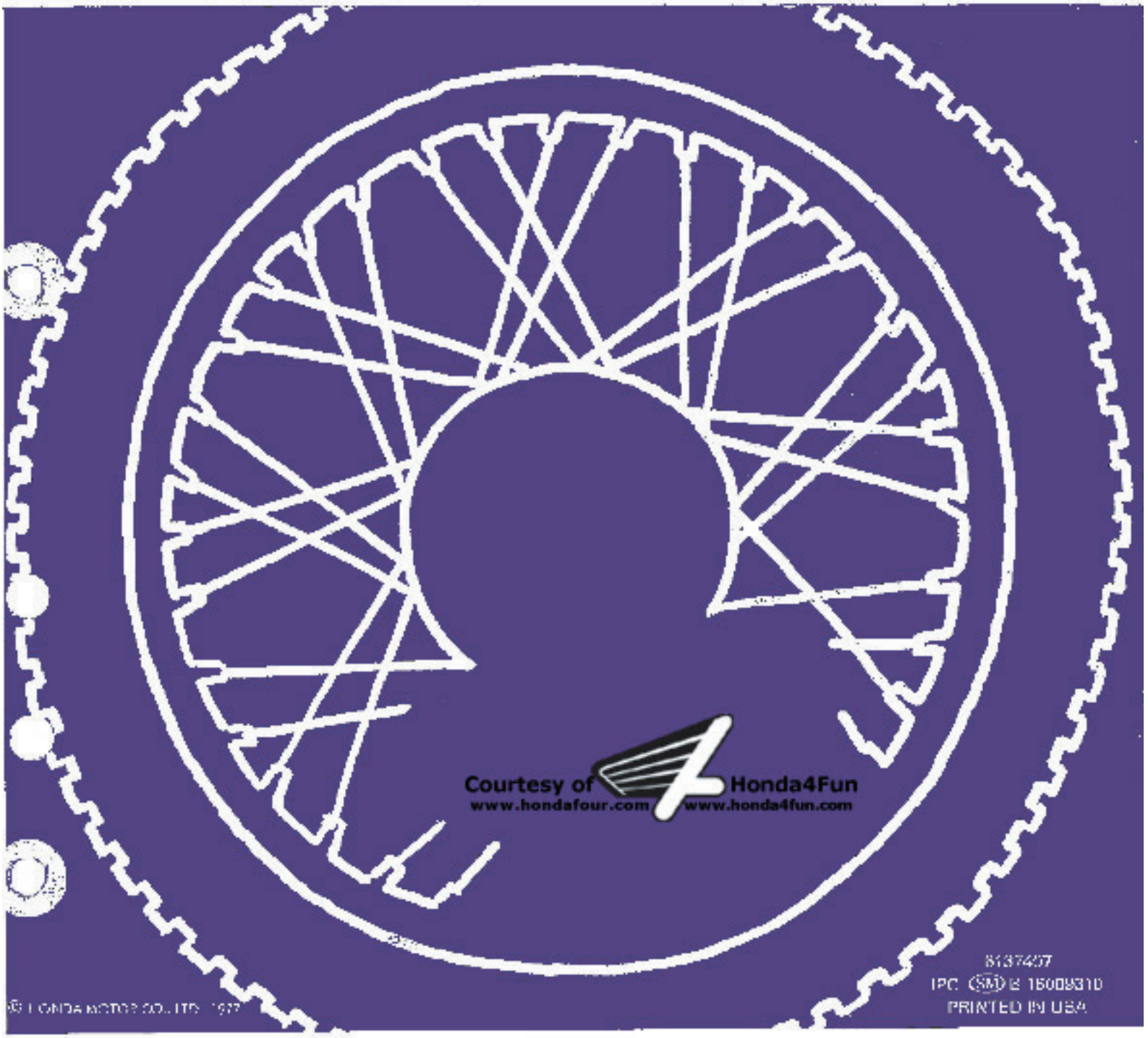
SHOP MANUAL

HONDA

CB500·550



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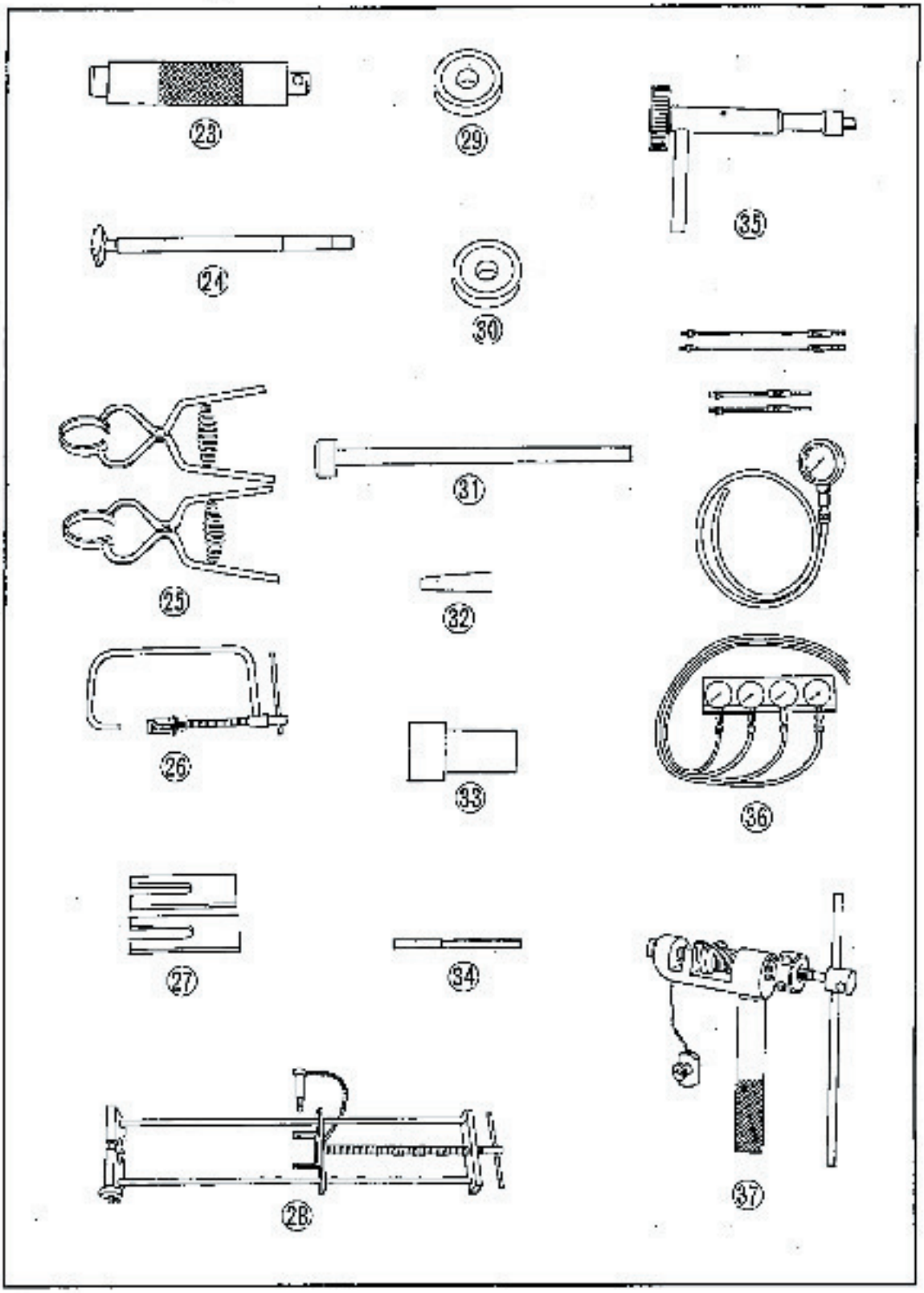

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- **Remove any brake fluid which may have spilled on a painted surface, rubber parts, and meter components. It may produce a chemical reaction and damage those parts.**

Brake Pad Inspection

Replace pads A and B with new ones when either of the pads is worn to the red serviceable limit mark around the pad.

Brake Bleeding

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

1. Remove the dust cap from the bleeder valve and attach the bleeder hose.
2. Place the free end of the bleeder hose in a glass container which has some hydraulic brake fluid in it so that the end of the hose can be submerged.
3. Fill the reservoir using only the recommended brake fluid. Screw the cap partially on the reservoir to prevent entry of dust.
4. As shown in Fig. 33 attach a piece of rubber about 15 mm thick to the end of the handle grip to decrease the stroke as measured at the tip of the handle lever. Pump the brake lever several times until pressure can be felt. Holding the lever tight, open the bleeder valve about ½ turn and squeeze the lever all the way down.
   Do not release the lever until the bleeder valve has closed again. Repeat this procedure until bubbles cease to appear in the fluid at the end of the hose.
5. Remove the bleeder hose, tighten the bleeder valve and install the bleeder valve dust cap.
6. Do not allow the fluid reservoir to become empty during the bleeding operation or air will enter the system again. Replenish the fluid as often as necessary while bleeding.

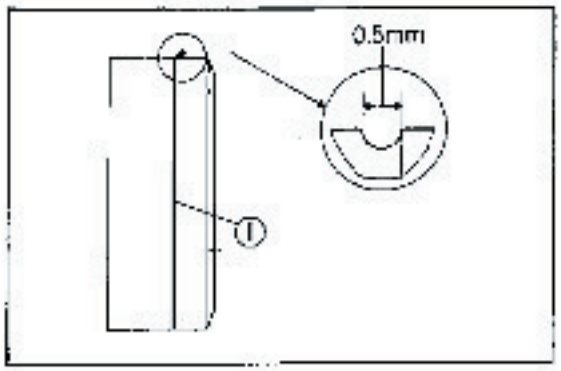

Fig. 31 ① Red line

Fig. 32 ① Diaphragm ② Brake fluid ③ Master cylinder

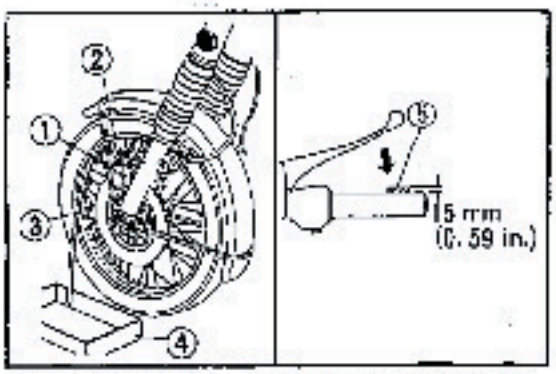

Fig. 33 ① Caliper ② Bleeder ③ Bleeder hose ④ Rubber ⑤ Drip pan

7. Check for proper effect of bleeding and absence of leaks in the front brake lines while holding pressure against the brake lever. Replenish the fluid in the reservoir when bleeding is completed. Reinstall the diaphragm, washer and reservoir cap and tighten.

After the hydraulic brake system has been drained, it should be filled as outlined below.

1. Fill the fluid reservoir.
2. Open the bleeder valve by ½ turn, squeeze the brake lever, close the valve and release the brake lever. This procedure must be repeated in this sequence until hydraulic fluid begins to flow through the bleeder hose. After filling the hydraulic system with fluid, proceed with the actual bleeding operation.

Note:

- **Brake fluid which has been pumped out of the system must not be used again.**
- **Brake fluid will damage the paint finish and instrument lenses.**

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3. CHARGING SYSTEM

The charging system for the CB500 is made up of the exciter field 3-phase AC generator, rectifier, voltage regulator and the fuse. The generator consists of the field coil, stator coil and the rotor; it does not contain slip rings or brushes.

In order for the stator coil to produce constant voltage, the current from the battery to produce the exciter field is regulated to very close limits by the dual contact regulator. The generator output is rectified by the silicon rectifier before being sent to recharge the battery. The generator performs two functions depending upon the charge condition of the battery. The electrical current from the battery flows through the switch and into the regulator. When the battery voltage is lower than normal (less than 13.5 V at the battery terminal), the current flows through the upper contact to the field coil. The strength of the magnetic field is dependent upon the strength of the battery voltage. When the battery terminal voltage is 12 V, the field coil current is 1.6 A. This produces an output voltage of corresponding strength which is used to charge the battery.

When the battery voltage exceeds approximately 14.5 V, the armature coil pulls the armature away from the upper contacts and closes the lower contacts to insert a 10 Ω resistance into the field coil circuit. The current to the field coil is thus reduced to 0.7 A and, consequently, a lower voltage is produced by the generator, limiting the amount of charge to the battery. This function of inserting or removing the resistance into the generator field coil is performed by the voltage regulator in accordance with the charge condition of the battery.

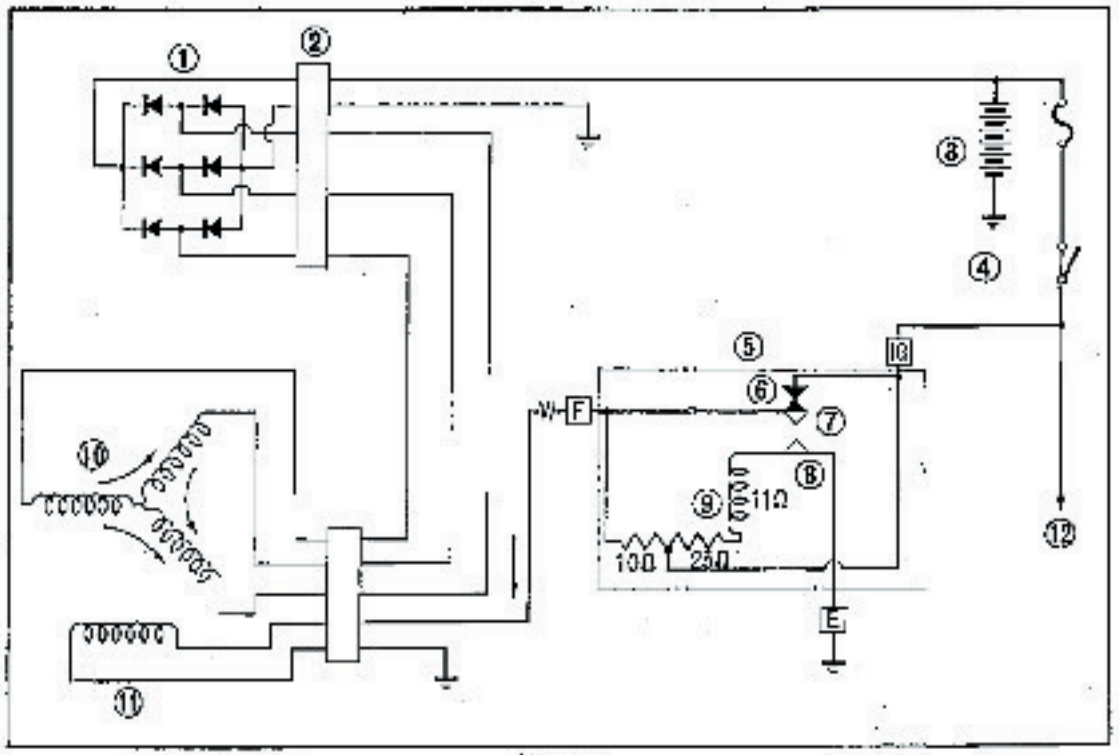

Fig. 252

① Silicon rectifier
② Coupler
③ Battery 12 V, 12 AH
④ Main switch
⑤ Regulator
⑥ Upper contact
⑦ Moving contact
⑧ Lower contact
⑨ Relay coil
⑩ Stator coil
⑪ Field coil
⑫ To load

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5. ELECTRICAL EQUIPMENT

1. Main switch inspection
With the switch in both the ON and OFF positions, check to see that the continuity conditions in the chart below are satisfied. The switch is defective if there is no continuity where specified, or if there is continuity where not specified.

		BAT	IG	TL1	TL2
Color of cords		Red	Black	Brown/white	Brown
Key position	OFF				
	1	○—○		○	○
	2	○			○

2. Front stop switch inspection
Apply tester lead probes to the terminals of the front stop switch cords (black, green/yellow), operate brake lever and check for continuity.
- Check the lever free play **2~5 mm (0.08~0.2 in.)**.

The stop light should come on when the brake lever travels beyond the lever free play.

3. Rear stop switch inspection
After connecting the stop switch spring, apply the tester lead probes to the switch terminals (green/yellow, black cords) and check for continuity. When the brake pedal is depressed 20 mm (0.8 in.) at the front end of the pedal, the stop light should come on at this point.
Adjustment
If the stop light is late in coming on, turn the adjuster nut clockwise, and if too early, turn counterclockwise.

4. Horn Inspection
- Check for continuity across the horn lead terminals.
- An alternate method is to connect the horn to a fully charged 12 V battery and check its operation.

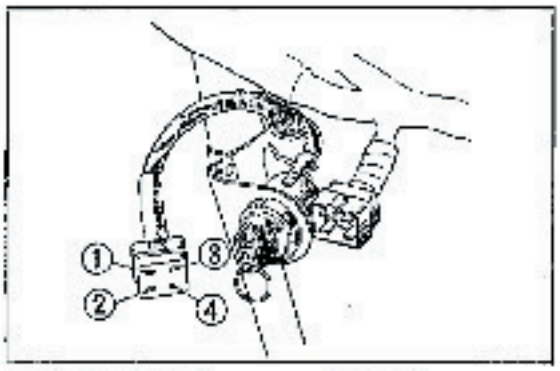

Fig. 309 ① Black ③ Brown
② Brown/white ④ Red

Fig. 310 Front stop switch inspection
① Front stop switch

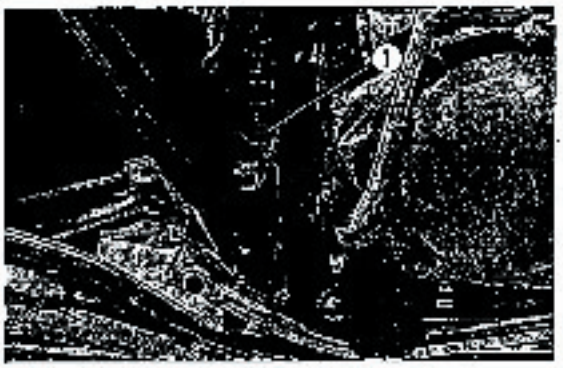

Fig. 311 ① Rear stop switch adjuster nut

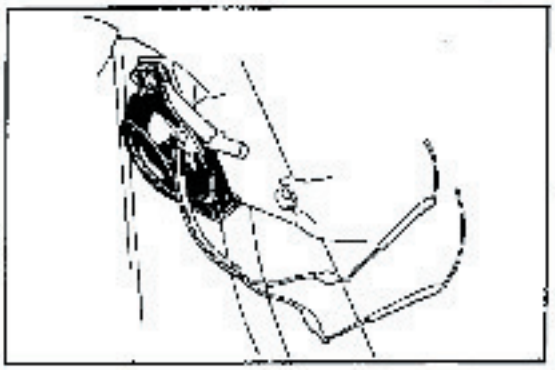

Fig. 312 Horn continuity test

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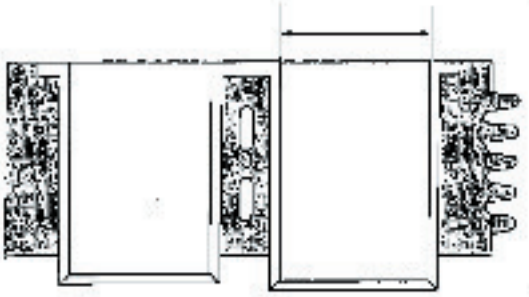
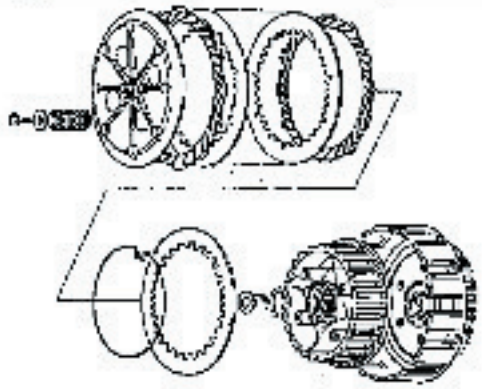
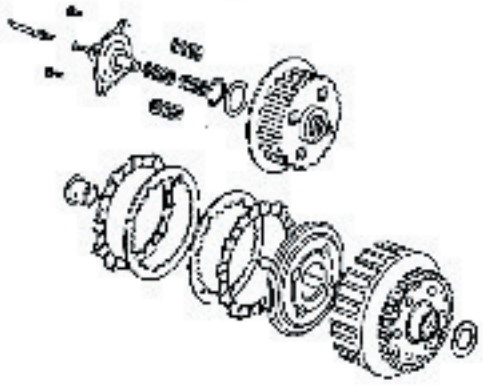
9. COMPARISON OF CB550 TO CB500

(Engine)

Part or item	Model CB500	Model CB550	Modified part
Cylinder bore	 Fig. 331		• Cylinder • Piston • Piston rings • Upper crankcase • Cylinder gasket • Cylinder head gasket
	Diameter : 66.0 mm (2.205 in.) (Piston displacement : 498 cc or 30.4 cu. in.)	Diameter : 68.5 mm (2.598 in.) (Piston displacement : 544 cc or 33.2 cu. in.)	
Clutch	 Fig. 332 CB500 (Exploded, from left)		• Clutch outer • Clutch center • Clutch pressure plate • Clutch springs • Clutch lifter rod • Right and left crankcase covers • Friction discs
	 Fig. 333 CB550 (Exploded, from right)		

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5. Attach a dial gauge to the end face of the clutch assembly to check for excessive looseness. If it exceeds 0.1 mm (0.0039 in.), install a washer or washers behind the snap ring. The washers are available in three thicknesses : 0.1 mm (0.0039 in.), 0.3 mm (0.0118 in.) and 0.5 mm (0.0197 in.).
6. Install the four clutch springs. Install the lifter plate and tighten the four 6 mm bolts in a criss-cross pattern.
7. Insert the lifter rod.
8. Install the right crankcase cover and kick starter pedal.

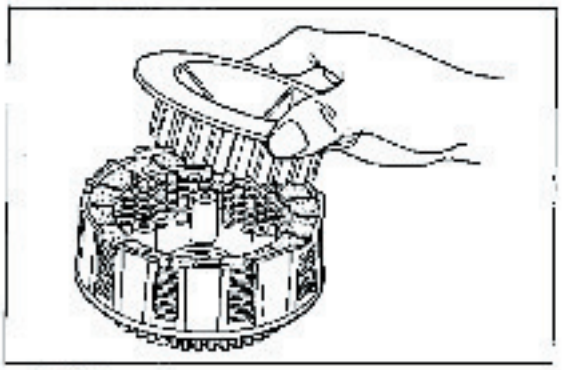

Fig. 380

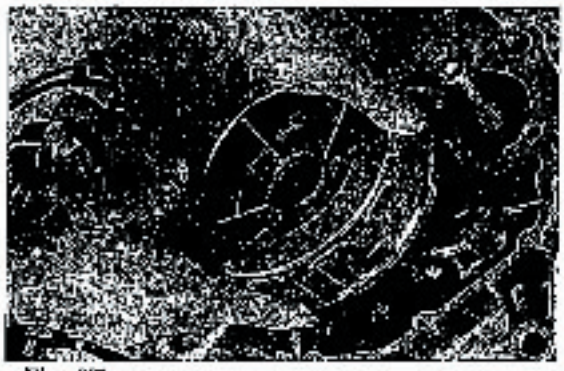

Fig. 381

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Trouble	Probable cause	Remedies
Self discharge Battery discharges in addition to that caused by the connected load.	1. Dirty contact areas and case. 2. Contaminated electrolyte or electrolyte excessively concentrated.	1. Always keep the exterior clean. 2. Handle the replenishing electrolyte with care.
C. Large discharge rate Specific gravity gradually lowers and around 1.100 (S. G.), the winker and horn no longer function.	1. The fuse and the wiring are satisfactory, but loads such as winker and horn do not function. In this condition the motorcycle will operate but with long use, both ⊕ and ⊖ plates will react with sulfuric acid and form lead sulfide deposits, (sulfation) making it impossible to recharge.	1. When the specific gravity falls below 1.200 (20°C; 68°F), the battery should be recharged immediately. 2. When the battery frequently becomes discharged while operating at normal speed, check the generator for proper output. 3. If the battery discharges under normal charge output, it is an indication of overloading. Remove some of the excess load.
High charging rate The electrolyte level drops rapidly but the charge is always maintained at 100% and the condition appears satisfactory. (Specific gravity over 1.260)	1. The deposit will heavily accumulate at the bottom and will cause internal shorting and battery damage.	1. Check to assure proper charging rate.
Specific gravity drop Electrolyte evaporates	1. Shorted. 2. Insufficient charging. 3. Distilled water overfilled. 4. Contaminated electrolyte.	1. Check specific gravity measurement. 2. If the addition of distilled water causes a drop in specific gravity, add sulfuric acid and adjust to proper value.
Sulfation The electrode plates are covered with a white layer or spots.	1. Charging rate is too small or too large. 2. The specific gravity of the mixture of the electrolyte is improper. 3. Battery left in a discharge condition for a long period. (Left with the switch turned on) 4. Exposed to excessive vibration due to improper insulation. 5. Motorcycle stored during the cold season with the battery connected.	1. When motorcycle is in storage, the battery should be recharged once a month even though the motorcycle is not used. 2. Check the electrolyte periodically and always maintain the proper level. 3. In a lightly discharged condition, perform recharging and discharging several times by starting the engine.
Spark plug electrode coated with carbon deposit	1. Too rich a fuel mixture. 2. Excessive idle speed. 3. Poor quality gasoline. 4. Clogged air cleaner. 5. Use of cold spark plug.	Adjust carburetor. Adjust idle speed. Use good quality gasoline Service the air cleaner. Use proper heat range plug.
Spark plug electrode fouled with oil	1. Worn piston ring. 2. Worn piston and cylinder. 3. Excessive clearance between valve guide and valve stem.	Replace piston ring. Replace piston or cylinder. Replace valve guide or valve.
Spark plug electrode overheated or burnt	1. Use of hot spark plug. 2. Engine overheating. 3. Improper ignition timing 4. Loose spark plug or damaged spark plug hole thread. 5. Too lean a fuel mixture.	Use proper heat range plug. Readjust ignition timing. Retighten plug or replace cylinder head. Adjust carburetor.
Damage	Spark plug overtorqued.	Replace with a new spark plug.

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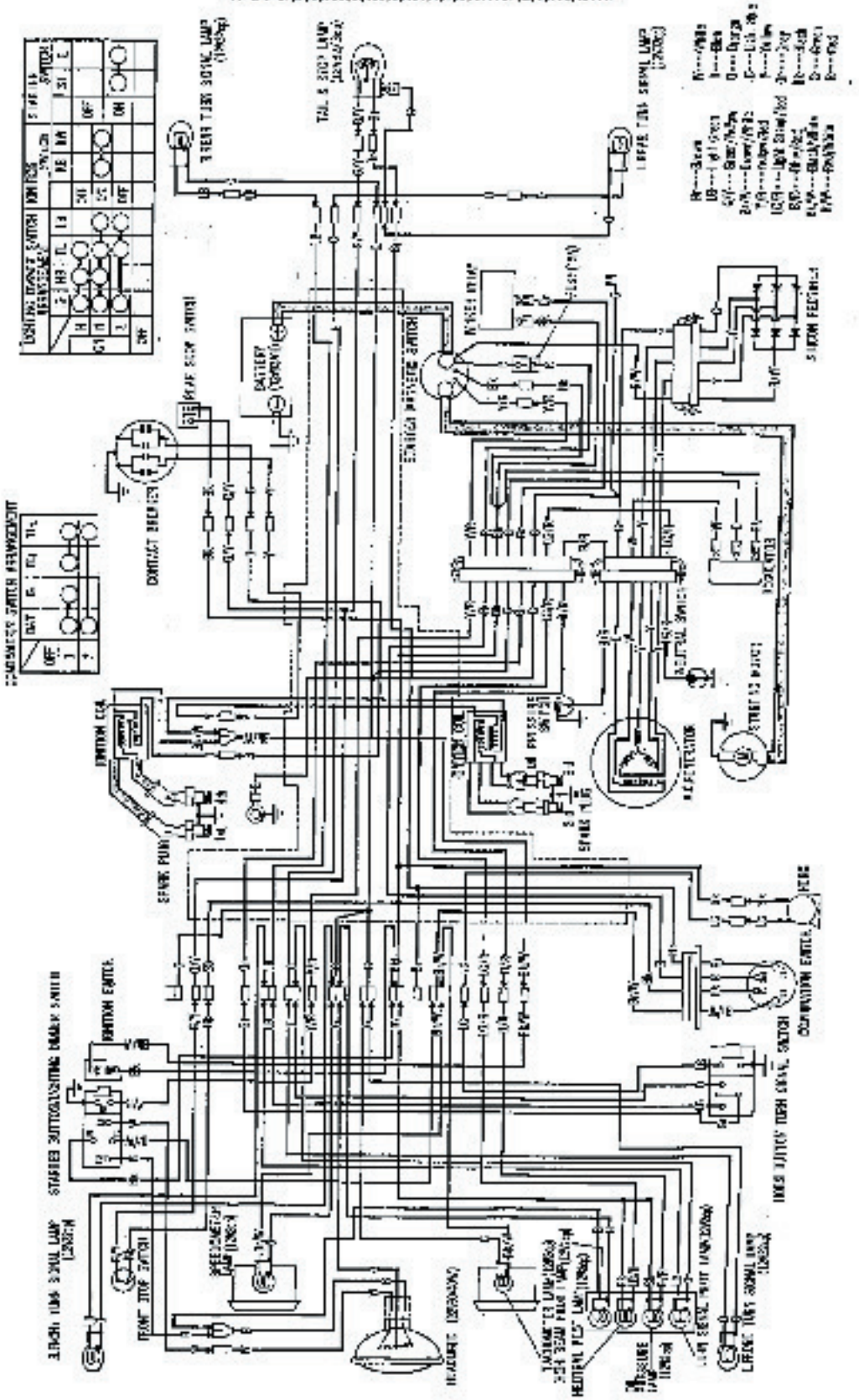
14. WIRING DIAGRAM



CR 500

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16. SUPPLEMENT TO CB550F

ENGINE

GEAR SHIFT MECHANISM

A. Disassembly

1. Remove the clutch assembly. (See page 121.)
2. Remove the gear change pedal.
3. Remove the shift drum stop bolt, the neutral stop bolt, shift drum stop and neutral stop.

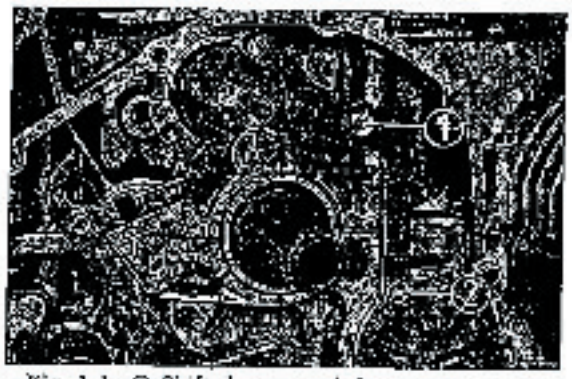

Fig. 1-1 ① Shift drum stop bolt
② Neutral stop bolt

4. Lower the gear shift arm as shown in Fig. 1-2 and remove the gear shift spindle.

B. Inspection

1. Check the shift drum stop and neutral stop for bending or damage.
2. Check the shift drum stop and neutral stop rollers for wear.

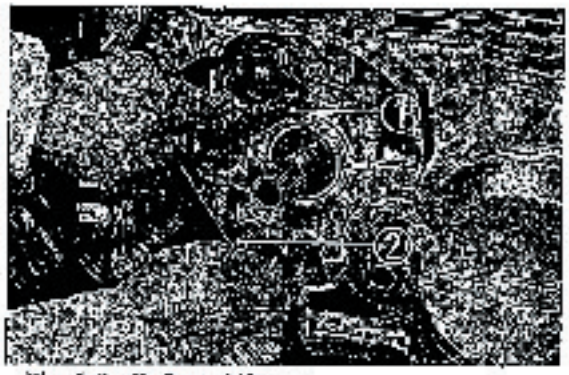

Fig. 1-2 ① Gear shift arm
② Gear shift spindle

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6. Horn switch

Remove the fuel tank and remove the connector cover. Then take out the light green lead as shown in Fig. 2-26. Attach one probe of a radio tester to the body and the other probe to the gray lead. There should be continuity when the horn button is pushed.

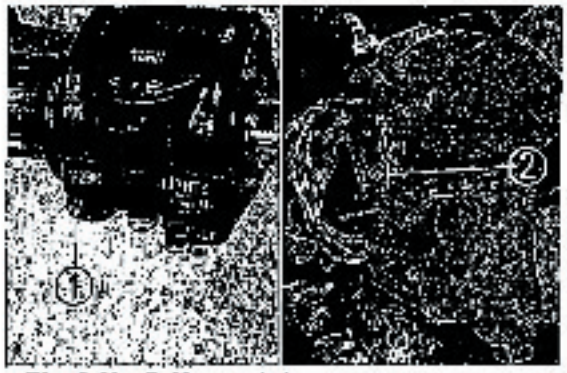

Fig. 2-26 ① Horn switch
② Light green lead

7. Engine stop switch

Remove the fuel tank and the connector cover. Check the switch for continuity between the circuits (O—O) shown in the table below. If there is no continuity, the switch is defective.

Terminal	IG	RUN
Wire color	Black	Black/white
OFF		
RUN	O	O
OFF		

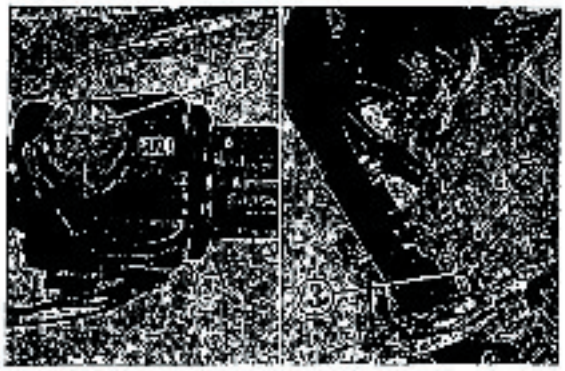

Fig. 2-27 ① Engine stop switch
② Black
③ Black/white

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18. INDEX

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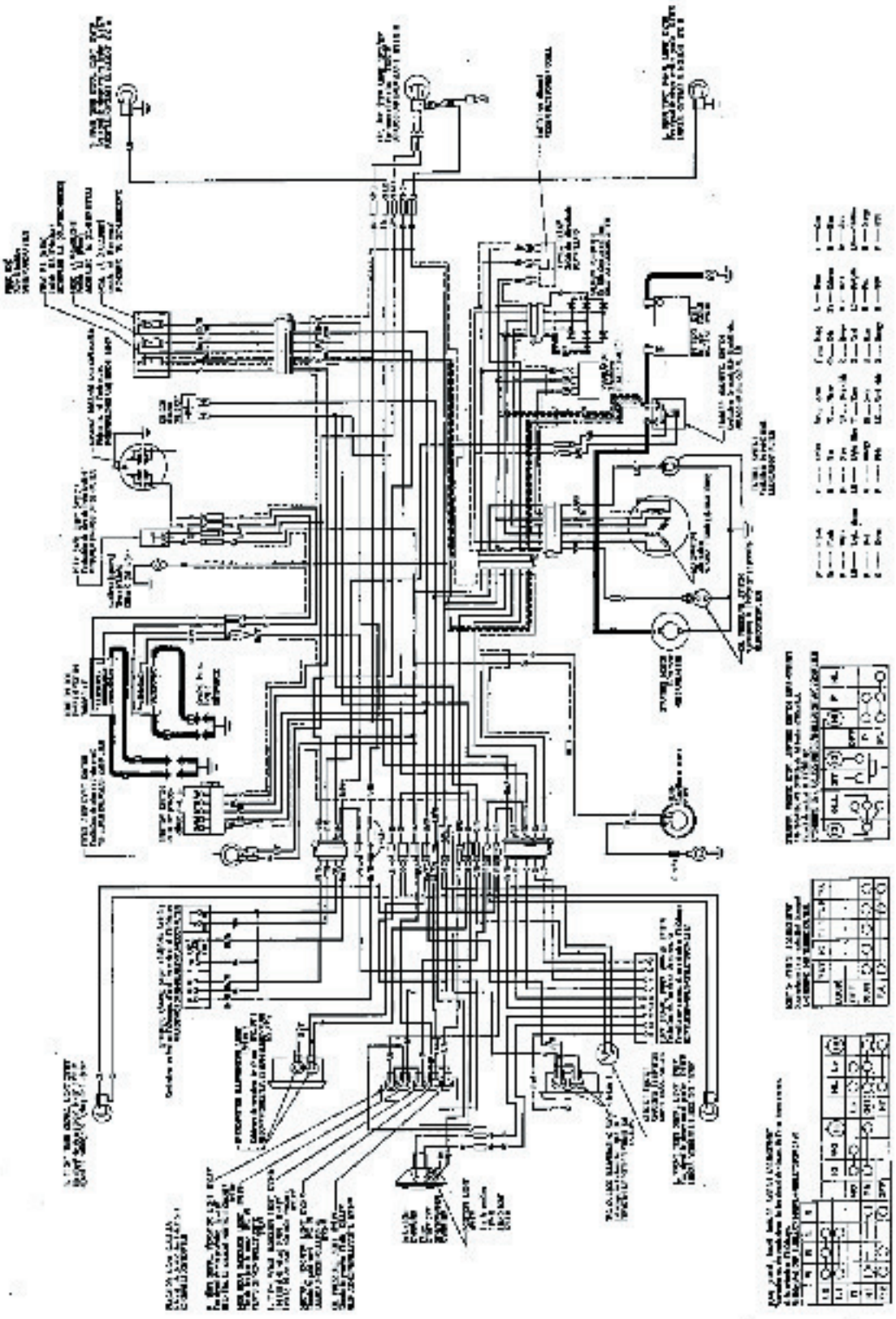
CB500K3/CB550K3 '77 (Europe Type)



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