SECTION : 205-05 Rear Drive Halfshafts

VEHICLE APPLICATION : 2008.0 Orion Falcon

CONTENTS PAGE

SPECIFICATIONS

General Specifications

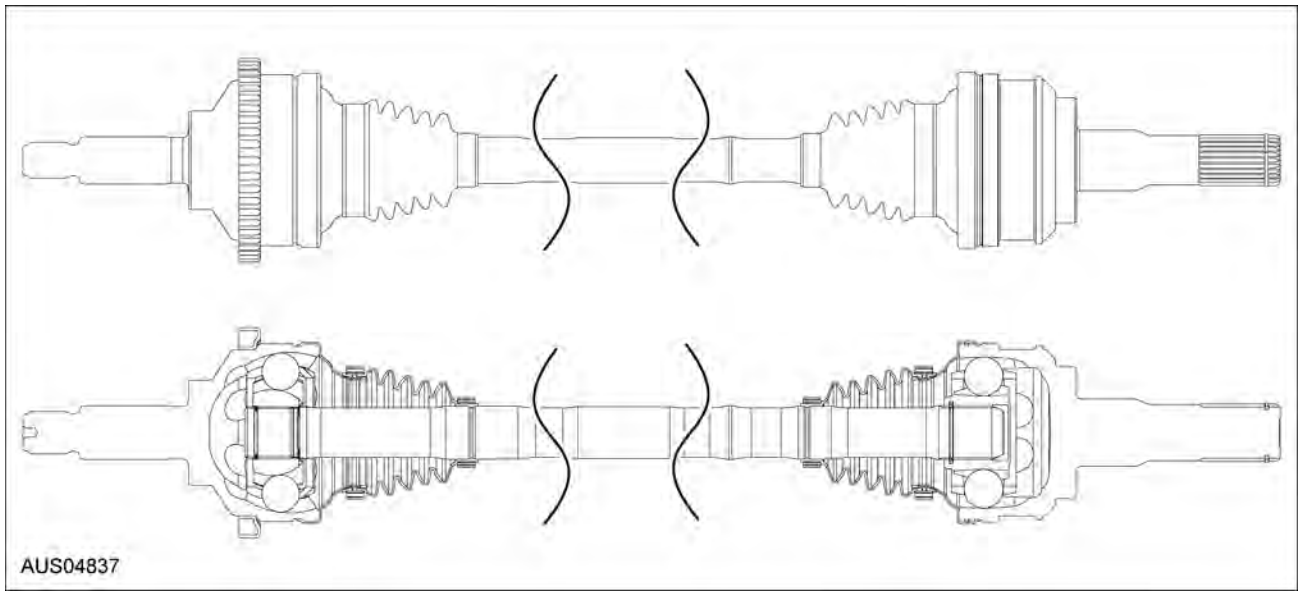
Description	Specification
Constant Velocity Joint Grease (High Temp) E43Z-19590-A	ESP-MIC207-A

Torque Specifications

Description	Nm
Ball joint nuts	115
Knuckle bolt	115
Rear axle wheel hut nut	290

DESCRIPTION AND OPERATION

Rear Drive Halfshafts



CAUTION: An inspection of the outer and inner boots is necessary so that if damage or grease leakage is evident, installation of a new halfshaft can take place immediately. Continued operation with damage or grease leakage will result in CV joint wear and noise due to contamination and loss of the CV joint grease.

1. Inboard and outboard CV joints connect to a splined shaft. A circlip stopper holds the cross groove inboard race assembly (inboard CV joint) together.
2. An axle circlip (4B422) retains the splined inboard CV joint to the differential side gear. Install a new axle circlip each time the halfshaft is removed from the vehicle.
3. A rear axle wheel hub nut secures the side shaft assembly (interconnecting shaft and outboard CV joint) the rear hub. Install a new rear axle wheel hub nut each time the halfshaft is removed from the vehicle.

Halfshaft Handling

CAUTION: Never pick up or hold the halfshaft only by the inboard or outboard CV joint.

CAUTION: Do not over-angle the CV joints.

CAUTION: Damage will occur to an assembled inboard CV joint if it is over-plunged outward from the joint housing.

CAUTION: Never use a hammer to remove or install the halfshafts.

CAUTION: Never use the halfshaft assembly as a lever to position other components. Always support the free end of the halfshaft.

CAUTION: Do not allow the boots to contact sharp edges or hot exhaust components.

CAUTION: Handle the halfshaft only by the interconnecting shaft to avoid pull-apart and potential damage to the CV joint.

CAUTION: Do not drop assembled halfshafts. The impact will cut the boots from the inside without evidence of external damage.

Handle all halfshaft components carefully during removal and installation procedures.

DIAGNOSIS AND TESTING

Rear Drive Halfshafts

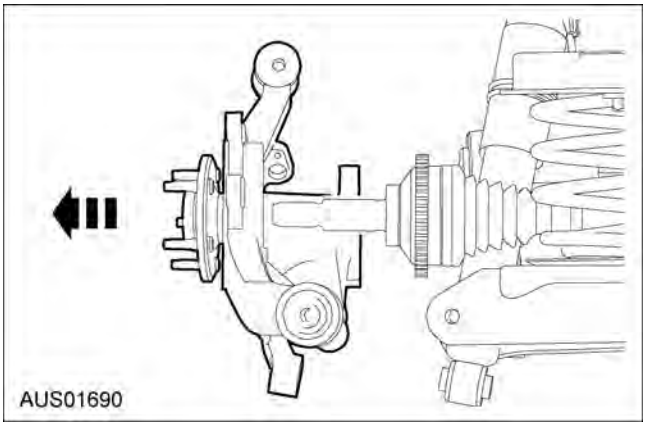
For additional information, refer to Section 205-00.

REMOVAL AND INSTALLATION

Halfshaft

Removal

1. Disconnect park brake cable, ABS sensor, brake caliper and rotor and knuckle assembly (Refer to Section 204-02a Rear Suspension Knuckle Removal).



2. Holding the halfshaft securely remove by applying an axial load.

   CAUTION: Never use a hammer to remove or install halfshaft.

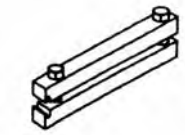
   CAUTION: Handle the halfshaft only by the interconnecting shaft to avoid pull-apart and potential damage to the CV joint.

Installation

1. Refit the halfshaft using the reverse of the removal procedure taking care not to over-articulate the CV joints.

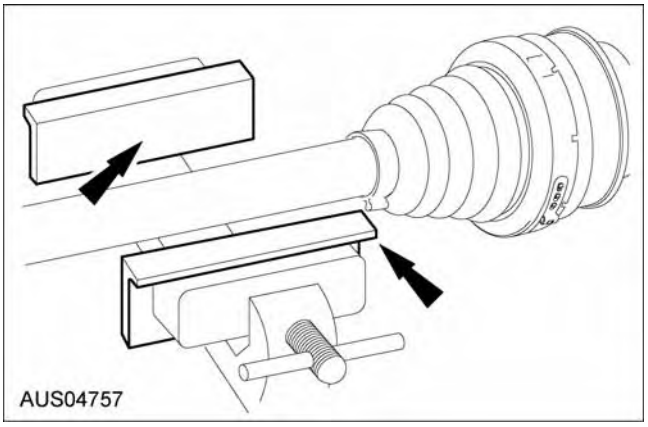
DISASSEMBLY AND ASSEMBLY

Halfshaft Joint

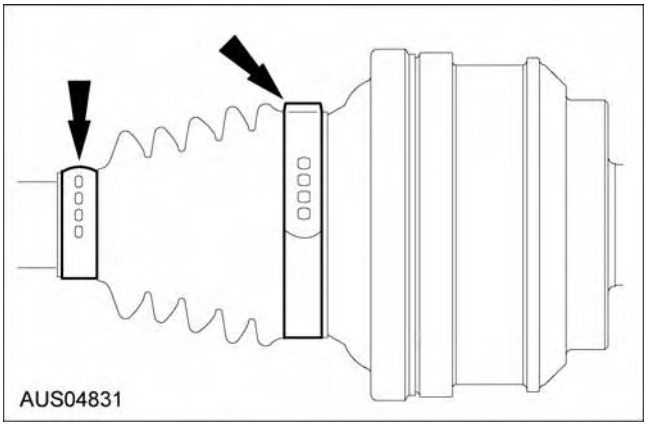
Special Tool(s)	
 SST205-343	CV Boot Clamp Installer 205-343 (9T95P-3514-A)

Disassembly V8 Inboard, I6 Turbo Inboard and I6 6-speed Auto Inboard

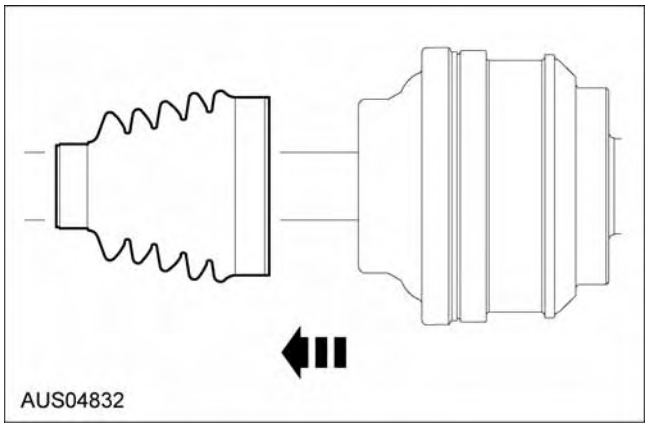
1. Remove the halfshaft. Refer to Section 205-02b.
2. Secure the halfshaft and constant velocity (CV) joint in a vice using protective jaw covers.


AUS04757

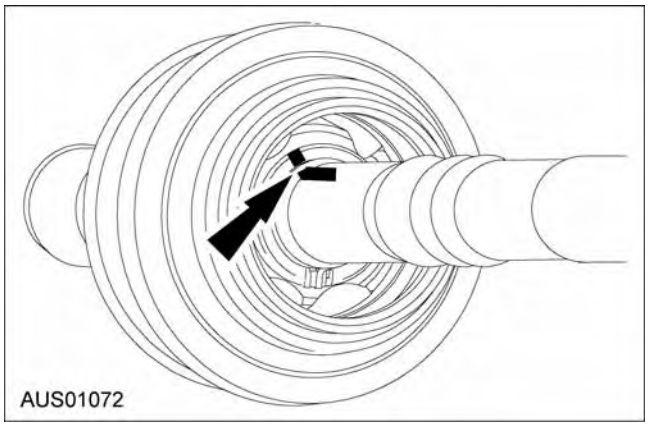
3. Remove the two halfshaft boot clamps. There is a small and large boot clamp associated with this boot. 205-02b.


AUS04831

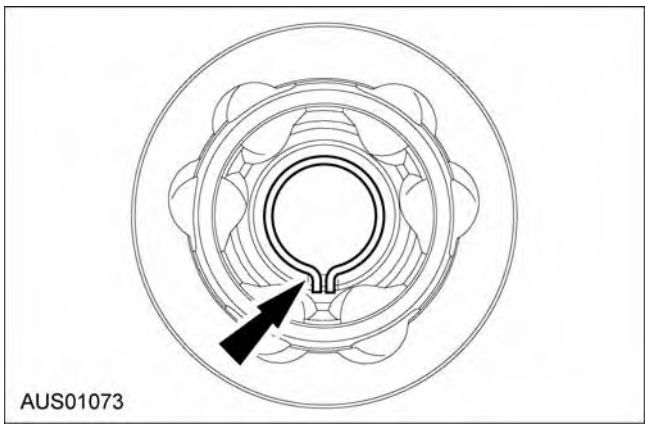
4. Slide the halfshaft boot off the CV joint housing.


AUS04832

5. If reinstalling the original joint, mark the joint and the halfshaft to make sure of correct installation.

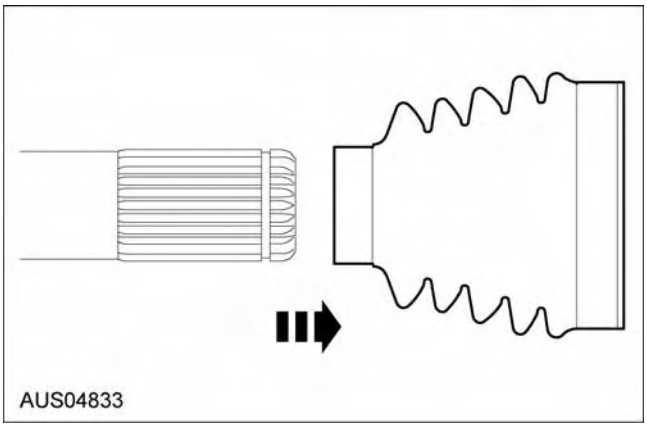

AUS01072

6. Spread the retainer and using a hammer and punch separate the halfshaft from the inboard joint housing by tapping on the inner race.
7. Remove and discard the bearing retainer circlip. The retainer should have remained with the inner race during the removal process.


AUS01073

DISASSEMBLY AND ASSEMBLY (Continued)

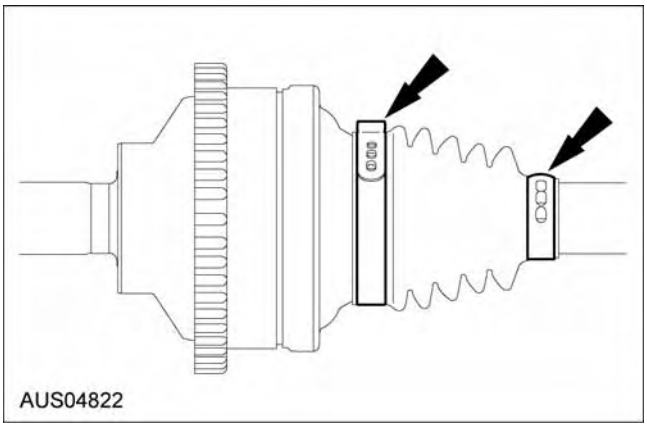
8. Remove the halfshaft boot from the halfshaft.



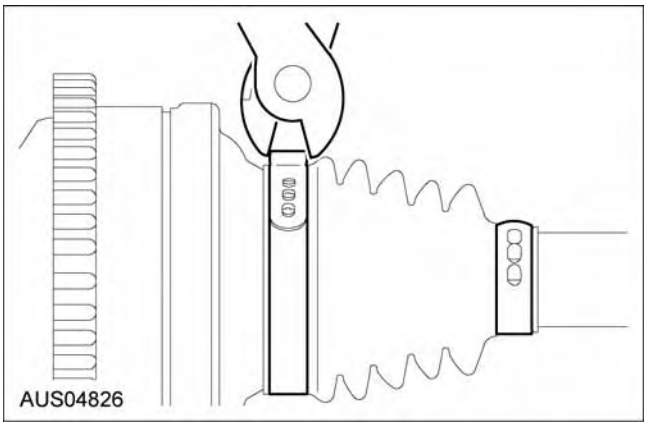
Disassembly I6 (Non 6-speed) Inboard & ALL Outboard

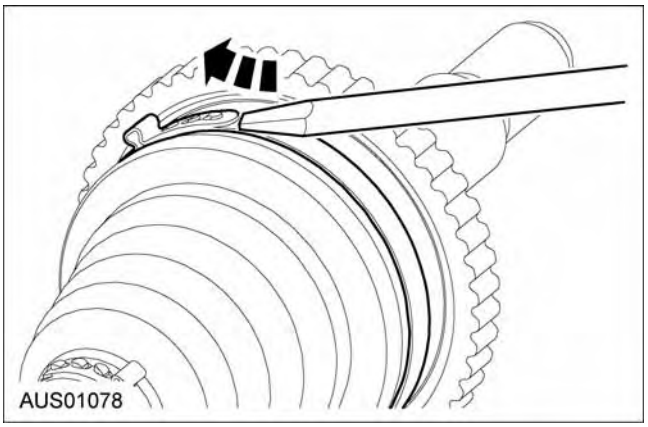
NOTE: V8, I6 Turbo and I6 6-speed Auto Outboard joints have a reduced diameter large boot clamp compared to all other Outboard joint boot clamps. The same principal for disassembly still applies however.

1. Remove the two halfshaft boot clamps. There is a small and large boot clamp associated with this boot.

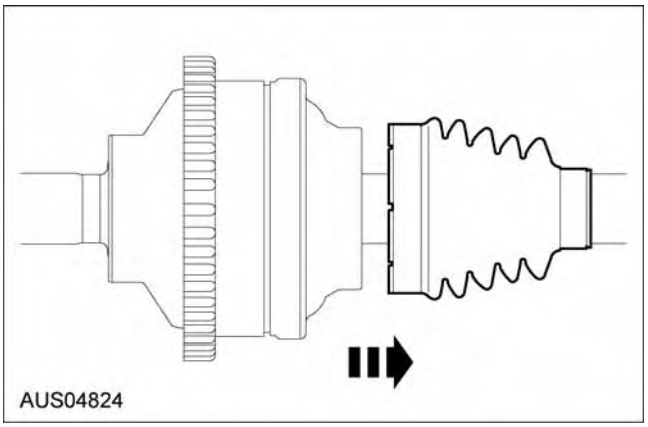


- There are at least two methods to achieve this - refer to following illustrations.

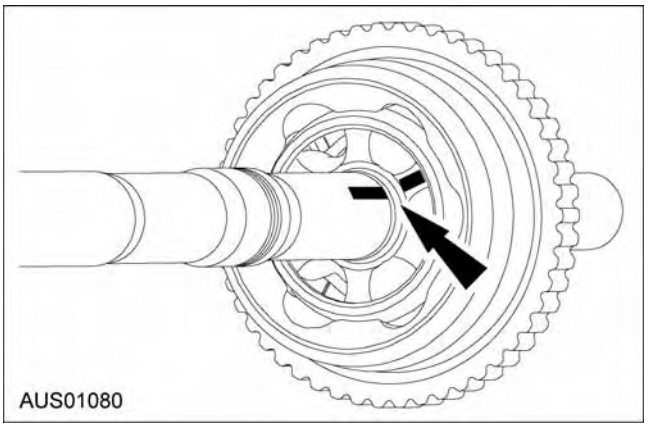




2. Slide the boot back out of the way exposing the CV joint.



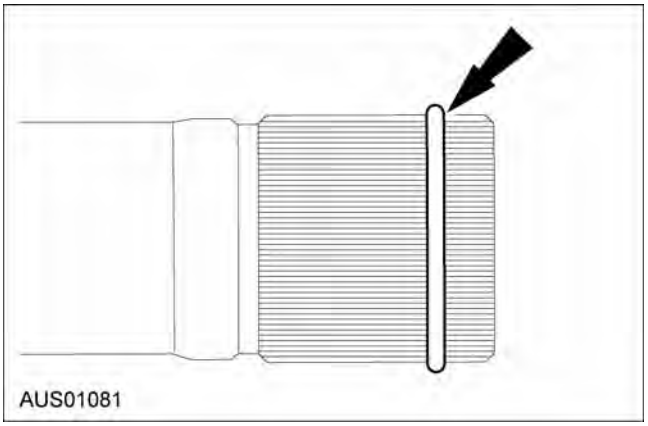
3. If reinstalling the original CV joint, mark the CV joint and halfshaft to make sure of correct installation.



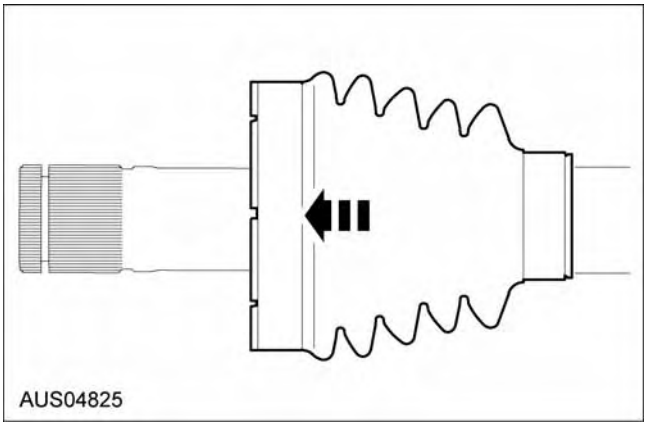
4. Use a soft-face hammer to separate the CV joint by gently tapping it off the halfshaft.

DISASSEMBLY AND ASSEMBLY (Continued)

5. Remove the halfshaft retainer-circlip and discard.

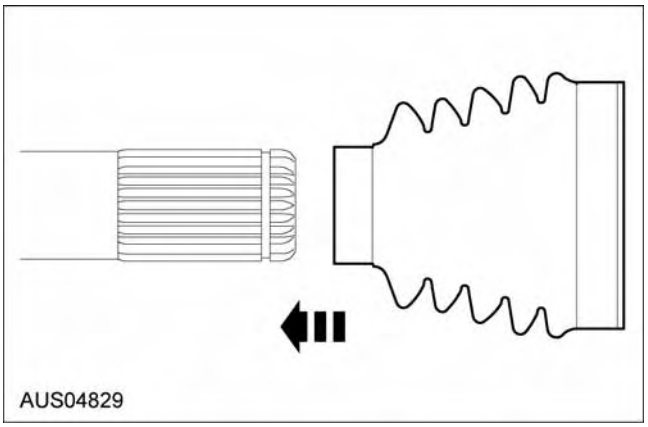


6. Slide the halfshaft boot off the halfshaft.

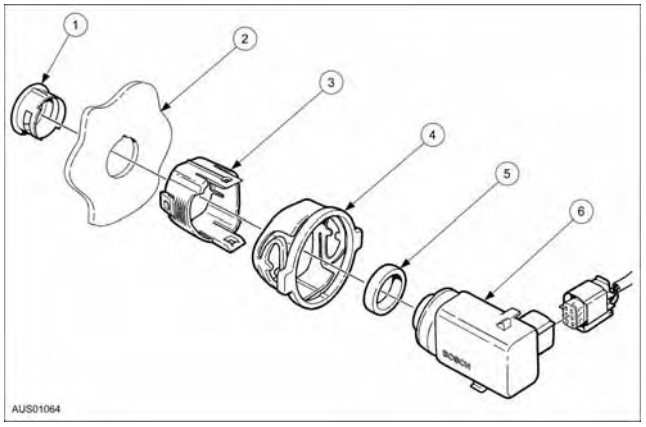


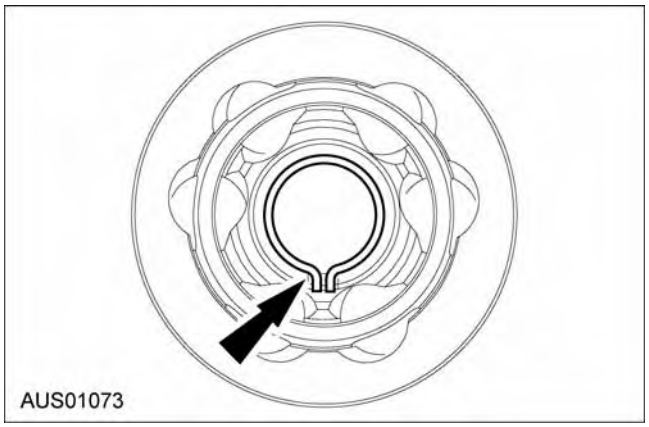
Assembly V8 Inboard, I6 Turbo Inboard and I6 6-speed Auto Inboard

1. Slide the small boot clamp onto the shaft.
2. Lubricate the inboard CV joint with joint grease
3. Install the inboard halfshaft boot.

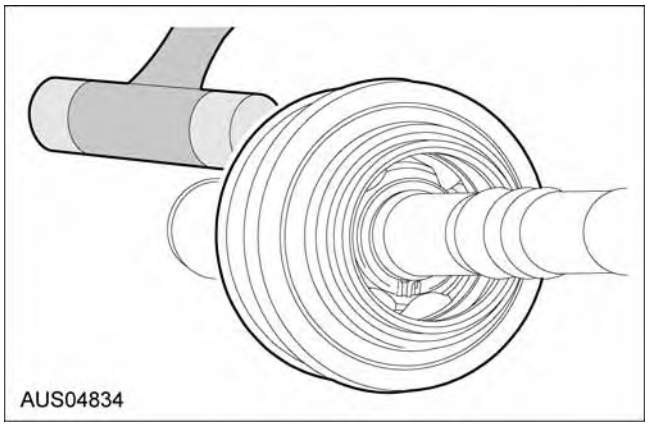


4. Replace the inboard joint retainer ring. A retainer on the shaft is not required.



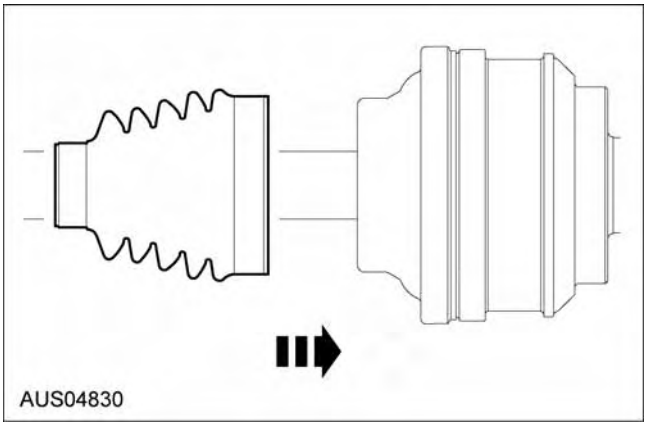


5. Use a soft-face hammer to install the inboard CV joint by gently tapping it onto the halfshaft.

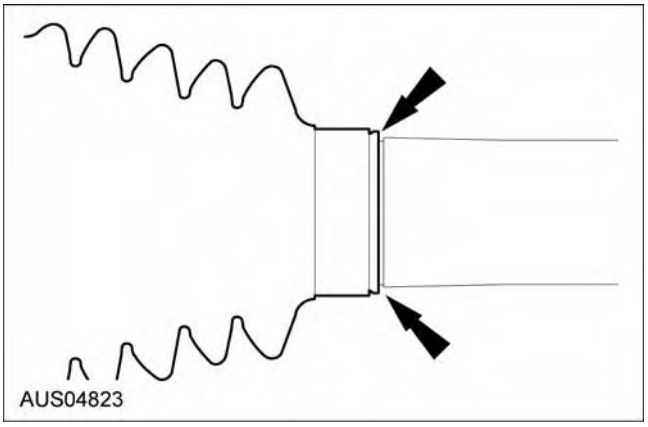


DISASSEMBLY AND ASSEMBLY (Continued)

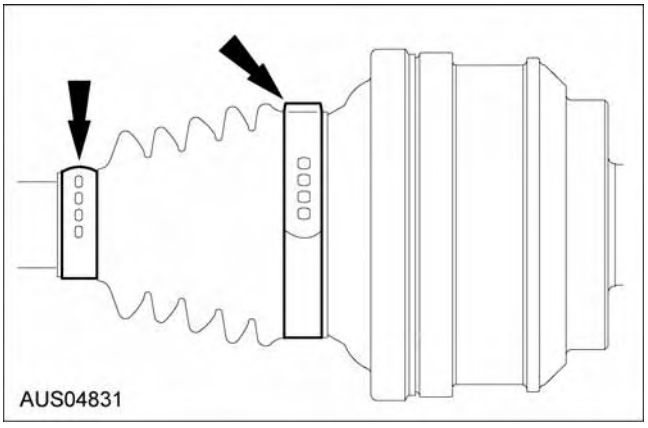
6. Remove any excess grease on the mating surfaces and slide the inboard halfshaft joint boot forward onto the inboard CV joint.



7. Ensure that the small end of the boot is positioned as shown in adjacent picture



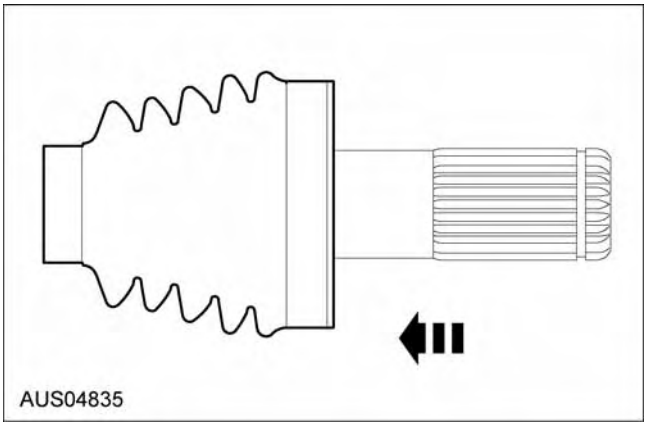
8. Remove any excess air trapped in the halfshaft boot using a cloth covered screwdriver after adjusting the halfshaft boot spacing.
9. Using the special tool, install two new joint boot clamps. The outboard joint has an ABS rotor attached as shown.



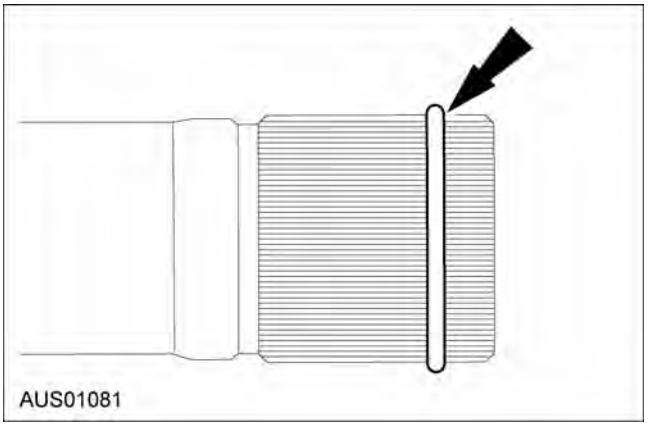
Assembly I6 (Non 6-speed) Inboard & ALL Outboard

NOTE: V8, I6 Turbo and I6 6-speed Auto Outboard joints have a reduced diameter large boot clamp compared to all other Outboard joint boot clamps. The same principal for Assembly still applies however.

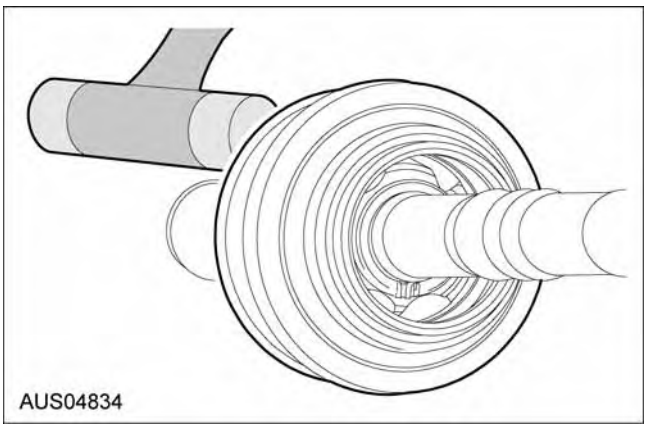
1. Slide the small boot clamp onto the shaft.
2. Position the halfshaft boot.



3. Install the snap ring.



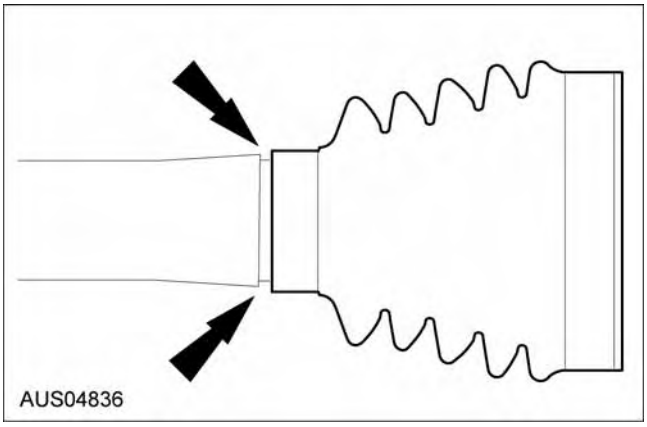
4. Using a soft face hammer, install the halfshaft on the joint.



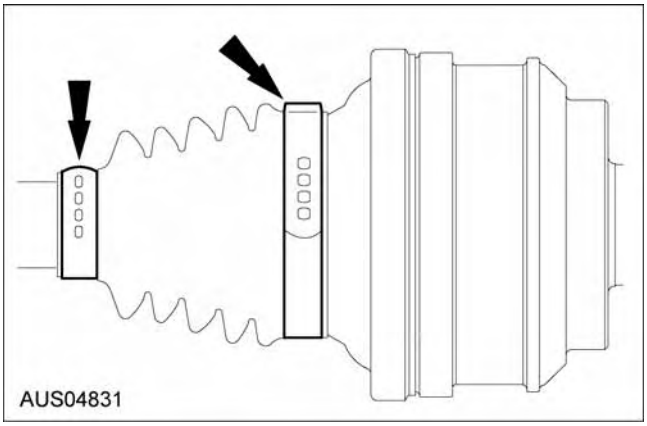
5. Position the halfshaft boot.

DISASSEMBLY AND ASSEMBLY (Continued)

6. Ensure that the small end of the boot is positioned as shown in adjacent picture - that is, with one of the small grooves visible.



7. Remove any excess air trapped in the halfshaft boot using a cloth covered screwdriver after adjusting the halfshaft boot spacing.
8. Using the special tool, install two new joint boot clamps. The outboard joint has an ABS rotor attached as shown.



9. Install the halfshaft. Refer Section 205-02b.