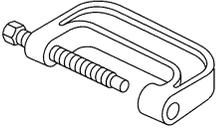
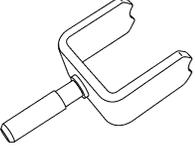


REMOVAL AND INSTALLATION

Rear Driveshaft — One-Piece

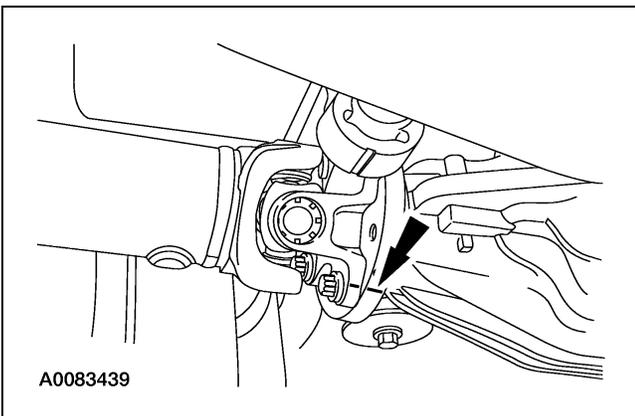
Special Tool(s)

 <p>ST1172-A</p>	<p>Installer/Remover, C-Frame and Screw 205-086 (T74P-4635-C)</p>
 <p>ST2810-A</p>	<p>Adapter for 205-086 205-086-01</p>

Material

Item	Specification
Premium Long Life Grease XG-1-C	ESA-M1C75-B

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-00.
2. Index-mark the driveshaft flange to the rear axle pinion flange.



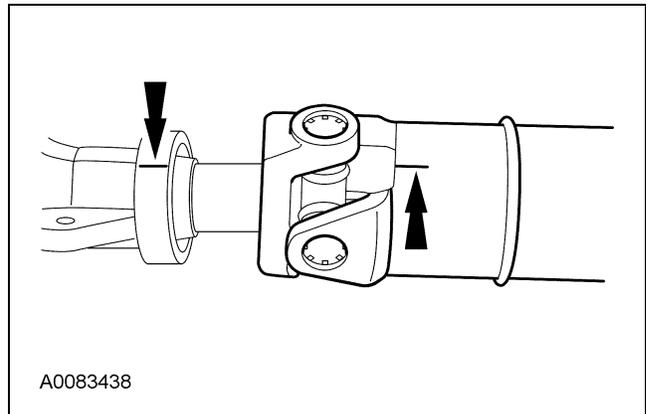
3.  **CAUTION:** Do not hold the driveshaft from turning while tightening or loosening the flange bolts by inserting a bar through the yoke openings, as universal joint damage may occur.

 **CAUTION:** Do not allow the driveshaft to rotate during separation from the transmission extension housing and output shaft.

NOTE: The index mark on the extension housing and driveshaft must be aligned before separation.

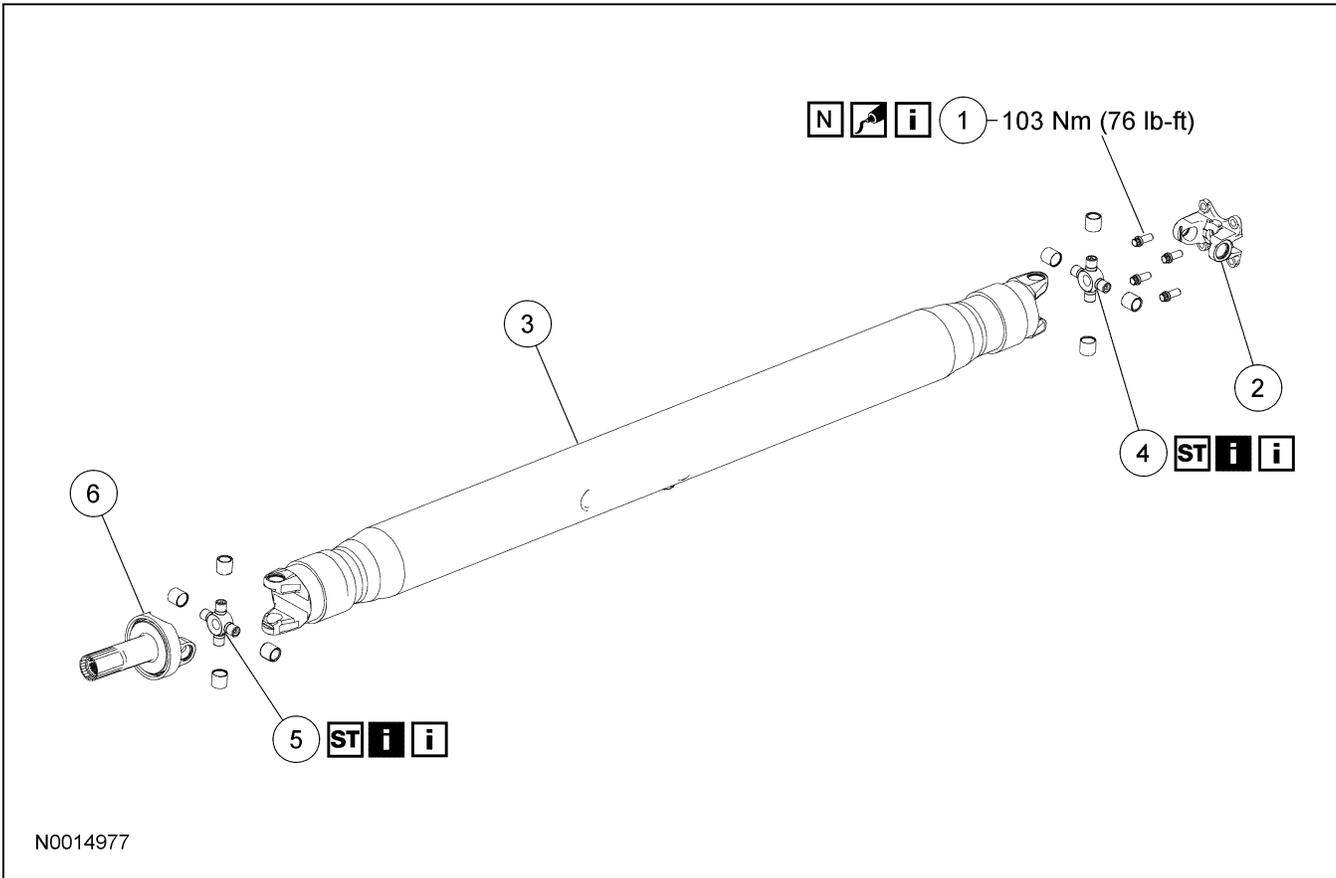
NOTE: After removing the driveshaft, place an index mark on the transmission output shaft that matches the transmission extension housing mark.

Index-mark the driveshaft and the extension housing.



REMOVAL AND INSTALLATION (Continued)

4. Remove the parts in the order indicated in the following illustration and table.



Item	Part Number	Description
1	N800594-S100	Universal joint flange bolt Installation Note
2	4866	Driveshaft flange yoke
3	4602	Driveshaft
4	4635	Universal joint

Item	Part Number	Description
5	4635	Universal joint
6	4841	Driveshaft slip-yoke and damper

5. To install, reverse the removal procedure.

(Continued)

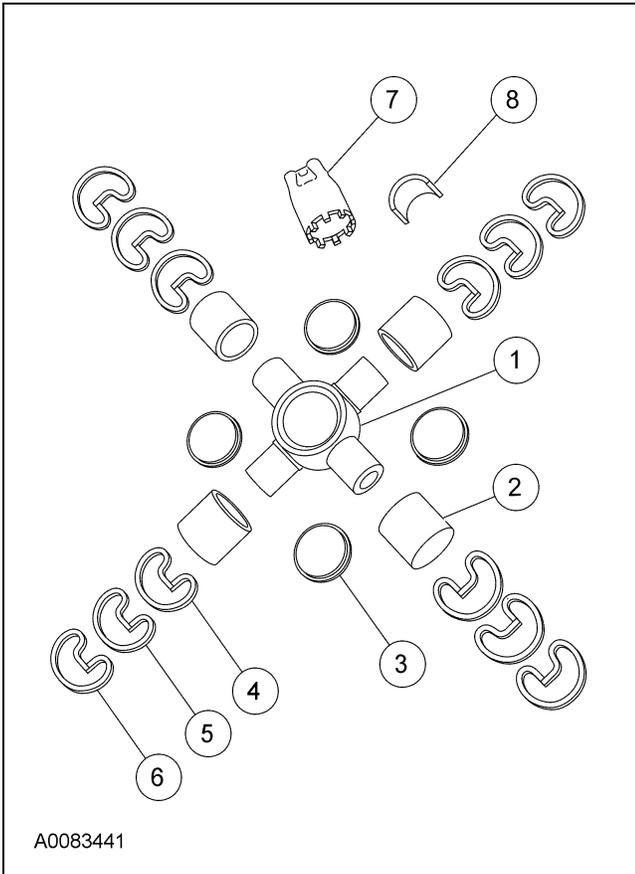
REMOVAL AND INSTALLATION (Continued)

Items 4 and 5: Universal Joint Removal Note

- NOTE:** Do not attempt to service the universal joint without a service kit available.

NOTE: The original universal joints are retained by staking. Service universal joints are retained by traditional snap rings installed in service only grooves provided in the driveshaft yoke ears.

Not all the components of the universal joint kit will be used.



Item	Part Number	Description
1	4705	U-joint spider
2	4712	U-joint bearing cup
3	4K146	U-joint bearing cup spacer
4	4891	Green snap ring (thick)
5	4891	Yellow snap ring (nominal)
6	4891	Orange snap ring (thin)
7	4635	Cutter tool
8	SO64T64	Half-moon punch

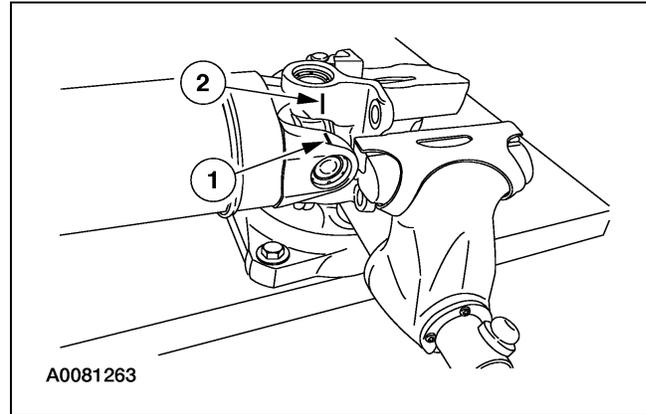
- CAUTION:** Do not, under any circumstance, clamp the driveshaft assembly in the jaws of a vise or similar holding fixture. Denting or localized fracturing may result, causing driveshaft failure during vehicle operation.

Place the driveshaft on a suitable workbench. Do not damage the tube.

- NOTE:** If the components are not marked and therefore installed incorrectly, driveshaft imbalance can occur.

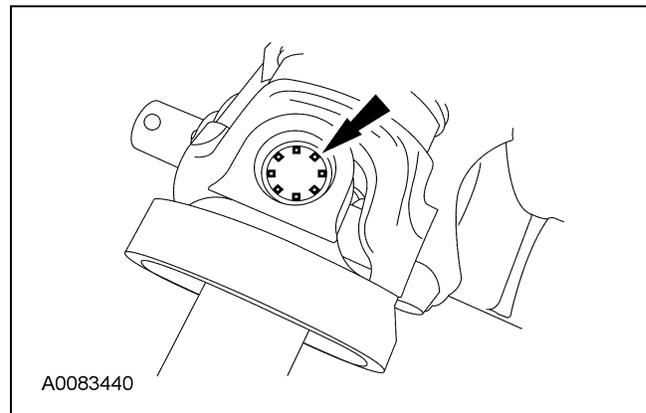
Index-mark the driveshaft components.

- Mark the driveshaft flange.
- Mark the differential flange.



- NOTE:** Steel driveshafts have 8 stakes in each universal joint bearing cup bore. Aluminium driveshafts have 12 stakes in each universal joint bearing cup bore.

Position the driveshaft flange in a soft-jawed vise so the stakes retaining the universal joint bearing cups are accessible.

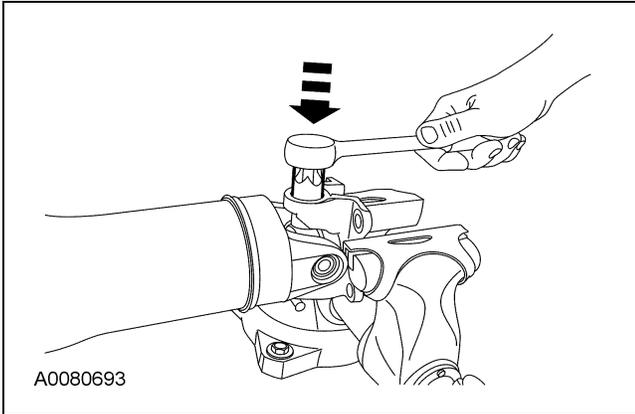


REMOVAL AND INSTALLATION (Continued)

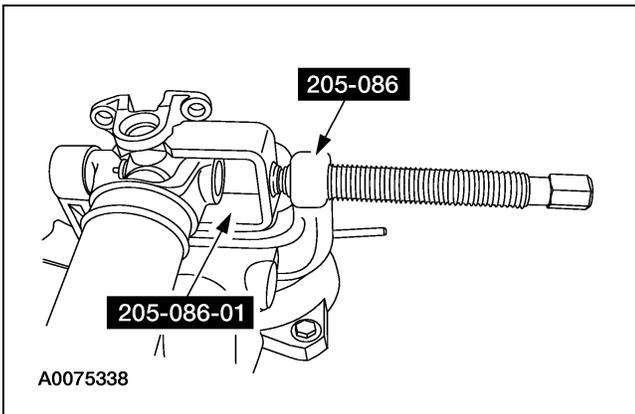
5. **NOTE:** Apply a downward force on the cutter and rotate the cutter to remove the stakes from the bores. The cutter will cut in both clockwise and counterclockwise directions.

Use the cutter supplied in the replacement universal joint kit to remove the staking in the flange bores.

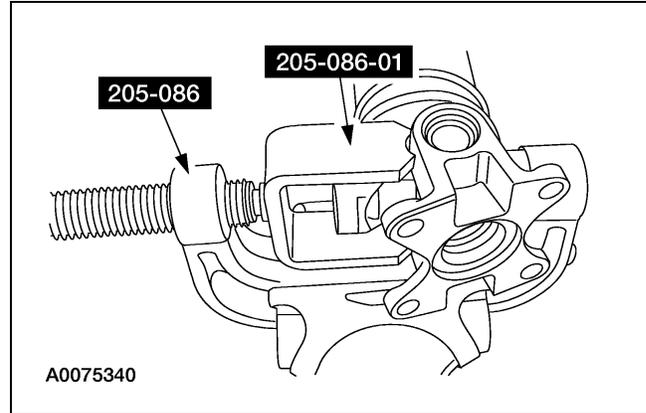
- Remove the stakes from all the bores of the driveshaft flange and the differential flange.



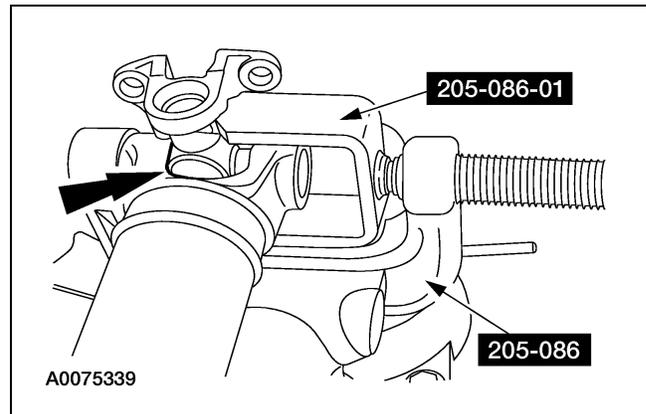
6. Place the driveshaft in the special tool so the Adapter of the C-frame press exerts pressure on the ears of the differential flange.



7. Position the differential flange containing the universal joint spider against the stationary end of the press and tighten the press tool adapter against the flange ears.

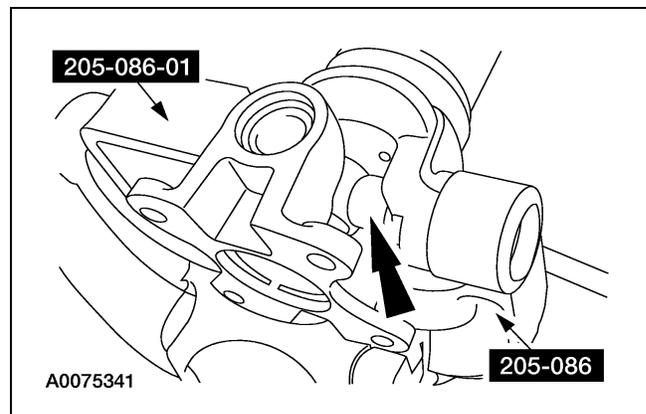


8. Press the universal joint and differential flange as far as possible without contacting the spider center and the driveshaft flange ears.



9. Remove the driveshaft and rotate the shaft and the differential flange 180 degrees. Repeat the use of the special tools and force the opposing bearing cup outboard as far as possible.

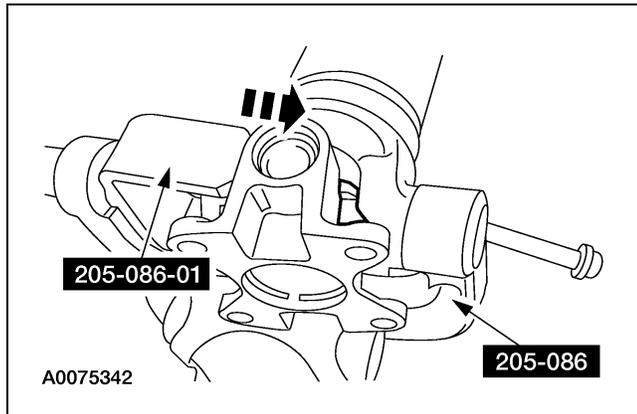
10. Slide the universal joint spider toward the screw side of the special tool and insert the half-moon punch, supplied in the universal joint replacement kit, on the exposed spider leg as shown.



REMOVAL AND INSTALLATION (Continued)

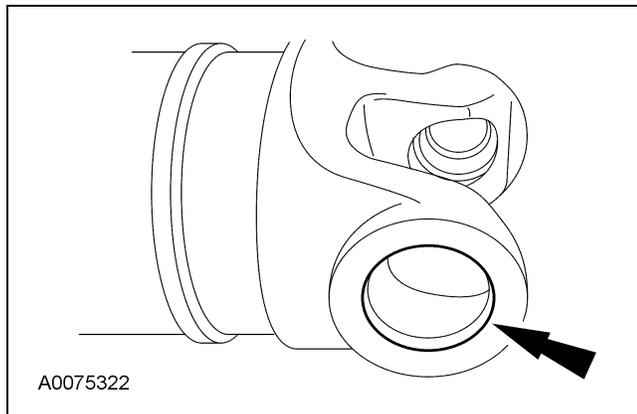
11. **NOTE:** If necessary, use a pair of pliers to remove any bearing cup that fails to press out all the way.

Press the driveshaft flange universal joint bearing cup outboard by applying force to the ears of the differential flange.

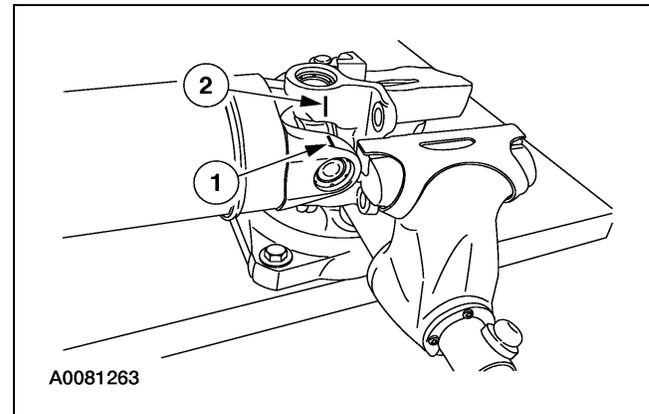


12. Rotate the driveshaft 180 degrees, reinstall the punch tool, and remove the remaining driveshaft flange bearing cup from the driveshaft flange.
13. Remove the differential flange bearing cups from the differential flange in the same manner.
14. **NOTE:** Inspect the bearing cup bores and retaining ring grooves. Remove any rust or other surface irregularities.

Inspect the universal joint bearing cup bores of the flanges and driveshaft. Make sure that all raised indications of stakes are removed and the bores are clean and smooth.

**Items 4 and 5: Universal Joint Installation Note**

1. Align the driveshaft components.

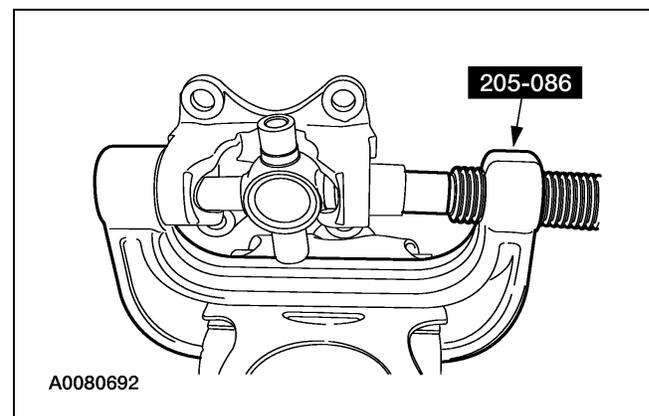


2. **NOTE:** Install the Universal Joint Kit as a complete assembly only. Do not mix components from other kits.

NOTE: Lubricate the flange and driveshaft universal joint bores with grease before installing the bearing cups.

Install the bearing cup.

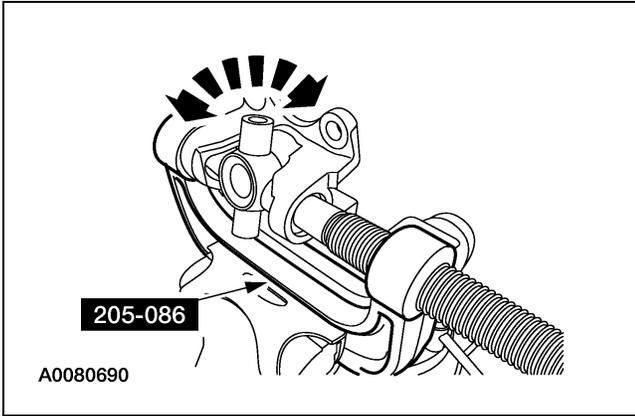
- Position the new spider in the driveshaft yoke.
- Start the new bearing cup into the driveshaft yoke.
- Position the flange in the special tool.



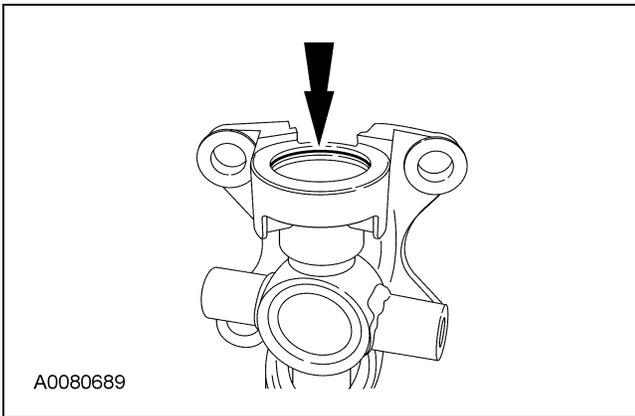
REMOVAL AND INSTALLATION (Continued)

3. **NOTE:** Swivel the U-joint spider while installing the U-joint cup.

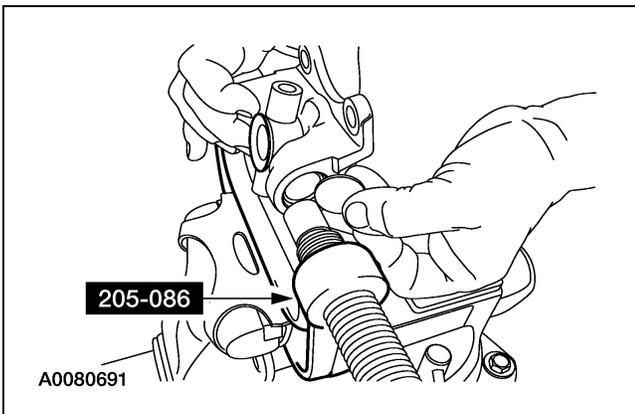
Using the special tool, push the bearing cup into the flange bore and on the spider arm.



4. Push the bearing cup slightly below the shoulder in the flange bore.

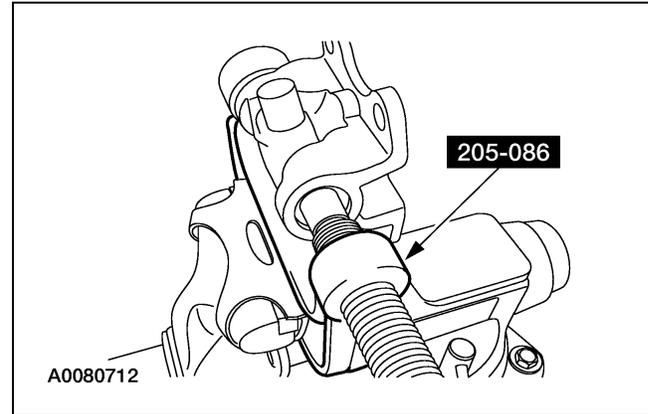


5. Position the bearing cup spacer in the flange bore on top of the bearing cup.
- The undercut on the bearing cup spacer fits against the shoulder in the flange bore.

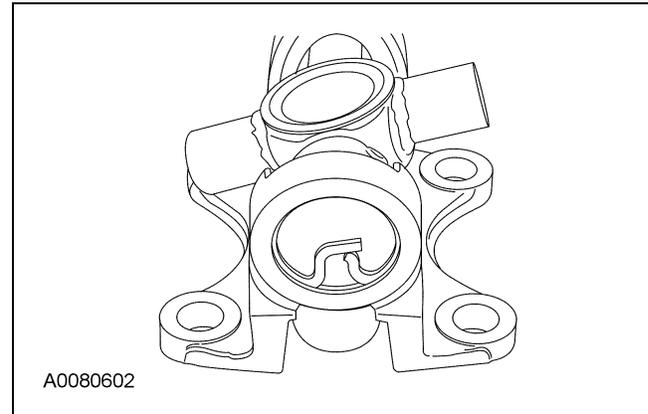


6. **CAUTION:** Do not use excessive force on the bearing cup spacer after contact with the flange bore shoulder.

Use the special tool to seat the bearing cup spacer on the shoulder of the flange bore.



7. Remove the flange from the special tool and insert the yellow snap ring in the snap ring groove of the flange bore.

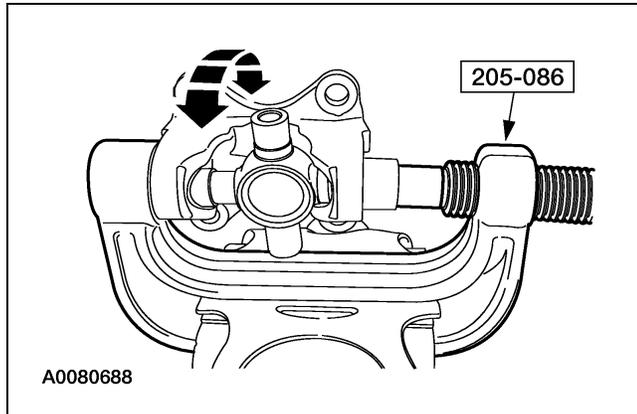


REMOVAL AND INSTALLATION (Continued)

8. **NOTE:** Swivel the U-joint spider while installing the opposing U-joint bearing cup.

Repeat the steps for the opposing side.

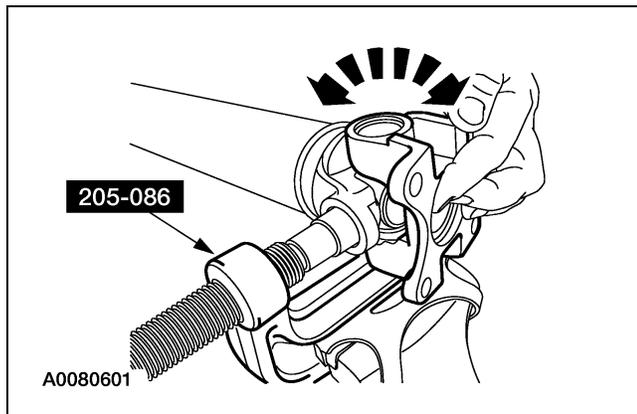
- If the yellow snap ring will not seat in the snap ring groove, install the orange snap ring. If the orange snap ring will not seat in the snap ring groove, remove the yellow snap ring from the first side and install a orange snap ring.



9. Check the U-joint spider for end play. If there is end play in the U-joint spider with the bearing cups, spacers and snap rings installed, install the thicker green snap ring in the second flange bore. If the green snap ring does not eliminate the spider end play, remove the first yellow snap ring and install a green snap ring in the groove.

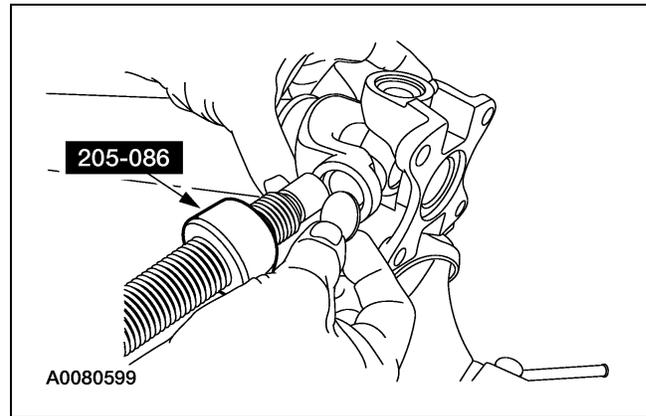
10. **NOTE:** Swivel the U-joint spider while installing the U-joint cup.

Using the special tool, push the bearing cup into the driveshaft flange bore below the bore shoulder.



11. Position the bearing cup spacer in the driveshaft flange bore on top of the bearing cup.

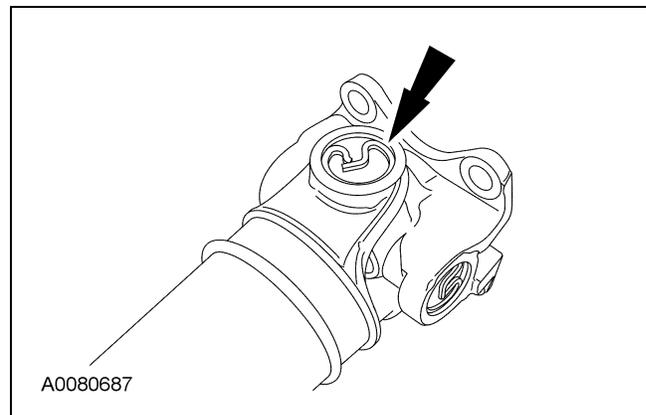
- The undercut on the bearing cup spacer fits against the shoulder in the driveshaft flange bore.



12. **⚠ CAUTION: Do not use excessive force on the bearing cup spacer after contact with the flange bore shoulder.**

Use the special tool to seat the bearing cup spacer on the shoulder of the driveshaft flange bore.

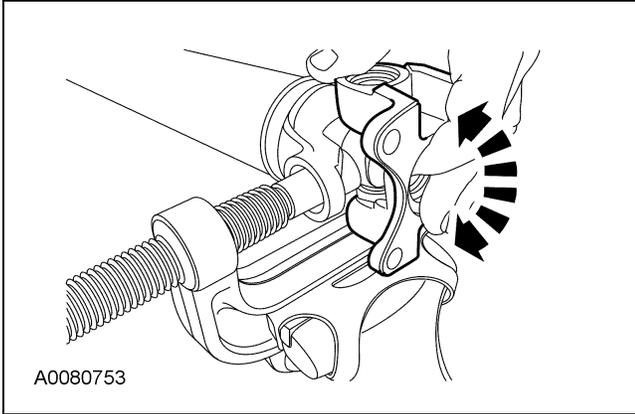
13. Remove the driveshaft from the special tool and insert the yellow snap ring in the snap ring groove of the driveshaft flange bore.



REMOVAL AND INSTALLATION (Continued)

14. **NOTE:** Swivel the differential flange while installing the opposing U-joint cup.

Repeat Steps 10 to 12 to install the driveshaft flange universal joint bearing cup and spacer on the opposing side.



15. Remove the driveshaft from the special tool and insert the yellow snap ring in the opposite snap ring groove of the driveshaft flange bore.

- If the yellow snap ring will not seat in the snap ring groove, install the orange snap ring. If the orange snap ring will not seat in the snap ring groove, remove the yellow ring from the first side and install a orange snap ring.

16. **CAUTION:** Never mix orange and green snap rings on opposing sides.

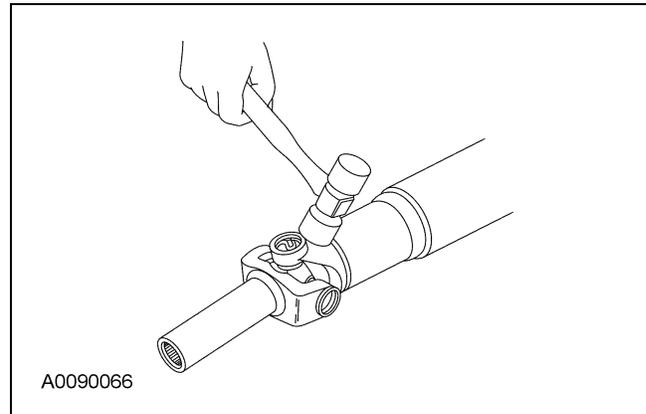
Check the U-joint spider for end play. If there is end play in the U-joint spider with the bearing cups, spacers and snap rings installed, install the thicker green snap ring in the second flange bore. If the green snap ring does not eliminate the spider end play, remove the first yellow snap ring and install a green snap ring in the groove.

A correct installation provides equal freedom of motion through both planes of rotation with zero spider end play and tightly retained bearing cup spacers.

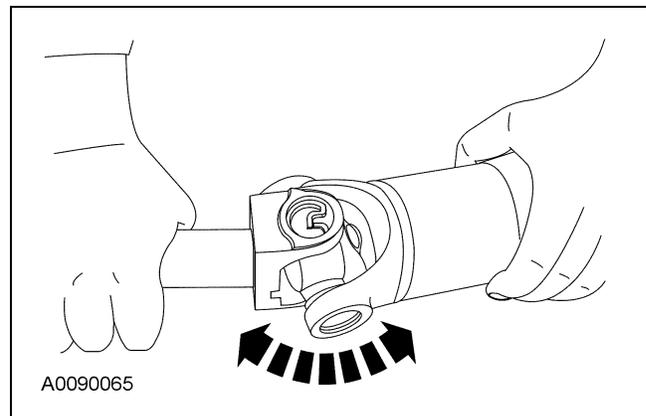
17. **CAUTION:** Make sure the spacers are retained tightly between the bearing cup and the snap ring. Slight “spring up” of the snap ring ears indicate correct retention.

CAUTION: Do not strike the bearings.

A sharp rap on the driveshaft yoke with a brass or plastic hammer will seat the bearing cups.



18. Rotate the driveshaft yoke to make sure the universal joints are free to rotate easily, without binding, before installing the driveshaft.



REMOVAL AND INSTALLATION (Continued)**Item 1: Universal Joint Flange Bolt
Installation Note**

1.  **CAUTION:** The driveshaft flange fits tightly on the rear axle pinion flange pilot. To make sure that the driveshaft flange seats squarely on the pinion flange, tighten the bolts evenly in a cross pattern as shown.

Install the new driveshaft flange bolts in the order and specification shown.

