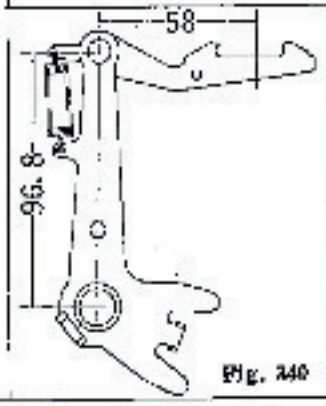
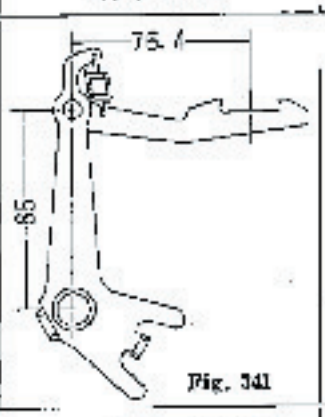
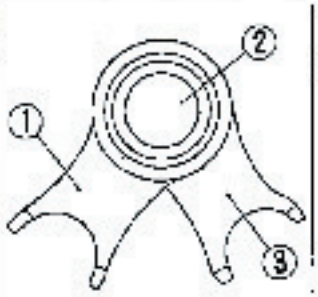
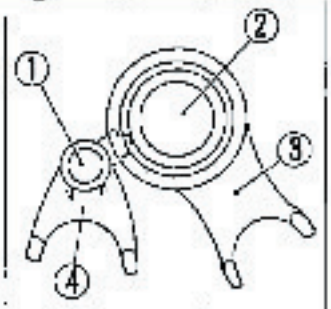
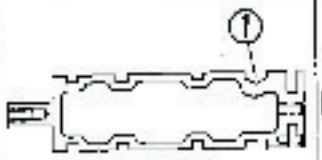
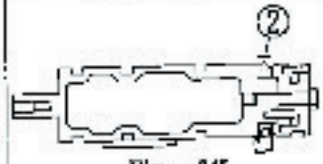
Unit : mm

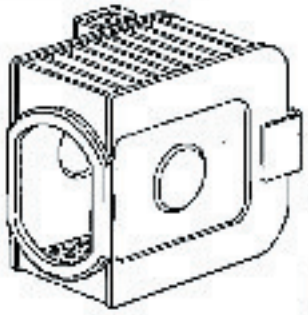
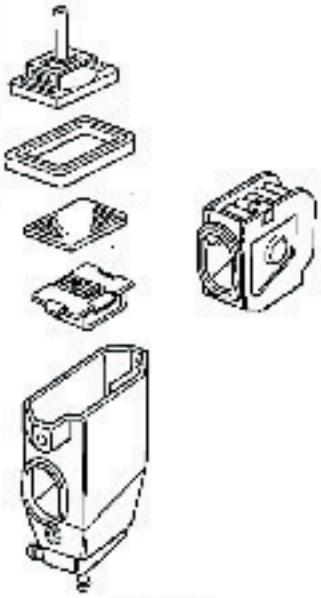
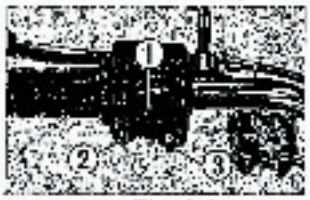
Part or item	Model CB500	Model CB750	Modified part
Gear shift spindle	 Fig. 340	 Fig. 341	• Gear shift spindle
Gear ratio			

No. of teeth	Part name	No. of teeth
64	Primary driven gear	68
23	Primary drive gear	24

Gear shift fork shaft (Added)	 Fig. 342 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 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.	• Right gear shift fork • Left gear shift fork • Center gear shift fork • Gear shift fork shaft (Added)
Gear shift drum	 Fig. 344 ① Groove for gear shift drum guide screw	 Fig. 345 ② Press bearing in here • The groove for the drum guide screw was abolished. Instead a 6005 radial ball bearing was pressed in.	• Gear shift drum • Upper crankcase

Date of Issue : July 20, 1977

(Frame)

Part or Item	Model CB500	Model CB550	Modified part
Air cleaner	 Fig. 846 Air cleaner element seal case	 Fig. 847 - In connection with employment of the blow-by gas scavenging device, the air cleaner shape was changed.	- Air cleaner chamber - Element cover - Element cover seal - Element (wet type) - Plate seal - Air cleaner element (dry type)
Final driven sprocket	Number of teeth: 36	Number of teeth: 37	
Turn signal/ horn switch	 Fig. 848 ① Turn signal switch ② Horn switch	 Fig. 849 ① Turn signal switch ② Horn switch ③ Dimmer switch	- The turn signal/ horn switch was changed to the turn signal/horn/ dimmer switch (common with that of CB750).
Starter/ headlight/ ignition switch	 Fig. 850 ① Ignition switch ② Headlight switch ③ Starter switch	 Fig. 851 ① Ignition switch ② Headlight switch ③ Starter switch	- The starter/headlight/ignition switch shape was changed.

Date of Issue: July 25, 1977

10. ENGINE

1. CLUTCH

A. Disassembly

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

Fig. 352 ① Right crankcase cover

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

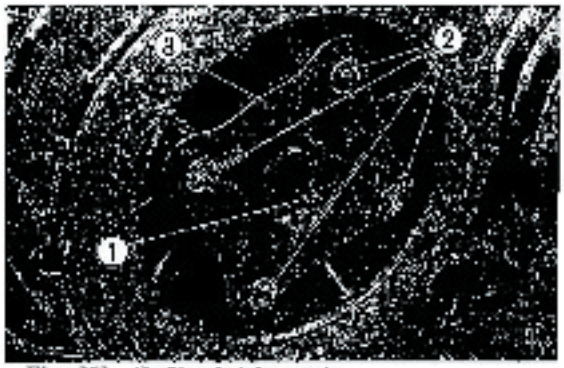


Fig. 353 ① Clutch lifter rod
② Mounting bolts
③ Lifter plate

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 40, Fig. 110)

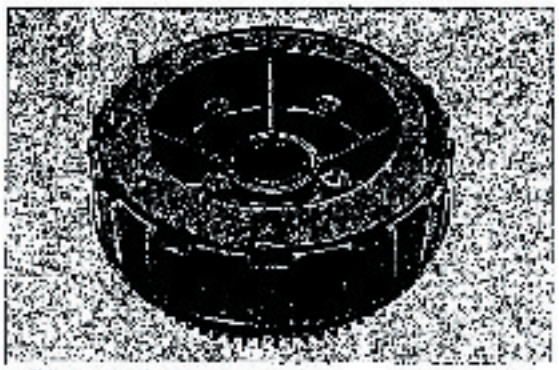


Fig. 354 ① Clutch assembly

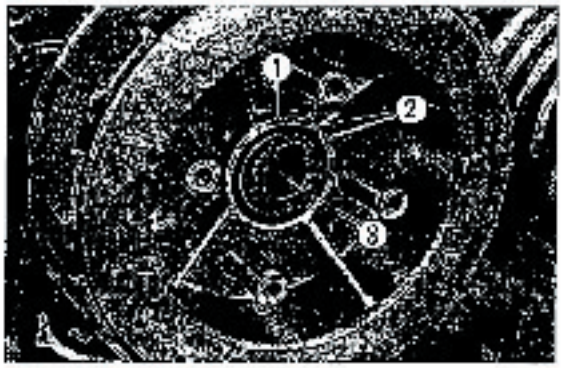


Fig. 355 ① 25 mm snap ring
② Shim
③ Main shaft

Date of Issue: July 30, 1977

Fig. 356 ① Cotter pin ② Clutch adjusting lever ③ Clutch lever

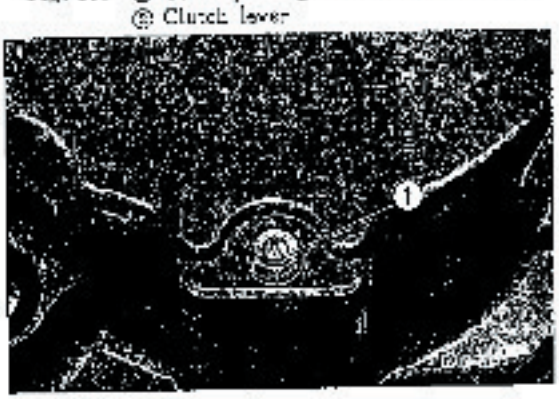


Fig. 357 ① 6mm nut

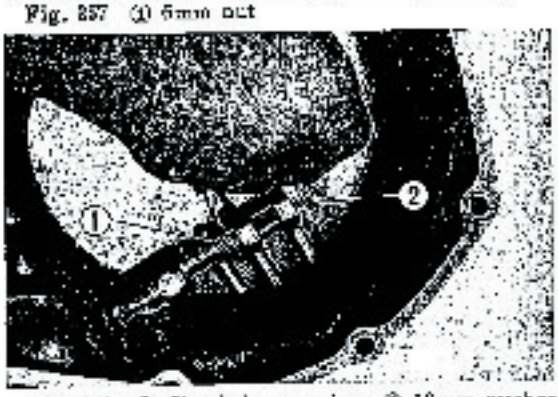


Fig. 358 ① Clutch lever spring ② 10mm washer

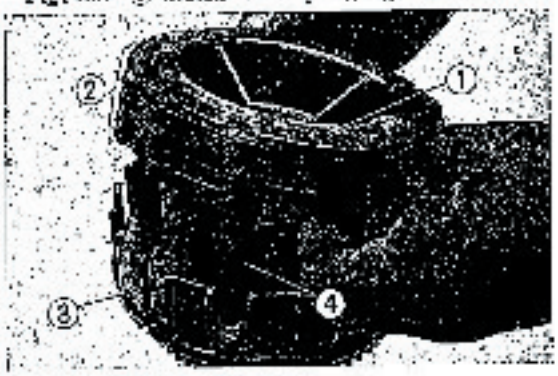


Fig. 359 ① Clutch center
② Friction discs and plates
③ Clutch outer
④ 25mm collar

9. Remove the cotter pin from inside the right crankcase cover and pull the clutch lever out.

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

B. Inspection

See page 41 of the CB500 Shop Manual issued separately.

Measurement of friction disc thickness.

Using a vernier caliper, measure the thickness of each friction disc. Replace a disc whose thickness is below the service limit.

Unit: mm (in.)

Assembly standard	Service limit
2.7 (0.1063)	2.4 (0.0945)

C. Assembly

1. Install and tighten the 6mm nut attaching the clutch adjusting lever.
2. As shown in Fig. 358, 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 discs and six plates alternatively to the clutch center and to the clutch outer. Install to the mainshaft.

Date of Issue: July 20, 1977

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.

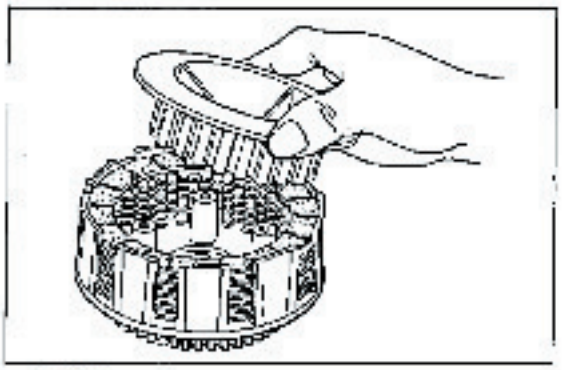


Fig. 380

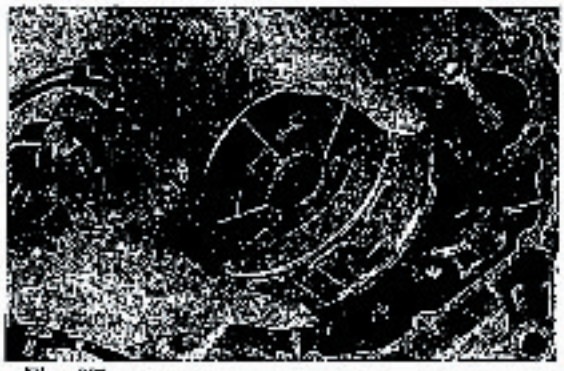


Fig. 381

Date of Issue : July 20, 1977

Fig. 362 ① Gearshift arm

2. GEARSHIFT MECHANISM

A. Disassembly

1. Remove the clutch. (See page 121.)
2. Remove the gear change pedal.
3. While holding the gearshift arm down as shown in Fig. 362, pull the gearshift spindle out.

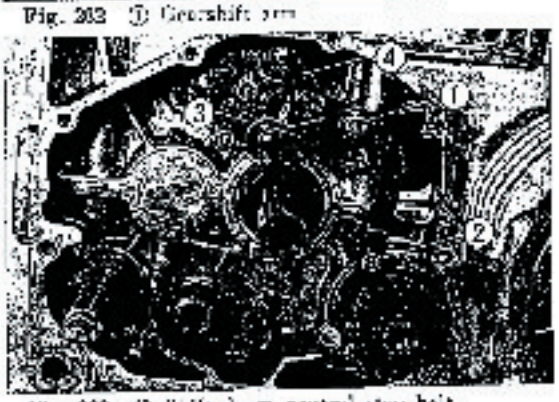


Fig. 363 ① Shift drum neutral stop bolt
② Shift drum stop bolt
③ Shift drum stop ④ Neutral stop

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

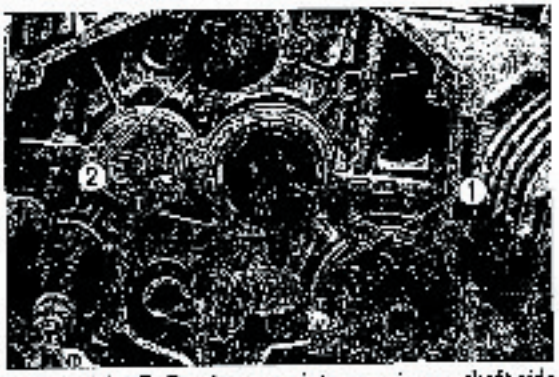


Fig. 364 ① Bearing set plate on primary shaft side
② Bearing set plate on shift drum side

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

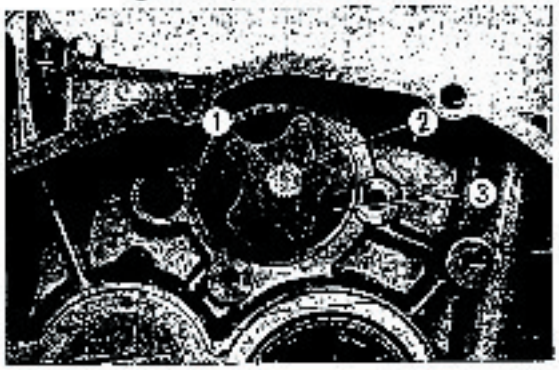


Fig. 365 ① 6mm bolt ② Drum gearshift center
③ Stop cam plate

7. Remove the 6mm bolt, the drum stop cam plate and the drum gearshift center.

Date of Issue: July 20, 1977

8. Separate the crankcase into the upper and lower parts and remove the transmission gears. (See page 43 of the CB500 Shop Manual issued separately.)
9. Remove the neutral stop switch from the gearshift drum.

Fig. 365 ① Neutral stop switch

10. Remove the guide pin clip and guide pin and pull the gearshift drum from the upper crankcase.

B. Inspection

See page 44 of the CB500 Shop Manual issued separately.

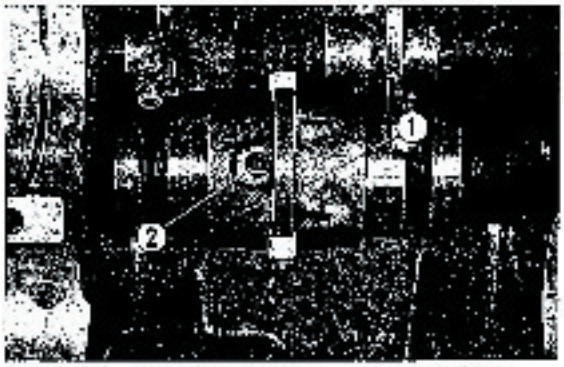


Fig. 367 ① Guide pin clip ② Guide pin

C. Assembly

1. Position the center gearshift fork on the drum as shown in Fig. 368.
2. Insert the guide pin into the center gearshift fork and secure with the guide pin clip.

NOTE:
Install the guide pin clip with it facing correctly. (See Fig. 367.)

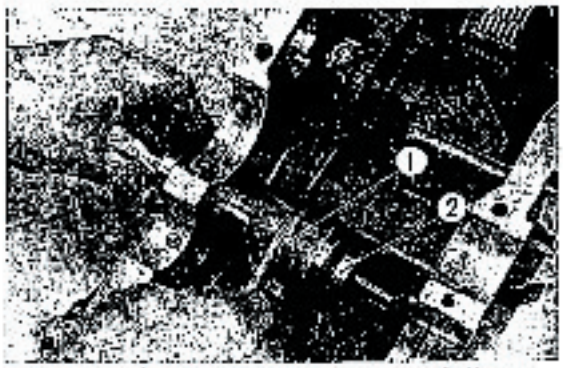


Fig. 368 ① Center gearshift fork ② Drum

3. Put the right and left gearshift forks in the upper crankcase and insert the gearshift fork shaft as shown in Fig. 369.

Fig. 369 ① Right gearshift fork
② Left gearshift fork
③ Gearshift fork shaft

Date of Issue: July 20, 1977

Fig. 370

4. Make sure that the gearshift forks are installed correctly and securely.
5. Instal the neutral stop switch to the gearshift drum by fitting the lug into the groove in the drum and secure with the 6mm screw.

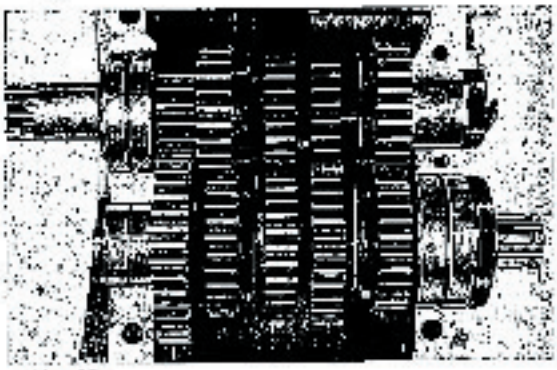


Fig. 371

6. Install the transmission gears in the upper crankcase and put the upper and lower crankcases together. Install the primary shaft and tighten the crankcases securely.
7. Install the bearing set plate on the drum side and secure with the two 6mm bolts.

Fig. 372 ① Drum gearshift center
② Drum stop cam plate
③ Lug

8. Instal the drum gearshift center.
NOTE:
Properly fit the lug of the drum into the hole in the drum gearshift center.
9. Instal the drum stop cam plate.
NOTE:
Properly fit the gearshift drum pin into the hole in the drum stop cam plate.

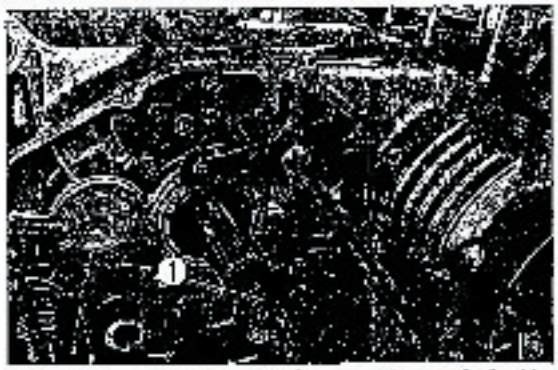


Fig. 373 ① Bearing set plate on primary shaft side

10. Instal the bearing set plate on the drum side.
11. As shown in Fig. 373, install the gearshift drum stop spring to the drum stop and the neutral stop and tighten the drum stop bolt, and neutral stop bolt securely. Also tighten the bearing set plate on the primary shaft side as shown in Fig. 373.

Date of Issue: July 20, 1977

12. Rotate the gearshift drum and check each component for smooth movement.
13. Install the gearshift arm and check to see if it moves smoothly and equally in both directions.
14. Install the clutch. (See page 121.)

Fig. 374

Date of Issue: July 20, 1977

11. TROUBLE SHOOTING

ENGINE

Trouble	Probable Causes	Remedies
Engine does not start	1. Excessive piston ring or cylinder wear	Replace
	2. Seized valve in valve guide	Replace
	3. Seized piston	Replace
	4. Faulty valve timing	Adjust
	5. Low or lack of compression pressure	Lap the valve to obtain good valve seating
	• Pressure leak	or replace
	5. Blown out cylinder head gasket	Replace
	6. Warped gasketing surfaces of the cylinder and cylinder head	Repair or replace
Poor engine idling	**Valve Mechanism**	
	1. Incorrect tappet clearance	Adjust to standard value
	2. Low or lack of compression pressure	Repair
	3. Excessive valve guide clearance	Replace valve and guide
Loss of power	1. Valve sticking open	Replace
	2. Incorrect seating of valve	Lap valve
	3. Weak or broken valve spring	Replace
	4. Faulty valve timing	Check valve timing and adjust if necessary
	5. Blown out cylinder head gasket	Replace
	6. Excessive cylinder and piston wear	Replace
	7. Worn, weak or broken piston ring	Replace
	8. Loose spark plug	Retighten
Overheating	1. Heavy carbon deposit on combustion chamber and piston head	Remove carbon
	2. Lean fuel mixture	Adjust the carburetor
	3. Retarded ignition timing	Adjust ignition timing
	4. Low oil level, poor quality	Add good grade oil
	5. Excessive operation in low gear	
Backfire	1. Incorrect seating of intake valve	Check the valve seating
	2. Faulty valve timing	Adjust
	3. Incorrect ignition timing	Adjust
	4. Excessive spark plug gap	Adjust the gap to 0.024~0.028 in (0.6~0.7 mm)
	5. Improper fuel	Replace
White exhaust smoke	1. Excessive cylinder and piston wear	Replace the piston
	2. Overfilled engine oil	Adjust the oil level
	3. Excessively high oil pressure	Check the breather
	4. Poor quality oil	Replace with good quality oil
Black exhaust smoke	Rich fuel mixture	Adjust the carburetor

Date of Issue: July 20, 1977