 Printable View (54 KB)	
Article No. 03-26-2	<ul style="list-style-type: none">• NOISE - DRIVESHAFT - THUMP/CLUNK ON LIGHT ACCELERATION FROM STOP OR WHEN BRAKING AND COMING TO A STOP - RANGER 4X4 SUPER CAB EQUIPPED WITH AUTOMATIC TRANSMISSION AND STEEL DRIVESHAFT• DRIVESHAFT - THUMP/CLUNK ON LIGHT ACCELERATION FROM STOP OR WHEN BRAKING AND COMING TO A STOP - RANGER 4X4 SUPER CAB EQUIPPED WITH AUTOMATIC TRANSMISSION AND STEEL DRIVESHAFT
Publication Date: December 22, 2003	

FORD: 1998-2004 RANGER

This article supersedes TSB 03-04-8 to update the vehicle lines, model years and service procedure.

ISSUE:

Some Ranger 4X4 Super Cab vehicles equipped with an automatic transmission and a steel driveshaft may exhibit a low frequency thump type noise/vibration on light acceleration from a stop and/or when coming to a stop with light to moderate braking. This may be caused by axle wind up during acceleration or deceleration, creating a stick/slip condition at the rear driveshaft slip yoke splines.

ACTION:

A new type of grease is available which will greatly reduce the sticking/binding in the slip yoke during acceleration and deceleration. To service, apply the new grease to the rear driveshaft slip yoke splines. Refer to the following Service Procedure.

NOTE: RANGER VEHICLES BUILT WITH AN ALUMINUM DRIVESHAFT, OR THAT HAVE PREVIOUSLY HAD AN ALUMINUM DRIVESHAFT INSTALLED PER TSB 03-4-8 DO NOT REQUIRE THE INSTALLATION OF THE NEW SERVICE GREASE. REFER TO THE APPROPRIATE WORKSHOP MANUAL FOR DIAGNOSIS AND REPAIR OF NOISE CONDITIONS ON VEHICLE EQUIPPED WITH THE ALUMINUM DRIVESHAFT.

NOTE: OTHER DRIVELINE NOISE CONDITIONS WILL NOT BE CORRECTED WITH THIS PROCEDURE. REFER TO THE APPROPRIATE RANGER WORKSHOP MANUAL FOR DIAGNOSIS AND REPAIR OF ENGAGEMENT CLUNK, TIP-IN/OUT CLUNK OR CLUTCH ENGAGEMENT CLUNK CONDITIONS.

SERVICE PROCEDURE

DRIVESHAFT REMOVAL

1. Index (mark) the rear driveshaft to the rear pinion flange and the front of the driveshaft to the transfer case flange.
2. Remove the rear driveshaft.

SLIP YOKE DISASSEMBLY

**CAUTION:**

DO NOT, UNDER ANY CIRCUMSTANCE, CLAMP THE DRIVESHAFT IN THE JAWS OF A VISE OR SIMILAR HOLDING FIXTURE. DENTING OR LOCALIZING FRACTURE CAN RESULT, CAUSING DRIVESHAFT FAILURE DURING VEHICLE OPERATION.

1. Place the driveshaft on a suitable workbench. Do not damage the tube.
2. Index (mark) the driveshaft and slip yoke on both sides of the boot. Mark the location of the clamp crimps so the new clamps can be installed in the same location ([Figure 1](#)).
3. Cut and discard the slip yoke boot clamps.
4. Remove the slip yoke from the driveshaft.
5. Thoroughly clean the boot making sure to remove all of the old grease and dirt. Inspect the boot for damage and replace if necessary.
6. Inspect the lubricant on the driveshaft splines and in the driveshaft slip yoke for contamination. If contaminated, inspect the driveshaft splines and slip yoke for wear.
7. Using a stiff NON-METALLIC brush and a suitable solvent, thoroughly clean all the old grease out of the splines on the slip yoke and the driveshaft.
8. Use compressed air to completely dry both spline areas.

ASSEMBLY

1. Install the slip yoke boot on the driveshaft (small opening end first).
2. Install and crimp the small slip yoke boot clamp 39.6 mm (1.56") using a keystone clamp installer (SST 211-002).
3. Pull the boot toward the driveshaft to expose the splines. Completely coat all slip yoke and driveshaft spline surfaces with the grease supplied in the kit.
4. Position the large slip yoke boot clamp 54.5 mm (2.15") on the boot (DO NOT CRIMP).
5. Align the index marks and install the slip yoke on the driveshaft.
6. Set boot free length as follows:
 - a. Remove any excess grease from the slip yoke boot and driveshaft slip yoke surfaces.
 - b. Position the slip yoke boot in the slip yoke boot groove.
 - c. Set the boot length to 76 mm (3") by sliding the slip yoke. Measure between the inner side of the clamps as shown in ([Figure 2](#)).
 - d. Bleed the air from the slip yoke boot using a screwdriver as shown in ([Figure 2](#)).
7. Crimp the large slip yoke boot clamp 54.5 mm (2.15") using SST 211-002.

INSTALL DRIVESHAFT

1. Align the driveshaft front index-mark with the mark on the transfer case flange and install the driveshaft. Torque the bolts to 111 N-m (82 lb-ft).
2. Align driveshaft rear flange index-mark with the mark on the pinion flange and install the driveshaft. Torque the bolts to 112 N-m (83 lb-ft).

PART NUMBER	PART NAME
F87Z-4K277-AA	Drive Shaft Slip Yolk Kit
F1TZ-4421-B	Boot

OTHER APPLICABLE ARTICLES:

NONE

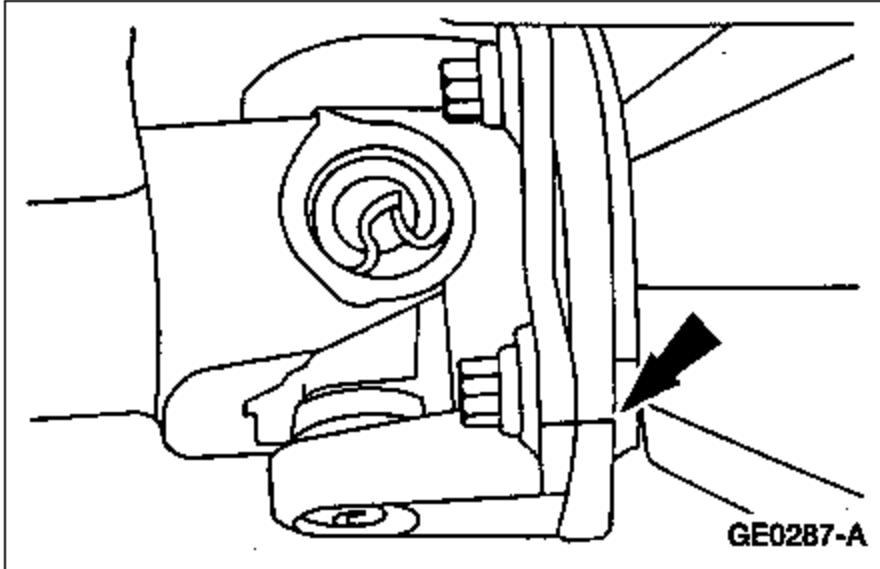
SUPERSEDES:

03-4-8

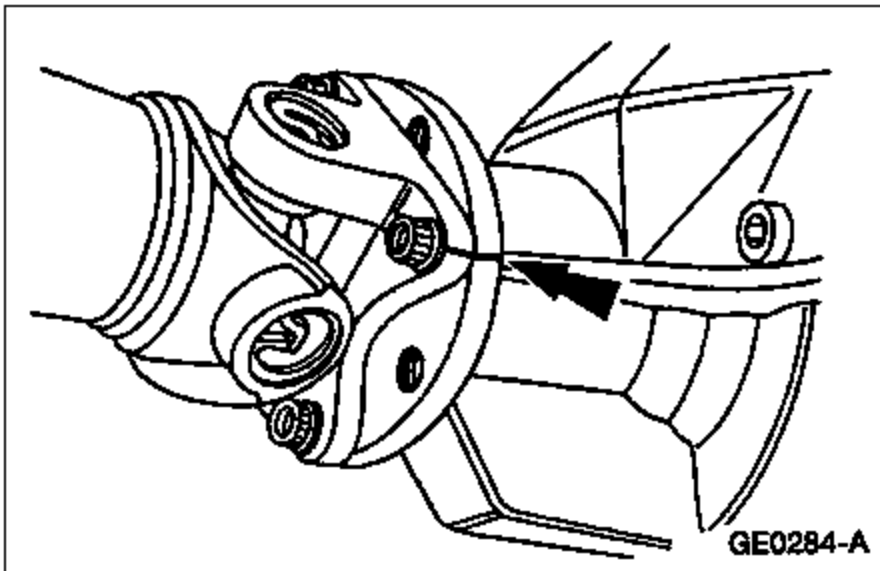
Driveshaft — Rear, 4x4

Removal

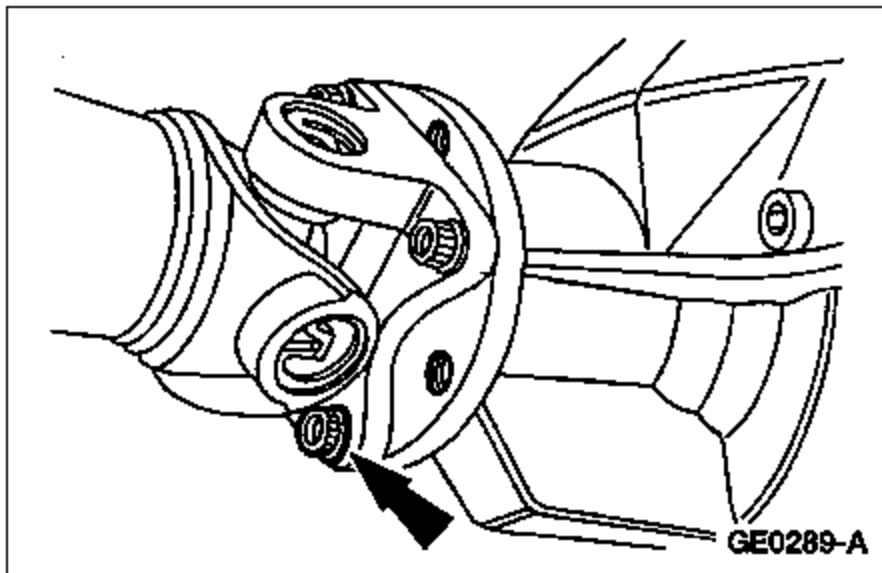
1. With the vehicle in neutral, raise and support the vehicle; for additional information, refer to «Section 100-02».



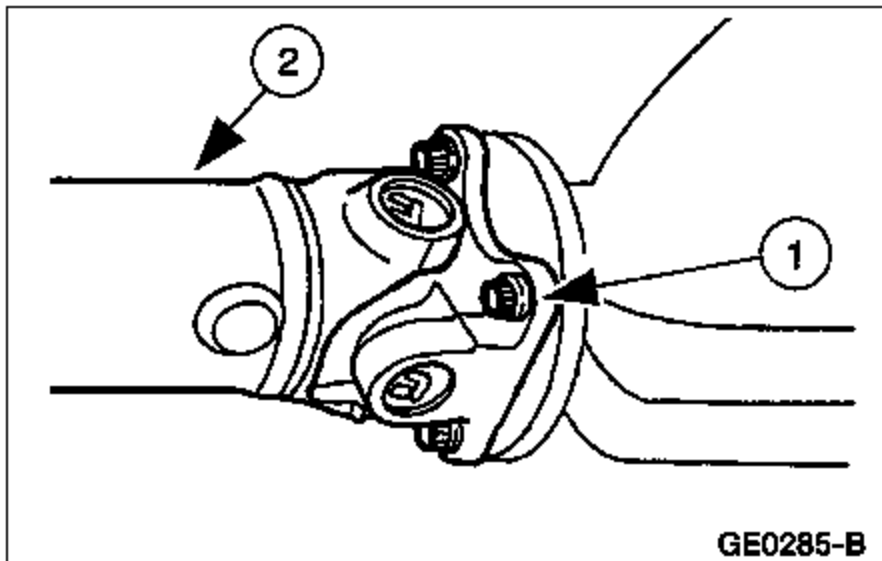
- μ 2. Index-mark the driveshaft yoke to the transfer case pinion flange.



- μ 3. Index-mark the driveshaft (4602) to driveshaft rear axle pinion flange.

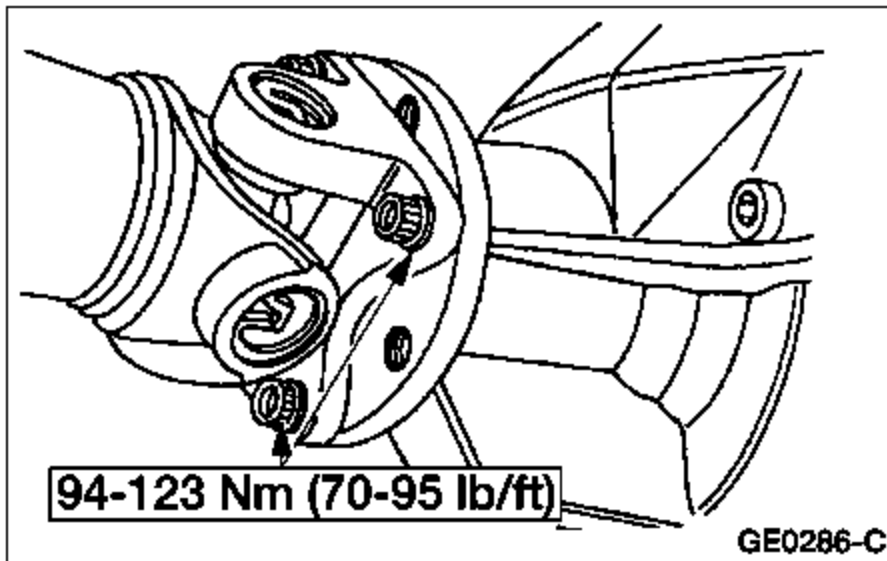


- μ 4. Remove the four rear bolts, and disconnect the rear driveshaft.

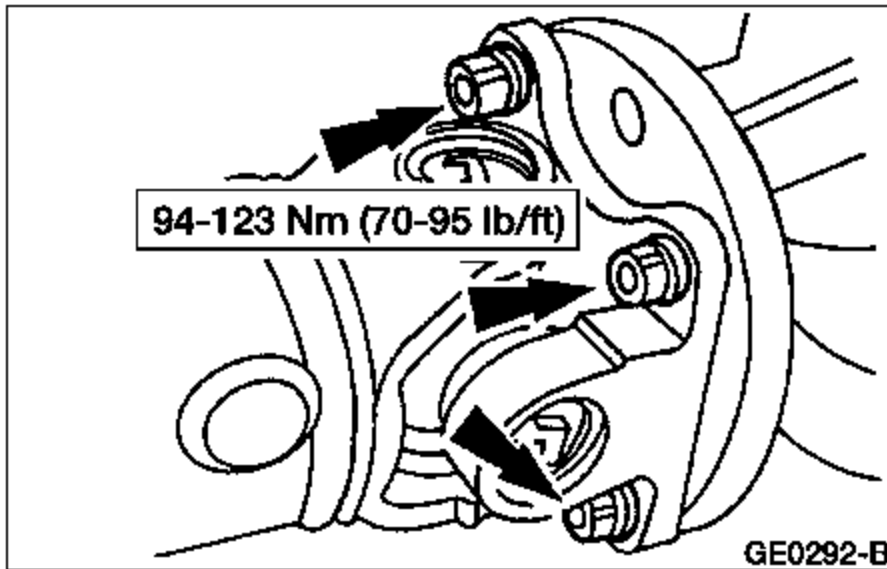


- μ 5. Separate the driveshaft from the transfer case.
- 1 Remove the four bolts.
 - 2 Carefully remove the driveshaft.

Installation



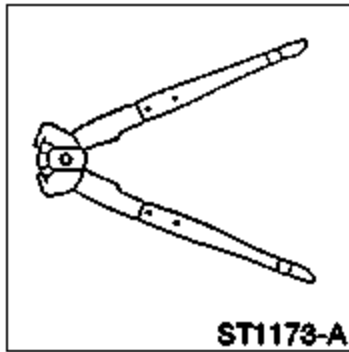
- μ 1. Follow the removal procedure in reverse order.



- μ Refer to corresponding illustration.
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Driveshaft Slip Yoke

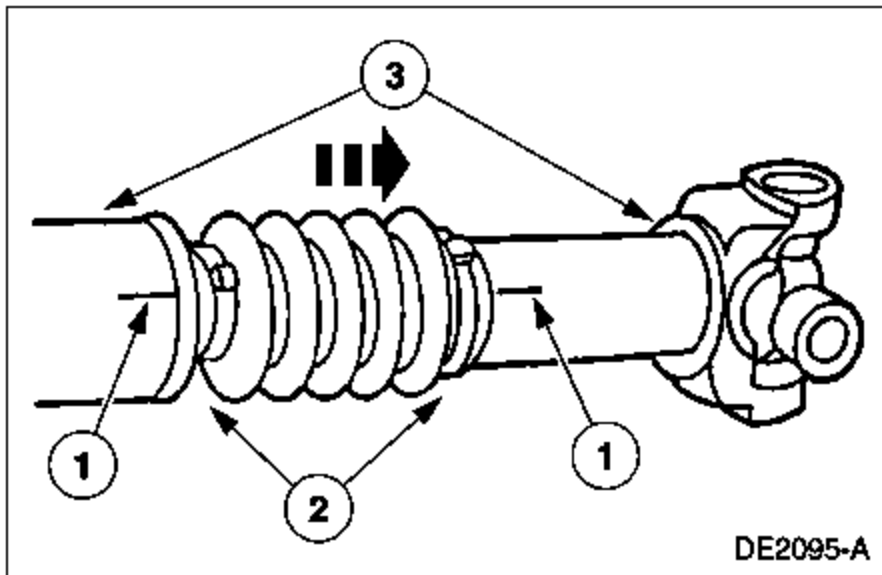
Special Service Tool(s)




Keystone Clamp Pliers
211-002 (T63P-9171-A)

Disassembly

1. Remove the driveshaft (4602); for additional information, refer to the procedure in this section.

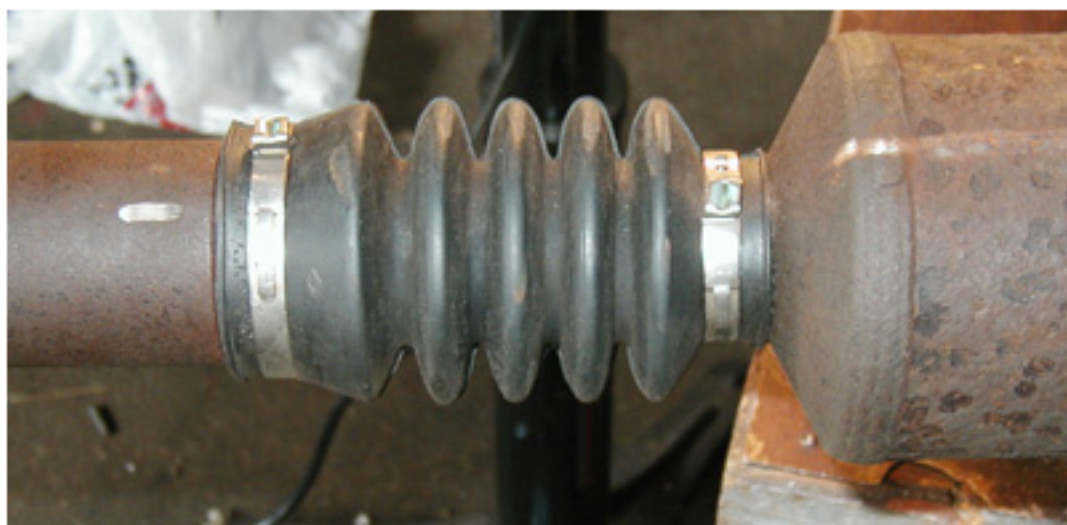


-  **CAUTION:**
Do not clamp the driveshaft in the jaws of a vise or similar holding fixture.

Remove the driveshaft slip yoke boot.

1. Index-mark the driveshaft to the driveshaft slip yoke.
 2. With the rear driveshaft on a bench, cut and discard the driveshaft slip yoke boot clamps (4K227).
 3. Separate the driveshaft slip yoke (4841) from the splined stub shaft on the driveshaft, and remove the driveshaft slip yoke boot.
- n. Inspect the driveshaft slip yoke boot for damage and replace if required.

Tip: Use a Dremel tool to lightly scratch index marks on the shaft and slip yoke to ensure proper alignment upon re-assembly.



Instructions
continue on
next page

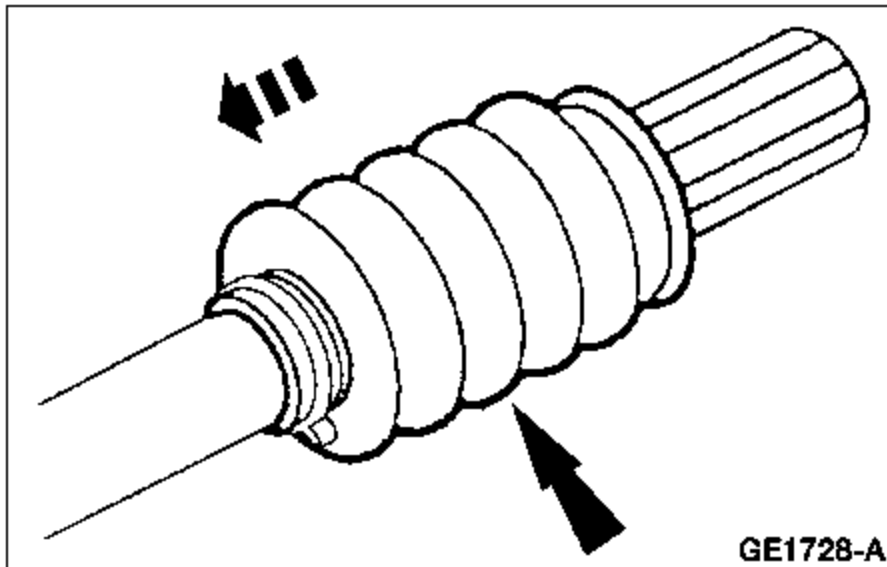


Tip: Use solvent and compressed air to remove ALL of the old grease from the splined shaft stub and slip yoke.

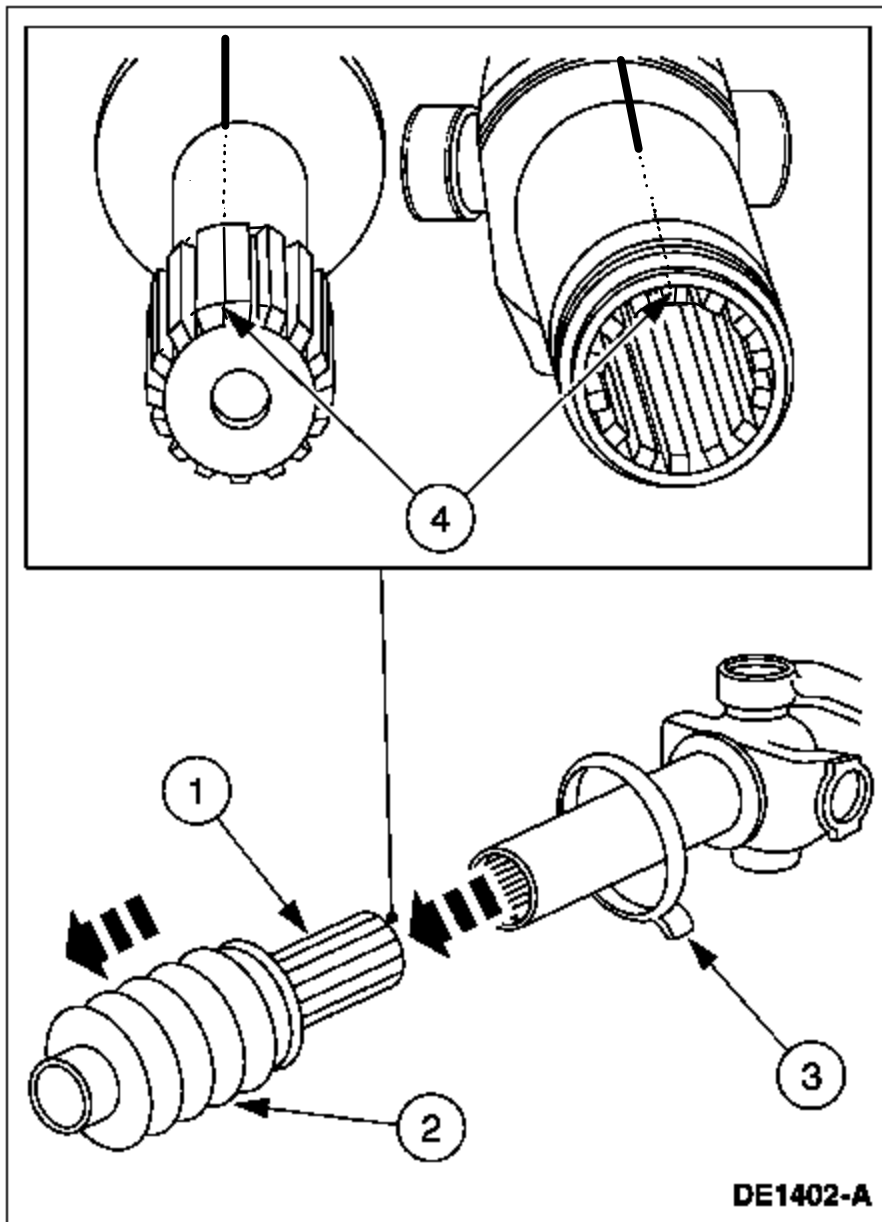
Tip: Spread the new grease evenly

3. Inspect the lubricant for contamination. If contaminated, inspect the stub shaft and driveshaft slip yoke for wear. Replace the driveshaft as needed.

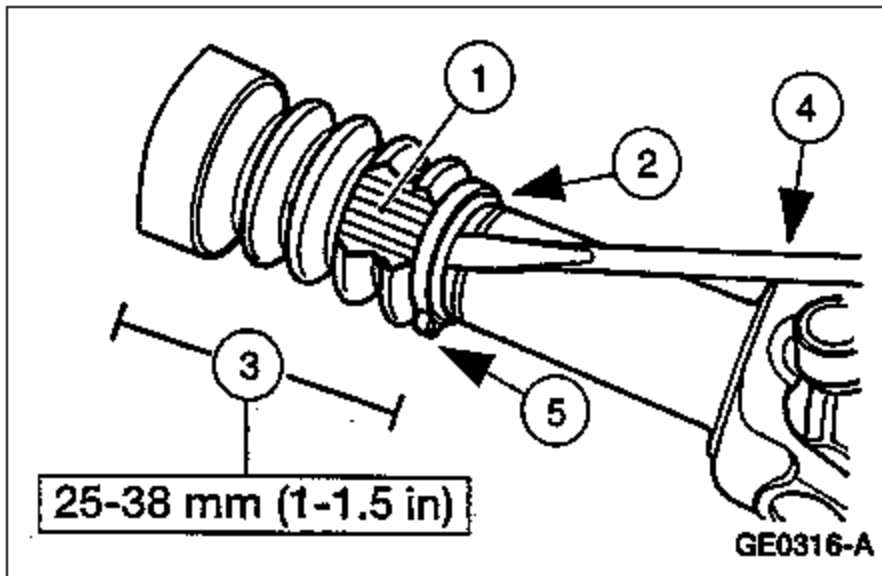
Assembly



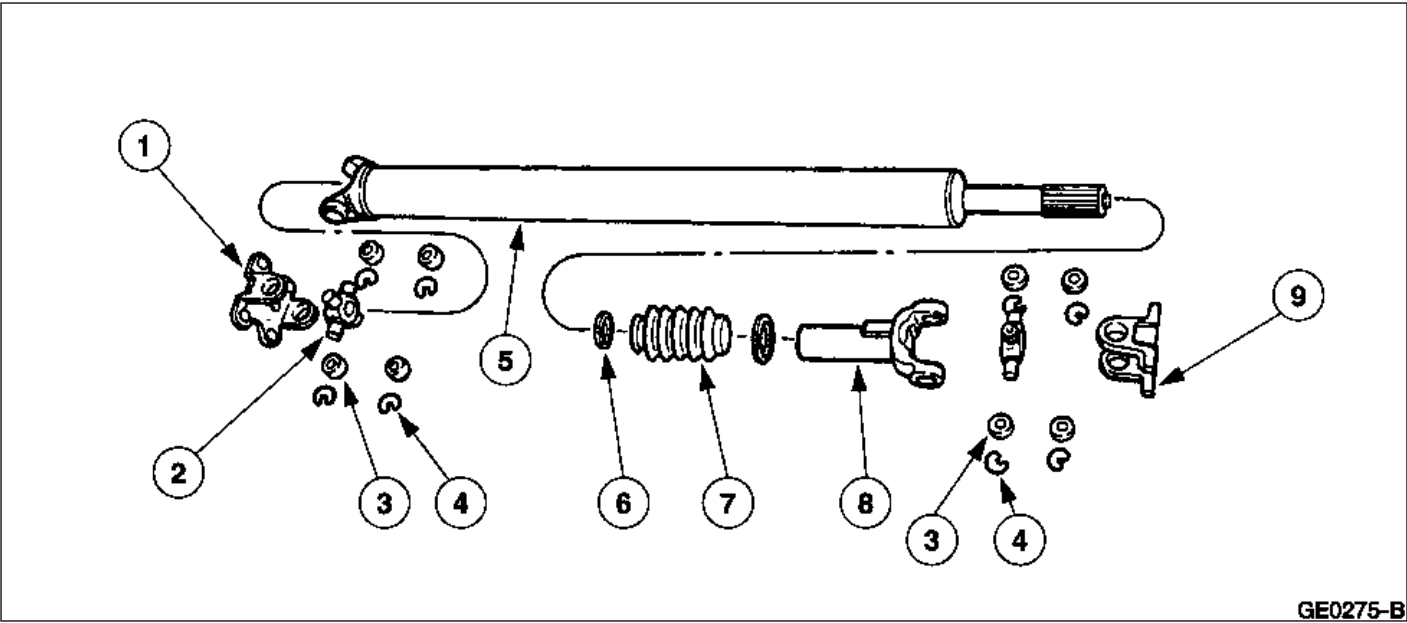
1. Slide the small opening end of the driveshaft slip yoke boot on the splined stub shaft as far as it will travel.
2. Install the small driveshaft slip yoke boot clamp and use Keystone Clamp Pliers to crimp the small driveshaft slip yoke boot clamp.



3. Install the driveshaft slip yoke.
 - 1 Lubricate the stub shaft splines, and pull the driveshaft slip yoke boot towards the driveshaft.
 - n Use Premium Long-Life Grease XG-1-C or -K or equivalent meeting Ford specification ESA-M1C75-B.
 - 2 Fill the driveshaft slip yoke boot with approximately 10 grams of lubricant.
 - n Use Premium Long-Life Grease XG-1-C or -K or equivalent meeting Ford specification ESA-M1C75-B.
 - 3 Position the large driveshaft slip yoke boot clamp.
 - 4 Align the index marks made during disassembly, and install the driveshaft slip yoke.



- μ 4. Install the large driveshaft slip yoke boot clamp.
- 1 Remove any excess grease from the differential slip yoke boot and driveshaft slip yoke surfaces.
 - 2 Position the driveshaft slip yoke boot over the driveshaft slip yoke boot groove.
 - 3 Position the driveshaft slip yoke to specification from the driveshaft weld to the end of the slip yoke splines.
 - 4 Bleed air from the driveshaft slip yoke boot.
 - 5 Use Keystone Clamp Pliers to crimp the large driveshaft slip yoke boot clamp.
5. Install the driveshaft; for additional information, refer to the procedure in this section.
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GE0275-B

UAAA¿						
3	Item	3	Part Number	3	Description	3
AAA´						
3	1	3	4A378	3	Rear Flange	3
AAA´						
3	2	3	Ä	3	Spider (Part of 4635)	3
AAA´						
3	3	3	Ä	3	Bearing Cup (Part of 4635)	3
AAA´						
3	4	3	Ä	3	Snap Ring (Part of 4635)	3
AAA´						
3	5	3	4602	3	Driveshaft	3
AAA´						
3	6	3	3B478	3	Driveshaft Slip-Yoke Boot Clamp	3
AAA´						
3	7	3	4421	3	Universal Joint Slip-Yoke Boot	3
AAA´						
3	8	3	Ä	3	Driveshaft Slip-Yoke	3
3		3		3	(Part of 4602)	3
AAA´						
3	9	3	4A378	3	Front Flange	3
AAAU						

Driveshaft — Front