

General Specifications

Item	Specification
Left front halfshaft assembled length	578.1 mm (22.76 in)
Right front halfshaft assembled length (All-Wheel Drive (AWD))	538.7 mm (21.21 in)
Right front halfshaft assembled length (Front Wheel Drive (FWD))	511.7 mm (20.14 in)

Lubricants and Capacities

Lubricant	Specification	Capacity
Front Halfshaft Inboard CV Joint		
Constant Velocity Joint Grease (from 3A331 kit)	—	295 g (10.41 oz)
Front Halfshaft Outboard CV Joint		
Constant Velocity Joint Grease (from 3A331 kit)	—	130 g (4.58 oz)

Torque Specifications

Description	Nm	lb-ft	lb-in
Ball joint nut	55	41	—
Brake hose bracket bolt	20	—	177
Catalytic converter support bracket bolts	20	—	177
Front stabilizer bar nut	90	66	—
Front wheel hub nut ^a	—	—	—
Intermediate shaft bracket support bolts (All-Wheel Drive (AWD))	40	30	—
Intermediate shaft bracket-to-block bolts and stud bolts Front Wheel Drive (FWD)	40	30	—

^a Refer to the procedure.

Front Drive Halfshafts

The front drive halfshafts consist of the following:

- Inboard and outboard CV joints connect to a splined shaft. Driveshaft bearing retainer circlips retain the CV joints to the splined shaft.
- A front axle wheel hub nut that secures the splined outboard CV joint to the wheel hub.
- Lubed-for-life CV joints use special CV joint grease requiring no periodic lubrication.
- A boot repair kit, 3A331, which includes the boots, clamps and grease is available.

On the LH side, the inboard CV joint is retained in the differential side gear with a 33 mm (1.29 in) retainer circlip. This circlip is oval in shape when viewed at the end. Install a new circlip every time the halfshaft is disconnected. On the RH side, a 30 mm (1.181 in) driveshaft bearing retainer circlip retains the splined inboard CV joint to the intermediate shaft. This circlip is round when view at the end. Install a new circlip every time you disconnect the halfshaft from the intermediate shaft.

The halfshafts are splined on the outboard stub shaft to drive the wheel hubs. They are retained in the wheel hubs by special wheel hub nuts which also control the wheel bearing preload. The LH halfshaft is splined on the inboard stub shaft and is retained in the differential side gear in the transaxle by a circlip. The RH halfshaft has internal splines which are driven by the intermediate shaft. The intermediate shaft has a circlip on the outboard end and is retained inside the inboard stub shaft. The circlips must be installed new whenever they are removed. The intermediate shaft is retained in the transaxle differential side gear by bolts that go through the intermediate shaft support bearing. The intermediate shaft also goes through the Power Transfer Unit (PTU) on All-Wheel Drive (AWD) vehicles. The outer seal of the PTU must be installed new whenever the intermediate shaft is removed.

Halfshaft Handling

NOTICE: Never pick up or hold the halfshaft only by the inboard or outboard Constant Velocity (CV) joint or damage to the component may occur.

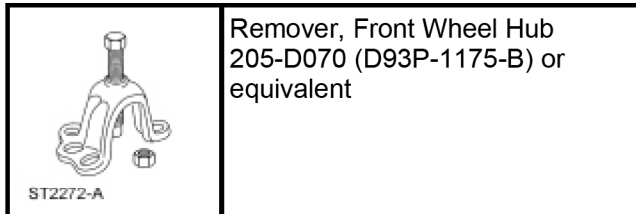
Handle all halfshaft components carefully during removal and installation and during various component disassembly and assembly procedures. Do not overangle the CV joints. Damage will occur to an assembled inboard CV joint if it is overplunged outward from the joint housing. Never use the halfshaft assembly as a lever to position other components. Always support the free end of the halfshaft. Do not allow the boots to contact sharp edges or hot exhaust components. Handle the halfshaft only by the interconnecting shaft to avoid pull-apart and potential damage to the CV joints. Excessive pulling force on the interconnecting shaft between joints of the halfshaft will result in internal joint damage. Axial loads used in assisting removal must be applied through the inboard joint housing only. Do not drop assembled halfshafts. The impact will cut the boots from the inside without evidence of external damage.

Front Drive Halfshafts

Refer to Section 205-00 .

Halfshaft — RH

Special Tool(s)

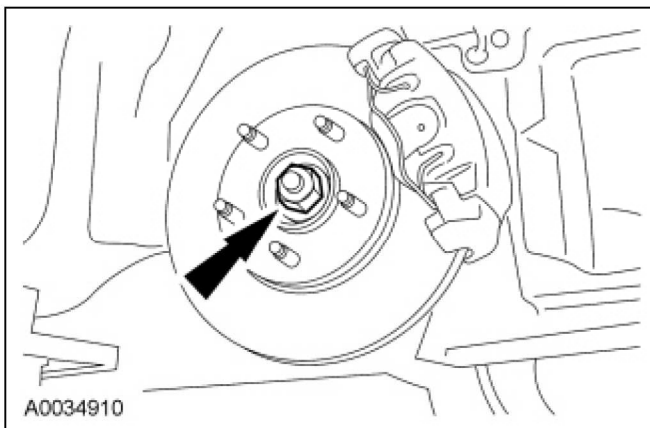


Removal

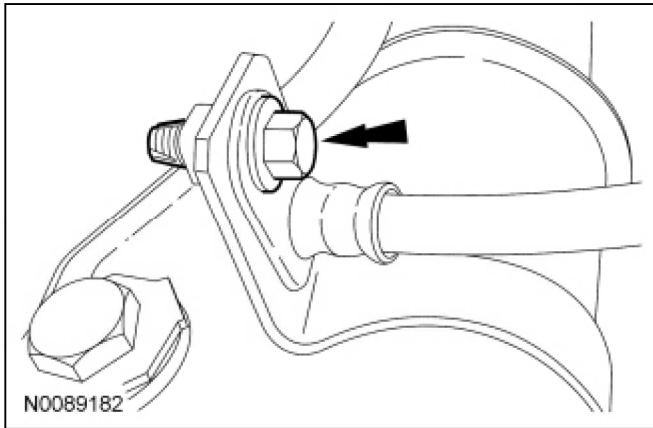
1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).
2. Remove the front wheel and tire. For additional information, refer to [Section 204-04](#).
3. **NOTE:** Apply the brake to keep the halfshaft from rotating.

Remove the wheel hub nut.

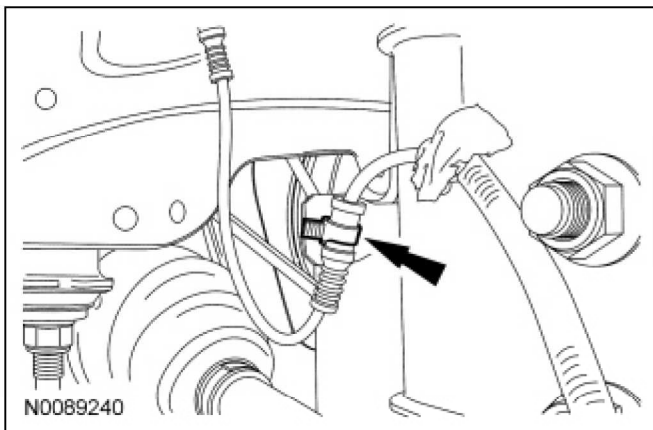
- Do not discard at this time.



4. Remove the brake hose bracket bolt and disconnect the hose from the shock absorber.

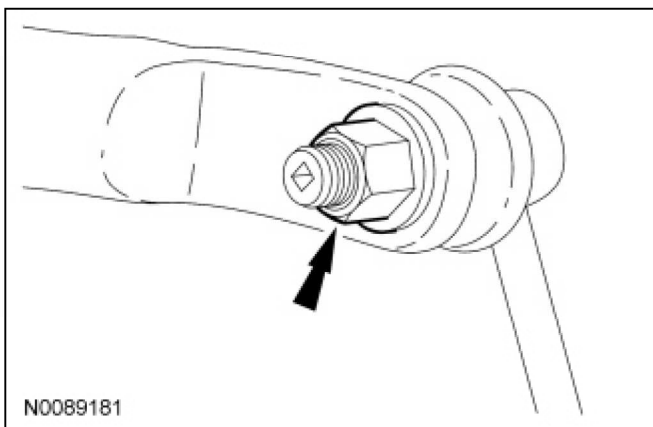


5. Disconnect the wheel speed sensor harness from the shock absorber bracket.

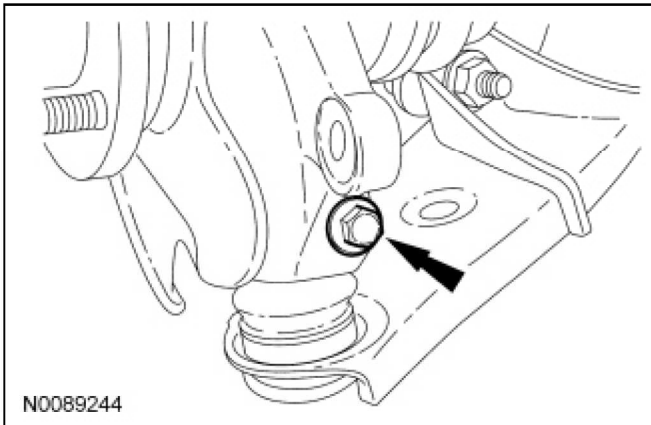


6. Remove the RH brake disc. For additional information, refer to [Section 206-03](#).
7. **NOTICE: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.**

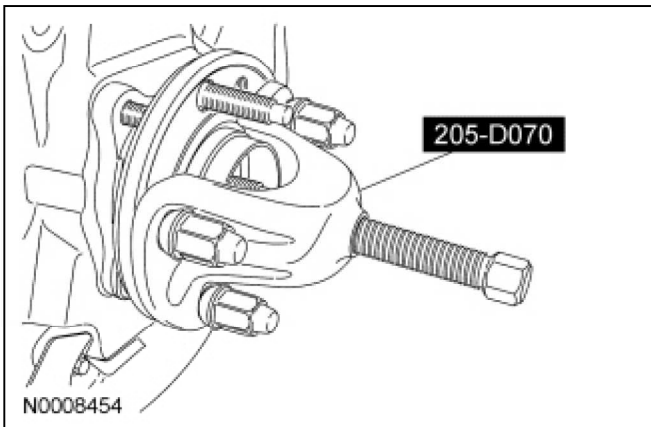
Remove and discard the upper stabilizer bar link nut and position the link aside.



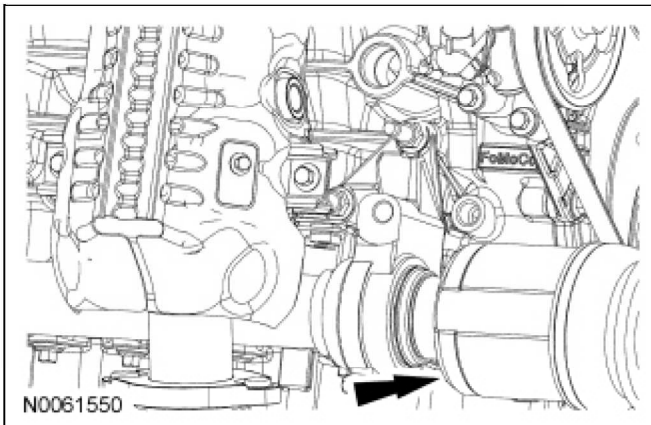
8. Remove and discard the ball joint bolt and nut. Separate the lower arm.



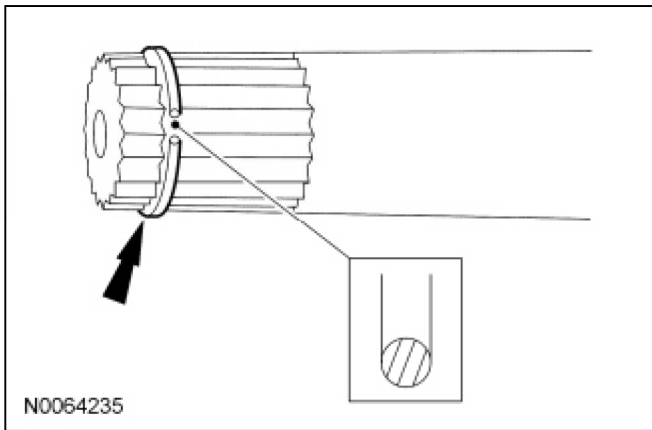
9. Using the Front Wheel Hub Remover, separate the halfshaft from the wheel hub.



10. Pull the knuckle outboard and rotate it toward the rear of the vehicle.
- Secure the knuckle assembly.
11. Use a brass drift to strike the right side halfshaft in the indicated area and separate the RH halfshaft from the intermediate shaft.

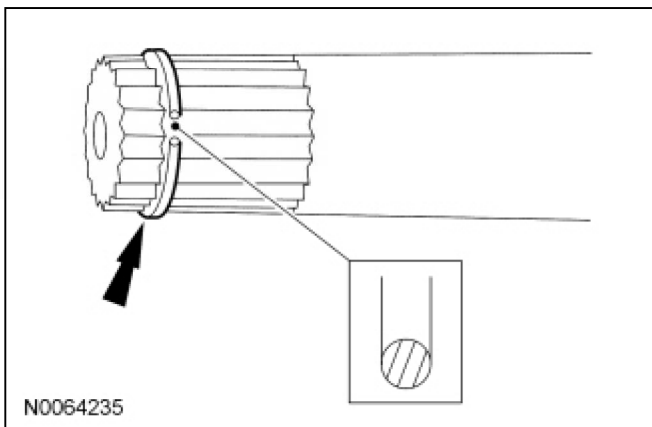


12. Remove and discard the circlip from the intermediate shaft.



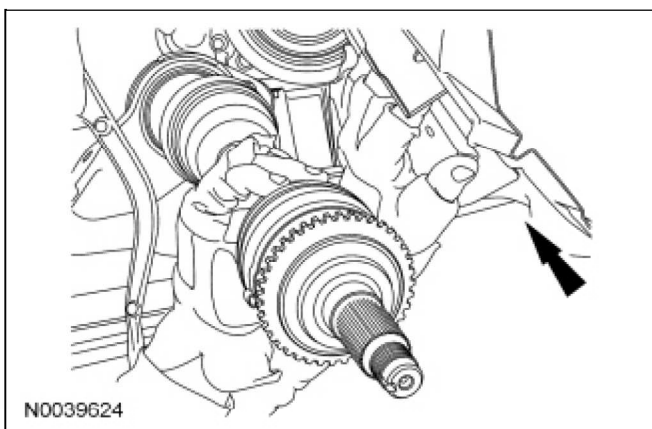
Installation

1. Install a new 30 mm (1.181 in) intermediate shaft circlip.



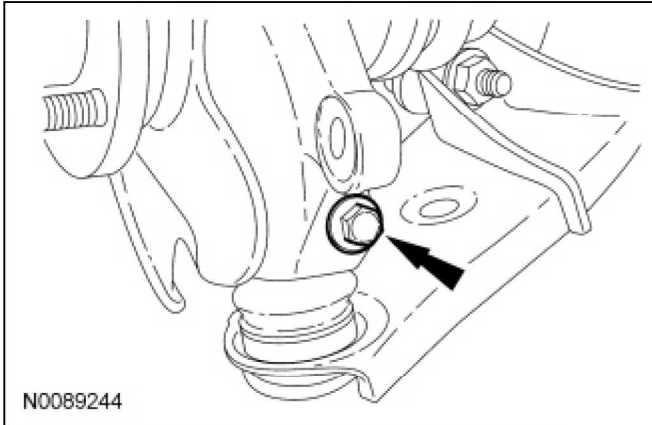
2. **NOTE:** Pull the right side inboard joint outward to make sure the circlip is locked.

Align the splines on the right side shaft with the intermediate shaft and push the stub shaft in until the circlip locks the shafts together.

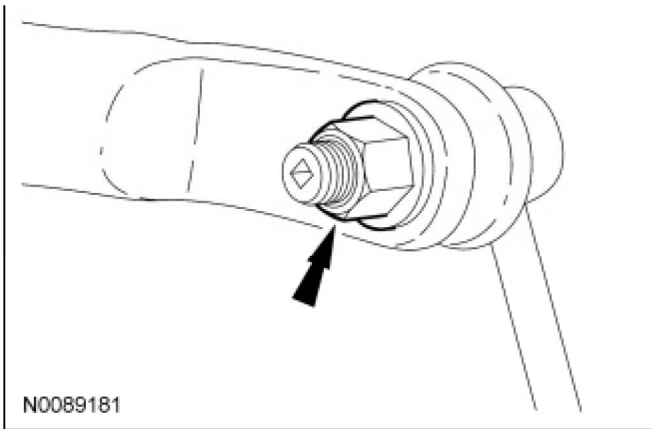


3. Insert the halfshaft into the wheel hub.
4. Rotate the knuckle into position.

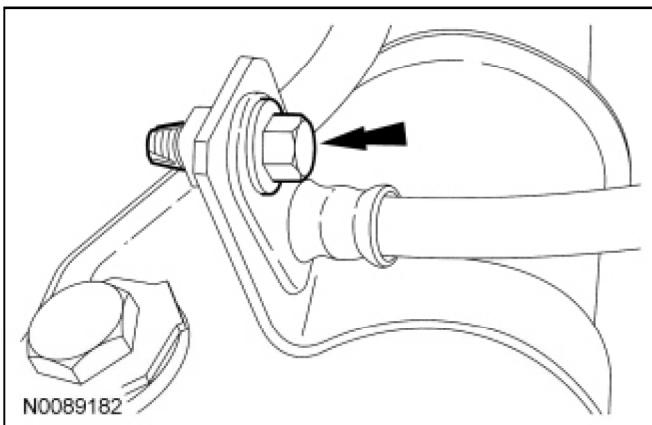
5. Position the halfshaft and ball joint in the wheel knuckle. Install the new bolt and nut.
 - Tighten to 55 Nm (41 lb-ft).



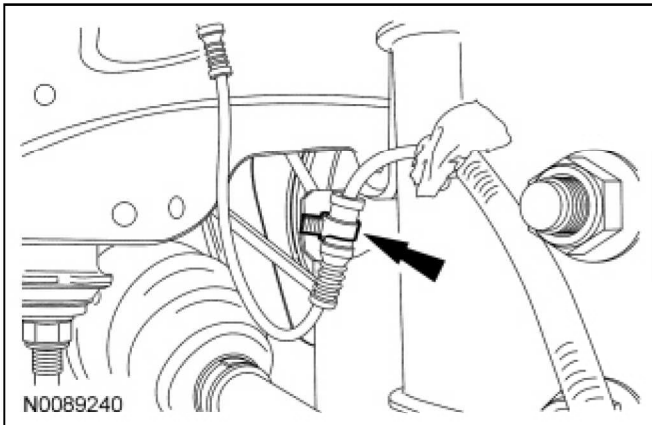
6. Position the upper stabilizer bar link and install a new nut.
 - Tighten to 90 Nm (66 lb-ft).



7. Install the RH brake disc. For additional information, refer to [Section 206-03](#).
8. Position the brake hose bracket to the shock absorber and install the bolt.
 - Tighten to 20 Nm (177 lb-in).



9. Connect the wheel speed sensor harness to the shock absorber bracket.



10. **NOTICE:** Do not tighten the front wheel hub nut with the vehicle on the ground. The nut must be tightened to specification before the vehicle is lowered onto the wheels. Wheel bearing damage will occur if the wheel bearing is loaded with the weight of the vehicle applied.

NOTE: Apply the brake to keep the halfshaft from rotating.

Use the previously removed wheel hub nut to seat the halfshaft.

- Tighten to 350 Nm (258 lb-ft).
- Remove and discard the wheel hub nut.

11. **NOTICE:** The wheel hub nut contains a one-time locking chemical that is activated by the heat created when it is tightened. Install and tighten the new wheel hub nut to specification within 5 minutes of starting it on the threads. Always install a new wheel hub nut after loosening or when not tightened within the specified time or damage to the components can occur.

NOTE: Apply the brake to keep the halfshaft from rotating.





Install a new wheel hub nut.

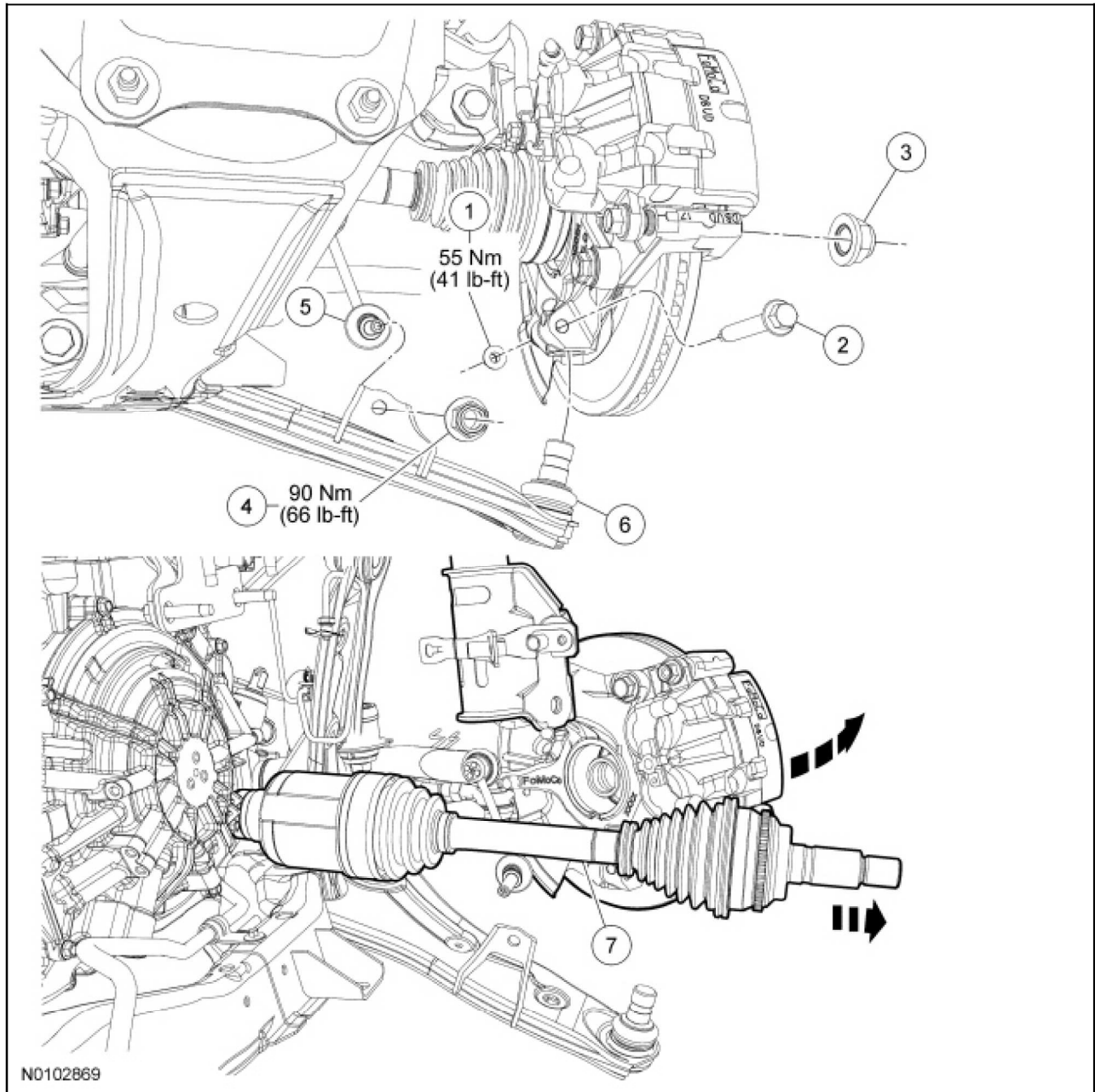
- Tighten to 350 Nm (258 lb-ft).

12. Install the front wheel and tire. For additional information, refer to [Section 204-04](#).
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Halfshaft — LH

Special Tool(s)

 <p>ST2272-A</p>	Remover, Front Wheel Hub 205-D070 (D93P-1175-B) or equivalent
 <p>ST1582-A</p>	Remover, Halfshaft 205-241
 <p>ST2038-A</p>	Remover, Halfshaft (Plate) 205-290
 <p>ST1185-A</p>	Slide Hammer 100-001 (T50T-100-A)



N0102869

Item	Part Number	Description
1	W520213	Lower ball joint nut
2	W712481	Lower ball joint bolt
3	W712772	Wheel hub nut and washer assembly
4	W520214	Stabilizer bar link nut
5	3B438	Stabilizer bar link
6	3A423	Lower arm
7	3A428	Halfshaft assembly

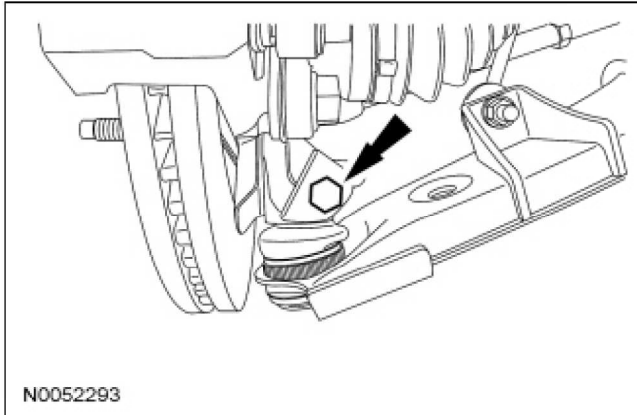
Removal

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).

2. Remove the front wheel and tire. For additional information, refer to [Section 204-04](#).
3. **NOTE:** Apply the brake to keep the halfshaft from rotating.

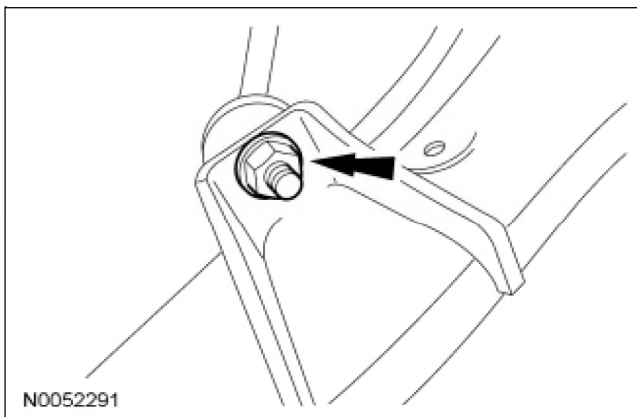
Remove and discard the front wheel hub nut.

4. Remove and discard the ball joint pinch bolt from the knuckle and separate the lower control arm.

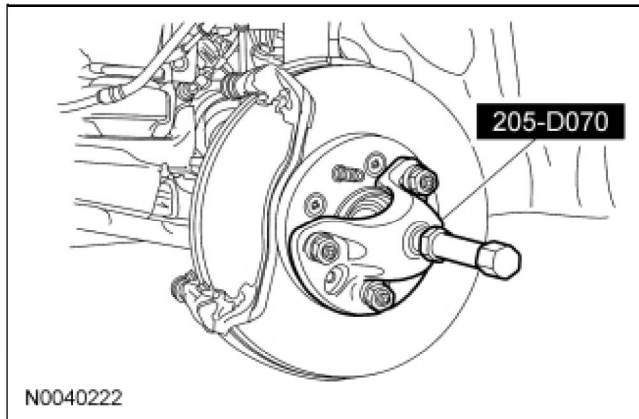


5. **NOTICE:** Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

Remove and discard the stabilizer bar link nut and position the link aside.

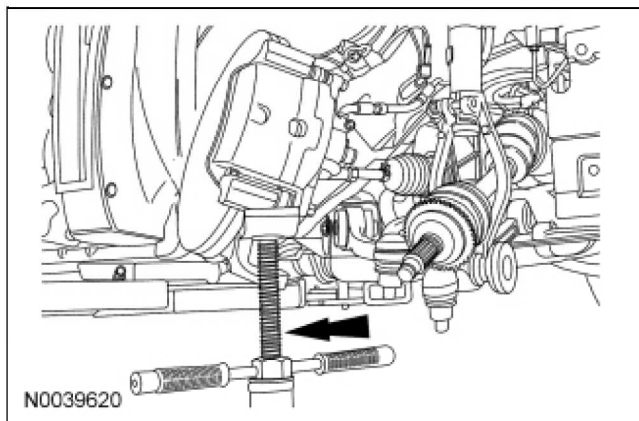


6. Using the Front Wheel Hub Remover, separate the halfshaft from the wheel hub.

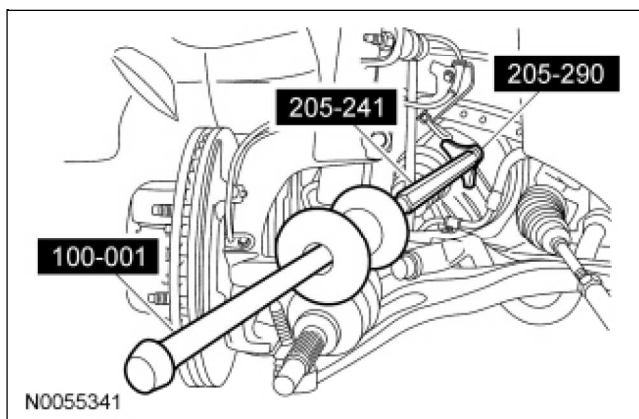


7. **NOTE:** Support the knuckle with a suitable jackstand.

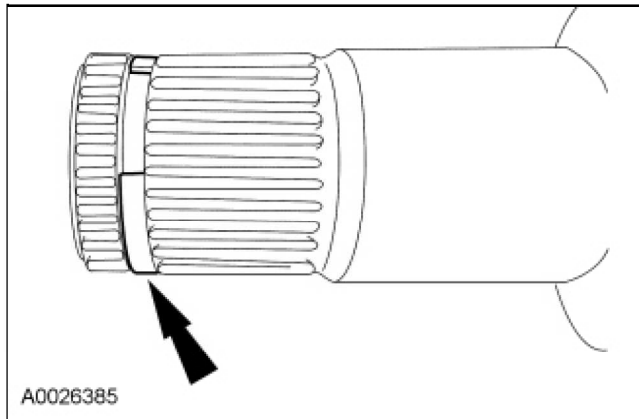
Pull the knuckle outboard and rotate it toward the front of the vehicle.



8. Using the Halfshaft Remover, Halfshaft Remover (Plate) and Slide Hammer, remove the halfshaft from the transmission.

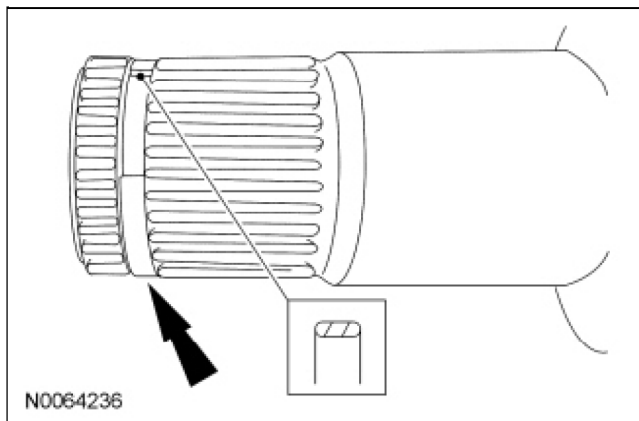


9. Remove and discard the circlip from the stub shaft.



Installation

1. Install a new stub shaft circlip.

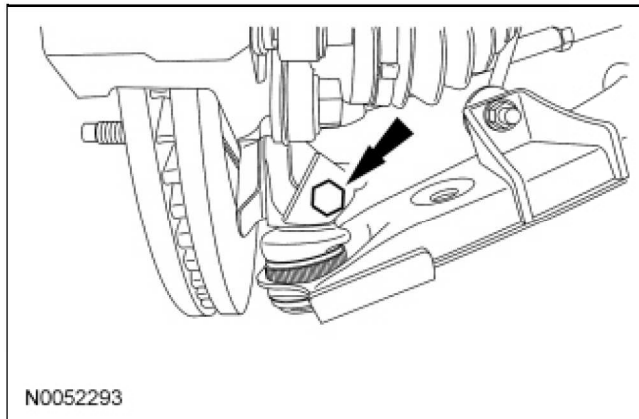


2. Insert the halfshaft into the wheel hub.
3. **NOTICE:** The sharp edges on the stub shaft splines can slice or puncture the oil seal. Use care when inserting the stub shaft into the transmission to avoid oil seal damage.

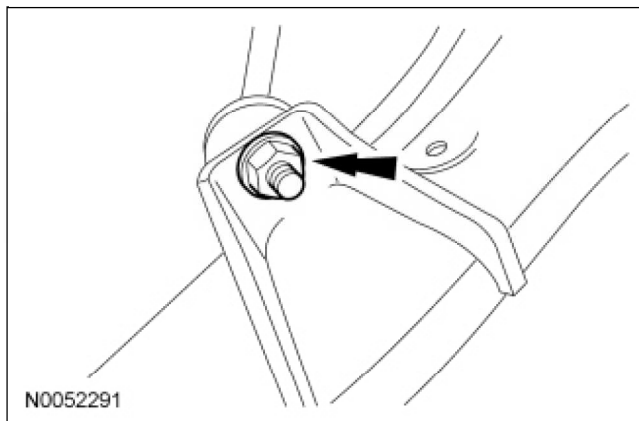
NOTE: After insertion, pull the halfshaft inner end to make sure the circlip is locked.

Push the stub shaft into the transmission so the circlip locks into the differential side gear.

4. Rotate the knuckle into position.
5. Install the ball joint in the knuckle and install the new pinch bolt and nut.
 - Tighten to 55 Nm (41 lb-ft).



6. Position the stabilizer bar link and install the link nut.
 - Tighten to 90 Nm (66 lb-ft).



7. **NOTICE:** Do not tighten the front wheel hub nut with the vehicle on the ground. The nut must be tightened to specification before the vehicle is lowered onto the wheels. Wheel bearing damage will occur if the wheel bearing is loaded with the weight of the vehicle applied.

NOTE: Apply the brake to keep the halfshaft from rotating.

Position the halfshaft in the hub and use the previously removed inner hub nut to seat the halfshaft.

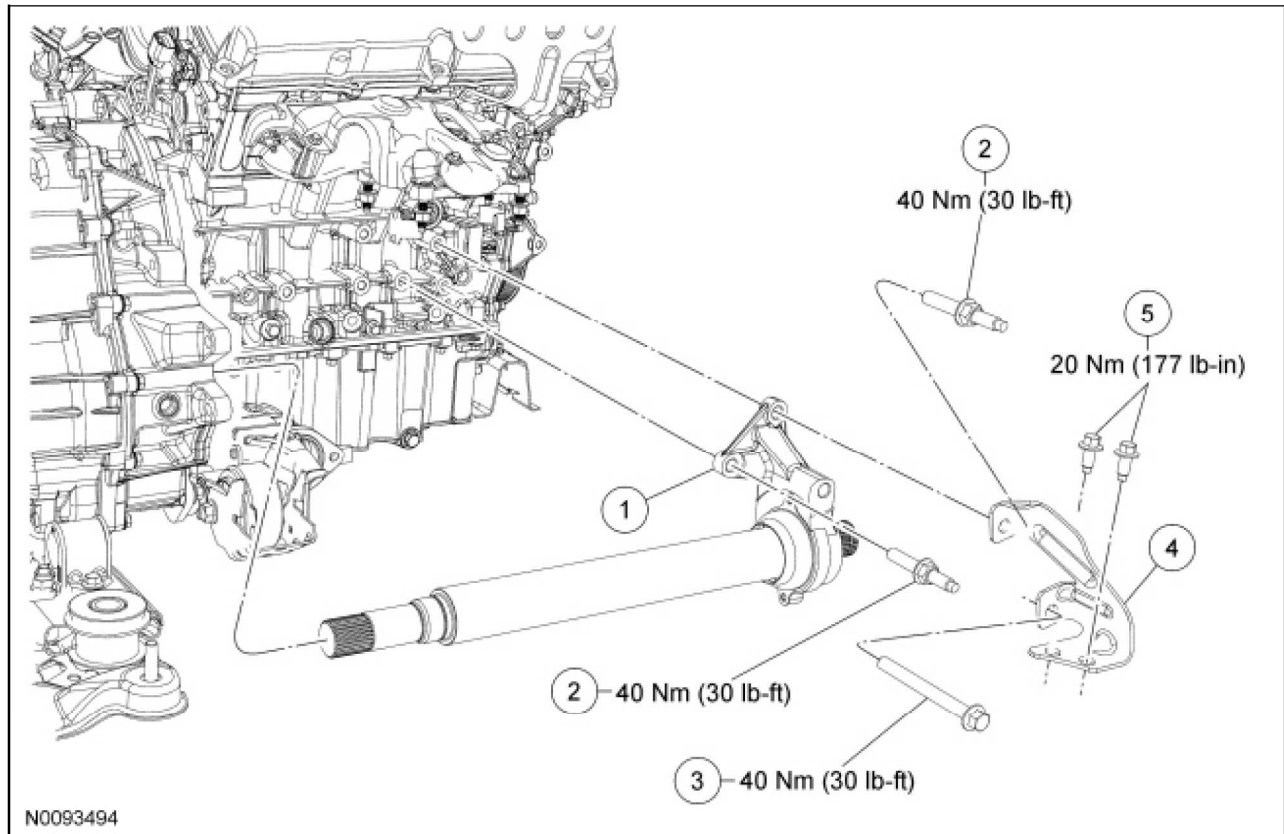
- Tighten to 350 Nm (258 lb-ft).
 - Remove and discard the hub nut.
8. **NOTICE:** The wheel hub nut contains a one-time locking chemical that is activated by the heat created when it is tightened. Install and tighten the new wheel hub nut to specification within 5 minutes of starting it on the threads. Always install a new wheel hub nut after loosening or when not tightened within the specified time or damage to the components can occur.

NOTE: Apply the brake to keep the halfshaft from rotating.

Install a new hub nut.

- Tighten to 350 Nm (258 lb-ft).
9. Install the front wheel and tire. For additional information, refer to [Section 204-04](#).

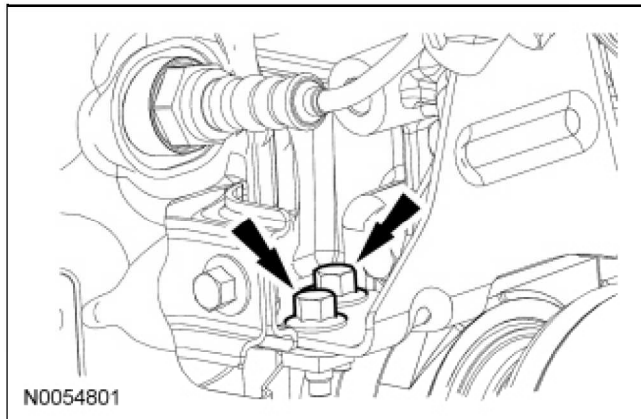
Intermediate Shaft — Front Wheel Drive (FWD)



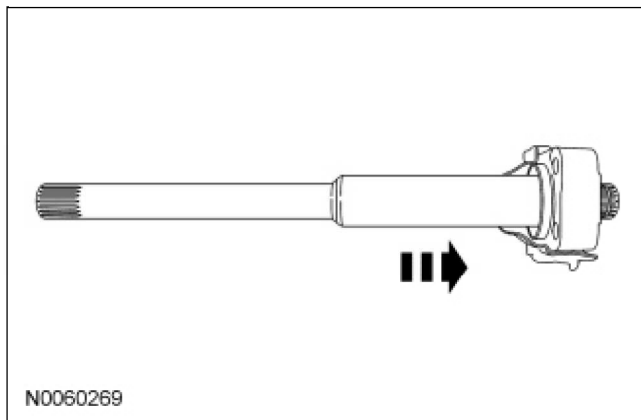
Item	Part Number	Description
1	3K183	Intermediate shaft assembly
2	W711927	Intermediate shaft bracket-to-block stud bolts (2 required)
3	W500131	Intermediate shaft bracket-to-block bolt
4	5G288	Catalytic converter support bracket
5	W500210	Catalytic converter support bracket bolts (2 required)

Removal

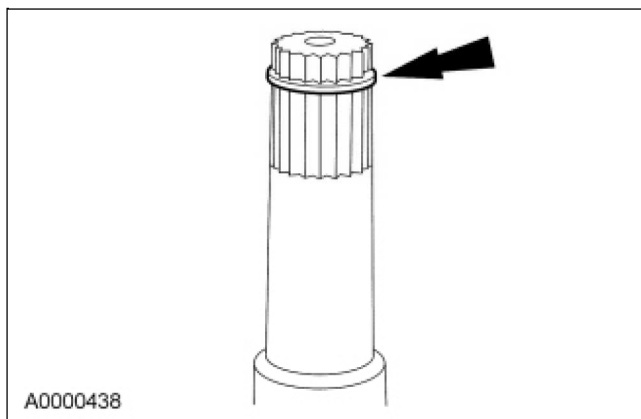
1. Remove the right halfshaft. For additional information, refer to Halfshaft — RH in this section.
2. Remove the 2 catalytic converter support bracket bolts.



3. Remove the 2 intermediate shaft bracket-to-block stud bolts.
4. Remove the intermediate shaft bracket-to-block bolt.
5. Carefully remove the intermediate shaft while supporting both ends of the intermediate shaft.

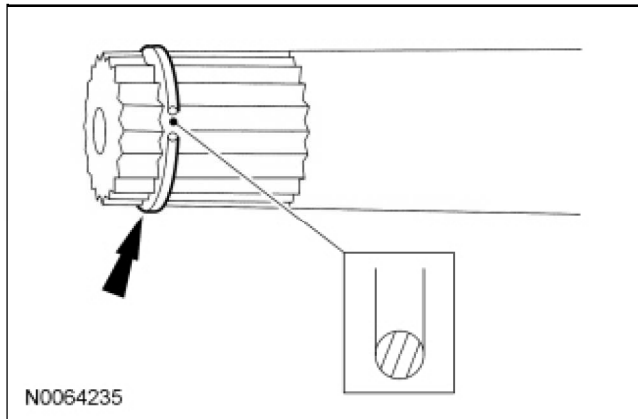


6. Remove and discard the circlip from the outboard end of the intermediate shaft.

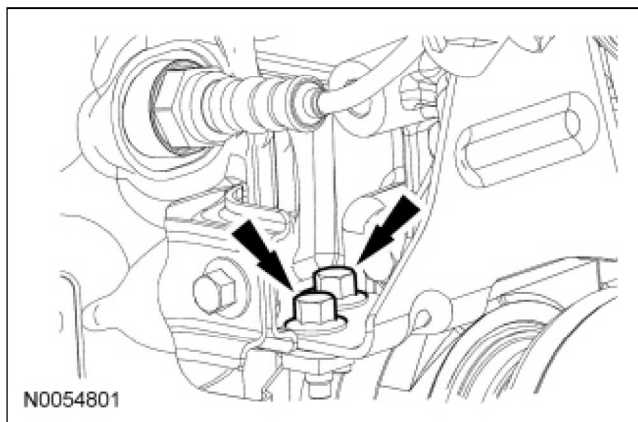


Installation

1. Install a new 30 mm (1.181 in) circlip on the outboard end of the intermediate shaft.

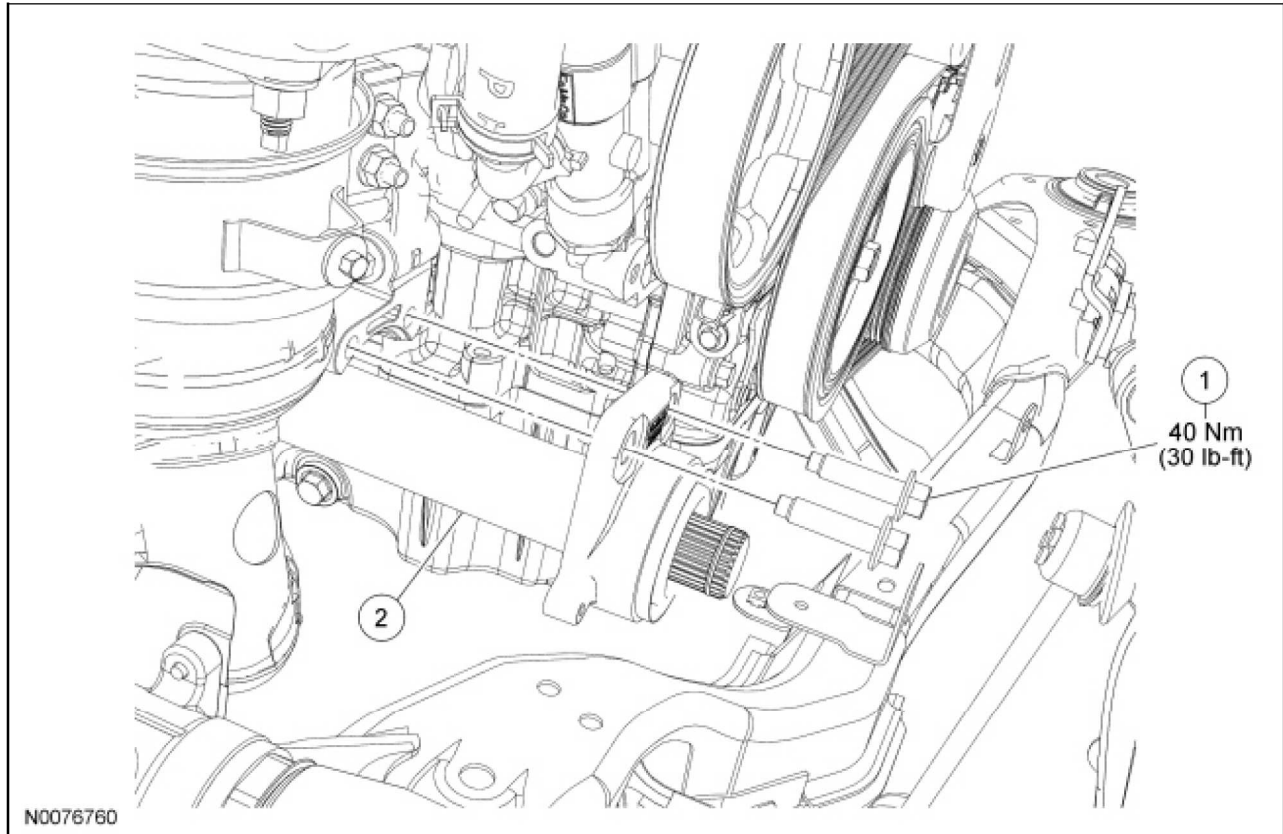


2. Position the intermediate shaft in the transaxle and engage the intermediate shaft splines with the transaxle side gears. Make sure the circlip is locked in the gear.
3. Install the intermediate shaft bracket-to-block bolt.
 - Tighten to 40 Nm (30 lb-ft).
4. Install the intermediate shaft bracket-to-block stud bolts.
 - Tighten to 40 Nm (30 lb-ft).
5. Install the 2 catalytic converter support bracket bolts.
 - Tighten to 20 Nm (177 lb-in).



6. Install the right halfshaft. For additional information, refer to [Halfshaft — RH](#) in this section.
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Intermediate Shaft — All Wheel Drive (AWD)

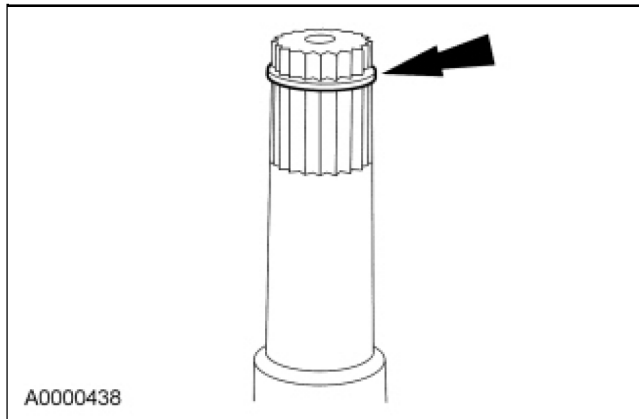


Item	Part Number	Description
1	W500235-S	Intermediate shaft support bracket bolt (2 required)
2	3K183	Intermediate shaft assembly

Removal

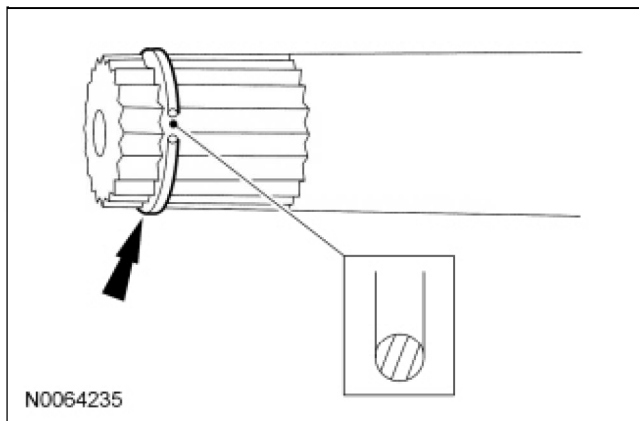
NOTICE: The intermediate shaft seal in the Power Transfer Unit (PTU) must be replaced whenever the intermediate shaft is removed. For additional information, refer to [Section 308-07B](#).

1. Remove the right halfshaft assembly. For additional information, refer to [Halfshaft — RH](#) in this section.
2. Remove the 2 intermediate shaft support bracket bolts and the intermediate shaft.
3. Remove and discard the circlip from the outboard end of the intermediate shaft.



Installation

1. Install a new 30 mm (1.181 in) circlip on the outboard end of the intermediate shaft.

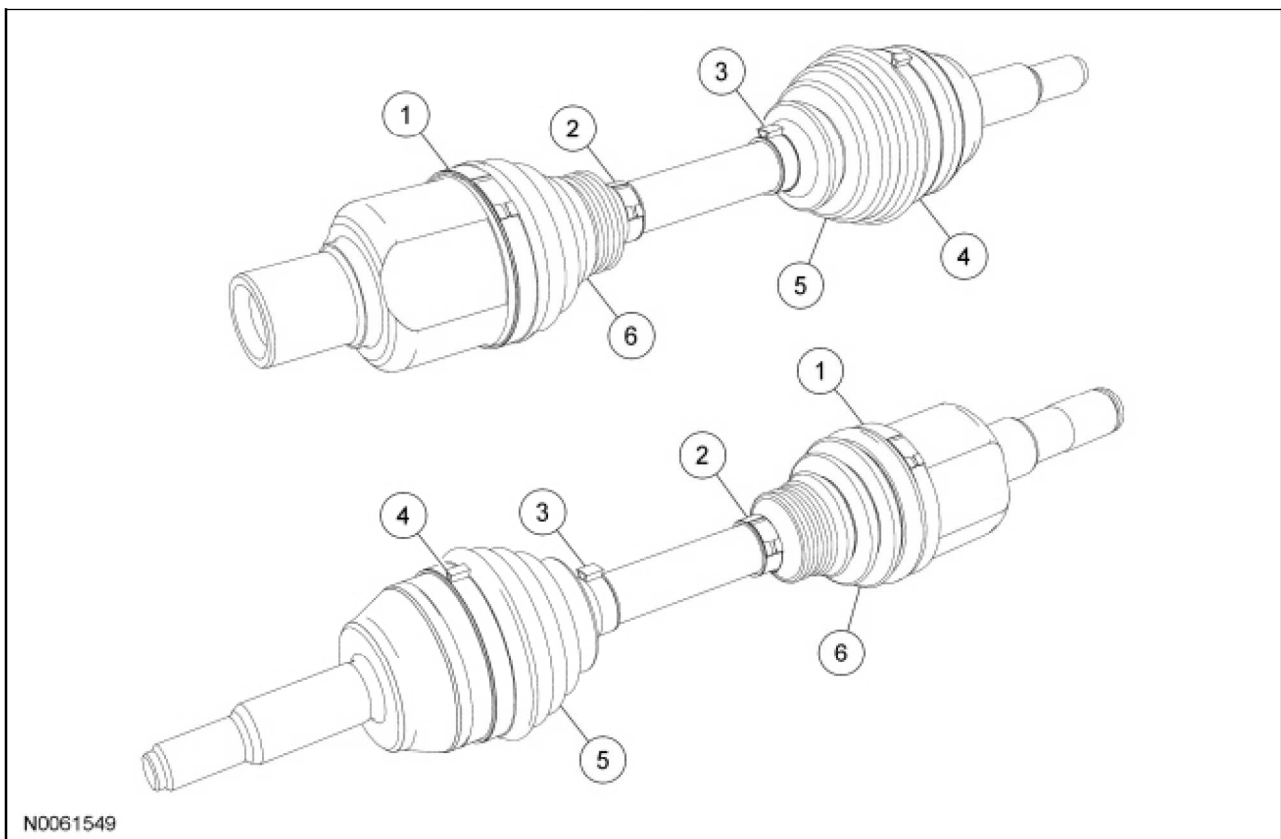


2. Install a new intermediate shaft seal in the Power Transfer Unit (PTU). For additional information, refer to [Section 308-07B](#).
 3. Position the intermediate shaft in the [PTU](#) and engage the intermediate shaft splines with the [PTU](#) gears.
 4. Install the 2 intermediate shaft support bracket bolts.
 - Tighten to 40 Nm (30 lb-ft).
 5. Install the right halfshaft. For additional information, refer to [Halfshaft — RH](#) in this section.
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Constant Velocity (CV) Joint Boot

Special Tool(s)

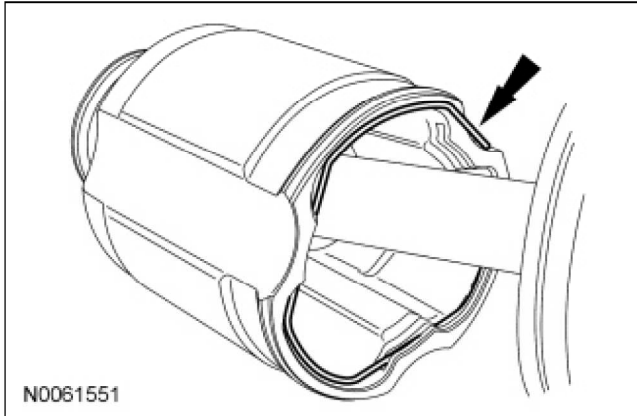
 <p>ST1301-A</p>	<p>Installer, Constant Velocity Joint Boot Clamp 205-343 (T95P-3514-A)</p>
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Item	Part Number	Description
1	—	Low profile large inboard boots inner clamps (serviced in 3A331 kit only)
2	—	Low profile small inboard boots (serviced in 3A331 kit only)
3	—	Intermediate shaft boot clamps (serviced in 3A331 kit only)
4	—	Outboard boot outer clamps (serviced in 3A331 kit only)
5	—	Outboard CV joint boots (serviced in 3A331 kit only)

Disassembly

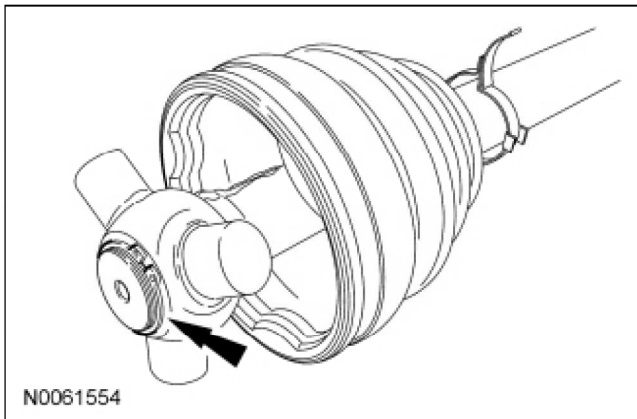
1. Remove the halfshaft assembly. For additional information, refer to Halfshaft — RH and Halfshaft — LH in this section.
2. For the inboard CV joint, remove and discard the boot clamps.
3. Remove the inboard CV joint retaining ring.



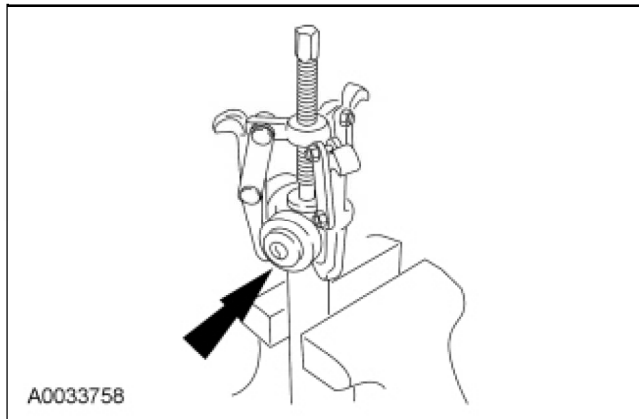
4. **NOTICE:** Do not let the roller bearings fall or damage to the component may occur.

For the inboard CV joint, carry out the following:

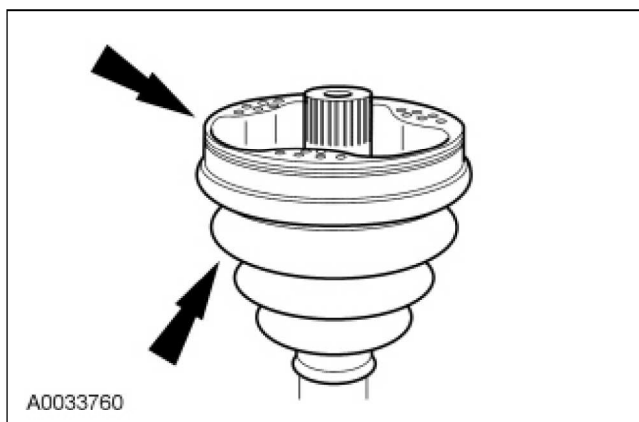
- Remove and discard the retainer circlip.
- Slide the boot away from the CV joint.



5. Using a suitable 3-jaw puller, remove the CV joint.



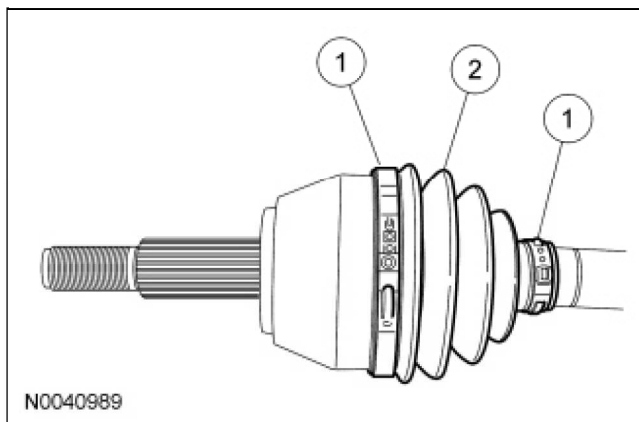
6. Remove and discard the inner CV boot.



7. **NOTE:** The outboard CV joint is not removable from the halfshaft. The boot must be removed or installed from the inboard CV joint side of the shaft.

For the outboard CV joint, carry out the following:

1. Remove and discard the boot clamps.
2. Remove and discard the boot.

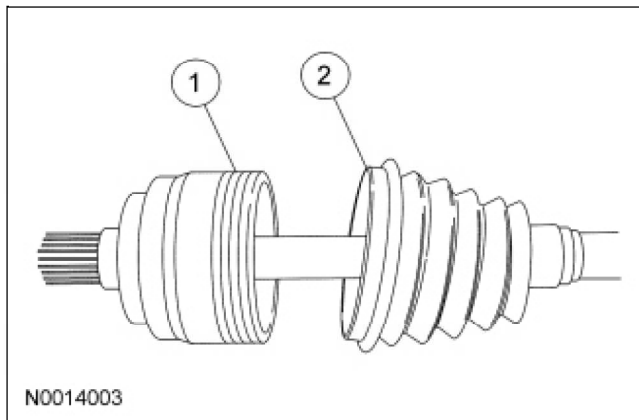


Assembly

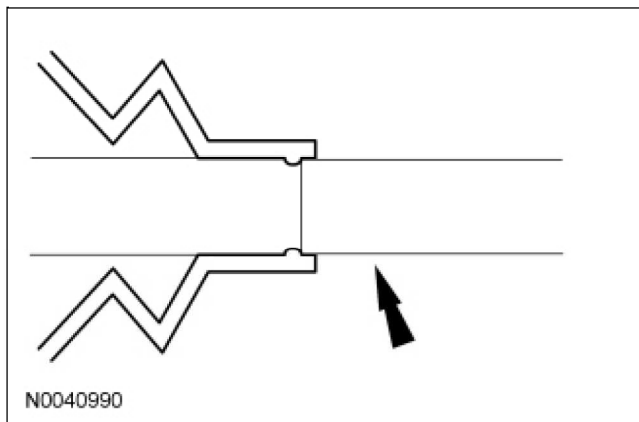
1. **NOTE:** Do not mix the boot clamps.

Lubricate the outboard CV joint.

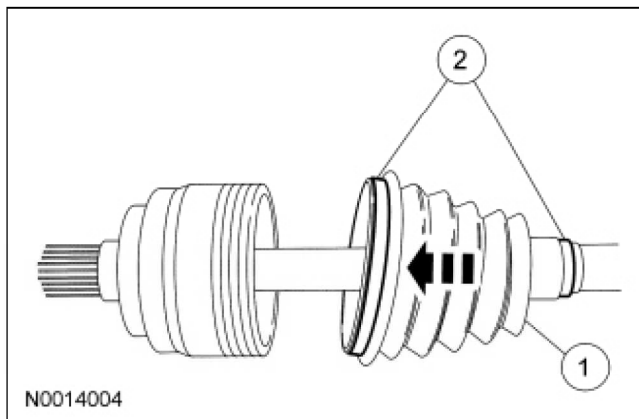
1. Pack the outboard CV joint with grease from the kit.
 - One-third of the grease must be installed in the joint with the remainder placed in the boot.
2. Spread the remaining grease evenly inside the boot.



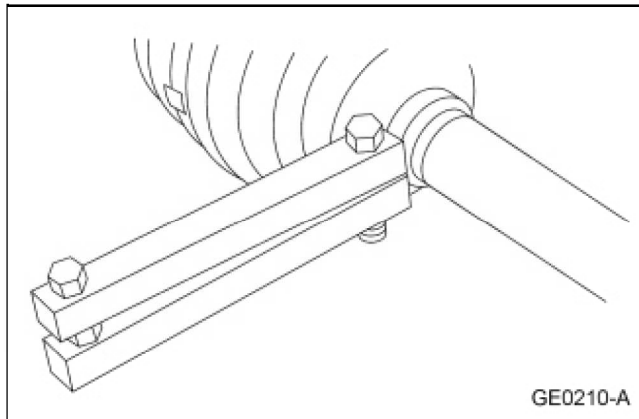
2. Position the boot so the rib on the boot is located in the groove of the shaft.



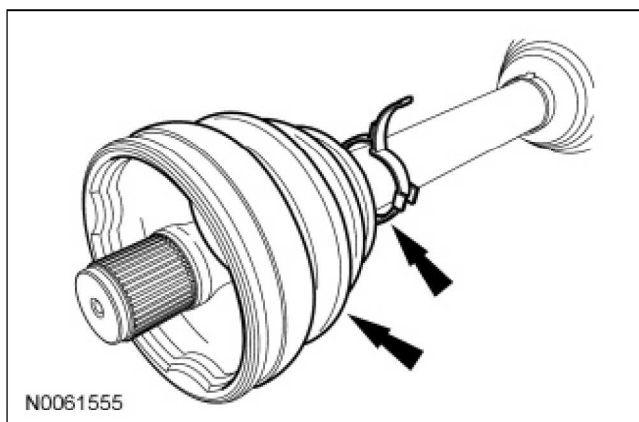
3. Position the outboard halfshaft boot and the outboard boot clamps.
 1. Position the boot.
 2. Position the boot clamps.



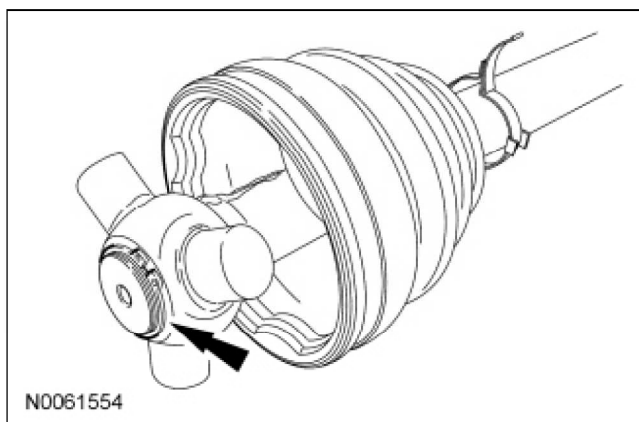
4. Install the outboard CV boot clamps.



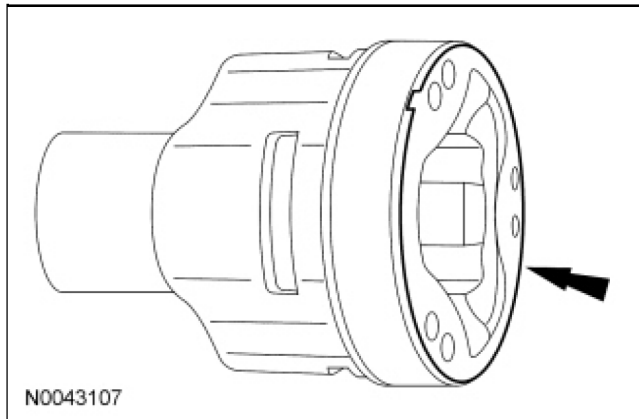
5. Position the inboard clamp and boot.



6. Install the CV joint and snap ring on the halfshaft.

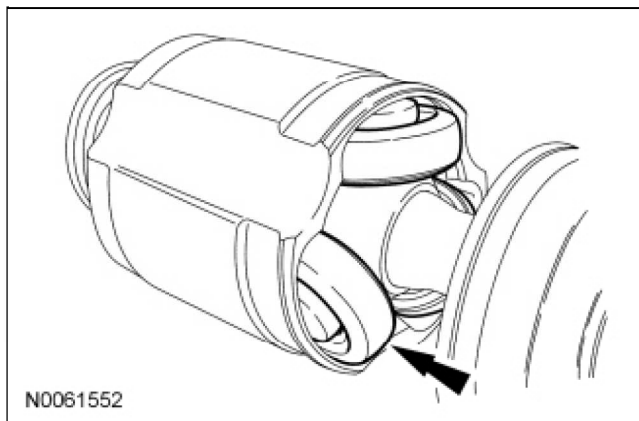


7. Fill the inboard CV joint housing with grease from the kit.
 - One-half of the grease must be installed in the joint and the remainder placed in the boot.

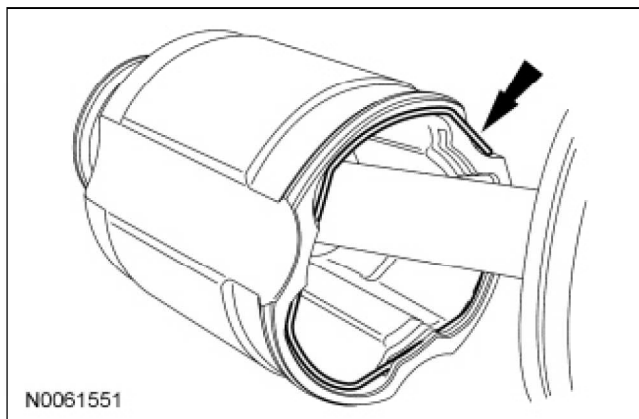


8. **NOTICE:** Do not let the roller bearings fall or damage to the component may occur.

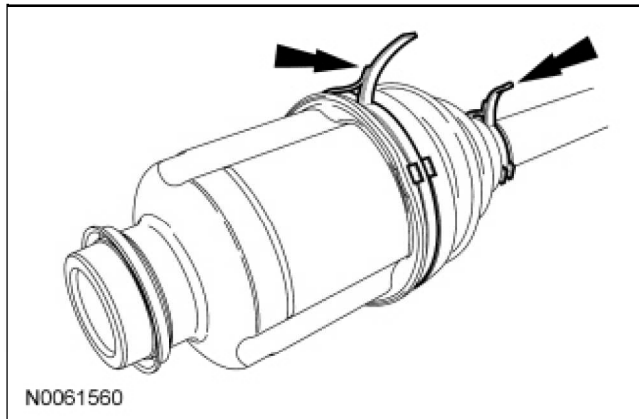
Position the CV housing on the CV joint.



9. Install the retaining ring.



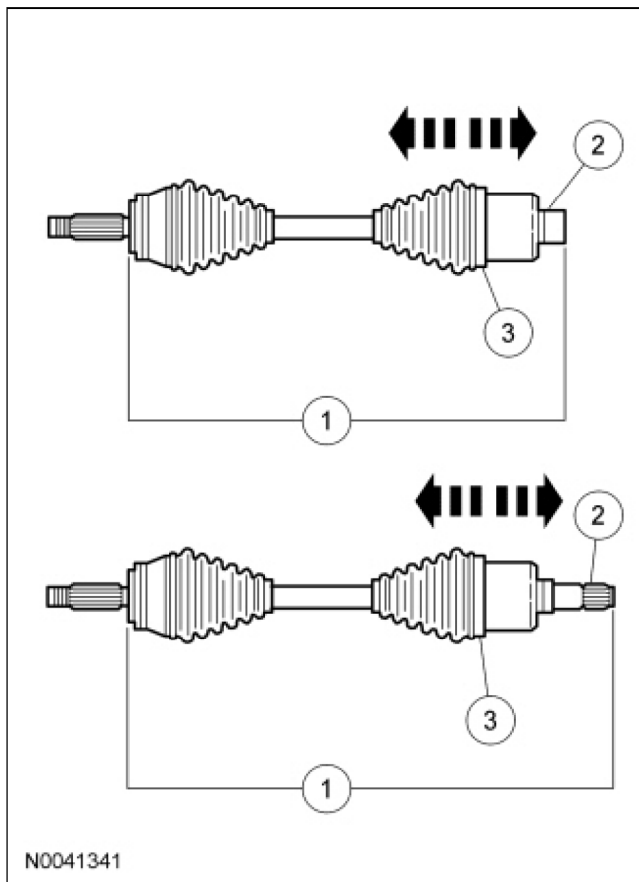
10. Position the inboard halfshaft boot and clamps.
- Position the boot in the housing groove.
 - Position the boot clamps.



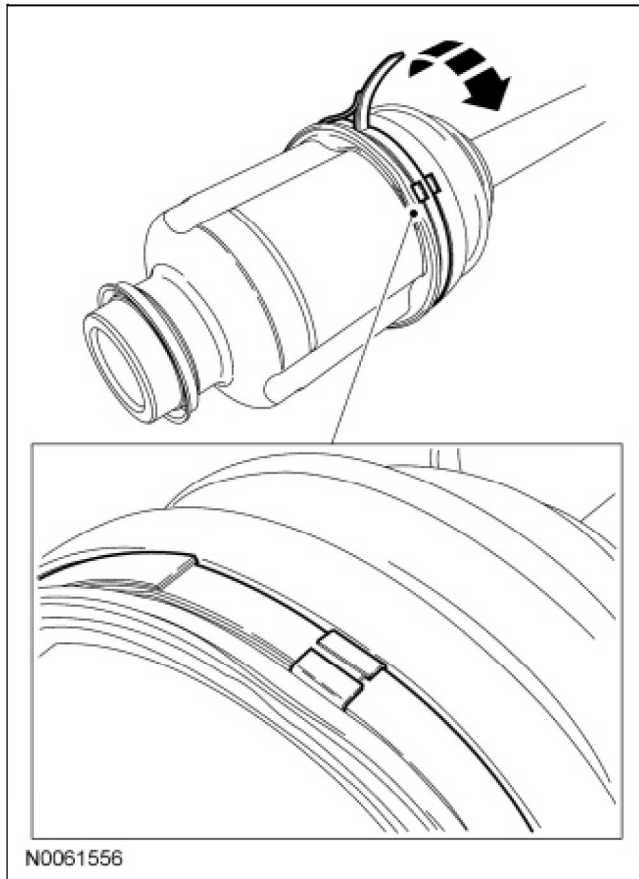
11. **NOTE:** RH halfshaft shown on top, LH halfshaft on bottom.

Set the halfshaft assembled length to specifications. For additional information, refer to Specifications in this section.

1. Measure the entire assembly length.
2. Push in or pull out on the inner joint as necessary to adjust the halfshaft assembled length.
3. Hold the inner joint to prevent the assembled length from changing and insert a small flat-blade screwdriver between the boot and the joint to equalize the pressure.



12. Install the boot clamps.
- Place the lever arm to the closed position and use a soft-faced hammer to close the tabs.



13. Install the halfshaft assembly. For additional information, refer to [Halfshaft — RH](#) and [Halfshaft — LH](#) in this section.
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