10. ENGINE

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.

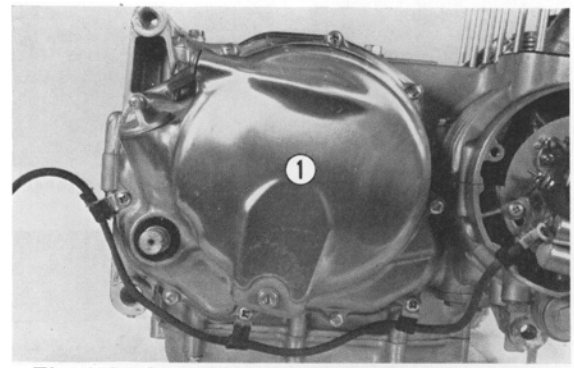

Fig. 352 ① Right crankcase cover

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

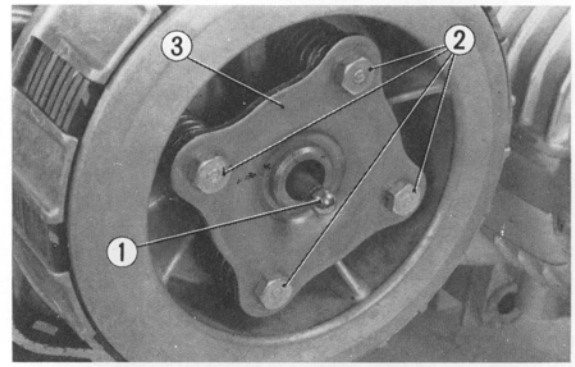

Fig. 353 ① Clutch lifter rod
② Mounting bolts
③ Lifter plate

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

(Refer to page 113 Fig. 116)

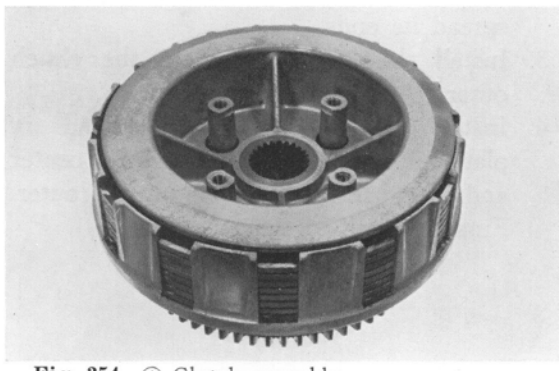

Fig. 354 ① Clutch assembly

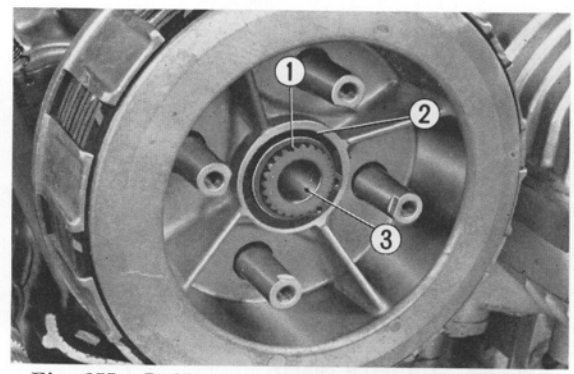

Fig. 355 ① 25mm snap ring
② Shim
③ Main shaft

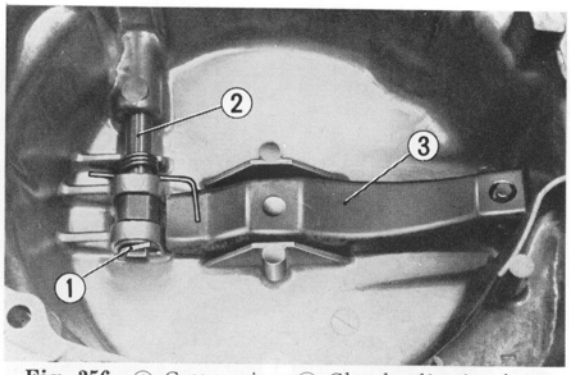

Fig. 356 ① Cotter pin ③ Clutch adjusting lever ② Clutch lever

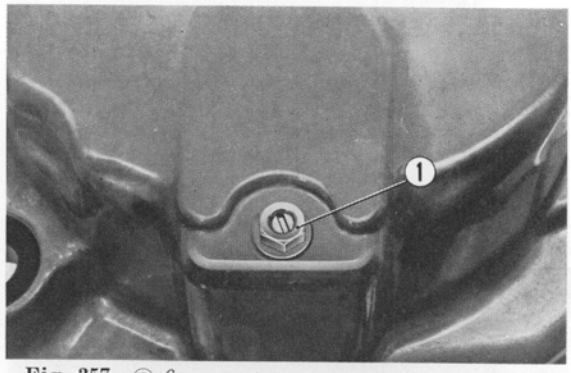

Fig. 357 ① 6mm nut

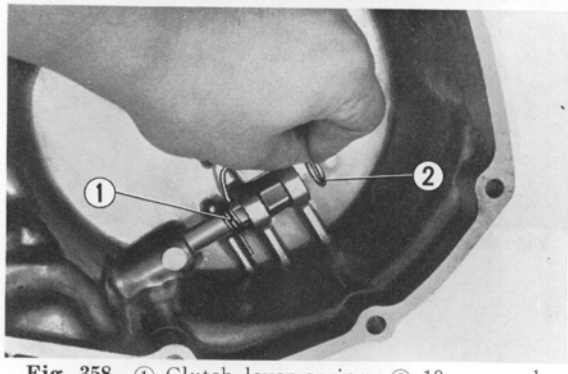

Fig. 358 ① Clutch lever spring ② 10mm washer

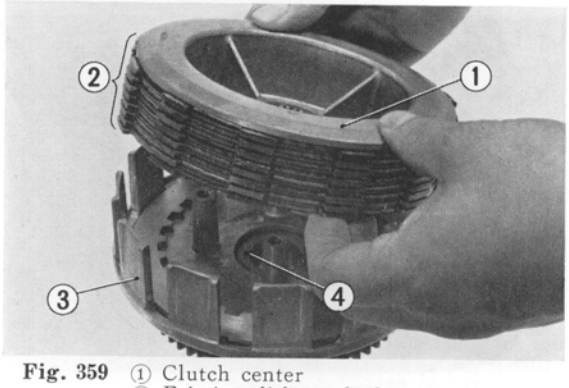

Fig. 359 ① Clutch center
② Friction disks and plates
③ Clutch outer
④ 25mm collar

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.

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. 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.

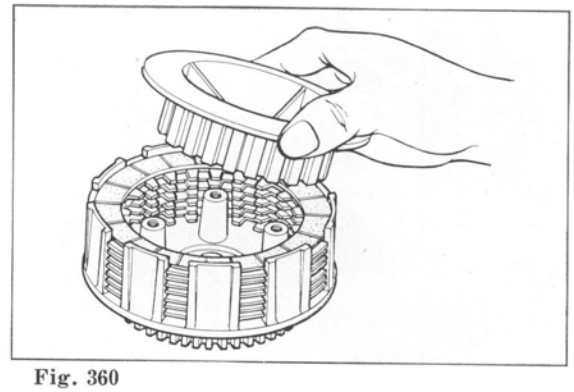

Fig. 360

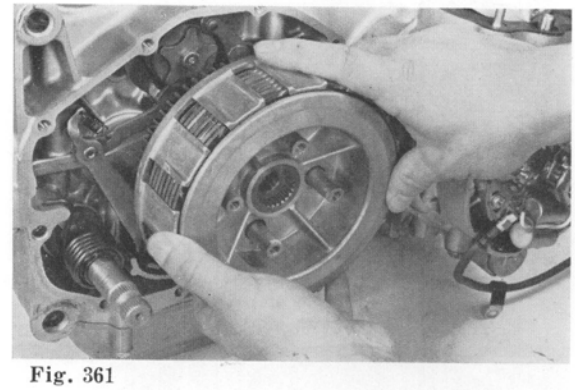

Fig. 361

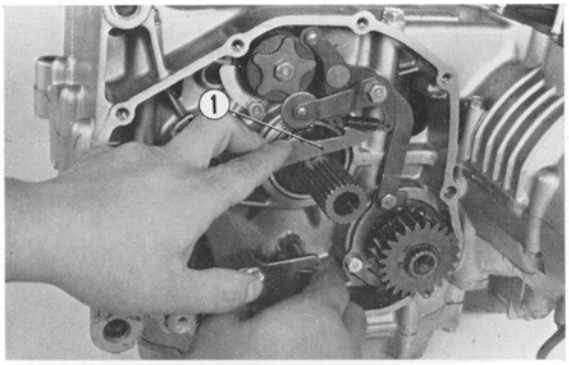

Fig. 262 ① Gearshift arm

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.

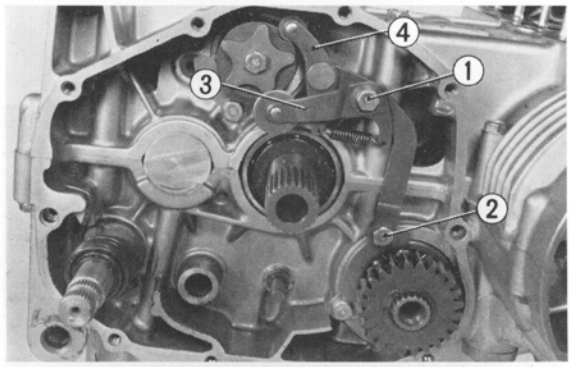

Fig. 363 ① Shift drum neutral stop bolt
② Shift drum stop bolt
③ Shift drum stop ④ Neutral stop

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

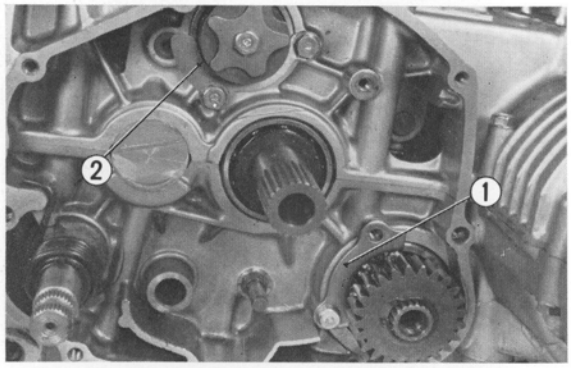

Fig. 364 ① Bearing set plate on primary shaft side
② Bearing set plate on shift drum side

5. Remove the 6mm bolt and 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.

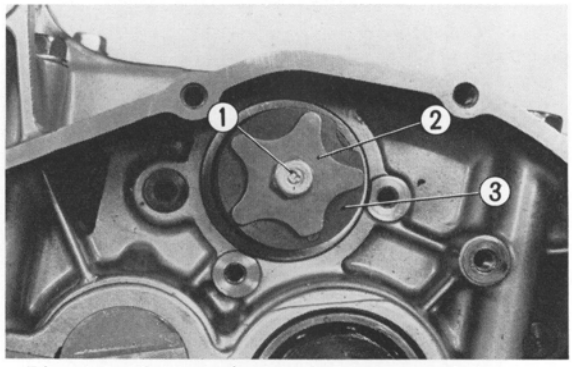

Fig. 365 ① 6mm bolt ③ Drum gearshift center
② Stop cam plate

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

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

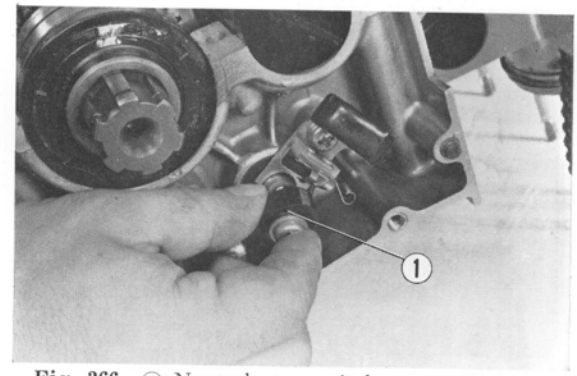

Fig. 366 ① Neutral stop switch

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 separately issued.

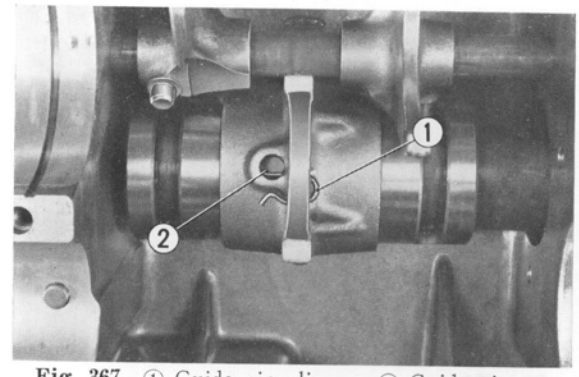

Fig. 367 ① Guide pin clip ② Guide pin

C. Assembly

1. Position the center gearshift fork on the drum as shown in Fig. 48.
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. 366.)

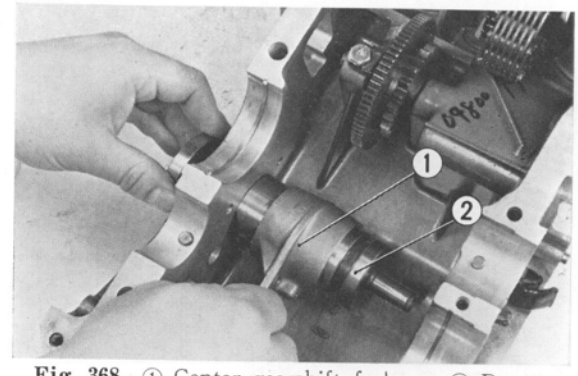

Fig. 368 ① Center gearshift fork ② Drum

3. Put the right and left gearshift forks in the upper crankcase and insert the gearshift fork shaft as shown in Fig. 368.

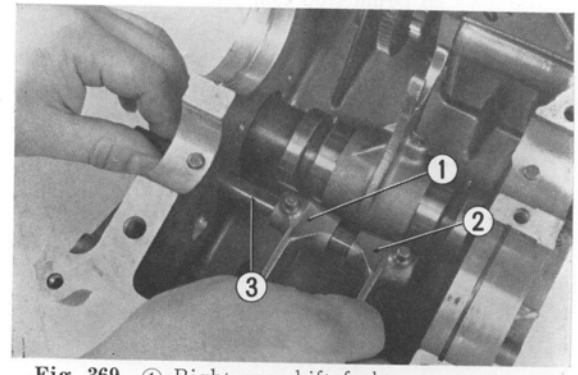

Fig. 369 ① Right gearshift fork
② Left gearshift fork
③ Gearshift fork shaft

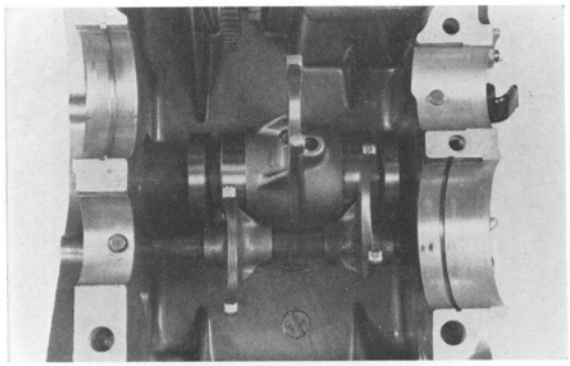

Fig. 370

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 6mm screw.

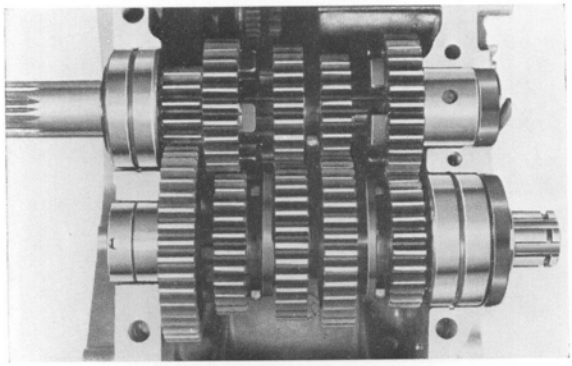

Fig. 371

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

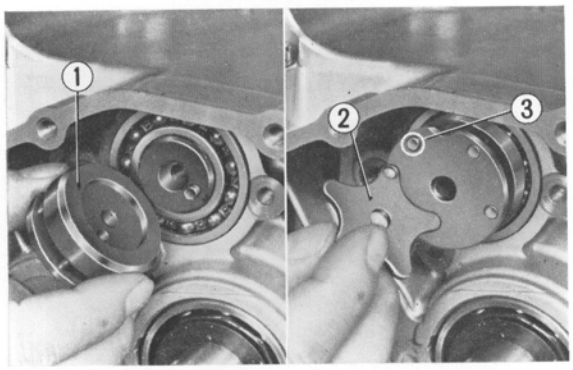

Fig. 372 ① Drum gearshift center
② Drum stop cam plate
③ Lug

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

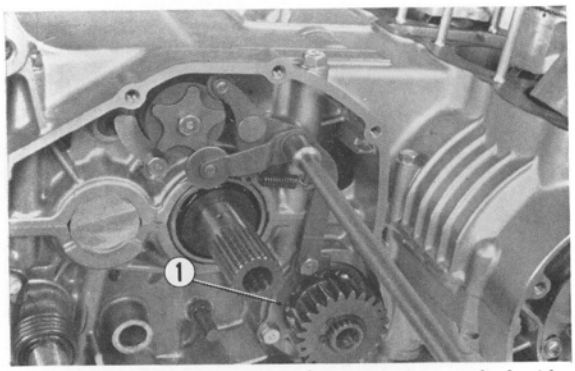

Fig. 373 ① Bearing set plate on primary shaft side

10. Instal the bearing set plate on the drum side.
11. As shown in Fig. 377, install the gearshift drum stop spring to the drum stop and to the neutral stop and tighten the drum stop bolt and neutral stop bolt and neutral stop bolt securely. Also tighten the bearing set plate on the primary shaft side together as shown.

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 booth directions.
14. Install the clutch. (See page 121.)

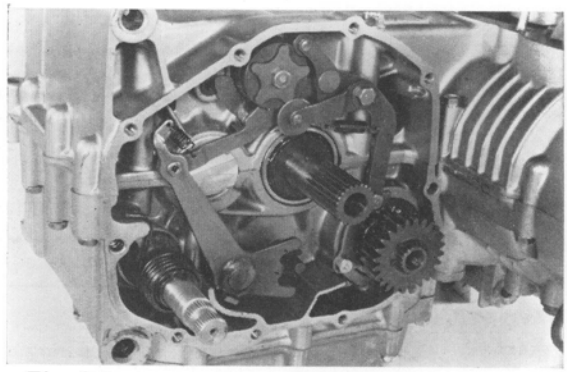

Fig. 374