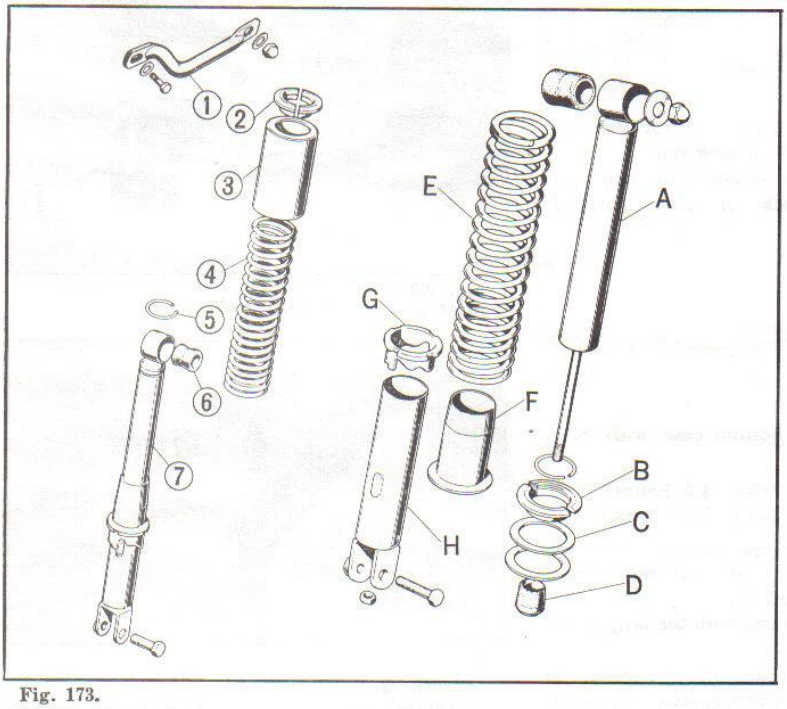


Fig. 171.
① Front fork bottom pipe ② Front fork pipe

Fig. 172.

5. REAR SUSPENSION



① Side grip
② Spring seat stopper
③ Rear shock absorber upper case
④ Rear shock absorber spring
⑤ Rear shock absorber stopper clip
⑥ Joint rubber
⑦ Rear shock absorber

A. Rear shock absorber
B. Rear shock absorber spring seat stopper
C. Spring washer
D. Stopper rubber
E. Rear shock absorber spring
F. Rear shock absorber spring guide
G. Spring adjuster
H. Spring under seat stopper

Fig. 173.

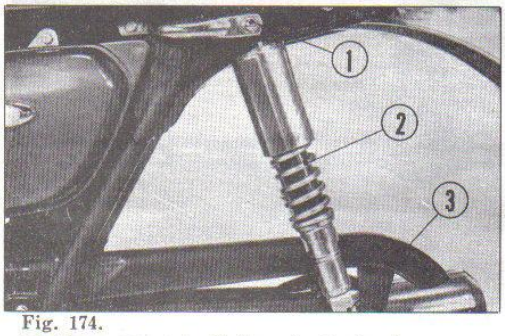


Fig. 174.
① 10 mm, cap nut ② Rear shock absorber
③ 8 mm, bolt

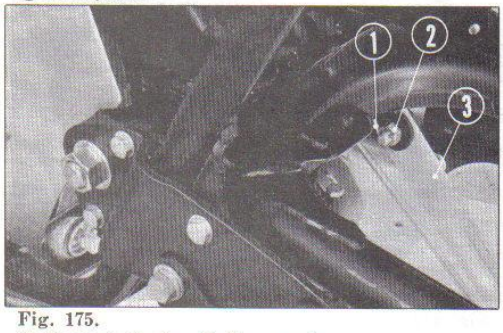


Fig. 175.
① 6 mm, lock pin ② 6 mm, nut
③ Rear brake stopper arm

A. Disassembly

1. Remove the rear wheel. (See page 46)
2. Unscrew 10 mm cap nut and 8 mm bolt and remove the rear shock absorber from the frame and rear fork.
3. Remove the chain case.
4. Unscrew the rear fork pivot nut, remove the pillion step arm, extract the rear fork pivot bolt and then remove the rear fork.
5. Remove the cotter pin and nut and then remove the rear brake stopper arm from the rear fork.

6. To disassemle the rear shock absorber, compress the upper case with special tool, remove the spring seat stopper and then remove upper case, spring and bottom case.
The shock absober body can not be disassembled.

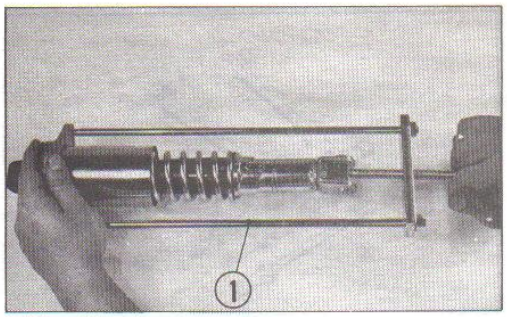


Fig. 176.
① Rear cushion disassembling & assembling tool

B. Inspection

1. Measure the free length of rear shock absorber spring.

mm (in.)

Item	Standard value		Serviceable limit
Free length	CB175 CL175	188.3 (7.4133)	174 (6.3504)
	SL175	216.6 (8.5275)	200 (7.3740)

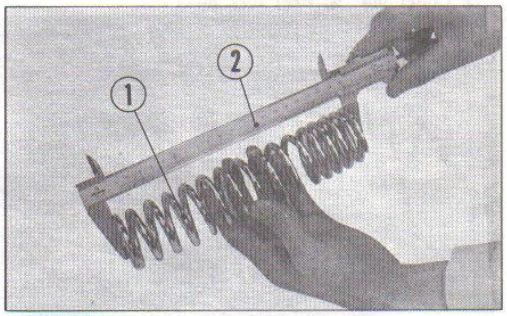


Fig. 177.
① Rear shock absorber spring ② Vernier caliper

2. When installing, check the following parts.
- Oil leakage from shock absorber body.
- Deformation or scratch on the damper body rod and case.
- After reassembly, compress the rear suspension with hands shown in Fig. 179 and check to see that the rear shock absorber is not to hit to any part.
- After installation, check the mounting position of shock absorber and upper and lower mounting bolts.

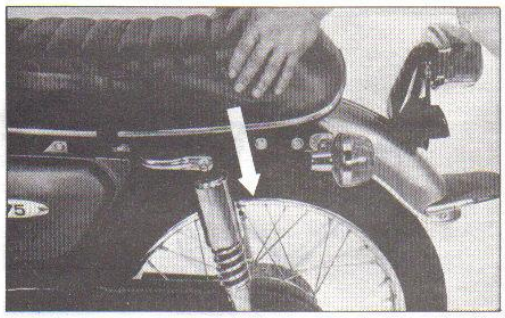


Fig. 178.

3. Clearance between the rear fork pivot bushing and bolt.

mm (in.)

Item	Standard value	Serviceable limit
Clearance	0.1–0.3 (0.0039–0.0118)	0.5 (0.0196)

Replace if beyond the serviceable limit.

- Check the pivot shaft for bend or damage. Straighten the bent shaft and check with the dial gauge. If damaged, replace with new one.
- Check the rear fork swing arm for bend, twist and crack. If slightly bent or twisted, straighten with press and check the swing arm with a dial gauge. If damaged, replace with new one.

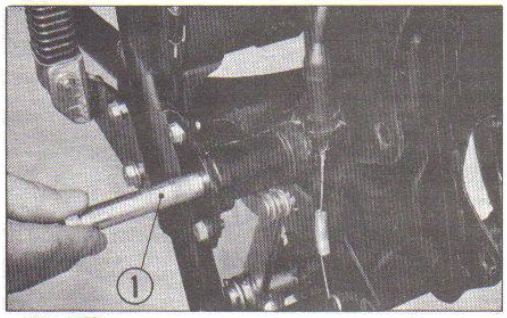


Fig. 179.
① Rear fork pivot bolt

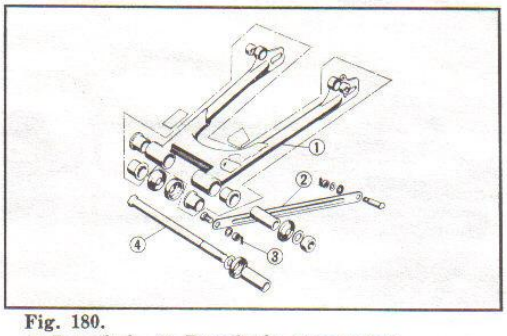


Fig. 180.
① Rear fork ② Rear brake stopper arm
③ Cotter pin ④ Rear fork pivot bolt

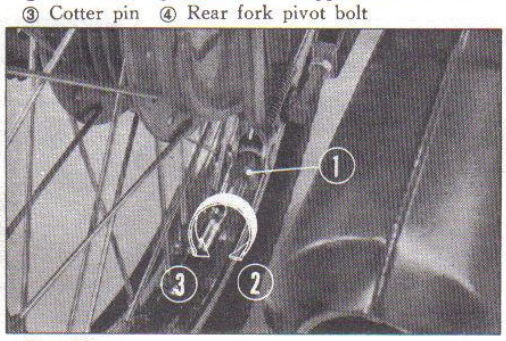


Fig. 181.
① Adjuster nut ② Decrease ③ Increase

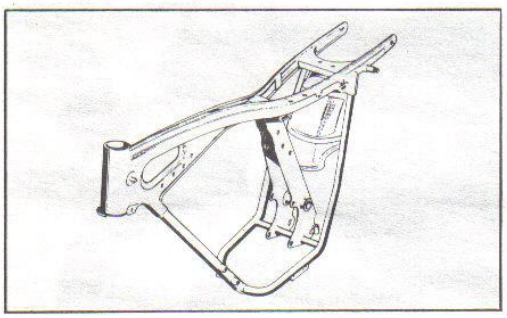


Fig. 182. CB175, CL175

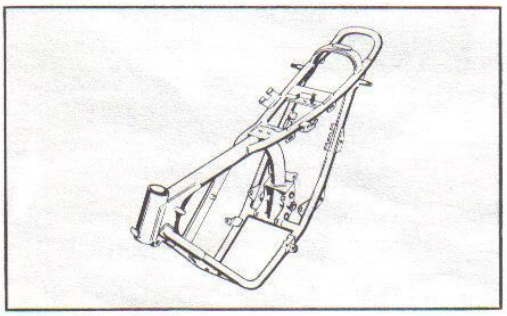


Fig. 183. SL175

C. Reassembly

1. Install the rear brake arm stopper on the rear fork.
2. Insert the grease coated pivot bushing into the rear fork and install this on frame with the rear fork pivot bolt.
3. Install the chain case on the rear fork, join the rear shock absorber complete to the frame and fork, install and tighten the cap nuts.
4. Install the rear wheel.

Note :

- **When assembling the rear shock absorber complete, the small pitch end of spring goes toward the top.**
- **After installation, adjust the drivechain slack and the rear brake.**

6. FRAME BODY

A. Construction

The frame is of a semi-double cradle steel tubing and sheet sonstruction to provide high strength and rigidity. It is designed with the aim for light weight and safe speed riding.

Half frame, half pillar is made of a steel tubing and it is designed with a double cradle frame for light and higher rigidity.

B. Disassembly

1. Remove the engine. (See page 16)
2. Remove the steering handle. (See page 49)
3. Open the seat and unscrew two 8 mm nuts to remove the seat.
4. Position the fuel cock lever to STOP position and disconnect the fuel tube.
5. Pull the fuel tank mounting rubber and remove the fuel tank by pulling toward the rear and slightly upward.
6. Take off the air cleaner cover and remove the air cleaner and carburetor.

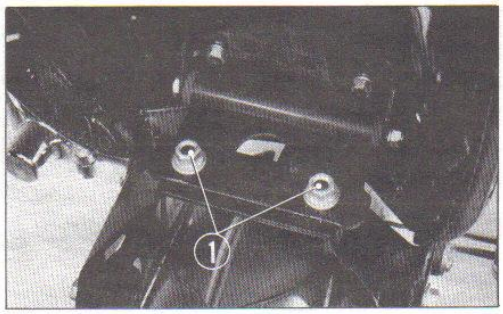


Fig. 184.
① 8 mm, nuts

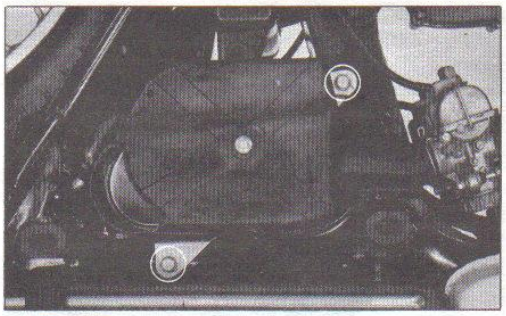


Fig. 185.

7. Remove the tool box.

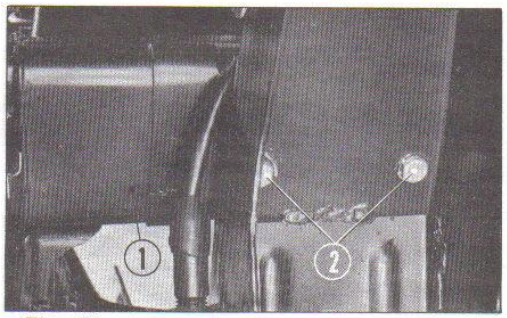


Fig. 186.
① Tool box ② 8 mm, bolts

8. Disassemble the electrical system.

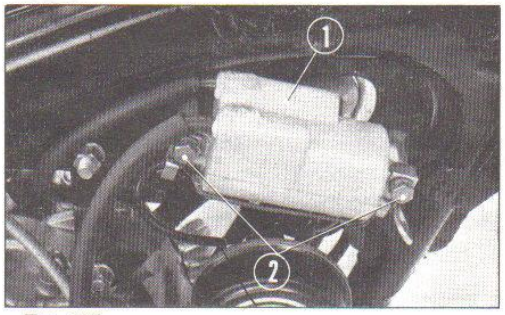


Fig. 187.
① Ignition coil ② Mounting bolts

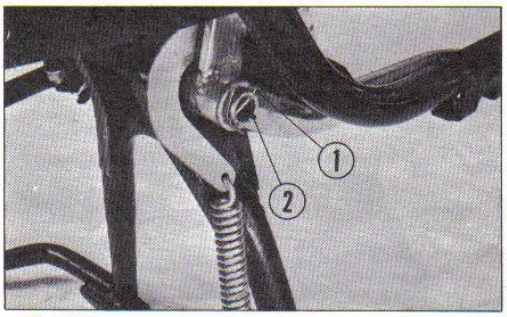


Fig. 188.
① Cotter pin ② Main stand pivot pipe

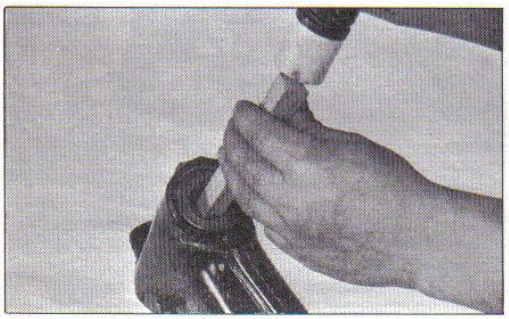


Fig. 189.

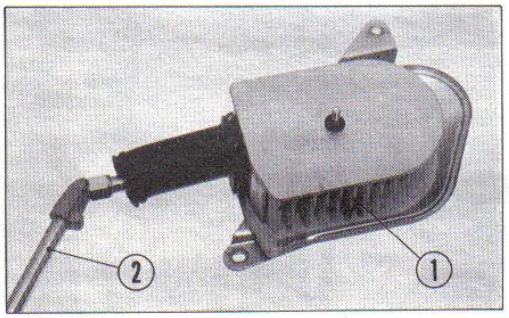


Fig. 190.
① Air cleaner element ② Nozzle

9. Remove the front wheel and front suspension. (See page 43 and 53.)
10. Remove the rear wheel and rear suspension and then remove the rear fender. (See page 46 and 56)
11. Extract the cotter pin, puul out the main stand pivot pipe and remove the stand from the frame.

C. Inspection

1. Inspect the welded joints, crack, damage or twist to the pipe. Straighten the minor dent or twist to the pipe, weld the crack and paint the worn or scratch parts. Replace twisted or badly dented frame with new one.
2. Inspect the angle of head pipe and any deformation.
3. Inspect the top and bottom races for damage and wear.

   Note :
   The ball race can be driven out easily by using a wooden drift from the inside. Exercise care when installing the race so that it is driven in straight and to the full depth.
4. Check damage to the seat leather upholstery. If damaged, replace with new one.
5. Check for fuel tank leak, clogged fuel filler cap vent, damage or deformed cock valve packing, strainer cap packing and aging or damage to the fuel tube. Flush out interior of the tank with clean gasoline.
6. (**CB175, CL175**)
   Clean the air cleaner element by blowing off dust with the compressed air or wash in soap water.
   (**SL175**)
   Clean the element in solvent.
7. Replace any exhaust pipe gasket which is damaged. Check the muffler for cracks and deformation.
   If badly damaged, replace with new one.

D. Reassembly

1. Mount the main stand and brake pedal to the frame together.
2. Mount the rear fender on the frame and install the electrical equipment.
3. Install the rear fork, rear shock absorber and rear wheel.
4. Install the steering stem, front fork and front wheel.
5. Install the fuel tank, seat and sub-carrier on the frame.
6. Mount the engine on the frame.
7. Route the control cables and wire harnesses through the specified positions and complete the connection.

Note :

Adjust the brakes, clutch and drive chain slack and check the steering operation.

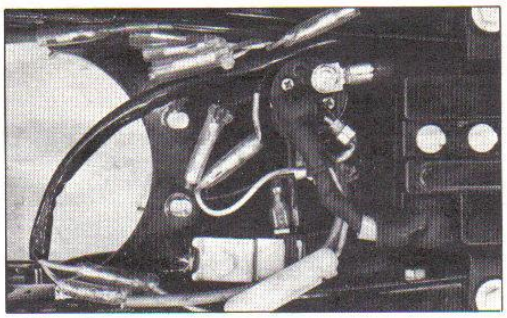


Fig. 191. Magnetic switch installation

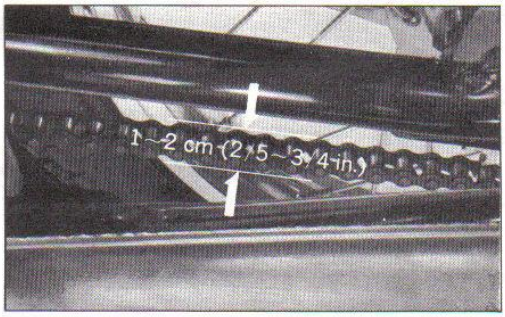
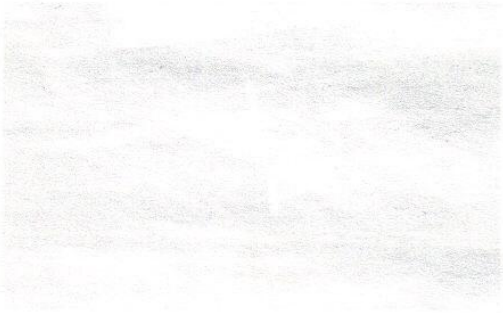


Fig. 192.



6. ELECTRICAL

1. GENERATING SYSTEM

Models CB175, CL175 and SL175 use a battery for the main ignition system. The combination of an ignition coil and an A.C. generator (comprising a stator and rotor) permits makeshift ignition even when the battery is not charged.

The A.C. current produced by the generator is converted to D.C. by the selenium rectifier, which then recharges the battery.

The output of the A.C. generator is controlled according to the number of coils used. For low-load daytime running, two coils are sufficient. For night riding all six coils are used. In this way the battery is protected from both over-and undercharging.

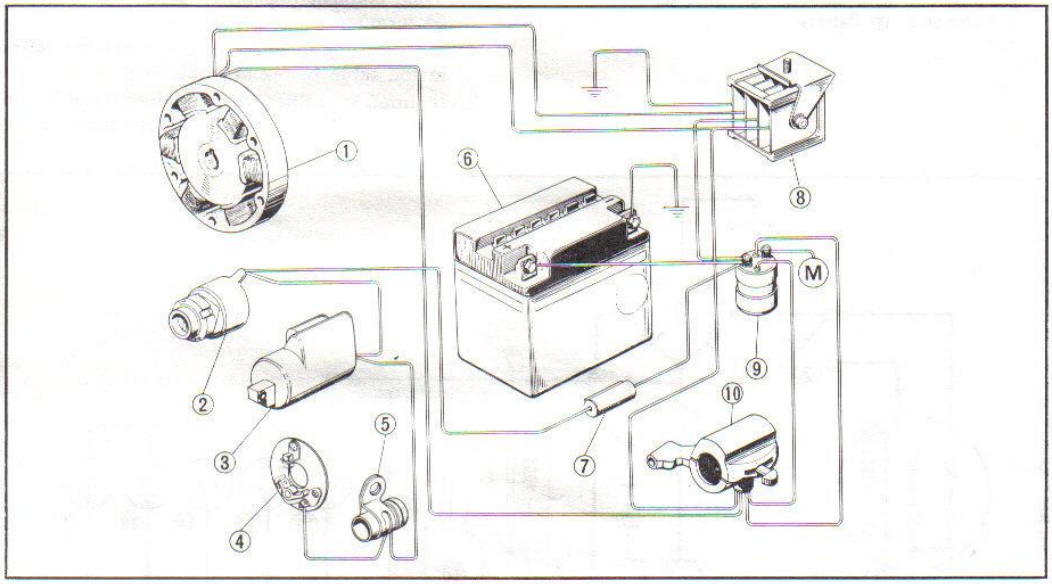


Fig. 193.
① A.C. generator ② Combination switch ③ Ignition coil ④ Contact breaker ⑤ Condenser ⑥ Battery ⑦ Fuse ⑧ Selenium rectifier ⑨ Magnetic switch ⑩ Lighting switch Ⓜ Starter

A.C. GENERATOR SPECIFICATION

Type & manufacturer	Rotary type, Hitachi
Output	12V 90W (at 5,000 rpm in night)
Battery voltage	12-9 AH
Charging rpm	300-12,000 rpm
Polarity of ground	⊖
Weight	1.45 kg (3.20 lbs)

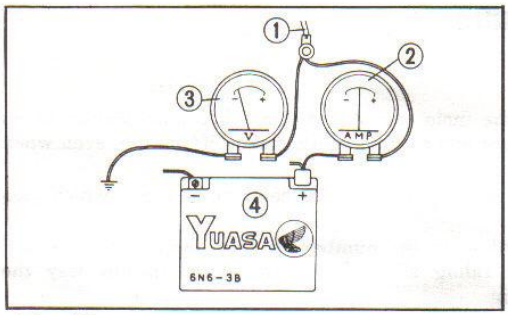


Fig. 194.
① Red/white wire harness ② Ammeter
③ Voltmeter ④ Battery

2. CHARGING SYSTEM

A. Charging test

1. Use the ammeter and voltage meter.
2. Check the charging rate by measuring the specific gravity of the battery fluid. If the specific gravity is less than 1.26 (at 20°C), the battery must be charged until it reaches 1.26–1.28. (See page 72 for battery charging) Then carry out the following tests.
3. Remove the wire harness (composed of a red/white wire harness and all red one) from the ⊕ terminal of the battery.
   Then connect this terminal to the ammeter ⊖ terminal.
4. Start the engine and check whether the values in the table below are obtained.
5. If inferior values are obtained, check the generator, battery and selenium rectifier.

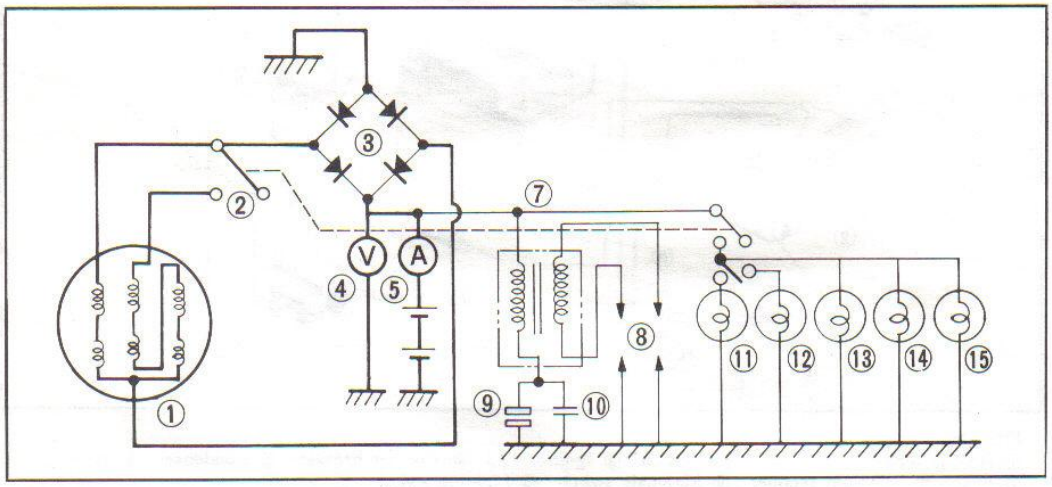


Fig. 195.
① A.C. generator ② Lighting switch ③ Selenium rectifier ④ Voltage meter ⑤ Ammeter ⑥ Battery
⑦ Ignition coil ⑧ Spark plug ⑨ Contact breaker ⑩ Condenser ⑪ Headlight high beam
⑫ Headlight low beam ⑬ Meter light ⑭ Meter light ⑮ Tail light

Lighting switch		Dimmer switch	Initial charging rpm		5,000 rpm	
			rpm	Battery voltage	Charging current	Battery voltage
Day	OFF	OFF	2,400	13.2	1.8A	14V
Night	ON	HE (high beam)	2,800	13.2	0.8A	14V
	ON	LB (low beam)	2,200	13.2	1.5A	14V

B. Inspection

1. Stator coil test

   Start the engine and make sure that the electrical current flows through the stator coil to the rectifier.

   Continuty test

   Perform a continuty test on the three stator coil harness (pink, white, yellow) with a tester to determine the condition of the coil. If there is continuty, it is in good condition.
   If there is continuty when the yellow wire harness and stator body were connected with tester, it is defective.

   Note :

   Do not test on a metal bench.

2. Selenium rectifier test

   Check the continuty in the normal direction and also in the reverse direction by applying tester lead probes to green and pink leads, pink and red/white leads, green and yellow leads, and yellow and red/white leads respectively and alternately as shown in the figure. If there is continuty in the both directions or no continuty in the both directions or no continuty in either direction when tested, the rectifier is defective and should be changed.

   Note :

   Standard resistance values are 5–40 ohm in the normal direction and more than 100 ohm in the reverse direction.

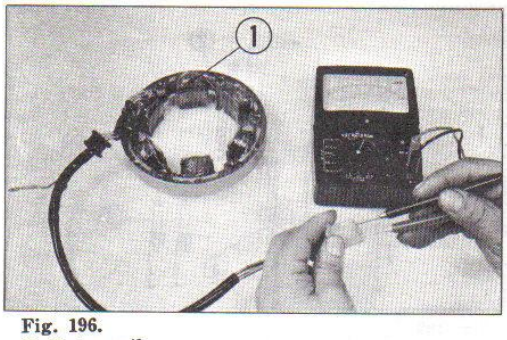


Fig. 196.
① Stator coil

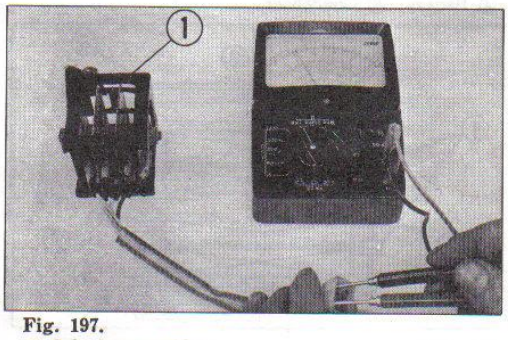


Fig. 197.
① Selenium rectifier

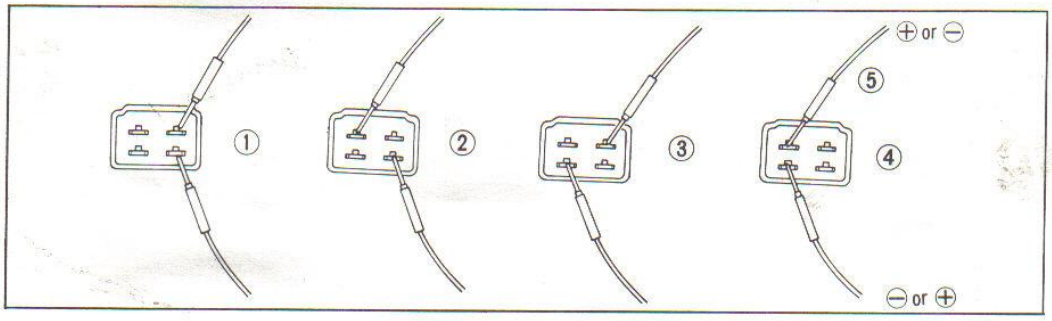


Fig. 198.
① Green and pink leads ② Pink and red/white ③ Green and yellow leads ④ Red/white and yellow leads
⑤ Tester leads

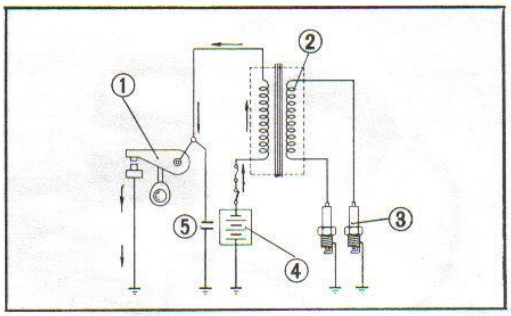


Fig. 199.
① Contact breaker ② Ignition coil ③ Sparl plug
④ Battery ⑤ Condenser

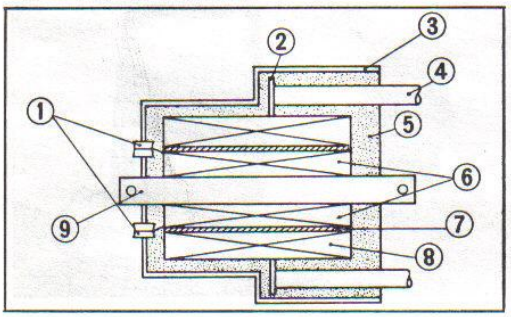


Fig. 200.
① Primary terminal ② High tension terminal
③ Case ④ High tension cord ⑤ Synthetic resin
⑥ Primary coil ⑦ Bobbin ⑧ Secondary coil
⑨ Iron core

3. IGNITION SYSTEM

A. Operation

The ignition system consists of ignition coil, contact breaker, two spark plugs, an ignition switch and battery. The current from the battery flows through the primary winding of the ignition coil and circuit is completed by grounding through the contact breaker.
The breaker furnishes the high voltage current to spark plugs. The contact breaker ignite the spark plugs alternately.

B. Construction

The ignition coil of primary coil with 200–300 turns of enameled and secondary coil with 1,0000 –20,000 turns wire wound around the primary coil, with an iron core of laminated silicon steel sheets in the center. Each secondary coil has two high tension cables that lead to two spark plugs.

C. Inspection

1. Ignition coil test
   1. Then poor starting is experienced, the cause may be found by testing the spark plug, contact breaker points, condenser, etc.
   2. Check the ignition coil with the service tester.
   3. Connect the battery power source (charged battery, 1.26–1.28 specific gravity) to the tester and ground the grounding lead.
   4. Connect the white lead with (⌒) type plug to the blue terminal of the ignition coil (primary side) and the red tester lead to the black terminal of the ignition coil.

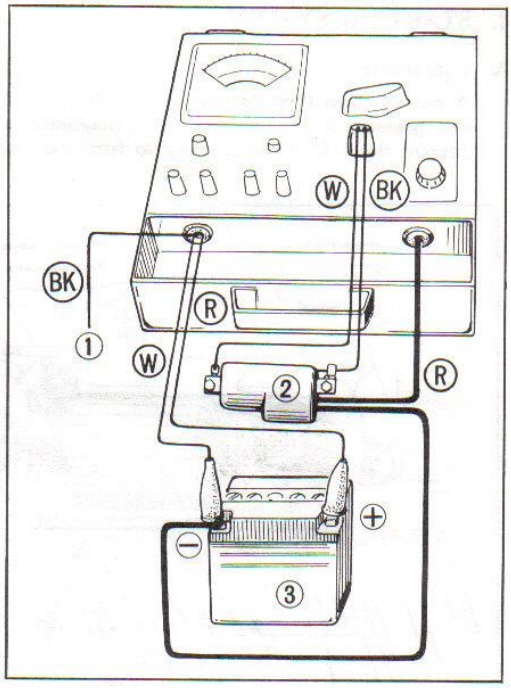


Fig. 201.
① Ground to earth ② Ignition coil ③ Battery

   5. Connect the red tester high tension cord to the high tension cord of the ignition coil. Connect the high tension cord to the ⊖ terminal white cord of battery.
   6. Turn the selector knob to the "coil tester".
   7. Adjuster three point spark tester and measure the maximum distance of spark by turning the control knob while observing the spark condition.
   8. If the spark distance is more than 6 mm (0.24 in.), the spark plug is serviceable.

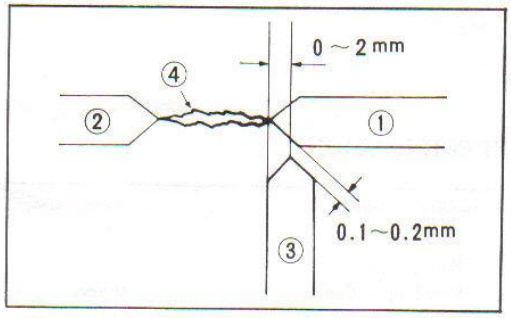


Fig. 202.
① No. 1 electrode ② No. 2 electrode
③ No. 3 electrode ④ Spark

2. Condenser test
   1. Use the service tester to measure the capacity of condenser. Connect the 6 V battery power source to the tester.
   2. Turn the selector knob to the "condenser" position.
   3. Apply one of the tester lead probes to the condenser body, and then read the meter indication.

   Standard value: 0.21–0.26 μF

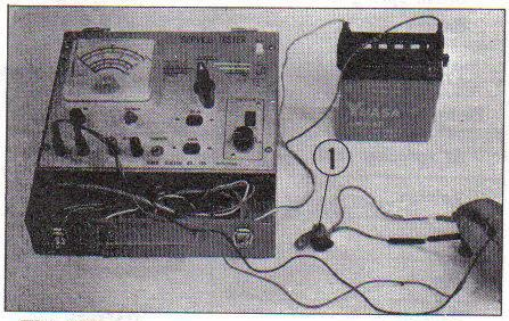
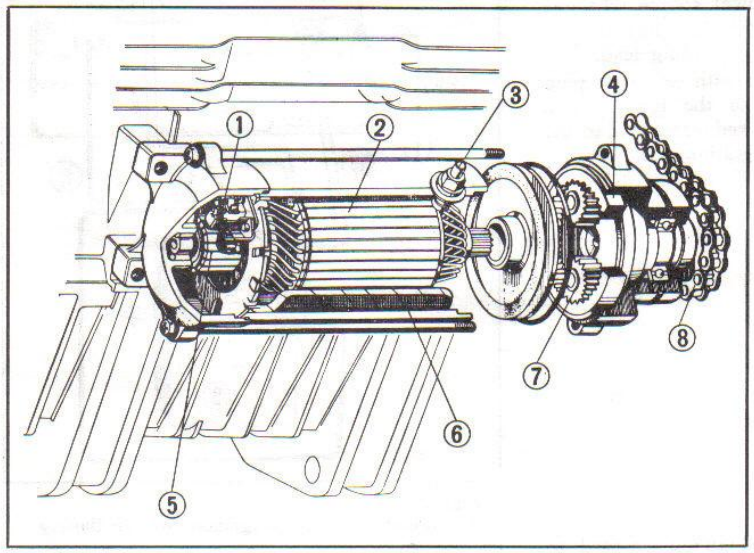


Fig. 203.
① Condenser

4. STARTING SYSTEM

A. Construction

A push button type switch is located on the right side of the handle bar. When the push button was pressed, it connect the starter magnetic switch to close the starting circuit. Approximately 120A current flows from the battery to turn the starting motor.



① Carbon brush
② Armature
③ Terminal
④ Internal gear
⑤ Commutator
⑥ Field coil
⑦ Planetary gear
⑧ Starting chain

Fig. 204.

SPECIFICATION

Starting motor			
Rated voltage	12 V		
Rated output	0.55 KW		
Rated operation	30 sec.		
Reduction ratio	6.44		
Brush length	11.0–11.5 mm (0.43–0.45 in.)		
Brush spring tension	550±55 gr		
Battery	12 V–9 AH		
Type & Manufacture	SM 222, Mitsuba Denki		
Performance			
At sprocket shaft	Without load	With load	Stalling load
Voltage	11.5 V	9.4 V	6.7 V
Amperage	28 A max.	100 A	240 A max.
Torque	—	0.55 kg-m min.	1.5 kg-m min.
Revolution	2,000 rpm min.	500 rpm min.	—
Power output	—	0.33 KW min.	—

B. Inspection

Measure the carbon brush length.

mm (in.)

Item	Standard value	Serviceable limit
Length	11–12.5 (0.4330–0.4925)	5 (0.1968)

A) Construction of starter magnetic switch

Approximately 100A current is required to operate the starting motor, therefore, the wire harness with big dia. is necessary to reduce electric resistance. Switch contact part is also require a large capacity to prevent the burning by sparking. The switch in large current provides the contacts by applying the electro-magnete which close the circuit to operate the starter.

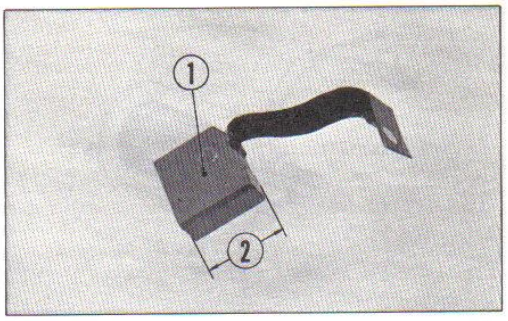


Fig. 205.

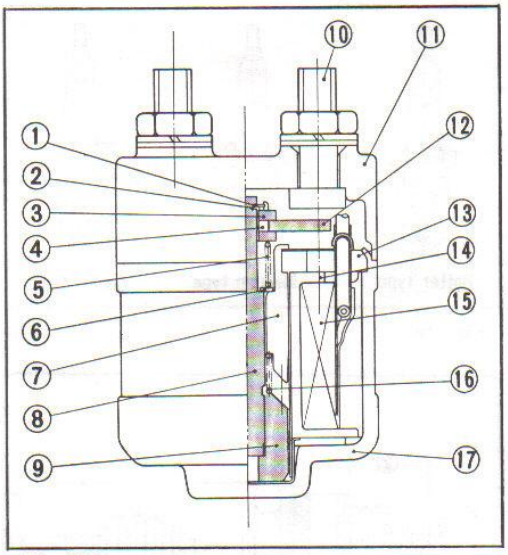


Fig. 206.
① Stopper ② Holder stopper ③ Set ring
④ Set ring collar A ⑤ Contact spring
⑥ Flat washer ⑦ Plunger holder
⑧ Plunger shaft ⑨ Plunger ⑩ Contact bolt
⑪ Case ⑫ Contact plate ⑬ Yoke ⑭ Bobbin coil
⑮ Coil ⑯ Return spring ⑰ Body

B) Inspection

Minimum voltage for operating

When the terminal of battery (8V or 6V) is connected with the S terminal of magnetic switch, the switch is contacted. At this time measure the ohm with tester, it is serviceable if ohm value is pointed approximately zero.

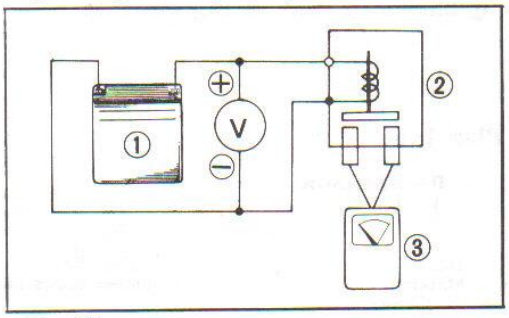


Fig. 207.
① Battery ② Magnetic switch ③ Tester
④ Voltage meter

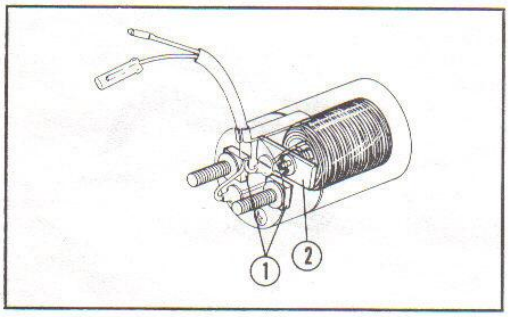


Fig. 208.
① Fixed contact points ② Movable contact points

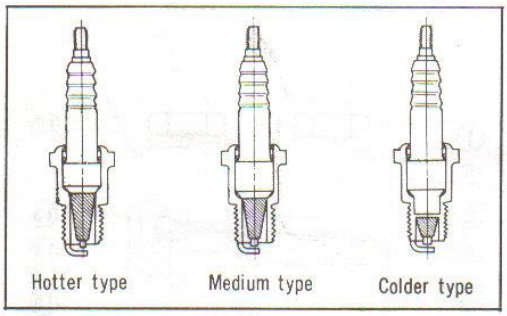


Fig. 209.

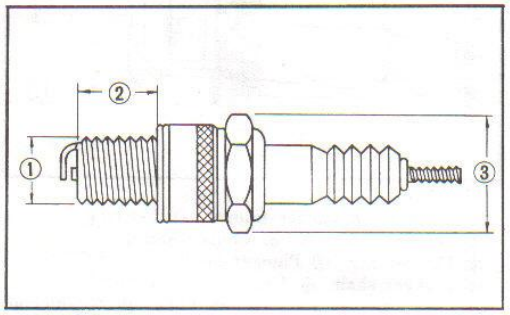


Fig. 210.
① Diameter ② Reach ③ Plug wrench size

If the magnetic switch was used for a long period, the contacts will become pitted or buned, marking a high resistance which will stop the current to flow. When such condition is observed, disassemble the switch and clean the contact points with a file or sand paper.

A) Spark plug

The surface of the insulator firing area should be maintaine at 500°–800°C range. If this range is under the 500°C, the firing area is exposed to carbon and oil, and then engine will be stopped. To prevent its build-up, proper temperature above is refereed to as the self-cleaning temperature. If it is over 850°C, the spark plug will be made the preignition which causes the bad condition of engine.

In order to function properly, it is necessary for plug to dissipate the heat caused by combustion. The rate of heat dissipation of the plug in determined by the heat range of the plug.

A plug which readily dissipates the heat and which is difficult to overheat is referred to as a Cold Type.

A plug which retains the heat and which will burn readily is referred to as a Hot Type.

Plug Type

D — 8 HS (NGK)

Dia.
Marking
A...18 mm
B...14 mm
C...12 mm
D...10 mm

Heat Range
Greater number shows hotter type.
Smaller number shows colder type.

(Reach)
Marking H...12.7 mm
E...19.0 mm
Without Marking
Dia. A...Length 12 mm
B...Length 9.5 mm

X — 22FS (Nippon Denso)

Dia.	Heat Range	(Reach)
Marking	Greater number shows hotter type.	Marking F...12.7 mm
M...18 mm		E...19 mm
W...14 mm		Without marking
X...12 mm	Smaller number shows colder type.	Dia. M...Length 12 mm
U...10 mm		W...Length 9.5 mm

A. Battery Construction

The construction and name of the component parts are shown in the figure.

Model	CB175, CL175	SL175
Type	12N9-4B	12N-4B
Voltage	12V	12V
Capacity	9 AH (at 10 hr rate)	5 AH (at 10 hr rate)
Charging current	0.6A	0.6A
Specific gravity (when fully charged)	1.260–1.280 at 20°C (68°F)	1.260–1.280 at 20°C (68°F)

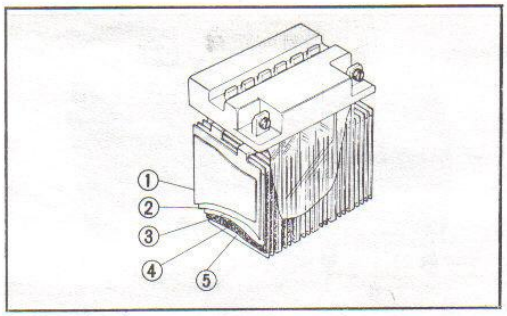


Fig. 211.
① Separator plate ② Cathode plate
③ Separator plate ④ Glass mat ⑤ Anode plate

B. Measurement of specific gravity

Measure the specific gravity of the battery electrolyte with a hydrometer and if it is below 1.200 (corrected to 20°C), the battery should be recharged. When reading the measured value, the electrolyte level in the hydrometer should be held at the eye level and the scale read at the fluid level.

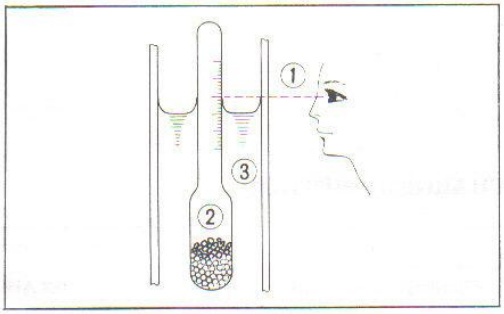


Fig. 212.
① Eye level ② Hydrometer
③ Battery electrolyte

C. Maintenance and Servicing

1. Check the electrolyte level every a month and if any cell is found to be below the lower level mark on the battery case, add distilled water to bring the level up to the upper level mark.
2. If the electrolyte evavoration rate is unusually great, the charging system should be checked for possible malfunction.
3. Measure the specific gravity of battery electrolyte periodically. Whenever the distilled water was added, battery should be charged completely and then measure the specific gravity.
   Fig. 213 shows the relation between specific gravity and electrical capacity.

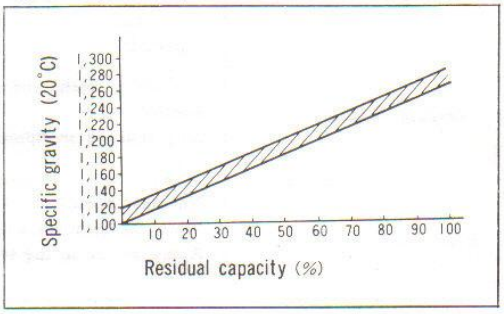


Fig. 213. Relation between specific gravity of battery electrolyte and electrical capacity

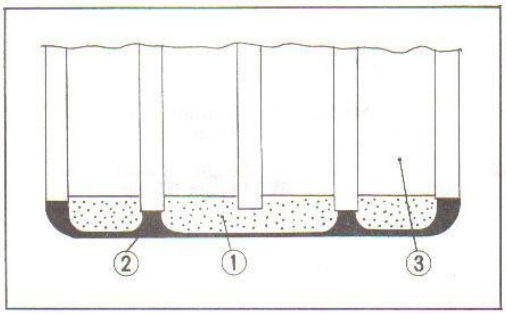


Fig. 214.
① Flaked paste ② Bottom ③ Cathode plate

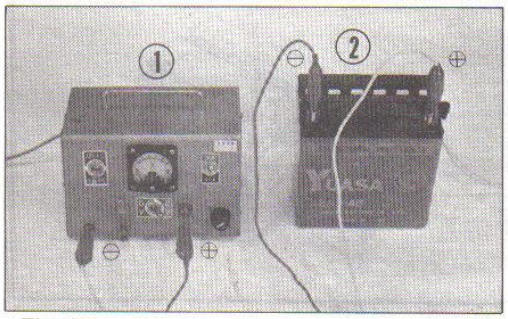


Fig. 215.
① Battery charger ② Battery

4. Check the poor battery connection due to corrosion of the connector and terminal, flaking of the paste from sulfation. The flaked paste remains on the bottom remarkably, replace with new one.

E. Battery charging

1. Quick-charge method should not be used frequently and it method will seriously effect the battery life. When the rapid charge is required, the battery should be recharged at a rate of 2.0A.
2. During the charging process, hydrogen gas will be generated, therefore, open flame should be kept away.
3. After the battery was recharged, wash it to remove the spilled electrolyte and coat the terminal with grease.

CHARGING METHOD

	Normal charge	Rapid charge
Charging current rate	0.2 AH	2.0 AH max.
Checking for full charge	* Specific gravity: 1.260–1.280 (20°C, 68°F) maintained constant. * A large volume gas is emitted from the battery at the end of charge period.	1. Specific gravity: 1.260–1.280 maintained at 20°C (68°F). 2. When large volume of gas is emitted from the battery, reduce charging rate to 0.6 A.
Charging duration	A battery with specific gravity of electrolyte below 1.220 (20°C) will be fully charged in approximately 12–13 hrs.	A battery with specific gravity of electrolyte below 1.220 (20°C) will be fully charged in approximately 1–2 hrs.
Remarks	Not near open fire. Wash the terminal with clean water. Apply grease to the terminal	When the charging is urgent, the recommended charging current should be under 2.0 A. Make sure not to damage the plates.

5. AUXILIARY ELECTRICAL EXUIPMENT

A. Inspection

1. Combination switch

Before measuring the continuty, the condition of the switch should be inspected. If continuty exists in leads shown below, the wiring is correct. If continuty exists in any other leads, the wiring is not correct or the switch is defective.

	BAT	IG	TL_1	TL_2
OFF				
1	○—	—○	○—	—○
2	○—			—○
Color of cord	Red	Black	Brown/ White	Brown

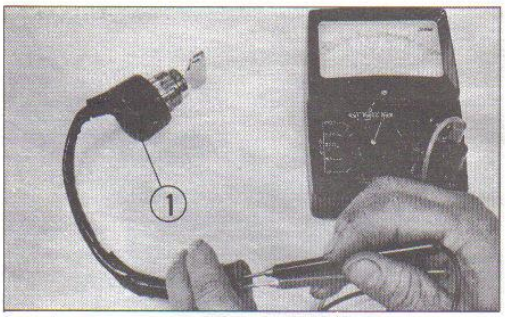


Fig. 216.
① Combination switch

2. Front stop switch

Check the action of switch. Check for continuty by applying the tester lead probe to the black and green/yellow switch lead and depress the brake lever. If continuty does not exists, the switch is defective.

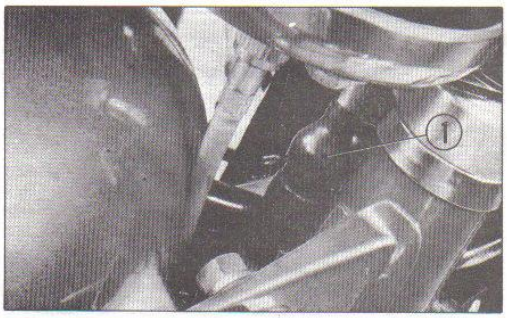


Fig. 217.
① Front stop switch

Note :

- **Check brake lever for play (2-3cm, 3/4-1 1/8 in.)**
- **Light should be only operated by the brake lever (2cm, 3/4 in. stroke).**

3. Lighting and dimmer switch

Position the combination switch "ON" and check that the condition of dimmer switch operate normaly. Check the continuty of switch with the tester. If there are continuties in the leads shown in the table the switch and wiring are artisfactory.

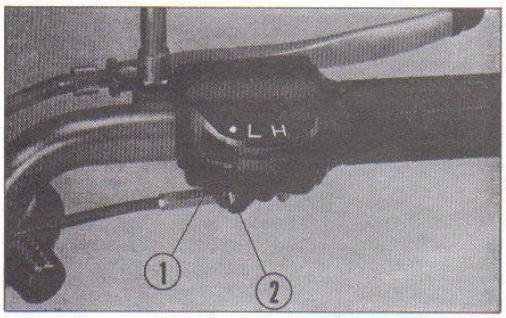


Fig. 218.
① Dimmer switch ② Lighting switch

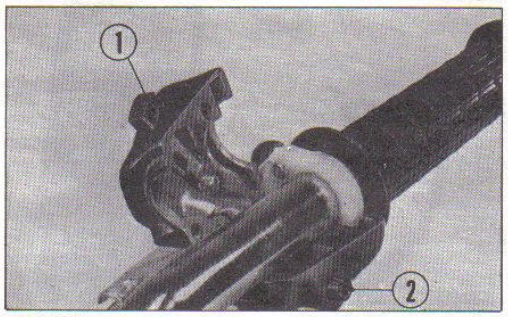


Fig. 219.
① Dimmer switch ② Starting button switch

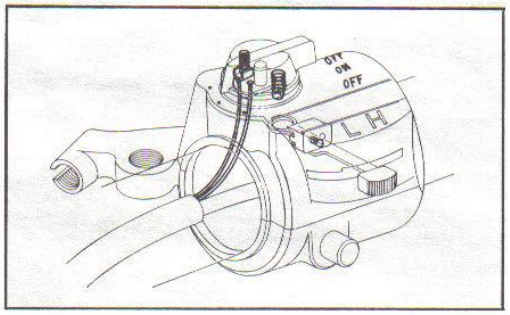


Fig. 220. Switch housing inside

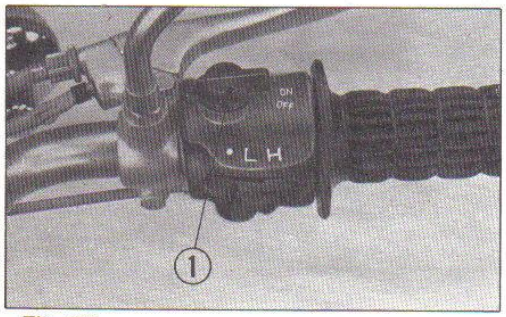


Fig. 221.
① Emergency switch

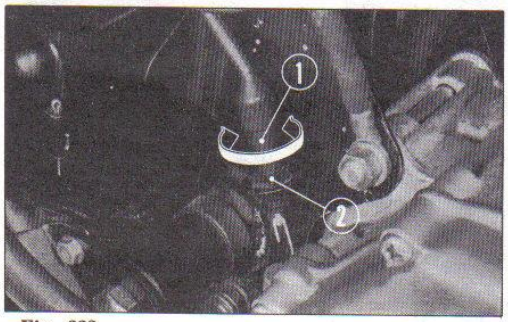


Fig. 222.
① Rear stop switch ② Adjuster nut

If continuty exists in any other leads than those 0–0 shown below, switch or wiring is defective.

Combination switch	Knob	IG	H	TL	L	DY	SF
OFF							
ON	H	○	○	○		○	○
	N	○		○		○	○
	L	○		○	○	○	○
	Color of cord	Bl	Br	Br/Wh	Wh	Wh/Yl	Yel

A. Emergency switch (SL175)

The emergency ignition kill switch is provide to insure safe riding and shuting off the engine operation when troubles develop in the throttle system.

The switch can be operated to open the primary wiring of current by easy operation.

B. Inspection

Start the engine, check to see that the engine can be stopped by switching off the emergency switch. If the respective switch positions are not functioned properly, the switch or wiring is defective. If wiring is correct, check by the testing conductivity of wires with the switch. If the conductivity is not correct, replace with new one.

1. Rear stop switch

Check the rear stop switch spring for disengagement. To check continuty, aplly tester lead prober to the green/yellow and black lead.

The light should come on when the brake pedal is depressed 2 cm (3/4 in.).

Adjustment

Turning the adjuster nut clockwise will delay the switch engagment.

2. Horn

Connect the horn lead to a 12V battery to test the horns operation. The sound volume can be adjusted with the adjusting screw provided on the back of the horn.

Note :

Do not screw the adjuster nut in the more than 1/2 turn.

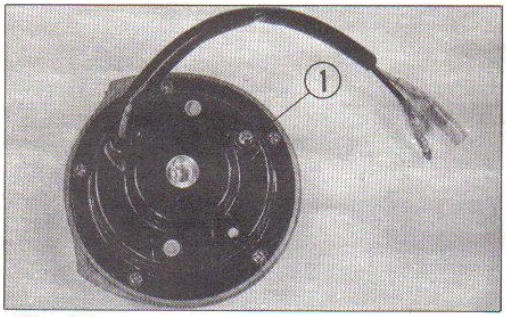


Fig. 223.
① Volume adjusting screw

3. Horn button switch

Check the continuty of the switch by applying the tester lead probes to the light green cord within the headlight case and to the handle bar. If continuty exists, it is satisfactory.

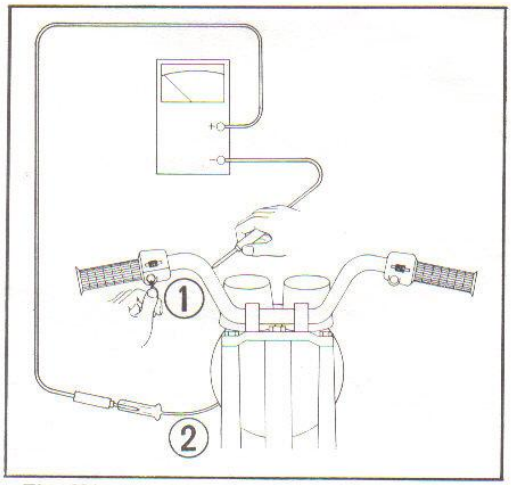


Fig. 224.
① Horn button switch ② Light green lead

4. Turn signal switch

Before check the continuty, inspect the action of turn signal switch, bulbs and its capacity. Disconnect the turn signal switch leads in the headlight case and check the continuty by connecting the gray switch lead to one of the tester probes and applying to other tester lead probe to the blue (R.) and orange (L) switch leads alternately and operating the switch. If continuty exists in both positions, the switch is satisfactory.

Knob position	Blue cord	Gray cord	Orange cord
R	○——	——○	
OFF			
L		○——	——○

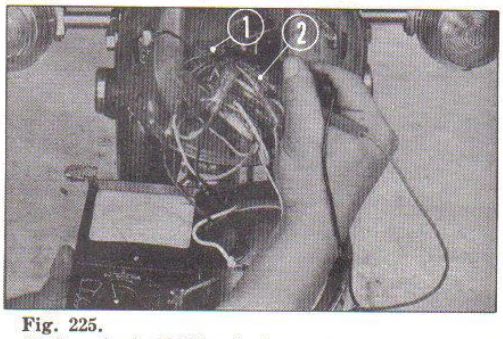


Fig. 225.
① Gray lead ② Blue lead

7. TECHNICAL DATA

ITEM	CB 175 K5		K 6	K 7
DIMENSION	U.S.A. type	General type	U. S. A. type	U. S. A. type
Overall length	1,975 mm (77.8 in.)	1,985 mm (78.2 in.)	1,935 mm (76.2 in.)	Sme as left
Overall width	745 mm (29.3 in.)	735 mm (28.9 in.)	745 mm (29.3 in.)	720 mm (28.3 in.)
Overall height	1,015 mm (40.0 in.)	1,030 mm (40.6 in)	1,030 mm (40.6 in.)	1,060 mm (41.7 in.)
Wheel base	1,275 mm (50.2 in.)	1,275 mm (50.2 in.)	1,275 mm (50.2 in.)	1,285 mm (50.6 in.)
Seat height	—	—	770 mm (30.3 in.)	790 mm (31.1 in.)
Ground clearance	155 mm (6.1 in.)	155 mm (6.1 in.)	155 mm (6.1 in.)	Same as left
Curb weight	136 kg (299.9 lbs)	135 kg (297 lbs)	136 kg (299.9 lbs)	130 kg (287 lb)
FRAME				
Type	Semi-double cradle		Same as left	Same as left
F. suspension, travel	Telescopic fork		Same as left	Same as left
R. suspension, travel	Swing arm		Same as left	Same as left
F. tire size, type	2.75–18 (4 PR)		Same as left	Same as left
R. tire size, type	3.00–18 (4 PR)		Same as left	Same as left
F. brake	Internal expanding shoe		Same as left	Same as left
R. brake	Internal expanding shoe		Same as left	Same as left
Fuel capacity	9.0 lit. (2.3 U.S. gal. 1.9 Imp. gal.)		Same as left	Same as left
Fuel reserve capacity	2.5 lit. (0.6 U.S. gal. 0.5 Imp. gal.)		Same as left	Same as left
Caster angle	64°		Same as left	Same as left
Trail length	89 mm (3.5 in.)		Same as left	Same as left
ENGINE				
Type	Air cooled 4-stroke O.H.C. engine		Same as left	Same as left
Cylinder arrangement	Twin paralled, 8° inclined from vertical		Same as left	Same as left
Bore and stroke	52.0×41.0 mm (2.047×1.614 in.)		Same as left	Same as left
Displacement	174 cc (10.6 cu in.)		Same as left	Same as left
Compression ratio	9.0 : 1		Same as left	Same as left
Valve train	Chain driven overhead camshaft		Same as left	Same as left
Maximum horsepower	16BHP/9.500 rpm		Same as left	Same as left
Maximum torque	9.30 lb. ft/8,500 rpm		Same as left	Same as left
Oil capacity	1.5 lit. (1.6 U.S. qt 1.3 Imp. qt)		Same as left	Same as left
Lubrication system	Forced and wet sump		Same as left	Same as left
Intake valve — Opens	At 10° (before top dead center)		Same as left	Same as left
Intake valve — Closes	At 30° (after bottom dead center)		Same as left	Same as left
Exhaust valve — Opens	At 40° (before bottom dead center)		Same as left	Same as left
Exhaust valve — Closes	At 0° (after top dead center)		Same as left	Same as left
Valve tappet clearance	0.05 mm (0.002 in.)		Same as left	Same as left
Idle speed	1.200 rpm		Same as left	Same as left

ITEM	CB 175 K5	K 6	K 7
DRIVE TRAIN			
Clutch	Wet, multi,-plate type	Same as left	Same as left
Transmission	5-speed, constant mesh	Same as left	Same as left
Primary reduction	3.700	Same as left	Same as left
Gear ratio I	2.769	Same as left	Same as left
〃 II	1.882	Same as left	Same as left
〃 III	1.450	Same as left	Same as left
〃 IV	1.174	Same as left	Same as left
〃 V	1.000	Same as left	Same as left
Final reduction	2.375	Same as left	Same as left
Gear shift pattern	Left foot type return system	Same as left	Same as left
ELECTRICAL			
Ignition	Battery and ignition coil	Same as left	Same as left
Starting system	Motor and kick	Same as left	Same as left
Alternator	A.C. generator	Same as left	Same as left
Battery capacity	12V, 9AH	Same as left	Same as left
Spark plug	NGK D-8HS	Same as left	Same as left

ITEM		CL 175 K5	K 6	K 7
DIMENSION		U. S. A. type	U.S.A. type	U.S.A. type
Overall length		1,820 mm (78.3 in)	1,965 mm (77.4 in)	Same as left
Overall width		825 mm (32.5 in.)	Same as left	Same as left
Overall height		1,030 mm (42.5 in.)	1,050 mm (41.3 in.)	1,070 mm (42.1 in.)
Wheel base		1,215 mm (50.8 in.)	1,280 mm (50.4 in.)	1,295 mm (51.0 in.)
Seat height		790 mm (31.1 in)	Same as left	800 mm (31.5 in.)
Ground clearance		170 mm (6.7 in.)	Same as left	185 mm (7.3 in.)
Curb weight		124.5 kg (274.5 lb.)	138 kg (304 lbs)	139 kg (306 lbs)
FRAME				
Type		Semi-double cradle tubular	Same as left	Same as left
F. suspension, travel		Telescopic fork	Same as left	Same as left
R. suspension, travel		Swing arm	Same as left	Same as left
F. tire size, type		3.00—18 (4 PR)	2.75–18 (4 PR)	Same as left
R. tire size, type		3.25—18 (4 PR)	3.25–18 (4 PR)	Same as left
F. brake		Internal expanding shoe	Same as left	Same as left
R. brake		Internal expanding shoe	Same as left	Same as left
Fuel capacity		9.0 lit. (2.4 U.S. gal. 2.0 Imp. gal.)	Same as left	Same as left
Fuel reserve capacity		1.5 lit. (0.4 U.S. gal. 0.3 Imp. gal.)	Same as left	Same as left
Caster angle		64°	Same as left	Same as left
Trail length		90 mm (3.5 in.)	Same as left	Same as left
ENGINE				
Type		Air cooled, 4-stroke engine	Same as left	Same as left
Cylinder arrangement		Twin parallel, 8° inclined from vertical	Same as left	Same as left
Bore and stroke		52.0×41.0 mm (2.047×1.614 in.)	Same as left	Same as left
Displacement		174 cc (10.62 cu in.)	Same as left	Same as left
Compression ratio		9.0 : 1	Same as left	Same as left
Valve train		Chajn driven over head camshaft	Same as left	Same as left
Maximum horsepower		20 BHP/10,000 rpm	16 BHP/9,500 rpm	Same as left
Maximum torque		1.50 kg-m/8,500 rpm (10.8 lb. ft/8,500 rpm)	8.8 lb. ft/7,500 rpm	9.40 lb. ft/7,500 rpm
Oil capacity		1.5 lit. (1.6 U.S. qt 1.3 Imp. qt)	same as lefet	Same as left
Lubrication system		Forced and wet sump	Same as left	Same as left
Intake valve	Opens	At 10° (before top dead center)	Same as left	Same as left
	Closes	At 30° (after bottom dead center)	Same as left	Same as left
Exhaust valve	Opens	At 40° (before top dead center)	Same as left	Same as left
	Closes	At 0° (after top dead center)	Same as left	Same as left
Valve tappet clearance		0.05 mm (0.002 in.)	Same as left	Same as left
Idle speed		1.200 rpm	Same as left	Same as left
DRIVE TRAIN				
Clutch		Wet, multi-plate type	Same as left	Same as left
Transmission		5-speed, constant mesh	Same as left	Same as left
Primary reduction		3.700	Same as left	Same as left
Gear ratio	I	2.769	Same as left	Same as left
〃	II	1.882	Same as left	Same as left
〃	III	1.450	Same as left	Same as left
〃	IV	1.174	Same as left	Same as left
〃	V	1.000	Same as left	Same as left
Final reduction		2.530	Same as left	2.500
Gear shift pattern		Left food type return system	Same as left	Same as left
ELECTRICAL				
Ignition		Battery and ignition coil	Same as left	Same as left
Starting system		Motor and ignition coil	Same as left	Same as left
Alternator		A.C. generator	Same as left	Same as left
Battery capacity		12V, 9AH	Same as left	Same as left
Spark plug		NGK D-8HS	Same as left	Same as left

ITEM		SL 175	K 1
DIMENSION		U. S. A. type	U. S. A. type
Overall length		1,995 mm (78.5 in.)	2,025 mm (79.7 in.)
Overall width		780 mm (30.7 in)	Same as left
Overall height		1,090 mm (42.9 in.)	Same as left
Wheel base		1,310 mm (51.6 in.)	1,325 mm (52.3 in)
Seat height		820 mm (32.3 in.)	Same as left
Ground clearance		220 mm (8.6 in.)	280 mm (11.0 in.)
Curb weight		119 kg (262.4 lb)	122 kg (269 lb)
FRAME			
Type		Double cradle	Same as left
F. suspension, travel		Telescopic fork	Same as left
R. suspension, travel		Swing arm	Same as left
F. tire size, type		3.00—19 (4 PR)	Same as left
R. tire size, type		3.50—18 (4 PR)	Same as left
F. brake		Internal expanding shoe	Same as left
R. brake		Internal expanding shoe	Same as left
Fuel capacity		9.0 lit. (2.3 U.S. gal. 1.9 Imp. gal.)	Same as left
Fuel reserve capacity		2.0 lit. (0.5 U.S. gal. 0.4 Imp. gal.)	Same as left
Caster angle		62°	60°30′
Trail length		102 mm (4.0 in.)	108 mm (4.3 in.)
ENGINE			
Type		Air-cooled, 4 stroke engine	Same as left
Cylinder arrangement		Twin parallel, 8° indined from vertical	Same as left
Bore and stroke		52×41 mm (2.047×1.614 in.)	Same as left
Displacement		174 cc (10.62 CU in)	Same as left
Compression ratio		Chain driven over head camshaft	Same as left
Valve train		Chain driven overhead	Same as left
Maximum horsepower		19 PS/9.500 rpm	
Maximum torque		1.5 kg-m/7,500 rpm (10.8 lb. ft/7,500 rpm)	
Oil capacity		1.5 lit. (1.6 U.S. qt 1.3 Imp. qt)	Same as left
Lubrication system		Forced and wet sump	Same as left
Intake valve	Opens	At 10° (before top dead center)	Same as left
	Closes	At 30° (after bottom dead center)	Same as left
Exhaust valve	Opens	At 40° (before bottom dead center)	Same as left
	Closes	At 0° (after top dead center)	Same as left
Valve tappet clearance		0.05 mm (0.002 in.)	Same as left
Idle speed		1,200 rpm	
DRIVE TRAIN			
Clutch		Wet, multi-plate type	Same as left
Transmission		5-speed, constant mesh	Same as left
Primary reduction		3.700	Same as left
Gear ratio	I	2.769	Same as left
〃	II	1.882	Same as left
〃	III	1.450	Same as left
〃	IV	1.174	Same as left
〃	V	1.000	Same as left
Final reduction		2.687	Same as left
Gear shift pattern		Left foot type return system	Same as left
ELECTRICAL			
Ignition		Battery and ignition coil	Same as left
Starting system		Kick starter	Same as left
Alternator		A.C. generator	Same as left
Battery capacity		12V–5AH	Same as left
Spark plug		NGK D–8HS	Same as left

8. PERIODICAL MAINTENANCE

Maintenance Schedule

The mileage intervals shown in the MAINTENANCE SCHEDULE are intended as a guide for establishing regular maintenance and lubrication periods by which the best and most safe riding conditions are assured.

The operating procedures for individual items are described in the section of MAINTENANCE OPERATION.

After 12 months or 10,000 km (6,000 miles) perform repeatedly all items which are described in the column at every 6 months or 5,000km (3,000 miles) intervals.

Sustained severe or high speed operation under adverse conditions may necessitate more frequent servicing.

Service Required	Months or Miles, whichever occurs first					
	First	Second	Third	Thereafter Repeat Every		Page Reference
Month	—	6	12	6	12	
km	300	5,000	10,000	5,000	10,000	
Mile	200	3,000	6,000	3,000	6,000	
Engine Oil-change	○	Every 1,000 Miles (1,600 km)				8
Oil Filter-clean	○		○		○	8
Spark Plug-clean and adjust or replace		○	○	○		8
Contact Breaker Points-check or service		○	○	○		6
Ignition Timing-check or adjust	○	○	○	○		6
Valve Tappet Clearance-check or adjust	○	○	○	○		5
Cam Chain-adjust	○	○	○	○		10
Air- Cleaner-clean		○			○	9
Throttle Operation-check		○	○	○		50
Carburetor-check or adjust		○	○	○		5
Fuel Valve Strainer-clean		○	○	○		11,60
Fuel Tank and Fuel Lines-check		○	○	○		11,60
Clutch-check or adjust	○	○	○	○		7
Drive Chain and Sprockets-adjust and lubricate or replace	○	○	○	○		48
Front and Rear Brake-adjust	○	○	○	○		11—12
Front and Rear Brake Shoes-check or replace			○		○	44,47
Front and Rear Brake Links-check		○	○	○		44,47
Wheel Rims and Spokes-check	○	○	○	○		44,47
Tires-check or replace		○	○	○		44,47
Front Fork Oil-check and		○			○	13
change			○		○	13
Steering Head Bearings-check or adjust			○		○	50
Steering Handle Lock-check for operation			○		○	50
Side Stand Spring-check		○	○	○		—
Battery Electrolyte Level-check and replenish if necessary	○	○	○	○		12,71-72
Lights, Horn and Speedometer-check for operation or adjust		○	○	○		73—75

9. TROUBLE SHOOTING

Troubles	Probable causes	Corrective action
Engine does not start or hard starting	1. Lack of compression	
	(1) Tappet stuck open	Adjust tappet clearance
	(2) Worn valve guide guide	Replace
	(3) Worn valve seat	Regrind
	(4) Valve timing out of adjustment	Repair
	(5) Worn piston rings	Replace
	(6) Worn cylinder	Replace
	(7) Inferioh oil	Replace
	2. No spark produced from spnrk plug electrodes	
	(1) Fouled spark plug	Clean
	(2) Wet spark plug	Clean
	(3) Fouled breaker contact points	Clean
	(4) Improper point gap	Adjust
	(5) Ignition timing out of adjustment	Adjust
	(6) Defective ignition coil	Replace
	(7) Open or shorted circuit in ignition cord	Replace
	(8) Shorted condenser	Replace
	3. Fuel does not flow to carburetor	
	(1) No fuel in tank	Supply
	(2) Clogged fuel tank cap vent hole	Clean
	(3) Clogged fuel cock	Clean
	(4) Defective carburetor float valve	Replace
	(5) Clogged fuel tube	Clean
	(6) Clogged carburetor jets	Clean
Engine suddenly stalls while running	1. Fouled spark plug	Clean
	2. Fouled breaker contact points	Clean
	3. Ignition timing out of adjustment	Adjust
	4. Clogged fuel line	Clean
	5. Clogged carburetor jets	Clean
Engine noise	1. Tappet noise	
	(1) Excessive tappet clearance	Repair
	(2) Weakened or broken valve spring	Replace
	2. Knocking noise from piston	
	(1) Worn piston and cylinder noise	Replace
	(2) Carbon accumulation in combination chamber	Clean
	(3) Worn piston pin or connecting rod small end	Replace
	3. Cam chain noise	
	(1) Stretched cam chain	Replace or shorten the chain
	(2) Worn cam sprocket or timing sprocket	Replace
	4. Knocking noise from clutch	
	(1) Looseness of clutch center spline	Replace
	(2) Excessively worn friction disc or clutch	Replace
	(3) Distorted friction disc or clutch plate	Replace or repair

Troubles	Probable causes	Corrective action
Engine noise	5. Crankshaft	
	(1) Excessive runout of crankshaft	Repair
	(2) Excessively worn crankshaft bearing	Replace
	(3) Excessively worn connecting rod large end	Replace
	6. Gear noise	
	(1) Worn or binding transmission gear teeth	Replace
	(2) Worn transmission spline	Replace
	(3) Worn or binding primary transmission gear	Replace
Clutch slips	1. Imroper adjustment of clutch (no free play)	Readjust
	2. Weakened clutch spring	Replace
	3. Worn or distorted pressure plate	Replace
	4. Distorted clutch plate	Replace
	5. Worn or distorted friction plate	Replace
Clutch disengages improperly	1. Improper adjustment of clutch (excessive play)	Readjust
	2. Uneven clutch spring tension	Readjust
	3. Distorted clutch plate	Replace
Gear does not shift in	1. Broken center gear shift fork pawl	Replace
	2. Broken gear shift cam	Replace
	3. Deformed gear shift fork	Repair or replace
Change pedal does not return to its position	1. Broken or dislocated gear shift return spring	Repair or replace
	2. Shifting spindle hits crankcase hole	Repair
Gear jumps out while running	1. Worn shifting gears on main shaft and counter shaft	Replace
	2. Distorted or worn gear shift fork	Repair or replace
	3. Weakened shift drum stopper spring	Replace
Poor engine performance at low speed	1. Improper adjustment of tappet	Readjust
	2. Poor cylinder head valve seating	Replace
	3. Defective valve guide	Replace
	4. Ignition timing out of adjustment	Readjust
	5. Imprpper breaker contact points	Repair
	6. Excessive spark plug gap	Readjust
	7. Weak ignition spark (defective condenser and ignition coil)	Replace
	8. Improper adjustment of carburetor float level	Readjust
	9. Improper adjustment of carburetor air screw	Readjust

Troubles	Probable causes	Corrective action
Poor engine performance at high speed	1. Weak valve spring	Replace
	2. Valve timing out of adjustment	Readjust
	3. Too small spark plug gap	Readjust
	4. Ignition timing is retarded	Readjust
	5. Weak point arm spring	Replace
	6. Defective ignition coil	Replace
	7. Improper adjustment of carburetor float level	Readjust
	8. Clogged air cleaner element	Clean
	9. Insufficient fuel flow to carburetor	Clean or replenish
Hard steering	1. Broken steering ball bearings	Replace
	2. Bent steering stem	Repair or replace
	3. Excessively tightened steering cone race	Retighten to specified torque
	4. Low tire pressure	Inflate to specified pressure
Front and rear suspension function too weak	1. Weakened main spring	Replace
	2. Insufficient front damper oil	Refill to specified amount
Front and rear suspension function too hard	1. Front damper oil viscosity is too high	Replace
	2. Excessive damper oil	Drain
	3. Improper adjustment of rear cushion	Readjust
Ineffective brake	1. Worn brake lining	Replace
	2. Foreign objects adhered on brake lining surface	Clean
	3. Improper engagement of brake arm serration	Repair
	4. Worn brake cam	Replace
Exhaust smoke from muffler	1. Excessive engine oil	Check oil level with oil level gauge
	2. Excessively worn cylinder and piston rings	Replace
	3. Worn valve guide	Replace
	4. Damaged cylinder	Replace
Insufficient horsepower	1. Improper adjustment of tappet (valve stuck open)	Readjust
	2. Weakened valve spring	Replace
	3. Valve timing out of alignment	Repair
	4. Worn cylinder and piston rings	Replace
	5. Poor valve seating	Replace
	6. Ignition timing out of adjustment	Readjust
	7. Poor breaker contact points	Repair or replace
	8. Defective plug gap	Repair
	9. Clogged carburetor fuel passage	Clean
	10. Improper adjustment of float level	Readjust
	11. Clogged air cleaner	Clean
Overheating	1. Excessive carbon accumulation on cylinder head	
	2. Insufficient oil	Refill up to specified oil level
	3. Defective oil pump and clogged oil passage	Clean
	4. Too low float level	Readjust
	5. Too early ignition timing (causes knocking)	Readjust

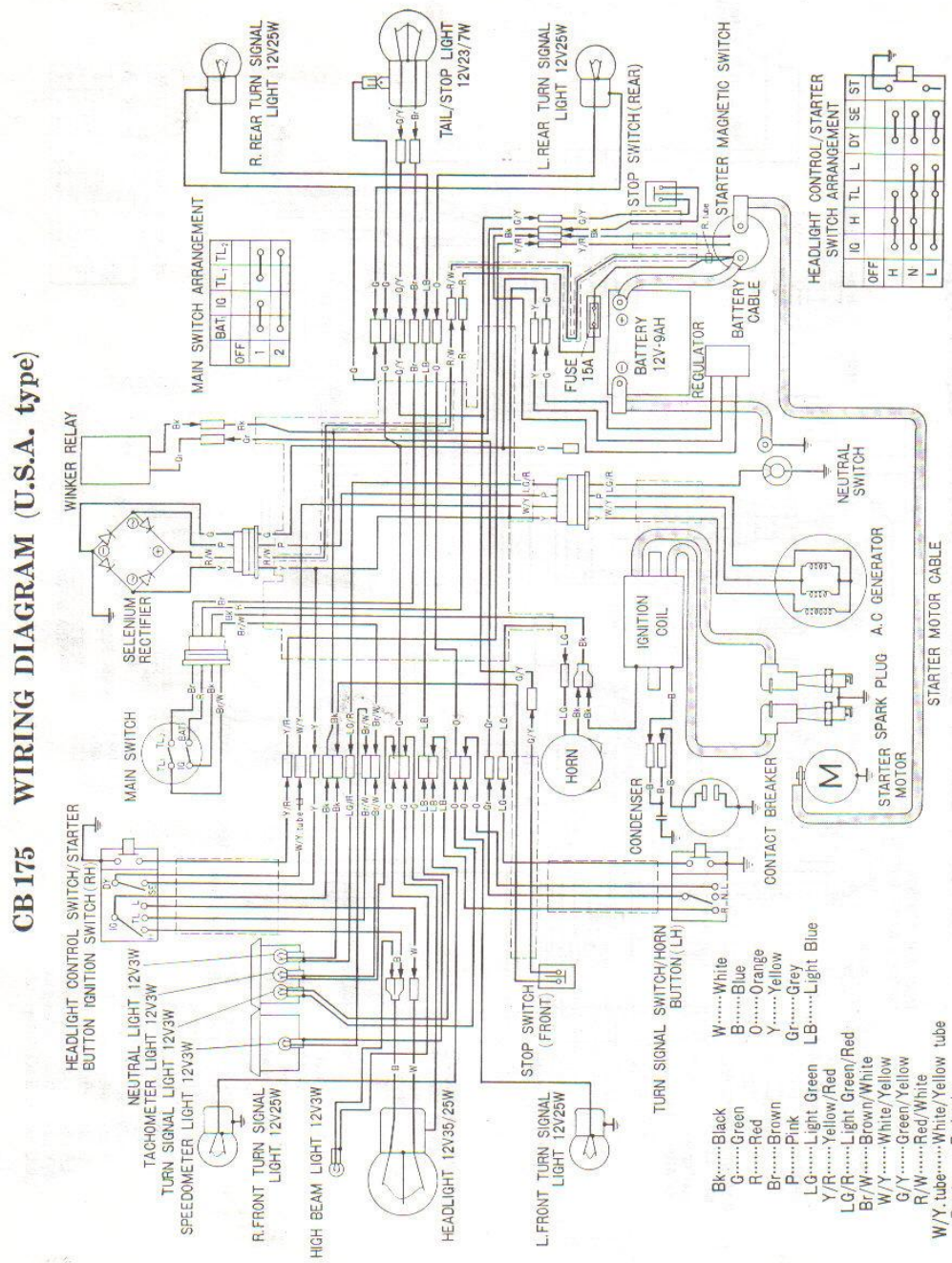
ELECTRICAL SYSTEM

Troubles	Probable causes	Corrective action
Engine does not start	1) Battery	
	· Discharged	Recharge or replace
	· Poor contact of battery terminals	Repair
	2) Combination switch	
	· Open or shorted circuit, disconnected connections	Repair
	· Poor contact between combination switch wire and wire harness	Repair
	3) Ignition coil	
	· Improperly insulated high tension coil	Replace
	· Open or shorted circuit in ignition coil	Replace
	4) Contact breaker	
	· Open circuit in the primary coil	Repair
	· Dirty ground point with oil or dust	Clean
	· Point gap out of adjustment	Readjust
	· Improperly charged condenser	Replace
Battery self	1) Wiring	
	· Open or shorted circuit in battery or disconnected battery terminals	Replace or retighten
	2) Generator	
	· Open or shorted circuit in stator coil or ground	Repair or replace
	· Broken or shorted leads	Repair
	· Demagnetization of rotor	Replace
	3) Battery	
	· Poor contact of battery terminals	Repair
	· Insufficient battery electrolyte	Add distilled water
	· Shorted battery electrode	Repair
Winker lamp blinks too fast or too slow	1) Bulb	
	· Blinks unusually fast: improperly connected relay	Replace
	2) Wiring	
	· Blinks too fast: bulb with unsuitable wattage	Replace
	· Blinks too slow: burnt or broken bulb filament	Replace
	3) Defective relay	Replace
Winker lamp inoperative	1) Winker lamp switch	
	· Poor contact of winker relay	Replace
	· Open circuit in winker relay coil	Replace
	2) Bulb	
	· Bulb wattage is smaller than rated wattage	Replace
	3) Relay	
	· Poor contact of winker relay	Replace
	· Improperly connected leads	Replace

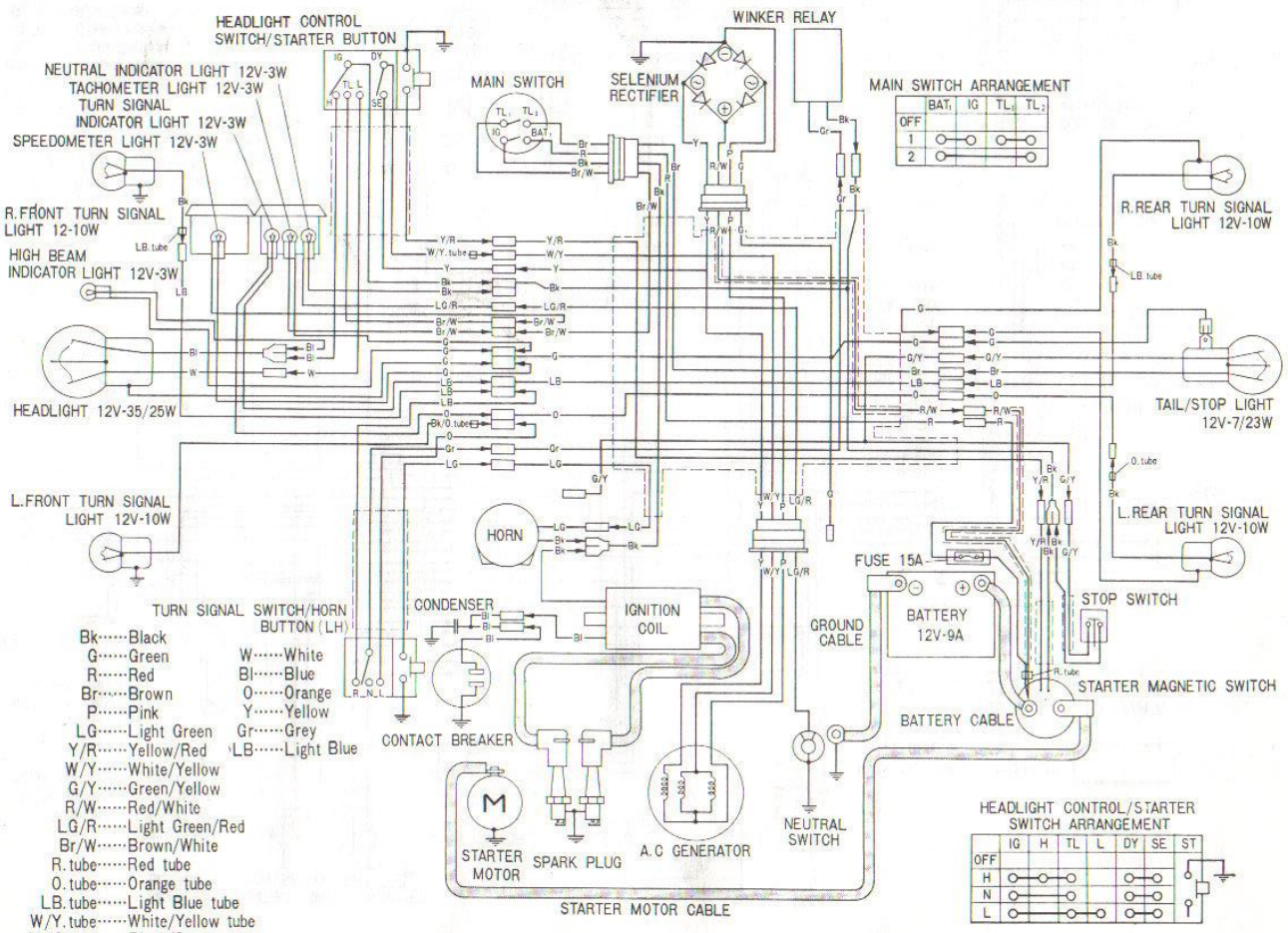
Troubles	Probable causes	Corrective action
Horn inoperative, poor sound or too weak sound	1) Horn · Cracked diaphragm	Replace
	2) Horn button · Poor grounding	Repair
	3) Wiring · Poor contact	Readjust
	4) Adjusting screw · Out of adjustment	Readjust
Tail light and head light inoperative	1) Fuse · Blown fuse or burnt bulb filament	Replace
	2) Bulb · Poor contact of lighting switch	Readjust
	3) Switch · Poor contact of dimmer switch	Readjust
	4) Wiring	
Stop light inoperative	1) Bulb · Burnt or broken bulb filament	Replace
	2) Front & tail stop light switch · Malfunction of switch	Readjust
	3) Wiring · Poor contact of leads	Readjust

10. WIRING DIAGRAM

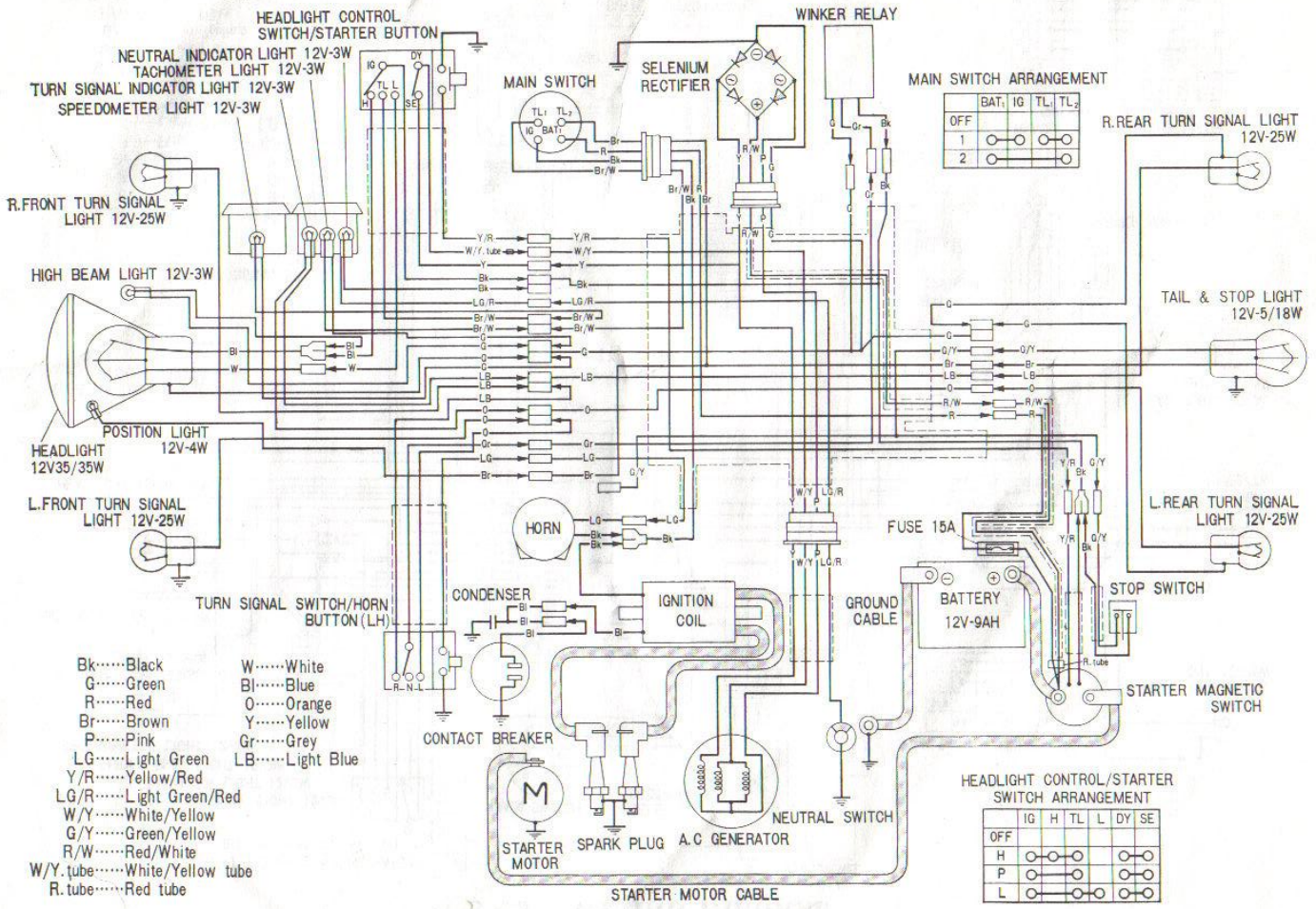
CB175 WIRING DIAGRAM (U.S.A. type)



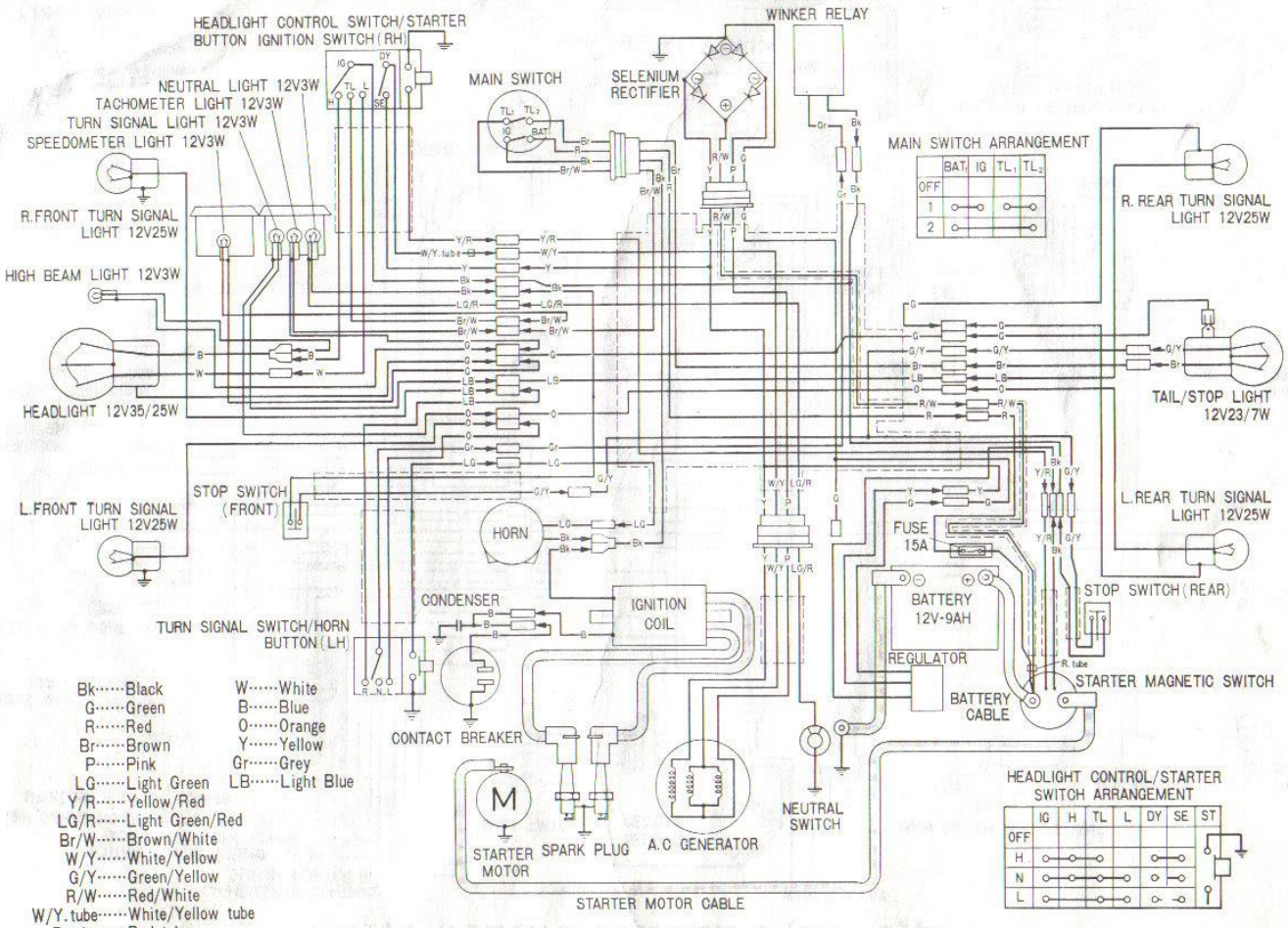
CB 175 WIRING DIAGRAM (General export type)



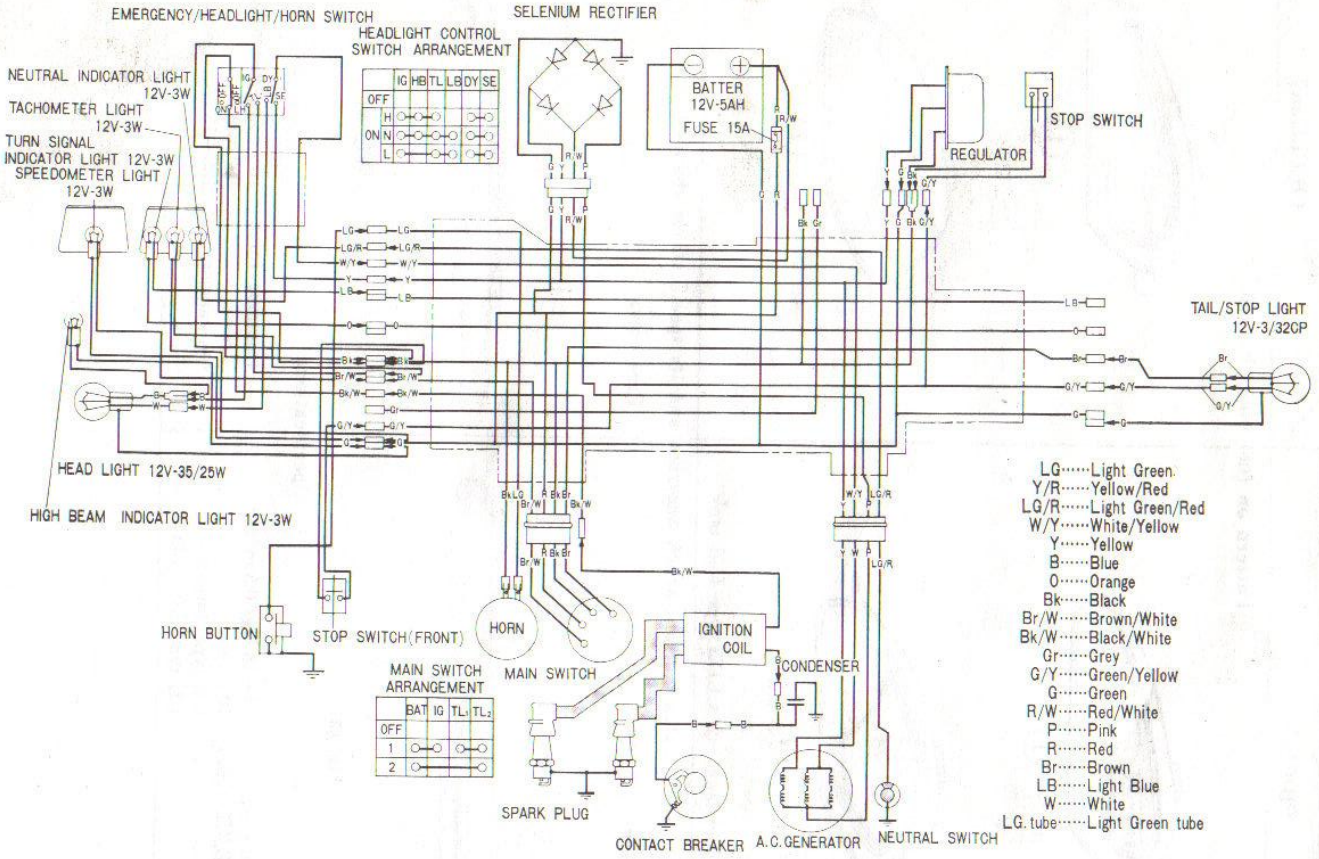
CB 175 WIRING DIAGRAM (U.K. Type)



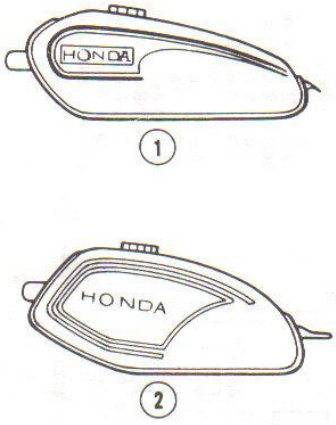
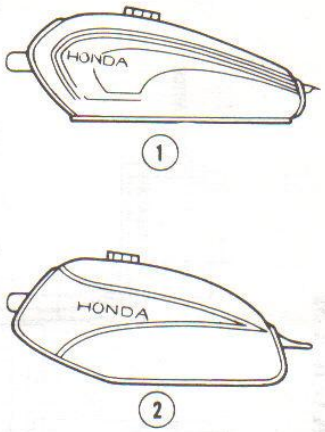
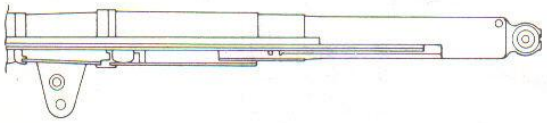
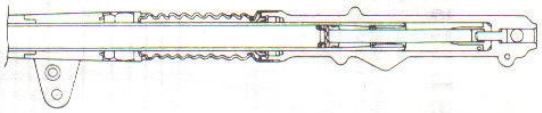
CL 175 WIRING DIAGRAM

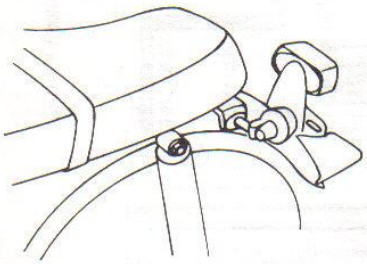
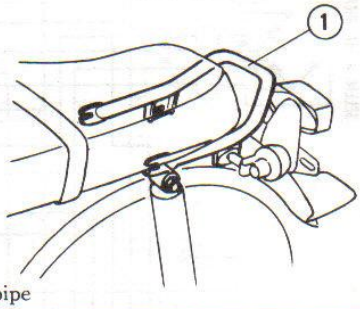
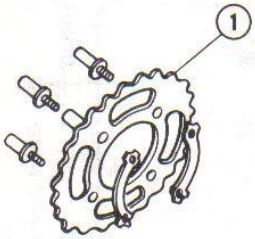
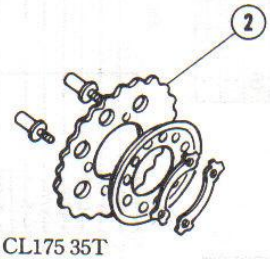
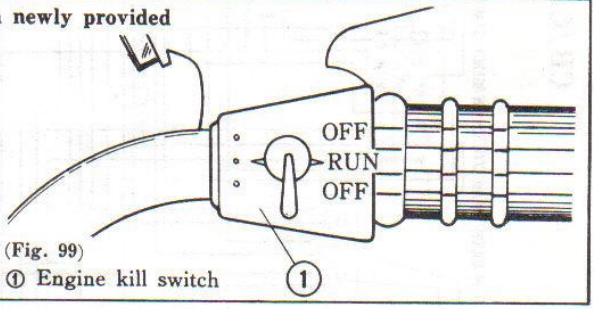


SL175 WIRING DIAGRAM



11. TABLE OF MINOR MODEL CHANGE MODIFICATIONS

CB/CL175K6	CB/CL175K7
Pattern on fuel tank changed	
 (Fig. 81) ① CB175 type fuel tank ② CL175 type fuel tank	 (Fig. 82)
Valve in front shock absorber and its specifications changed	
Piston type valve  (Fig. 83)	**Free valve**  (Fig. 84)
Specifications	
Damping force : 14~18 Kg/ 0.5 m/sec. Travel (CB/CL type) : 104 mm Oil capacity : CB type 140~150 cc CL type 135~145 cc	Damping force : 18~22 Kg/0.5 m/sec. Travel : 105 mm Oil capacity : 125~135 cc (Honda ATF oil)

<table>
<tr><th>CB/CL175K6</th><th>CB/CL175K7</th></tr>
<tr><td colspan="2">Rear shock absorber changed</td></tr>
<tr><td>De Carbon type
Shock absorber spring adjusting positions : 3</td><td>Double tube type
Shock absorber spring adjusting positions : 5</td></tr>
<tr><td colspan="2">Rear pipe newly installed</td></tr>
<tr><td> 
(Fig. 85)</td><td> 
(Fig. 96)
① Rear pipe</td></tr>
<tr><td colspan="2">Number of teeth of drive and driven sprockets changed</td></tr>
<tr><td> 
(Fig. 97)
① CB175 38T, CL175 43T</td><td> 
(Fig. 98)
② CB175 33T, CL175 35T</td></tr>
<tr><td colspan="2">Engine kill switch newly provided</td></tr>
<tr><td>None</td><td> 
(Fig. 99)
① Engine kill switch</td></tr>
</table>

CB/CL175K7 WIRING DIAGRAM