Adjusting Meritor 14- and 15-1/2-Inch Diaphragm Spring Clutches

Synchronized and Non-Synchronized Transmissions

Check Release Bearing Clearance

**WARNING**
To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

**Synchronized Transmissions**

1. Push the clutch pedal to the end of travel several times to ensure the release bearing is fully REARWARD.
2. Remove the bell housing inspection cover.
3. Measure the release bearing clearance. The clearance between the front of the release bearing and the clutch cover must equal 1/16-inch (1.5 mm). Figure 1. Adjust the release bearing clearance if the clearance is outside specification. Refer to the “Adjust Release Bearing Clearence” section below.

**Non-Synchronized Transmissions**

1. Push the clutch pedal to the end of travel several times to ensure the release bearing is fully REARWARD.
2. Remove the bell housing inspection cover.
3. Measure the release bearing clearance. The clearance between the front of the release bearing and the clutch cover must equal 1/16-inch (1.5 mm). Figure 1. Adjust the release bearing clearance if the clearance is outside specification. Refer to the “Adjust Release Bearing Clearence” section below.

Adjust Release Bearing Clearance

1. Push the clutch pedal to the end of travel several times to ensure the release bearing is fully REARWARD.
2. Allow the adjusting ring to rotate.

**Synchronized Transmissions**

Use a block of wood to hold the clutch pedal, or have another person hold the clutch pedal, to provide clearance of at least 1/8-inch (3 mm) between the release bearing and the clutch brake. Hold the pedal in this position when moving the adjusting ring.

**Non-Synchronized Transmissions**

Use a block of wood to hold the clutch pedal, or have another person hold the clutch pedal, to provide clearance of at least 1-1/16-inch (27 mm) between the release bearing and the clutch brake. Hold the pedal in this position when moving the adjusting ring.

**CAUTION**

Use the correct size socket on the front pulley to move the flywheel. If the pulley is difficult to turn, use a spanner wrench when moving the adjusting ring.

1. Push the clutch pedal to the end of travel several times to ensure the release bearing is fully REARWARD.
2. Removing the capscrew and washer on the lock plate. Remove the lock plate. Figure 2.
3. Rotate the adjusting ring. Use a screwdriver or a releasing ring tool as a lever against the notches on the adjusting ring. When you move the adjusting ring one notch, the release bearing will move 0.120-inch (3.05 mm). For a normal adjustment, you will move the adjusting ring from 4 to 8 notches. Figure 4.
4. Release the clutch pedal.
5. Check release bearing clearance. Refer to the “Check Release Bearing Clearence” section below if the clearance is outside specification, adjust the clearance.
6. Install the lock plate and capscrew. Tighten the capscrews to 25-30 lb-ft (34-40 N•m). Figure 4.
7. Check release fork clearance to determine if you must adjust the clutch linkage. Refer to the “Check Release Fork Clearence” section below.

**Check Release Fork Clearence**

**NOTE:** To prevent the release bearing from moving on non-synchronized transmissions, insert a 0.530-inch gauge tool between the release bearing and the clutch brake.

1. Release the clutch pedal.
2. Insert the 1/8-inch gauge tool between the tips of the release fork and release bearing bosses. Figure 5.
3. Check both sides, if the tool fits too loosely or does not fit, you must adjust the clutch linkage according to the vehicle manufacturer’s procedure and specifications.

**CAUTION**

Always install the ball housing inspection cover. If an inspection cover is missing during operation, dirt and contaminants can enter the ball housing. Damage to the clutch can result.

4. Install the ball housing inspection cover.