

# Transmission Overhaul Procedures - Bench Service

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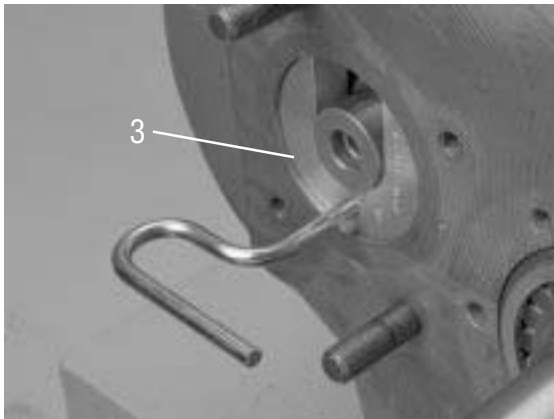
## How to Install the Upper Countershaft Bearings

### Special Instructions

The proper Driver, RR1015TR, must be used or the Countershaft Bearings will be damaged during installation.

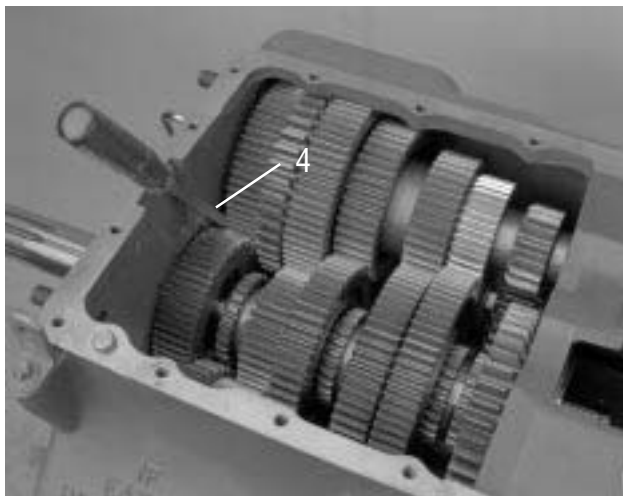
### Special Tools

- RR1015TR Bearing Driver
- RR1019TR Hand Maul
- RR1025TR Timing Block



### Procedure -

1. Make sure the Lower Countershaft and Main Drive Gear timing marks are aligned.
2. Mesh the marked tooth of the Upper Countershaft with the two remaining marked teeth of the Main Drive Gear.
3. Support and center the front of the Countershaft by placing a RR1025TR Timing Block in the front bore as shown.

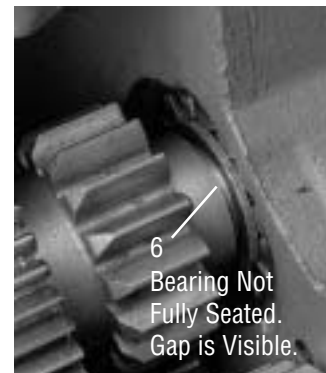


4. Place a large screwdriver or prybar at the front of the Countershaft between the Case wall and Countershaft to space the Countershaft rearward approximately 1/4" (6 mm).

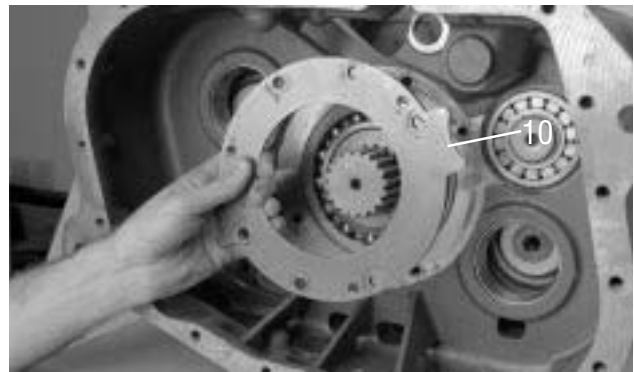
5. Place a bearing over the rear of the Countershaft.

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6. Place the RR1015TR Bearing Driver over the Countershaft Rear Bearing, and drive the bearing into the Case bore. The Countershaft may need to be lifted slightly to start the bearing into the bore. When the bearing is fully seated, no gap should be visible between the bearing and the shaft. If the bearing is not fully seated, the Snap Ring to be installed at Step 7 will not fit.
7. In the Countershaft rear groove, install the Rear Snap Ring.
8. Remove the screwdriver or prybar.
9. If necessary, tap the Countershaft forward to seat the Rear Bearing in its bore.



10. Install the Mainshaft Rear Bearing Retainer. To install the Bearing Retainer, apply Eaton®Fuller® Thread Sealant #71205 or equivalent to the capscrews, and install them in the Bearing Retainer. Torque the screws to 40–45 lb-ft (54–61 N•m)



11. Remove the Timing Block and place the remaining bearing on the front of the Countershaft.
12. Place the RR1015TR Bearing Driver over the bearing, and drive the bearing over the Countershaft until the Inner Race is flush with the end of the Countershaft.

