Part 1-Installation

1. Using the normal procedure, dismantle the primary side as far as removal of the clutch diaphragm. You do not have to go any farther, but may remove the pressure plate to facilitate ease of access.

2. Measure the depth of your seal holder. Rev E depth = .130", identified by 3/4"hex across flats. Earlier Revs were 7/8".

3. Measure the length of the transmission main shaft that extends beyond the clutch center nut. (Also, inspect the end of the shaft for an irregular surface that may prevent sealing by the O-ring.)

4. The clutch rod seal holder must not bottom out against the clutch center nut. If measurement 2 is more than measurement 3 than see “fettling” below, otherwise continue.

5. Pull the clutch rod out of the main shaft. Typically the end with a dimple is the end that went on the ball and the flat end went on the adjuster. Polish an inch or two at the adjuster end to insure long life for the O-ring. Set aside.

You may want to wash the gear oil off your friction and clutch plates while you're here!

6. Clean the end of the main shaft with a suitable solvent to remove the oil so the loctite will stick. Place some blue loctite on the shaft.

7. Reinstall the clutch rod back in the main shaft.

8. Make sure the O-ring is seated in the seal holder. Slide the clutch rod seal over the shaft, slide it on and screw it down by hand. You can use a wrench to give it a little “nip” (2-3 Ft/lbs), but this seal holder only holds the O-ring in place and has not been known to come off.

9. Reassemble and lubricate the primary, and adjust the clutch according to the shop manual. Problems associated with gear grease contamination should now be a thing of past. If you have a dry belt drive put a small dab of molybdenum disulfide grease on the clutch adjusting screw.

Part 2-Fettling

Frequently there is insufficient exposed main shaft length to allow the clutch rod seal to simply screw on without interfering with the clutch center nut. A variety of areas can be looked at to achieve the required clearance.

1. Check the alignment of the clutch basket sprocket with the engine sprocket, if to far out, correct IAW shop manual. (removal of shims 06-0894 .036” or 06-0895 .048”) DO NOT PUSH THE CLUTCH BASKET IN (out of proper alignment) FOR THE SAKE OF THE SEAL!!!

2. Use only one locking method to hold the clutch center nut. The tab washer 063459 is .043” thick and the genuine Norton split washer 063447 (040374) is .142” thick. The tab washer and loctite on the nut appears to work OK. NOTE, Earlier bikes (pre 73) did not originally come with the tab washer.

3. You may reduce the depth of the clutch seal down to .120” by grinding or filing.
Typically .140” is actually exactly two threads of engagement.

4. Last, you can grind down the thickness of the clutch center nut 060895 (04373) which is .375/.383” thick. Thinner than .350" would not be typical.

5. If by this time the clearance has not been obtained, I would recommend an in-depth investigation as to why the gearbox and engine shafts are so far out of alignment.