
PROPELLER SHAFT

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GENERAL INFORMATION

3 way split 4-joint type propeller shaft with center bearing is adopted.

SERVICE SPECIFICATION

Items	Standard value	Limit
Propeller shaft runout mm	–	0.5

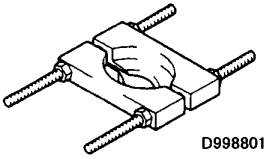
LUBRICANT

Items	Specified lubricant	Quantity
Front propeller shaft sleeve yoke	Hypoid gear oil SAE 75W-90 or 75W-85W or 80W conforming to API GL-4	As required
LJ assembly	Repair kit grease	75 ± 5 g

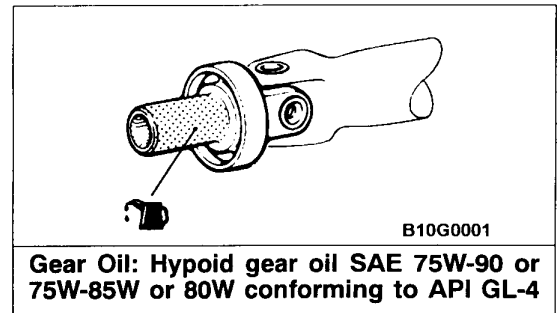
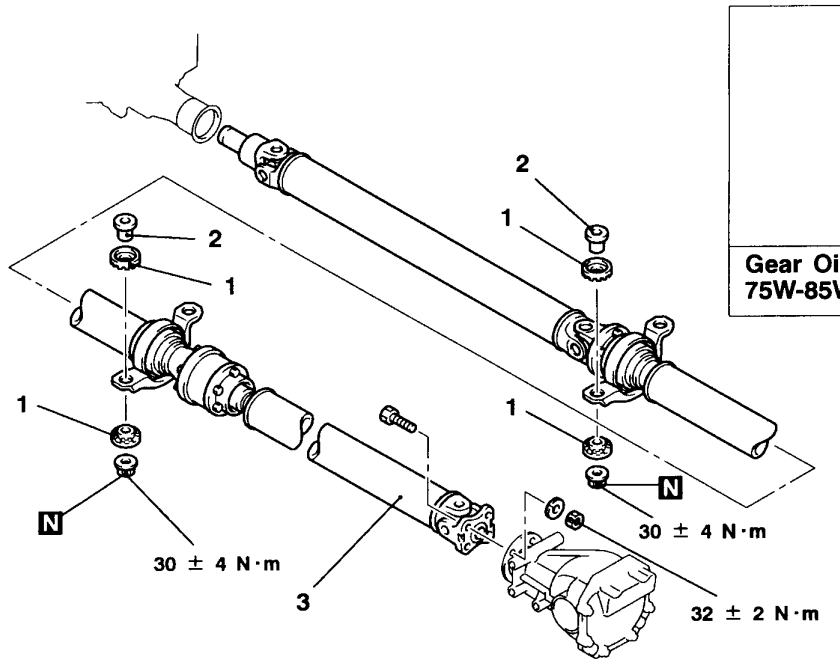
SEALANT

Items	Specified sealants	Remarks
LJ assembly rubber packing	3M Stud Locking 4170 or equivalent	Anaerobic sealant

SPECIAL TOOL

Tool	Number	Name	Use
 D998801	MB998801	Bearing remover	Removal of the center bearing assembly

PROPELLER SHAFT REMOVAL AND INSTALLATION



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Removal steps

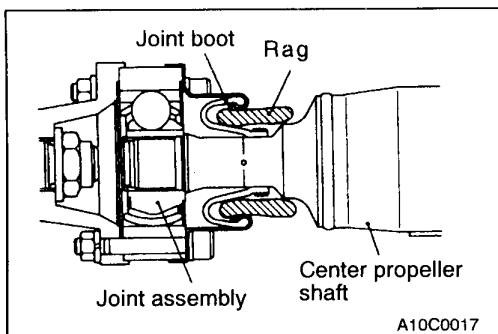
1. Insulator
2. Spacer
3. Propeller shaft assembly



REMOVAL SERVICE POINT

◀A▶ PROPELLER SHAFT ASSEMBLY REMOVAL

1. Make mating marks on the differential companion flange and flange yoke, and then remove the front propeller shaft assembly.



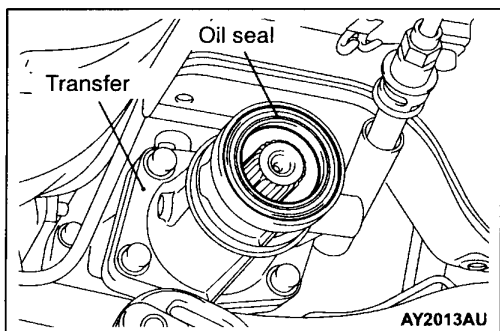
2. By filling rag in the boot and align the propeller shaft, remove the propeller shaft assembly

Caution

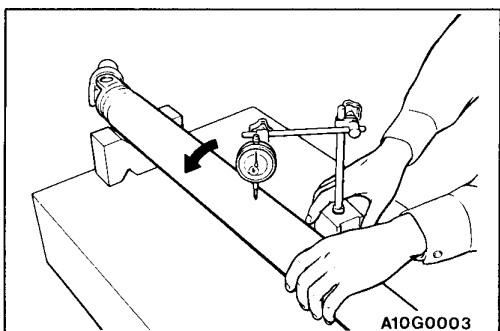
If the joint part is bent, the joint boot is danger of damage by folding joint boot.

INSTALLATION SERVICE POINT**►A◄ PROPELLER SHAFT ASSEMBLY INSTALLATION**

When reusing the propeller shaft, align the mating marks made during the removal and install the propeller shaft assembly to the companion flange.

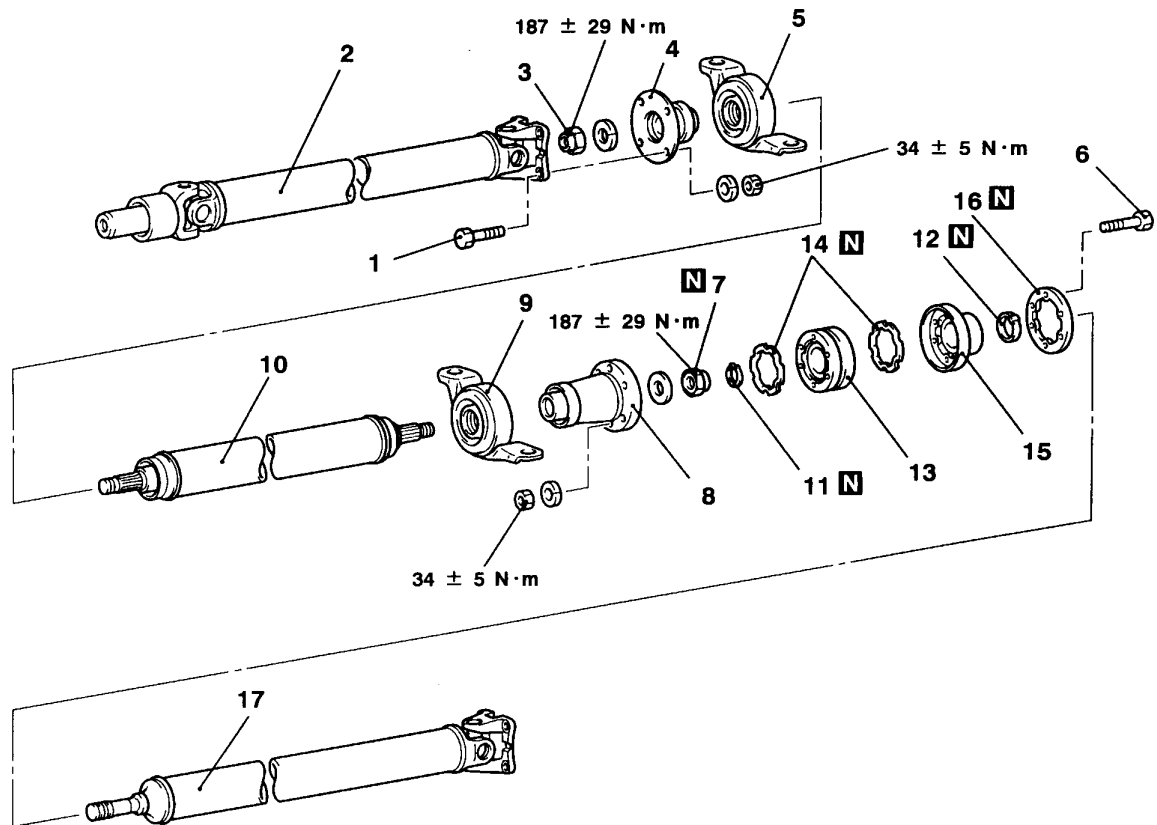
**Caution**

1. Do not damage the oil seal lips of the transmission and transfer.
2. Wipe out oil and grease on the threads of the mounting bolts and nuts before tightening, or they will loosen.
3. If the joint part is bent, the joint boot is in danger of damage by folding joint boot.

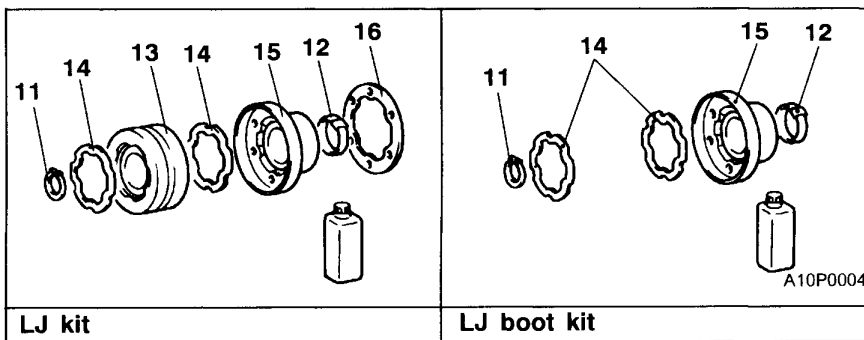
**INSPECTION****PROPELLER SHAFT RUNOUT**

Limit: 0.5 mm

DISASSEMBLY AND REASSEMBLY



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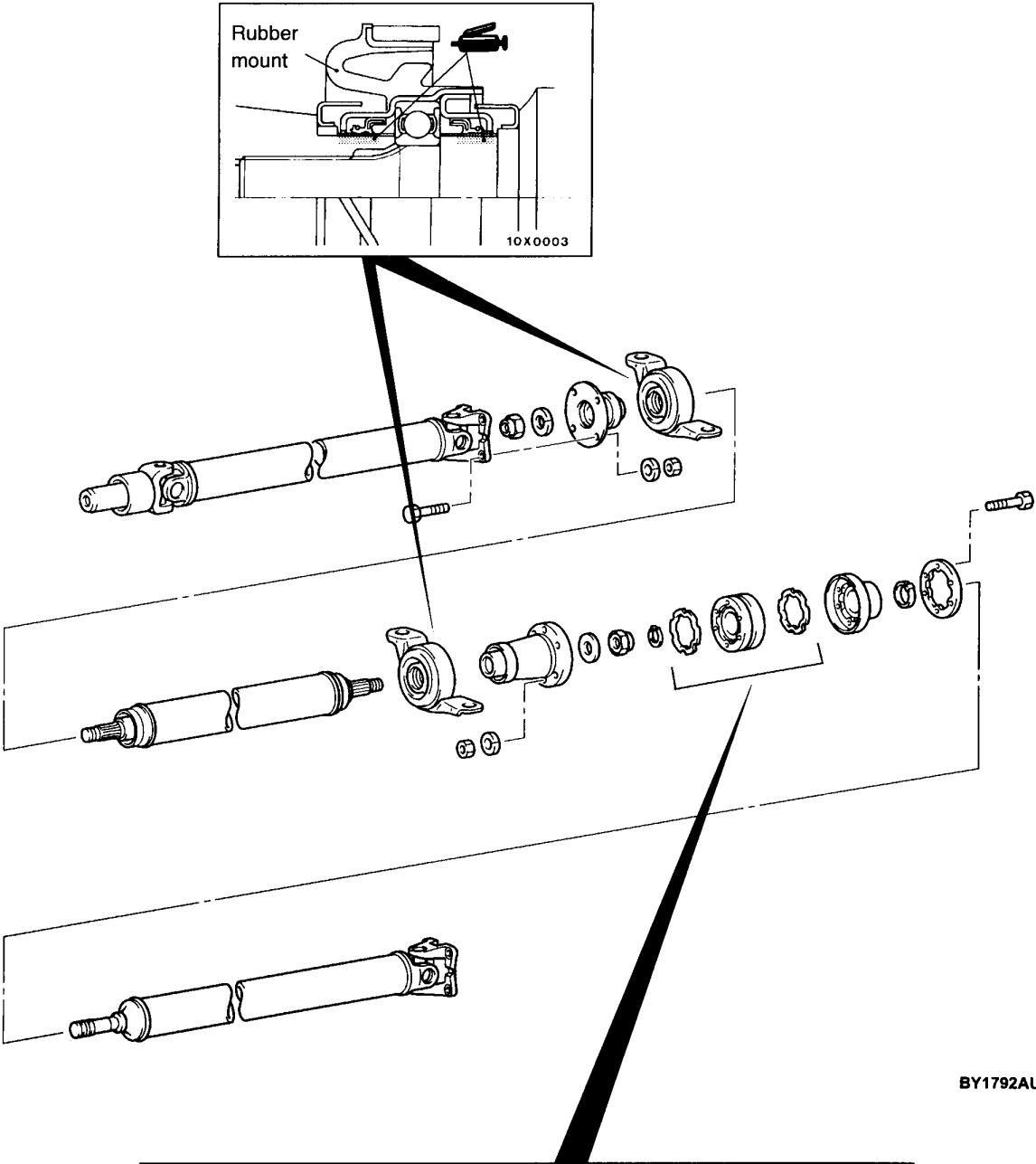


Disassembly steps

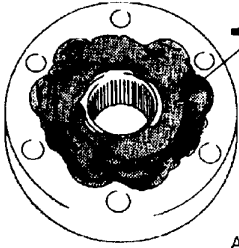
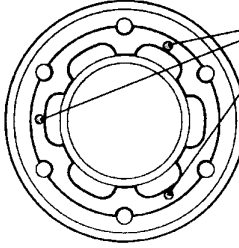
- | | | |
|---|--|---|
| <p> ◀A▶ ▶D▶
 ◀B▶ ▶D▶
 ◀C▶ ▶D▶

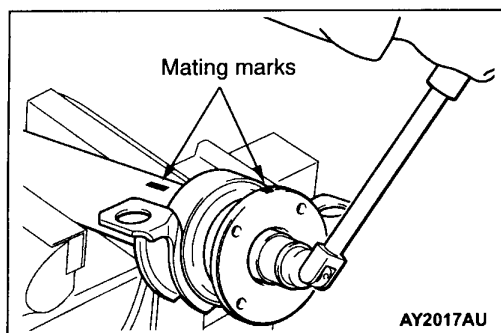
 ▶D▶ ▶D▶
 ▶D▶ ▶D▶
 ▶D▶ ▶D▶ </p> | <p> 1. Bolt
 2. Front propeller shaft assembly
 3. Self locking nut
 4. Companion flange
 5. Center bearing assembly
 6. Bolt
 7. Self locking nut
 8. Companion flange
 9. Center bearing assembly </p> | <p> 10. Center propeller shaft
 11. Snap ring
 12. Boot band
 13. LJ assembly
 14. Rubber packing
 15. LJ boot
 16. Washer
 17. Rear propeller shaft </p> |
|---|--|---|

Lubrication and Adhesive Points



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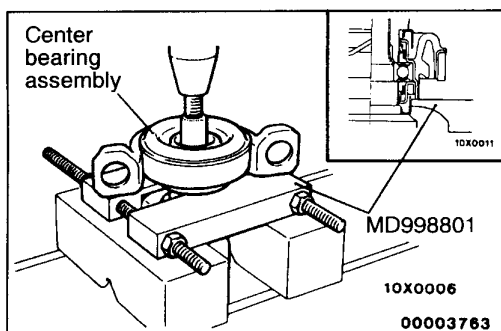
 A10X0040	 10N0009
Repair kit grease: Quantity: 75 ± 5 g	Adhesive: 3M Stud Locking 4170 or equivalent



DISASSEMBLY SERVICE POINTS

◀A▶ COMPANION FLANGE REMOVAL

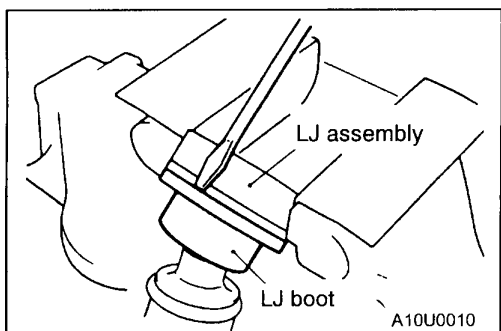
Make mating marks on the companion flange and center propeller shaft. Then, remove the companion flange.



◀B▶ CENTER BEARING ASSEMBLY REMOVAL

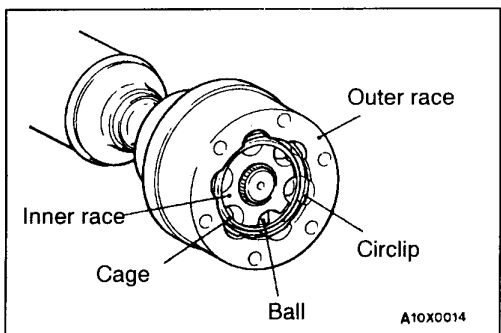
◀C▶ BOLT REMOVAL

Make mating marks on the rear propeller shaft, LJ assembly and companion flange. Then, remove the bolt.



◀D▶ LJ ASSEMBLY REMOVAL

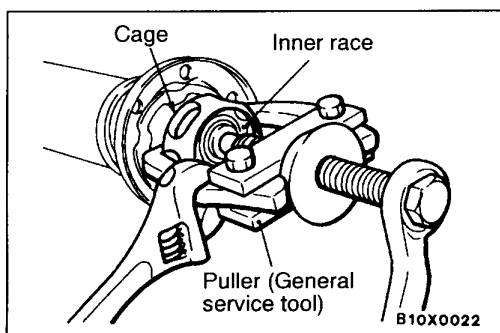
1. Remove the LJ boot from the LJ assembly.



2. Mark the mating marks in outer race, cage and inner race, then remove the circlip, outer race and ball.

NOTE

Ensure the installation position of ball and keep the ball in order to refer in installation.



3. Using puller (general service tool), remove the inner race and cage from the center propeller shaft assembly.
4. Wipe out grease on the outer race, inner race, cage and ball then clean.

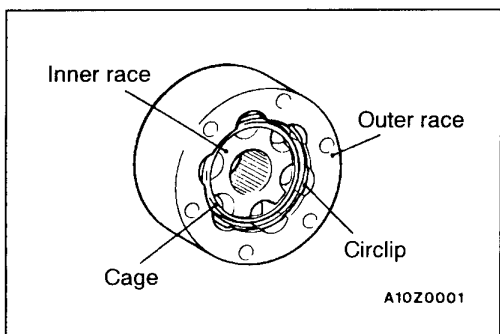
◀E▶ LJ BOOT REMOVAL

If LJ boot will be reused, tape the spline part of the center propeller shaft in order to remove the boot.

REASSEMBLY SERVICE POINTS

▶A▶ LJ BOOT INSTALLATION

1. Install the boot band.
2. After taping the spline part of the center propeller shaft, install the LJ boot.

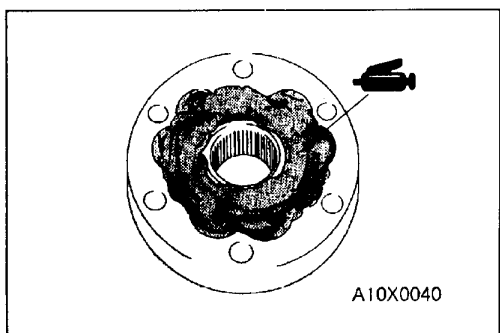


▶B▶ LJ ASSEMBLY INSTALLATION

1. Lubricate the specific grease to ball moving part of the outer race and inner race.

Specified grease: Repair kit grease

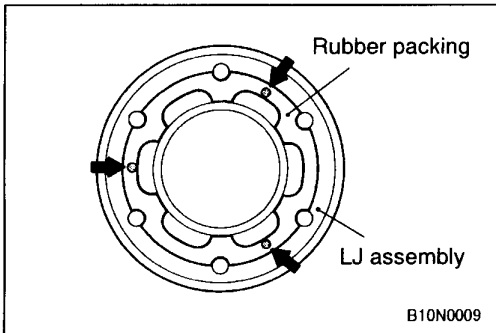
2. Assemble the LJ assembly in following step.
 1. Suit the mating mark and install the outer race, cage, ball and inner race.
 2. Install the circlip.



3. Fill the specified grease evenly in LJ assembly.

Specified grease: Repair kit grease

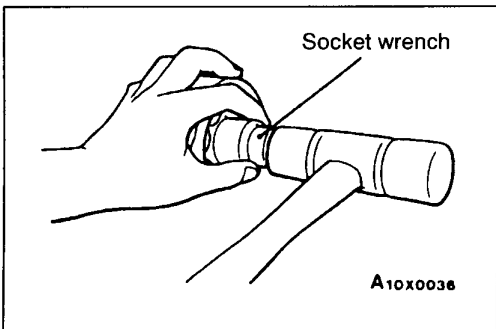
Quantity: 75 ± 5 g



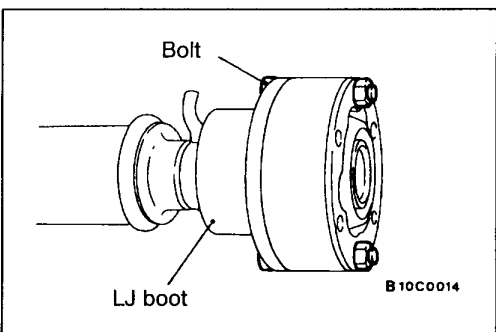
4. Apply a little specific sealant to the surface which has groove (for packing) of LJ assembly (allow as shown in the illustration), fix the rubber packing.

Specified sealant: 3M Stud Locking 4170 or equivalent

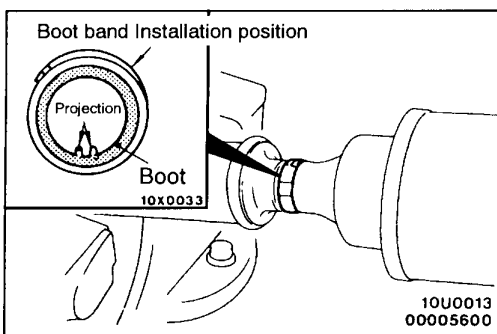
5. Install the surface which has groove (for packing) of LJ assembly to LJ boot side.



6. Align the mating marks of LJ assembly and center propeller shaft, then punch the LJ assembly to center propeller shaft using socket wrench.



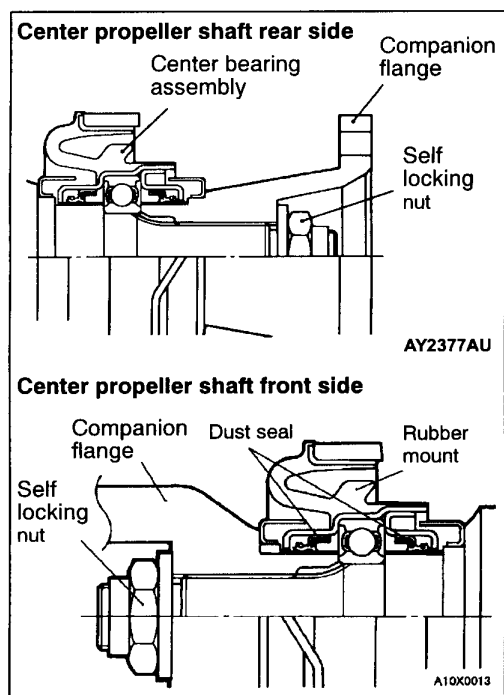
7. Align the position of bolt holes of LJ boot and LJ assembly, install the LJ boot to LJ assembly.
8. Fix the rubber packing of companion flange side in a similar to step 4.



►C◄ BOOT BAND INSTALLATION

Caution

1. Tighten the boot band part in opposite direction of convex part for bleeding the boot.
2. If there is grease in the convex part, wipe out the grease in order to bleed the boot.



►D◄ **CENTER BEARING ASSEMBLY/COMPANION FLANGE/SELF LOCKING NUT INSTALLATION**

1. Install the center bearing assembly to the rear propeller shaft in the direction shown as the illustration.
2. After alining the mating marks of the companion flange and rear propeller shaft, install them.
3. Tightening the self locking nut, press fit the center bearing assembly using companion flange.