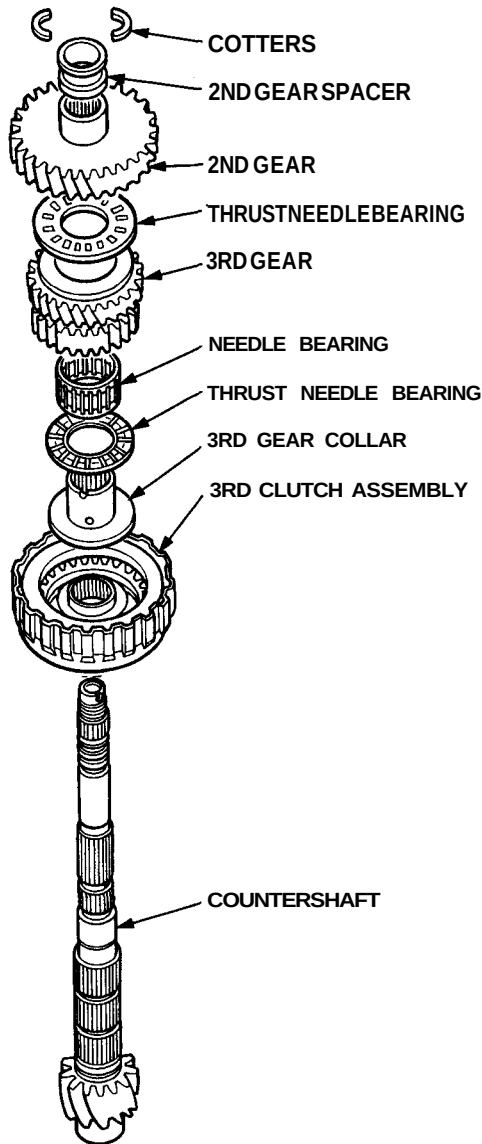


Inspection/Installation

NOTE: Lubricate all parts with ATF during assembly.

1. Assemble the parts below on the countershaft.

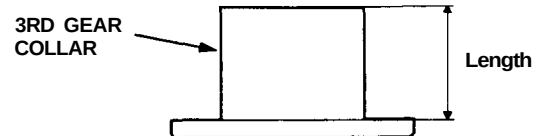
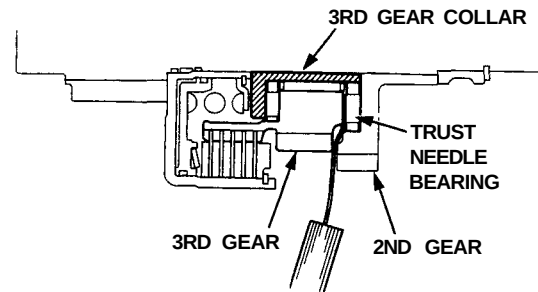
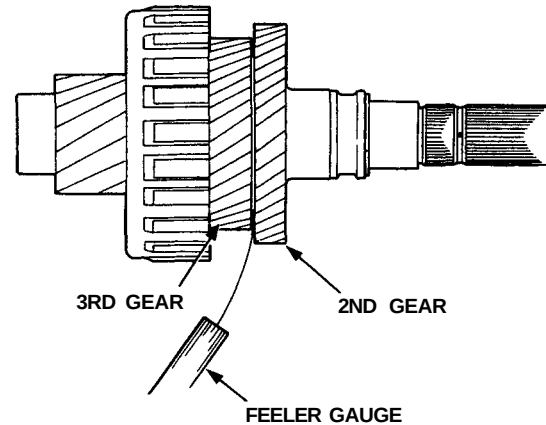
NOTE: Do not install the O-rings during inspection.



2. Hold the 2nd gear against the 3rd gear. Measure the clearance between the 3rd gear and thrust needle bearing with a feeler gauge.

NOTE: Take measurements in at least three places and take the average as the actual clearance.

STANDARD: 0–0.03 mm (0–0.001 in)



3RD GEAR COLLAR

No	Part Number	Length mm (in)
1	90413-PR9-000	35.425-35.440 (1.3947-1.3952)
2	90414-PR9-000	35.440-35.455 (1.3952-1.3959)
3	90415-PR9-000	35.455-35.470 (1.3959-1.3965)
4	90416-PR9-000	35.470-35.485 (1.3965-1.3970)
5	90417-PR9-000	35.485-35.500 (1.3970-1.3976)
6	90418-PR9-000	35.500-35.515 (1.3976-1.3982)

(cont'd)

Countershaft

Inspection/Installation (cont'd)

3. If the clearance is out of tolerance;
 - 1. Select and install a new 3rd gear collar and recheck the clearance.
 - 2. If the clearance is still out of tolerance, replace the two thrust needle bearings and recheck the clearance.

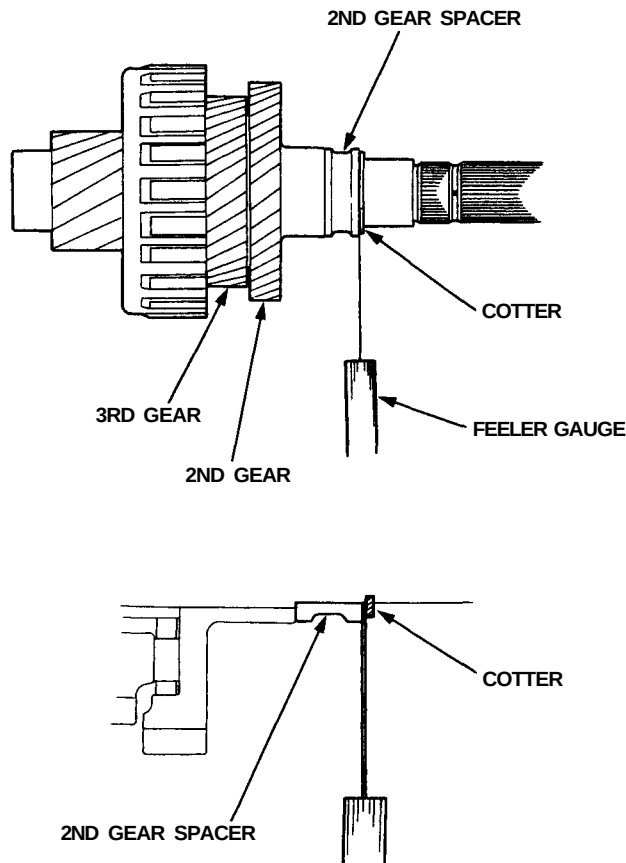
NOTE:

- If the clearance still exceeds the service limit even with new thrust needle bearings, check the 3rd gear, 2nd gear and 3rd gear collar for wear, and replace any worn parts.
- After replacing parts, make sure that the clearance is within tolerance.

4. Hold the 2nd gear against the 3rd gear. Measure the clearance between the 2nd gear spacer and coters with a feeler gauge.

NOTE: Take measurements in at least three places, and take the average as the actual clearance.

STANDARD: 0—0.05 mm (0—0.002 in)



5. If the clearance is out of tolerance, select and install a new coters.

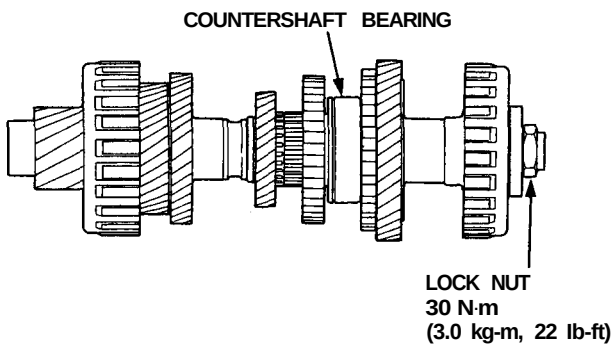
COTTER 31.5 mm

No	Part Number	Thickness mm (in)
1	90441-PR9-000	1.975-2.000 (0.078-0.079)
2	90442-PR9-000	2.000-2.025 (0.079-0.080)
3	90443-PR9-000	2.025-2.050 (0.080-0.081)
4	90444-PR9-000	2.050-2.075 (0.081-0.082)
5	90445-PR9-000	2.075-2.100 (0.082-0.083)
6	90446-PR9-000	2.100-2.125 (0.083-0.084)
7	90447-PR9-000	2.125-2.150 (0.084-0.085)
8	90448-PR9-000	2.150-2.175 (0.085-0.086)
9	90449-PR9-000	2.175-2.200 (0.086-0.087)
10	90450-PR9-000	2.200-2.225 (0.087-0.088)
11	90451-PR9-000	2.225-2.250 (0.088-0.089)
12	90452-PR9-000	2.250-2.275 (0.089-0.090)
13	90453-PR9-000	2.275-2.300 (0.090-0.091)
14	90454-PR9-000	2.300-2.325 (0.091-0.092)
15	90455-PR9-000	2.325-2.350 (0.092-0.093)
16	90456-PR9-000	2.350-2.375 (0.093-0.094)

6. After replacing the coters, make sure that the clearance is held within tolerance.
7. Remove the countershaft bearing from the transmission housing. See page [14-144](#).
8. Assemble the countershaft including bearing and all parts shown to on page [14-124](#).



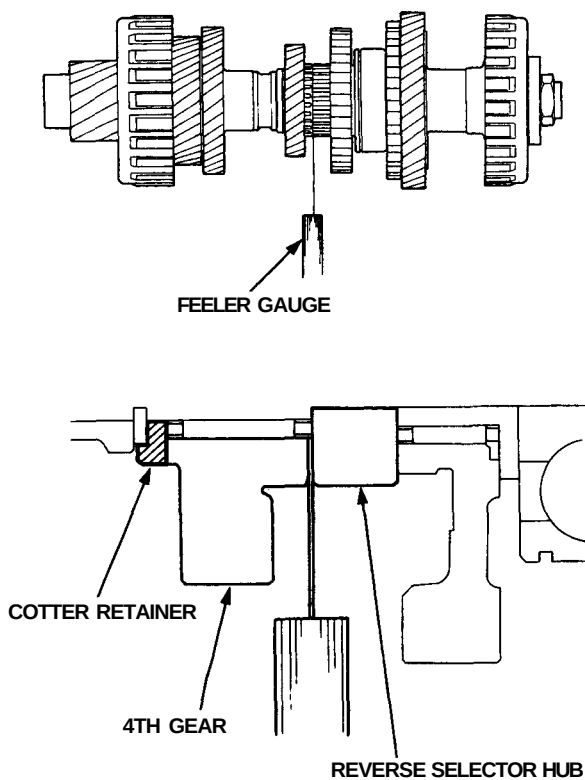
9. Torque the countershaft locknut to 30 N·m (3.0 kg-m, 22 lb-ft).



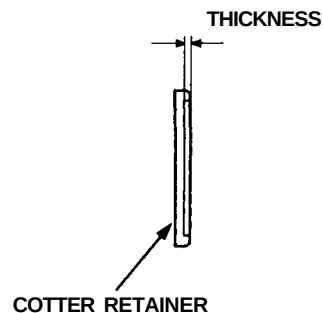
10. Measure the clearance between 4th gear and reverse selector hub with a feeler gauge.

NOTE: Take measurements in at least three places, and take the average as the actual clearance.

STANDARD: 0.05–0.11 mm (0.002–0.004 in)



11. If the clearance is out of tolerance, select and install a new cotter retainer.



COTTER RETAINER

No.	Parts Number	Thickness
1	90432-PR9-000	3.00 – 3.03 mm (0.118 – 0.119 in)
2	90433-PR9-000	3.03 – 3.06 mm (0.119 – 0.120 in)
3	90434-PR9-000	3.06 – 3.09 mm (0.120 – 0.122 in)
4	90435-PR9-000	3.09 – 3.12 mm (0.122 – 0.123 in)

12. After replacing the cotter retainer, make sure that the clearance is within tolerance.