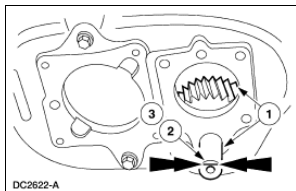


26. Pack the reverse idler gear bearings with lubricant.
- Use Moly number 2 lubricant or equivalent.

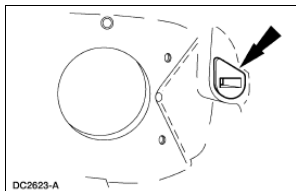
27. Install the following:

1. Assemble the reverse idler gear and bearings onto the idler shaft.
2. Position the straight edge at the end of the idler shaft so that it faces the rear countershaft bore.
3. **⚠ CAUTION: The outer end of the idler shaft must be flush with the case, or no greater than 0.762 mm (0.03 in) below the case surface. The inner end of the idler shaft will extend approximately 6.35 mm (0.25 in) past the end of the case.**

Using a soft hammer, tap the idler shaft into the case to the specified depth.

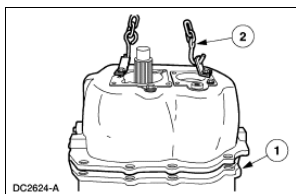


28. Install a new rear shift bar support, if removed.

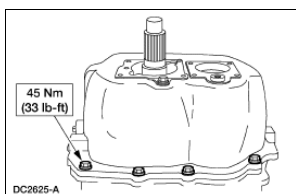


29. Using a suitable chain hoist, position the rear case onto the front case.

1. Coat the rear case-to-front case mating surface with Gasket Maker F8AZ-19B508-AB or equivalent meeting Ford specification WSK-M2G348-A5.
2. Position the rear case onto the front case.



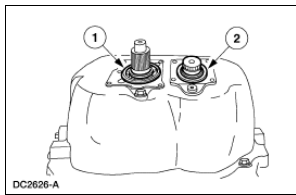
30. Install the bolts.



31. Verify that the first and reverse shift bar shifts correctly.

32. Install the following:

1. Using a suitable bearing driver, install the mainshaft rear bearing.
2. Install the rear countershaft with the bearing and the bearing race.



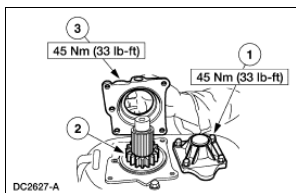
33. Install the following:

1. **⚠ CAUTION: Do not apply Gasket Maker to the countershaft rear bearing cap back face at this time.**

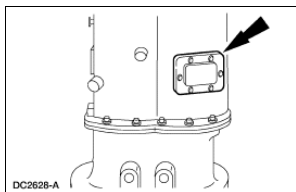
Install the shims, the countershaft rear bearing cap and the screws.

2. Install the speedometer signal gear.
3. **⚠ CAUTION: Align the mainshaft rear bearing cap lubrication passage with the lubrication passage in the case during installation.**

Install the gasket, the mainshaft rear bearing cap and the screws.

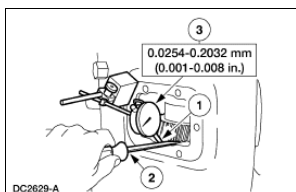


34. Remove the PTO cover.

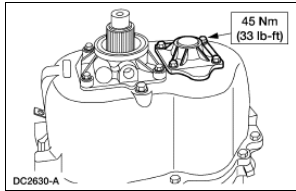


35. Measure the end play.

1. Position a suitable dial indicator, with the plunger against the pry bar.
2. Lift upward on a gear.
3. The end play must be within specifications.
 - ◆ Add or remove shims from under the countershaft rear bearing cap, as necessary, to bring the end play within specifications.



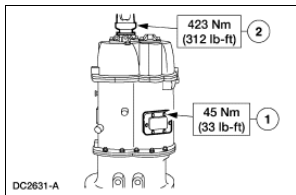
36. When the end play is within specifications; remove the countershaft rear bearing cap; apply Gasket Maker F8AZ-19B508-AB or equivalent meeting Ford specification WSK-M2G348-A5 to the bearing cap back face; and install the bearing cap.



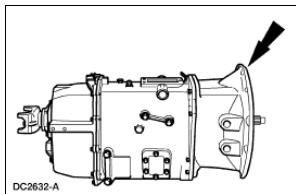
37. **⚠ WARNING: Do not use a hammer to install the flange or end yoke. It is destructive, and can also cause injury.**

Install the following:

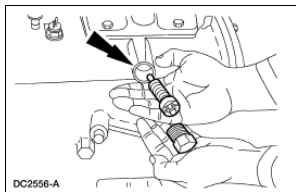
1. Install the PTO cover.
2. Install the flange or end yoke, the washer and the nut.



38. Using brackets or hooks and a suitable chain hoist, position the transmission as shown.

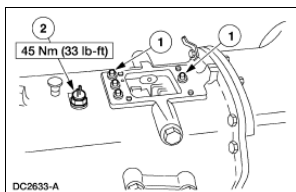


39. Install the sixth and seventh crossgate plunger and low and reverse spring assembly.

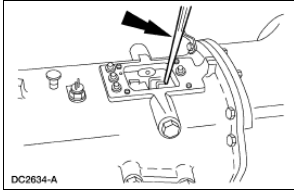


40. Install the following:

1. Install plungers and springs.
2. Install the reversing lamp switch, if removed.

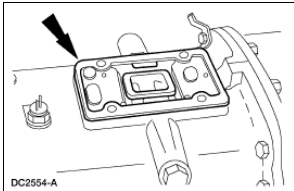


41. Bench shift the unit to verify all of the forks shift correctly.



42. **⚠ CAUTION:** Install the interlock retainer plate in the orientation noted during disassembly.

Install the gasket, the interlock retainer plate, the gasket and the screws.



43. Shift the transmission into direct.
-

Transmission

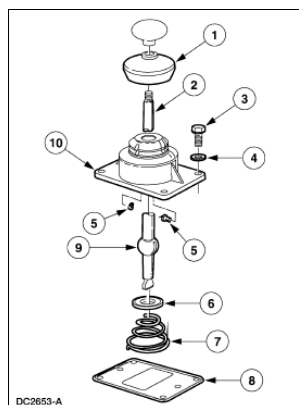
1. To install, reverse the removal procedure.
 - Check and, as necessary, fill the transmission with the proper type and quantity of oil. For additional information, refer to Specifications in this section.
-

Torque Specifications

Description	Nm	lb-ft
Shift lever housing bolts	31	23

External Controls

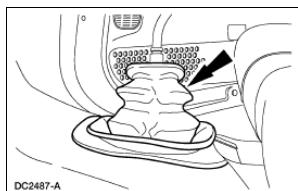
Due to its design, the Spicer shift lever housing cannot be disassembled.

Eaton Shift Lever Housing

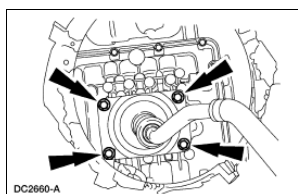
Item	Part Number	Description
1	7220	Boot
2	7210	Shift lever
3	43514	Capscrew
4	7L177	Washer
5	7221	Spade pin
6	7228	Spring washer
7	7227	Spring
8	7185	Gasket
9	7210	Shift lever pivot ball
10	7203	Housing

Shift Lever Eaton**Removal**

1. Remove the attaching bolts and remove the shift lever boot.



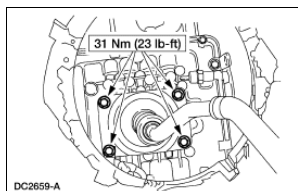
2. Remove the attaching bolts and lift the shift lever housing out of the shift bar housing.



3. Clean the gasket material off the shift lever and shift bar housing.

Installation

1. Install the shift lever housing into the shift bar housing.

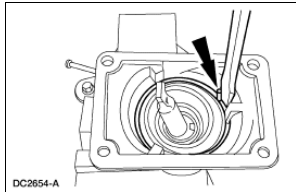


2. Install the shift lever boot.
-

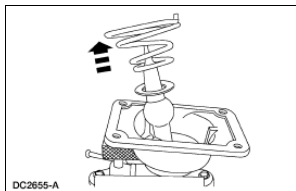
Shift Lever Eaton**Disassembly**

1. **⚠ WARNING: The spring is under tension. Use care to protect eyes when removing the spring.**

Use a large screwdriver to twist between the spring and housing forcing the spring from under the lugs in the housing.



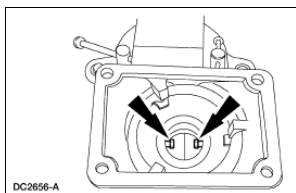
2. Remove the tension spring, washer and shift lever from the housing.



3. **NOTE:** If the shift lever housing tower spade pin bores are worn, discard the housing tower and install a new housing tower.

Remove and inspect the spade pins.

- If the spade pins are worn, install new spade pins.

**Assembly**

1. With the shift lever housing secured in a vise, install the spade pins in the bores of the housing.
2. Position the shift lever in the housing with the spade pins in the lever ball slot and install the tension spring washer over the ball, dished side up.

