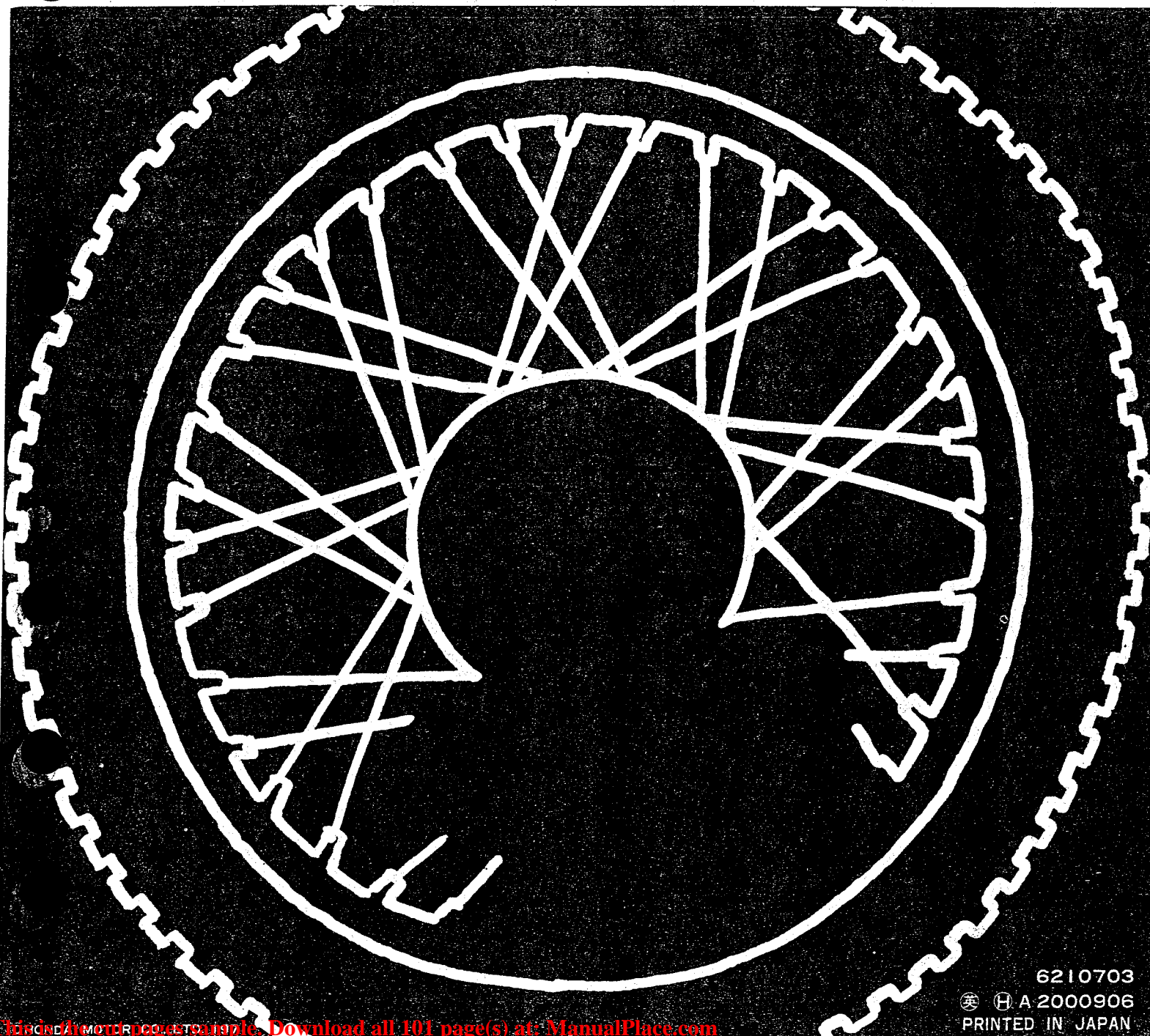


# SHOP MANUAL

**HONDA**  
**100 · 125**

MODEL CB100.CL100.SL100  
CB125S.CD125S.SL125



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PRINTED IN JAPAN

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## FOREWORD

This Shop Manual is published as a guide to servicing the Honda 100•125. It provides the service technician with complete and proper servicing information. Further, the sales personnel will also gain the technical knowledge which is very beneficial in his work.

The manual is separated into five sections with the respective sections being further divided into disassembly, adjustment, and repair.

By closely following the instructions, the proper servicing can be performed with greater efficiency.

The information in this manual was in effect at the time of publication.

The information peculiar to TL125 is compiled at the back of this publication as a supplement.

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## I. PROCEDURE OF PERFORMING THE WORK

1. When performing an overhaul, all the parts which have been disassembled should be separated in their respective groups so that they will not become mixed.
2. All packings, gaskets and cotter pins which have been removed should be replaced with new items when reassembling. Any snap rings which are deformed should also be replaced.
3. All engine parts should be cleaned after disassembly. Metal surfaces which are subject to friction must be coated with oil.
4. The work should be performed with special tools for better results.
5. All nuts and bolts are normally 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 ~ 2.0 (11.5 ~ 14.5)	Front axle nut	4.0 ~ 5.0 (29.0 ~ 36.0)
Spark advance	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Rear axle nut	4.0 ~ 5.0 (29.0 ~ 36.0)
Cam sprocket	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Rear fork pivot bolt	3.0 ~ 4.0 (21.7 ~ 29.0)
Cylinder mount bolt, 6 mm	1.2 ~ 1.8 ( 8.7 ~ 13.0)	Engine mounting bolt	2.0 ~ 2.5 (14.5 ~ 18.8)
Left crank case cover	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Handle mounting bolt	0.9 ~ 1.1 (6.50 ~ 7.95)
A.C rotor	2.6 ~ 3.2 (18.8 ~ 23.2)	Steering stem nut	6.0 ~ 8.0 (43.3 ~ 57.8)
A.C generator mounting screw	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Front cushion mounting bolt	4.0 ~ 5.0 (29.0 ~ 36.0)
Cam chain tensioner arm	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Rear cushion mounting nut	3.0 ~ 4.0 (21.7 ~ 29.0)
Right crank case cover screw	0.8 ~ 1.2 ( 5.8 ~ 8.7)	Torque link mounting bolt	2.0 ~ 2.5 (14.5 ~ 18.0)
Oil filter cover screw	0.8 ~ 0.4 ( 2.2 ~ 2.9)	Top bridge lock nut	4.0 ~ 4.8 (29.0 ~ 34.7)
Oil filter (lock nut, 16 mm)	4.0 ~ 5.0 (29.0 ~ 36.0)	Final driven sprocket	2.0 ~ 2.5 (14.5 ~ 18.0)
Oil pump gear cover bolt	0.4 ~ 0.6 ( 2.9 ~ 4.4)	Seat mounting bolt	2.0 ~ 2.5 (14.5 ~ 18.0)
Clutch mounting bolt	0.8 ~ 1.2 ( 5.6 ~ 8.7)		
Gear shift drum stopper bolt	0.8 ~ 1.2 ( 5.6 ~ 8.7)		
Gear shift drum cam bolt	0.8 ~ 1.2 ( 5.6 ~ 8.7)		

### Standard parts

Bolt hex. 6 mm	0.8 ~ 1.2 kg/m (5.8 ~ 8.7)
Screw cross, 6 mm	0.8 ~ 1.2 kg/m (5.8 ~ 8.7)
Nut, 6 mm	0.8 ~ 1.2 kg/m (5.8 ~ 8.7)
Screw cross, 5 mm	0.3 ~ 0.4 kg/m (2.2 ~ 2.9)

**SPECIAL TOOLS**



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②



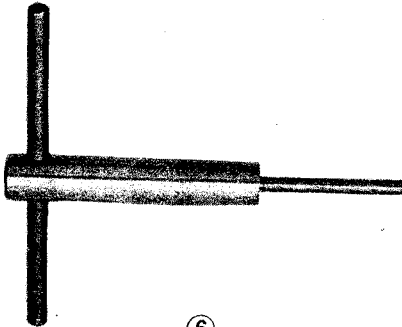
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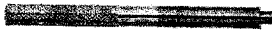
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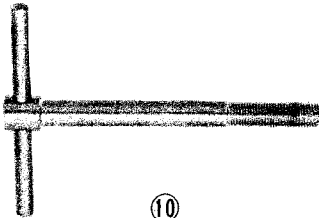
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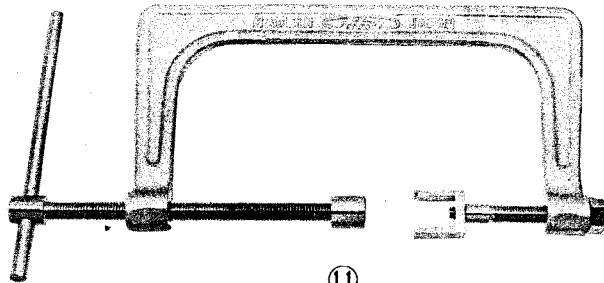
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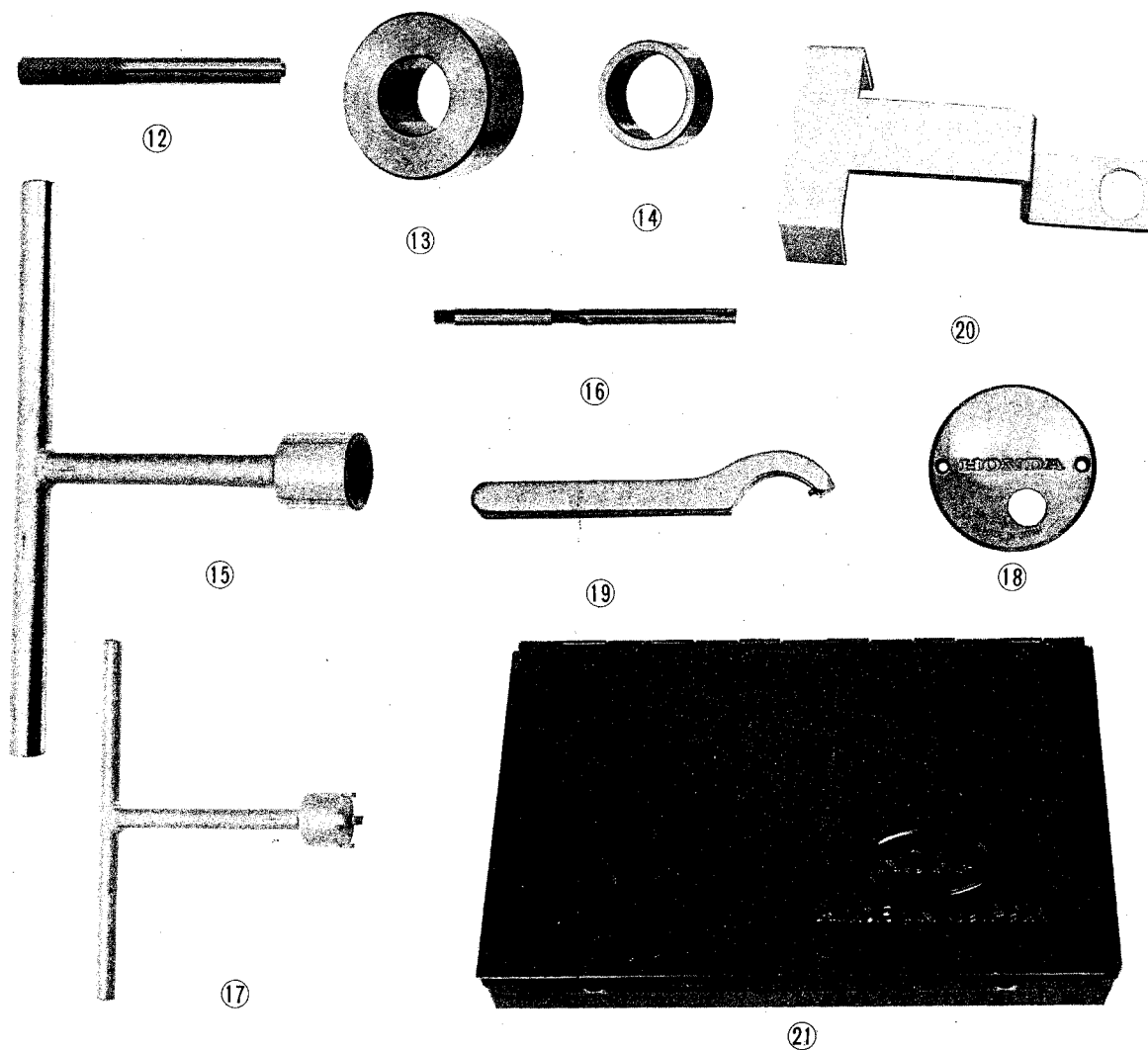


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Ref. No.	Tool No.	Description
	07000-10701	Special Tool Set for CB100 and CL100
	07001-11001	Special Tool Set for SL100
1	* 07001-10701	Valve seat 90° cutter
2	* 07003-10701	Inlet valve seat top cutter
3	* 07004-10701	Exhaust valve seat top cutter
4	* 07005-10701	Inlet valve seat interior cutter
5	* 07006-10701	Exhaust valve seat interior cutter
6	07007-00101	Valve seat cutter holder 5.5mm
7	07046-21601	Valve guide driver
8	07022-20001	Drive sprocket holder
9	07072-20001	Pin spanner, 48 mm
10	07011-03001	Dynamo rotor puller
11	07031-10701	Valve spring compressor



Ref. No.	Tool No.	Description
12	07047-04001	Valve guide remover
13	07054-02802	Front fork oil seal driving weight
14	* 07054-02803	Front fork oil seal driving guide (CB100, CL100)
15	07083-21601	Stem nut box wrench, 29 mm
16	07008-24001	Valve guide reamer
17	07086-28301	T-handle box wrench, 16 mm
18	* 07061-10701	Timing inspection cover
19	07071-25001	Main switch spanner
20	* 07024-10701	Clutch outer holder
21	07997-05101	Valve seat cutter case
	07790-29201	Tool case

\* These tools are newly made for use, the others are common to all series.

**SPECIAL TOOLS FOR CB125S, CD125S AND SL125**

<b>Tool No.</b>	<b>Description</b>
07000-32401	Special Tool Set for CB125S, CD125S and SL125
07001-32401	Valve seat 90° cutter
07003-32401	Inlet valve seat top cutter
07004-32401	Exhaust valve seat top cutter
07005-32401	Inlet valve seat interior cutter
07006-32401	Exhaust valve seat interior cutter

These tools described above are newly made for use, the others are common to 100 series.



## II. MAINTENANCE OPERATIONS

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### 1. TAPPET ADJUSTMENT

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

- 1) Unscrew the two 8mm seat mounting bolts and remove 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" (timing) mark aligns with index mark on the stator and the piston is in the compression stroke. The piston in the compression stroke can be determined by feeling rocker arms for clearance. (Fig. 1)
- 6) Check tappet clearances with a thickness gauge and if it is necessary to adjust, loosen the lock nut and adjust the tappet adjust screw. (Fig. 2)

Tappet clearances: Intake 0.05mm (0.002 in.)  
Exhaust 0.05mm (0.002 in.)

When tightening the lock nut, exercise care so that the tappet clearance will not be disturbed. Recheck the tappet clearance.

### 2. CARBURETOR ADJUSTMENT

Warm up the engine before setting the engine idle speed and make the idle adjustment with the pilot air screw and throttle stop screw. (Fig. 3)

- 1) Adjust the throttle stop screw to give idle speed of 1,200 rpm. Use a tachometer when it is available.
- 2) Turn the pilot air screw in and out to locate the position where engine rpm is highest. Turning the screw in will provide a rich fuel mixture, turning the screw out will give a lean fuel mixture.
- 3) If engine rpm has increased by the adjustment of air screw, the engine rpm should be set to the proper idle speed by using the throttle stop screw.
- 4) Turn the pilot air screw in or out within the range of 1/8 to 1/4 turn to obtain the optimum idling condition.

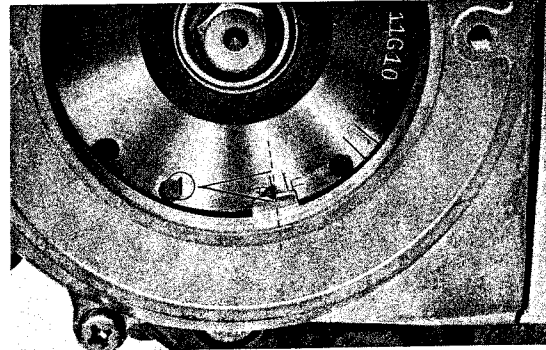


Fig. 1 ① "T" aligning mark

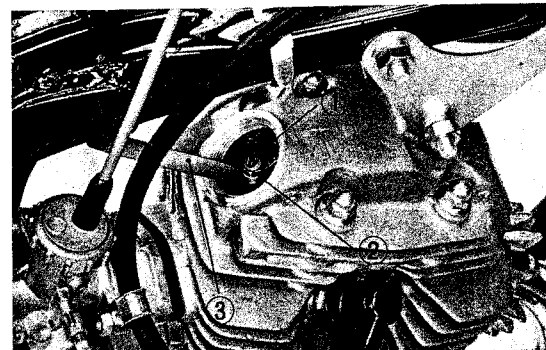


Fig. 2 Tappet adjustment  
① Lock nut ② Tappet adjust screw ③ Thickness gauge

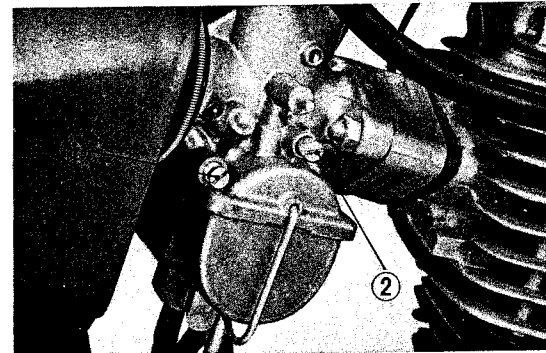


Fig. 3 Idling adjustment  
① Air screw ② Throttle stop screw

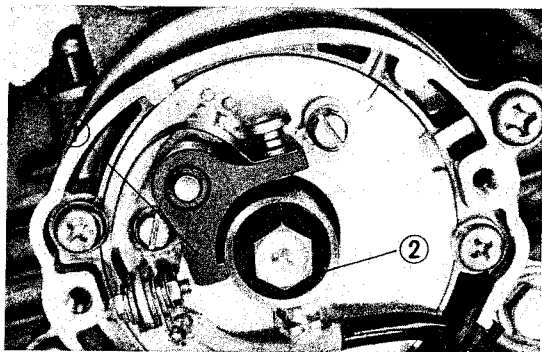


Fig. 4 ① Breaker arm slipper ② Cam

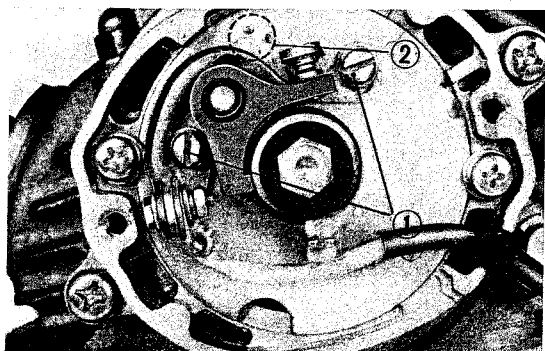


Fig. 5 ① Breaker arm retaining screws ② Adjusting position

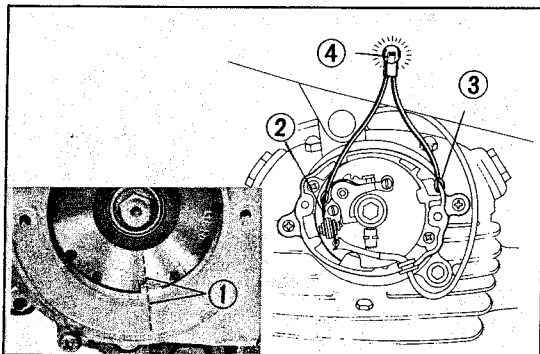


Fig. 6 ① "F" aligning mark ② Breaker arm spring  
③ Ground to earth ④ Bulb

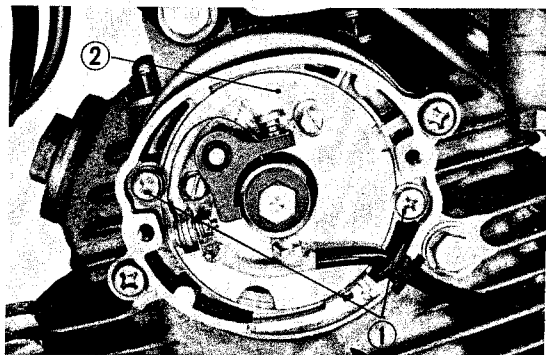


Fig. 7 ① Base plate mounting screw ② Base plate

### 3. BREAKER POINT AND IGNITION TIMING ADJUSTMENT

Adjust breaker point gap, before performing the ignition timing adjustment.

#### A. Breaker point gap

- 1) Remove the point and dynamo covers. Turn the crankshaft with the pin spanner provided as a service tool until the breaker arm slipper is on the highest point of cam lobe. (Fig. 4)
- 2) Measure point gap using a thickness gauge. The gap should be 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, and pry to adjust to the above value. Retighten the screw securely after setting is made. (Fig. 5)
- 4) Check the ignition. When the point contact surfaces are pitted or dirty, grind contacts with a point file or oil stone to remove transfer or contamination. If the metal build-up on the point is greater than 0.5 mm (0.02 in.), it should be replaced.

#### B. Ignition timing adjustment

- 1) Disconnect the contact breaker cord (green cord) at the connector and connect a 12V–3W lamp across the line. (Fig. 6)
- 2) Set the combination switch to "ON" position.
- 3) Turn the rotor slowly until the lamp goes out and check the position of "F" mark on the rotor against the index mark on the L. crankcase. If they are in line, the ignition timing is correct. (Fig. 6)
- 4) If ignition timing is required for adjustment, 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. Tighten the screw after adjustment is made. (Fig. 7)