5. Horn button inspection
With the tester lead probes contact the light green cord terminal within the head light case and the handle bar, and then press the horn button to check for continuity. If continuity exists, the horn button is satisfactory.

6. Winker switch inspection.
Disconnect the winker switch wiring within the head light case. Check continuity between the gray cord terminal and orange cord terminal (left winker), and between the gray cord terminal and light blue cord terminal (right winker) respectively of the winker switch. Continuity for the respective tests should exist according to the switch connections shown in the table below.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Blue cord</th>
<th>Gray cord</th>
<th>Orange cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF (center)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Lighting switch inspection.
Inspect for broken wire and defective contact between the respective switch cords, using a tester. Continuity between the different cords should exist in accordance with the switching position table shown below. If continuity exists where not indicated the switch is defective.

<table>
<thead>
<tr>
<th>Cord color</th>
<th>IG Black</th>
<th>HB Blue</th>
<th>TL Brown/white</th>
<th>LB White</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Emergency switch and starter switch inspection
Inspect for broken wire and defective contact between the respective switch cords. Continuity between the different cords should exist in accordance with the switching position table shown below. If continuity exist where not indicated, the switch is defective.

<table>
<thead>
<tr>
<th>Emergency switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cord color</td>
</tr>
<tr>
<td>ON</td>
</tr>
<tr>
<td>OFF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Starter switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cord color</td>
</tr>
<tr>
<td>ON</td>
</tr>
<tr>
<td>OFF</td>
</tr>
</tbody>
</table>

9. Oil pressure switch inspection
Lubricating oil is supplied under pressure of \(4\sim6 \text{ kg/cm}^2\) (56.8\sim85.3 \text{ lbs/in}^2) by the oil pump to various parts of engine. When the oil pressure drops, the oil supply becomes insufficient. The oil system is designed so that when the oil pressure drops below \(0.5 \text{ kg/cm}^2\) (7 lbs/in^2), the oil pressure switch operates and the warning lamp comes on. Check the oil pressure switch for continuity without starting the engine and with the main switch on. If there is continuity, the switch is satisfactory. It is normal for the warning lamp to go out when the engine is started. If the warning lamp does not go out after starting, and the pressure switch is satisfactory, the oil system should be inspected for trouble.
10. Neutral switch inspection
The neutral switch is mounted on the left side of the upper crankcase. When the transmission is in neutral, the switch becomes grounded and the neutral pilot lamp comes on. Position the transmission in neutral, remove the left crankcase cover and check the continuity of the neutral switch. The switch is satisfactory if there is continuity.
1. Clutch

The clutch must be adjusted so that the engine can be completely disconnected from the transmission when the clutch lever is squeezed, but not to the point where the clutch will slip when the motorcycle is accelerating.

The clutch cable should be adjusted to provide $10 \sim 20 \text{ mm (0.4 \sim 0.8 in.)}$ free play as measured at the tip of the clutch lever.

To adjust, proceed as follows:

1. Loosen the clutch adjuster lock nut ① and turn the adjuster ② to align the marks ③ on the actuating arm and engine side cover.

2. Clutch cable adjustment can be made by means of the adjusters at the upper and lower ends of the clutch cable. Loosen the lock nut ⑤ (⑥ at the lower end) at the clutch lever and turn the cable adjuster bolt ④ (nut ⑦ at the lower end) in either direction. Turning the cable adjuster bolt or nut at the lower end in the direction ④ will increase the free play and turning it in the direction ⑥ will decrease the free play. Tighten the lock nut.

3. After adjusting, check to see if the clutch is not slipping or if the clutch is properly disengaging.

Start the engine and shift into gear. There should be no excessive grinding from the transmission, and the motorcycle should not begin to creep forward while the clutch lever is squeezed. Drive the motorcycle to check for clutch slippage.
1. BLOW-BY GAS SCAVENGING DEVICE

The blow-by gas scavenging device was newly employed for contributing to minimize pollution. The description is given here, referring to Fig. 5 above.

The blow-by gas within the cylinder head is conducted into the element seal case through the breather tube. The gas is then conducted into the element B through the openings on both sides in the seal plate and punching metal, where oil is separated from the gas at each section. Further the gas enters the air cleaner element on the upper part of the seal case through the pipe within the element cover and is filtered again. The gas so filtered is drawn into the carburetor chamber and returns to the combustion chamber for burning through the carburetor. Now the gas is again burnt in the combustion chamber to minimize pollution by the exhaust gases.
• Blow-by gas
The exhaust gases from automobiles contain carbon monoxide, hydrocarbon, hydrogen sulfide, nitrogen dioxide, selenium oxide, etc. which are poisonous ingredients contributing to pollution.
The exhaust gases consist of not only the remainder of burned mixture and combustion products but also a leakage of compression past the cylinder wall or from the crankcase. The latter is known as "blow-by gas", and accounts for 20 to 40% of the total amount of hydrocarbon to be emitted in the air. Since blow-by gases have not been completely burned and, therefore, must be burned again by means of the blow-by gas scavenging device to minimize the amount of the gas to be emitted into the air.

2. STARTING MOTOR SAFETY UNIT
• Description
The starting motor safety unit operates in the way that the starting motor functions only when the transmission is in neutral or while the clutch lever is being squeezed in any gear position, assuring rider safety and preventing damage of the motor and transmission gears.
• Circuits and operations

![Circuit Diagram]

Fig. 326 Circuit of models without safety unit
1. Starting motor
2. Starter button switch
3. Starter magnetic switch
4. Main switch
5. Fuse
6. Battery

When the engine switch is turned on, some amount of electricity is usually applied to the starter magnetic switch coil. If the starter button switch is then turned on, the starter magnetic switch will operate to cause the starting motor to turn. In other words, the motorcycle begins to move when the main switch and starter button switch are turned on with the transmission in gear.
The ground side of the starter button switch is connected to the body through the clutch lever switch and neutral switch. When the clutch lever switch or the neutral switch is turned on the starter magnetic switch will operate to cause the starting motor to turn.

(1) Clutch lever switch
The clutch lever switch is designed to be turned on when the clutch lever is squeezed to cause the clutch to be disengaged only. (This switch has the same construction and function as those of the front stop switch.)

3. FRONT SUSPENSION
The front fork used on CB550 is of a free valve type which is widely employed in a telescopic type shock absorber.
As its damping force can be adjusted by changing its stroke to meet a driver’s preference or conditions of a road or surfaces, it always provides a comfortable ride even under severe driving conditions. On the other hand, CB500 is incorporated with a rod type shock absorber which is also used in a Telescopic type.
Operation

- When the wheel meets holes or bumps in the road, it moves up and down. This up-and-down movement of the wheel is transmitted to the bottom leg.

Since the bottom leg is integrated with a pipe, the pipe also moves up and down. With either action, two springs on the pipe flux and rebound, absorbing the road shocks to the motorcycle.

In this case, oil in the chamber 1 pushes up the free valve and flows into the space A freely.

At the same time, oil in the chamber 2 also flows through orifices in the lower end of the spring under seat into the space C by the amount by which the pipe is moved up.

- Extension

As the wheel has passed the bump or hole, it moves down. To eliminate excessive up-and-down motion of the spring and wheel, there will be a restraint on the spring and wheel action.

In operation, as the wheel moves down, the free valve is closed, introducing high pressure in the space A. This high pressure then forces the oil out and into the space C through the orifices in the spring under seat.

Since the oil encounters a restraint as it passes through the orifices, excessive wheel and spring movement as well as spring oscillation are prevented.

Fig. 328 1 Compression  2 Extension

Fig. 329 1 Front spring  7 Front rebound spring
2 Front fork pipe  8 Free valve
3 Front fork dust seal  9 Bottom pipe
4 Oil seal  5 Piston ring
6 Oil lock piece
8 Front fork bottom leg
4. BRAKE LINING WEAR INDICATOR

Description
The brake lining wear indicator is provided to check the wear condition of the brake linings visually from outside. As shown in the figure below, the indicator plate is attached to the brake cam. As the brake lining has worn, the brake cam moves excessively. Such a movement of the cam is checked by the arrow on the periphery of the indicator. Further the brake panel cam boss is provided with the “wear limit” mark to make it possible to check the service limit (replacement time) of the lining easily with the brake panel installed.

Descriptive illustration

Fig. 330 ① Indicator plate ② Brake cam ③ Brake arm ④ Brake panel cam boss ⑤ “Wear limit” mark ⑥ Arrow
### 9. COMPARISON OF CB550 TO CB500

#### (Engine)

<table>
<thead>
<tr>
<th>Part or Item</th>
<th>Model CB500</th>
<th>Model CB550</th>
<th>Modified part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder bore</td>
<td></td>
<td></td>
<td><em>Cylinder</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Pistons</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Piston rings</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Upper crankcase</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Cylinder gasket</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Cylinder head gasket</em></td>
</tr>
</tbody>
</table>

**Fig. 331**

Diameter: 56.0 mm (2.205 in.)
(Piston displacement:
498 cc or 30.4 cu. in.)

Diameter: 58.5 mm (2.303 in.)
(Piston displacement:
544 cc or 33.2 cu. in.)

<table>
<thead>
<tr>
<th>Clutch</th>
<th></th>
<th></th>
<th><em>Clutch outer</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Clutch center</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Clutch pressure plate</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Clutch springs</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Clutch lifter rod</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Right and left crankcase cover</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Friction discs</em></td>
</tr>
</tbody>
</table>

**Fig. 332** (Exploded, from left)

**Fig. 333** (Exploded, from right)
**Clutch operation**

<table>
<thead>
<tr>
<th>Model CB500</th>
<th>Model CB550</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to Fig. 13 on page 12. The clutch connects and disconnects the engine from the transmission. As shown in Fig. 13, the clutch plates ④ (&quot;drive plates&quot;), which are capable of sliding axially on the clutch center ③, are &quot;sandwiched&quot; between the friction discs ⑧ (&quot;driven discs&quot;) engaged in the clutch outer ②. In normal engaged condition of the clutch, the pressure plate ⑦, upon which the force of the clutch springs ⑥ is acting, presses the stacks of the discs and plates against the clutch outer. Under this condition, the engine power is transmitted through the primary drive gear ①, clutch outer, friction discs, plates and clutch center to the transmission main shaft. As the clutch lever is squeezed to disengage the clutch, the clutch lifter ⑤ connected to the clutch cable is rotated and then is forced out the ① connected to the cable through the thread type cam mechanism of the lifter cam and the clutch adjuster cam. This force of the clutch ball is transmitted through the ①0 steel ball ⑨, clutch lifter rod ⑩ and clutch lifter joints piece ⑪ to the clutch pressure plate to cause the clutch springs to be compressed, producing clearance between the friction discs and plates. Now the face pressure on the friction surfaces of the power transmitting parts is reduced to zero, resulting in disengagement of the clutch.</td>
<td></td>
</tr>
<tr>
<td>Refer to Fig. 14 on page 12. As shown in the figure, the clutch plates ⑨, which are capable of sliding axially on the clutch center ⑧, are sandwiched between the friction discs ⑥ engaged in the clutch outer ⑦. In normal engaged condition of the clutch, the pressure plate ⑧, upon which the force of the clutch springs ⑥ is acting, presses the stacks of the discs and plates against the clutch outer. Under this condition, the engine power is transmitted through the primary drive gear, clutch outer, friction discs, plates and clutch center to the transmission mainshaft. As the clutch lever is squeezed to disengage the clutch, the clutch arm connected to the clutch cable operates and the clutch lifter cam ① rotates to cause the clutch adjusting lever ② to be forced against the clutch lifter rod ⑨. This force is transmitted through the clutch lifter plate ④ to the clutch center, producing clearance between the friction discs and plates. Now the face pressure on the friction surfaces of the power transmitting parts is reduced to zero, resulting in disengagement of the clutch.</td>
<td></td>
</tr>
</tbody>
</table>
Construction of CB500 clutch system

Fig. 334

Construction of CB550 clutch system

Fig. 335
<table>
<thead>
<tr>
<th>Part or item</th>
<th>Model CB500</th>
<th>Model CB550</th>
<th>Modified part</th>
</tr>
</thead>
</table>
| Countershaft        | ![Fig. 336](image1) By splashing | ![Fig. 337](image2) By pump pressure | • Countershaft  
• Trochoid pump  

① Trochoid pump  

The oil strainer assembly is provided with the transmission oil pipe. The oil comes up to the right side of the countershaft through the oil passage in the right side of the lower crankcase and is fed to the countershaft assembly by means of the trochoid pump. (See Fig. 17.)

<table>
<thead>
<tr>
<th></th>
<th>2 Countershaft assembly</th>
<th>1 Trochoid pump</th>
</tr>
</thead>
</table>
Fig. 339  
1 Oil pump  
2 Trochoid pump  
3 Transmission oil pipe  

→ Oil to countershaft  
← Oil to cylinder head and crankshaft through oil pump
### Part or item

<table>
<thead>
<tr>
<th>Part or item</th>
<th>Model CB500</th>
<th>Model CB550</th>
<th>Modified part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear shaft spindle</td>
<td>58</td>
<td>76.4</td>
<td>Gear shift spindle</td>
</tr>
</tbody>
</table>

![Fig. 340](image)

![Fig. 341](image)

---

### Gear ratio

<table>
<thead>
<tr>
<th>No. of teeth</th>
<th>Part name</th>
<th>No. of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>Primary driven gear</td>
<td>63</td>
</tr>
<tr>
<td>23</td>
<td>Primary drive gear</td>
<td>24</td>
</tr>
</tbody>
</table>

---

### Gear shift fork shaft (Added)

![Fig. 342](image)

1. Right and left gear shift forks
2. Gear shift drum
3. Center gear shift fork
   - All forks are installed to the drum.

![Fig. 343](image)

1. Gear shift fork shaft
2. Gear shift drum
3. Center gear shift fork
4. Right and left gear shift forks
   - The center fork is installed to the drum and the right and left forks to the fork shaft.

---

### Gear shift drum

![Fig. 344](image)

1. Groove for gear shift drum guide screw

![Fig. 345](image)

2. Gear shift drum
   - Upper crankcase
   - Press bearing in here
   - The groove for the drum guide screw was abolished. Instead the 16005 radial ball bearing was pressed in.
### Comparison of CB550 to CB500

<table>
<thead>
<tr>
<th>Part or item</th>
<th>Model CB500</th>
<th>Model CB550</th>
<th>Modified part</th>
</tr>
</thead>
</table>
| Air cleaner  | ![Air cleaner](Fig. 346) Air cleaner element seal case | ![Air cleaner](Fig. 347) | - Air cleaner chamber  
- Element cover  
- Element cover seal  
- Element (wet type)  
- Plate type  
- Air cleaner element (dry type) |

- In connection with employment of the blow-by gas scavenging device, the air cleaner was changed in shape.

<table>
<thead>
<tr>
<th>Final driven sprocket</th>
<th>Number of teeth: 34</th>
<th>Number of teeth: 37</th>
<th>The turn signal/horn switch was changed to the turn signal/horn/dimmer switch (common with that of CB750).</th>
</tr>
</thead>
</table>
| Turn signal/horn switch | ![Turn signal/horn switch](Fig. 348)  
1 Turn signal switch  
2 Horn switch | ![Turn signal/horn switch](Fig. 349)  
1 Turn signal switch  
2 Horn switch  
3 Dimmer switch | | |

| Starter/headlight/ignition switch | ![Starter/headlight/ignition switch](Fig. 350)  
1 Ignition switch  
2 Headlight switch  
3 Starter switch | ![Starter/headlight/ignition switch](Fig. 351)  
1 Ignition switch  
2 Headlight switch  
3 Starter switch | The starter/headlight/ignition switch was changed in shape. |
1. **CLUTCH**

A. **Disassembly**

1. Drain the engine oil. (See page 20 of the CB500 Shop Manual separately issued).
2. Remove the kick starter pedal.
3. Remove the ten 6mm screws and remove the right crankcase cover.

4. Remove the clutch lifter rod.
5. Remove the four clutch pressure plate mounting bolts.
6. Remove the clutch lifter plate.

7. Remove the 25mm snap ring and shim and remove the clutch assembly from the mainshaft.
8. Remove the clutch outer and inner at the same time.

(Refer to page 113 Fig. 116)
9. Remove the cotter pin from inside the right crankcase cover and pull out the clutch lever.

10. Remove the 6mm nut and remove the clutch adjusting lever.

B. Inspection

See page 41 of the CB500 Shop Manual separately issued. Measurement of friction disk thickness. Using a vernier caliper, measure the thickness of each friction. Replace a disk whose thickness is below the service limit.

<table>
<thead>
<tr>
<th>Unit: mm (in.)</th>
<th>Assembly standard</th>
<th>Service limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.7 (0.1063)</td>
<td>2.4 (0.0945)</td>
<td></td>
</tr>
</tbody>
</table>

C. Assembly

1. Install and tighten the 6mm nut attaching the clutch adjusting lever.

2. As shown in Fig. 38, install the clutch lever spring and 10mm washer on the clutch lever. Insert the cotter pin and spread its ends.

3. Install the 25mm collar in the clutch outer.

4. Install the seven friction disks and six plates alternatively to the clutch center and then install to the clutch outer. Finally install to the mainshaft.
5. Attach a dial gauge to the end face of the clutch assembly to check for excessive looseness. It is above 0.1 mm (0.0039 in.), install a washer or washers inside the snap ring. The washers are available in three thicknesses, namely, 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 slowly in a criss-cross pattern.

7. Insert the lifter rod.

8. Install the right crankcase cover and kick starter pedal.
2. GEARSHIFT MECHANISM

A. Disassembly
1. Remove the clutch. (See page 120.)
2. Remove the gear change pedal.
3. While holding down the gearshift arm as shown, pull out the gearshift spindle.

4. Remove the shift drum stop bolt and neutral stop bolt and remove the shift drum stop and neutral stop.

5. Remove the 6mm bolt and remove the bearing set plate on the primary shaft side.
6. Remove the two 6mm bolts and remove the bearing set plate on the gearshift drum side.

7. Remove the 6mm bolt and remove the drum stop cam plate and drum gearshift center.
OEM PARTS & ACCESSORIES

Click on links below

Honda CB550 Original Equipment Parts & Online Schematics
Honda CB500 OEM Parts & Online Schematics
High Visibility Motorcycle Safety Gear
Honda Motorcycle Parts & Accessories
Save Up to 45% on Motorcycle Tires
Motorcycle Gear Closeout Sale
Cycle Gear Free Shipping
Honda CB550 Chain & Sprocket Kit
Honda CB550 CB500 Fork Boot Gaiter Set
Honda CB550 CB500 Left Sidecover
Honda CB550 CB500 Right Sidecover
Honda CB500 Piston Ring Set
Honda CB550 CB500 New Rear Shock Absorber