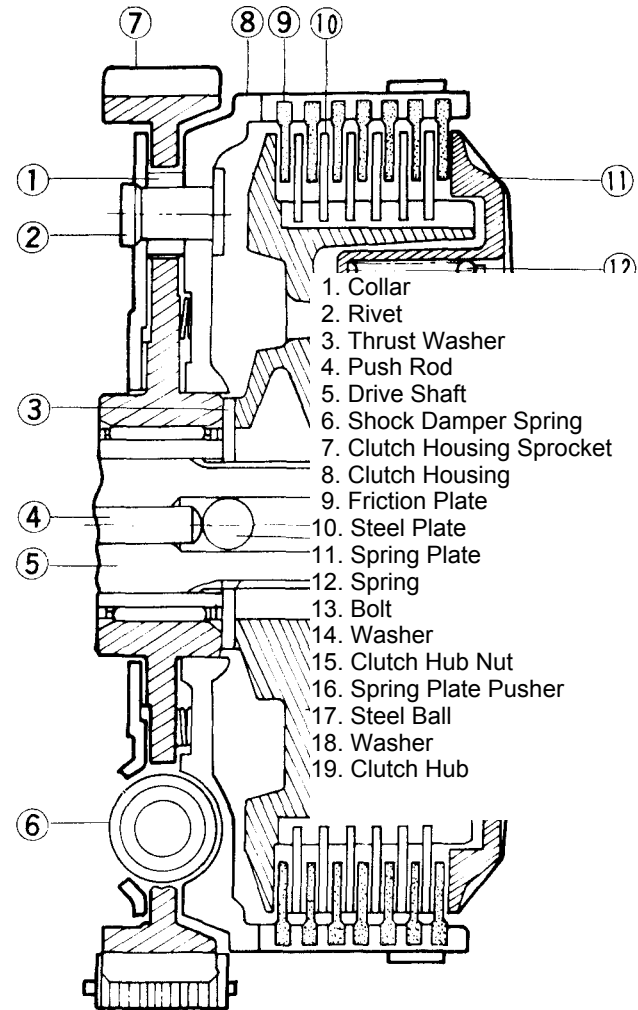


## MAINTENANCE 137



One end of each clutch spring forces against its washer and bolt, which is threaded into the clutch hub. The other end forces against the spring plate. When the clutch is left engaged, the springs force the spring plate, friction plates, steel plates, and clutch hub tightly together so that the friction plates will drive the steel plates and transmit power to the transmission drive shaft.

When the clutch lever is pulled to release (disengage) the clutch, the clutch cable turns the clutch release inner worm gear in towards the clutch. The clutch adjusting screw, assembled inside the clutch release inner worm gear, then pushes the push rod, which through the steel ball and spring plate pusher pushes the spring plate. Since the spring plate moves the same distance that the inner worm gear moves and the clutch hub remains stationary, the springs are compressed and pressure is taken off the clutch plates. Because the plates are

longer pressed together, power transmission from the crankshaft to the transmission drive shaft is interrupted.

As the clutch lever is released, the clutch springs return the spring plate and once again force the spring plate, plate assembly, and clutch hub tightly together.

A clutch that does not properly disengage will cause shifting difficulty and possible transmission damage. On

the other hand, a slipping clutch will reduce power transmission efficiency and may overheat and burn out. A clutch that does not properly disengage may be caused by:

1. Excessive clutch lever play.
2. Clutch plates that are warped or too rough.
3. Uneven clutch spring tension.
4. Deteriorated engine oil.
5. Engine oil viscosity too high.
6. Engine oil level too high.
7. The clutch housing frozen on the drive shaft.
8. A defective clutch release mechanism.
9. An unevenly worn clutch hub or housing.
10. Missing parts.

A slipping clutch may be caused by:

1. No clutch lever play.
2. Worn friction plates.
3. Weak clutch springs.
4. The clutch cable not sliding smoothly.
5. A defective clutch release mechanism.
6. An unevenly worn clutch hub or housing.

Clutch noise may be caused by:

1. Excessively worn primary chain and sprockets.