

# Driveshaft and Axle

**GENERAL**

**DRIVESHAFT**

FRONT DRIVESHAFT ASSEMBLY  
FRONT DRIVESHAFT (SFJ-BJ TYPE)

## GENERAL

### SPECIFICATIONS

EF31C2D5

Item			Specifications
Drive shaft [3.3L]	Joint type	Outer	BJ
		Inner	SFJ
	Maximum permissible angle	Outer	45°
		Inner	23°
Center bearing	Type		Rdaial ball bearing
	Dimension (O.D X I.D.) mm (in)		Ø 62 X Ø 30 (Ø 2.44 X Ø 1.18)
Wheel bearing	Type		Double row angular contact ball bearing
	Dimension (O.D X I.D.) mm (in)		Ø 84 X Ø 45 (Ø 3.3 Ø 1.77)

- BJ : Birfield Joint

- SFJ : Shudderless Free ring Joint

### TIGHTNING TORQUE

E4520F2B

Item	N·m	kgf·m	lb·ft
Inner shaft cover	8.8~13.7	0.9~1.4	6.5~10
Inner shaft bearing bracket	39~49	4~5	28.9~36
Drive shaft castle nut	200~280	20~28	148~207
Brake caliper to knuckle	50~65	5~6.5	36~47
Lower arm and ball joint	100~120	10~12	74~88
Wheel nut	90~110	9~11	66~81
Shock absorber lower mounting bolt	140~160	14~16	101~118
Stabilizer link mounting nut	100~120	10~12	74~88
Tie rod end self locking nut	24~34	2.4~3.4	18~25



#### CAUTION

*Replace self-locking nuts with new ones after removal.*

### LUBRICANTS

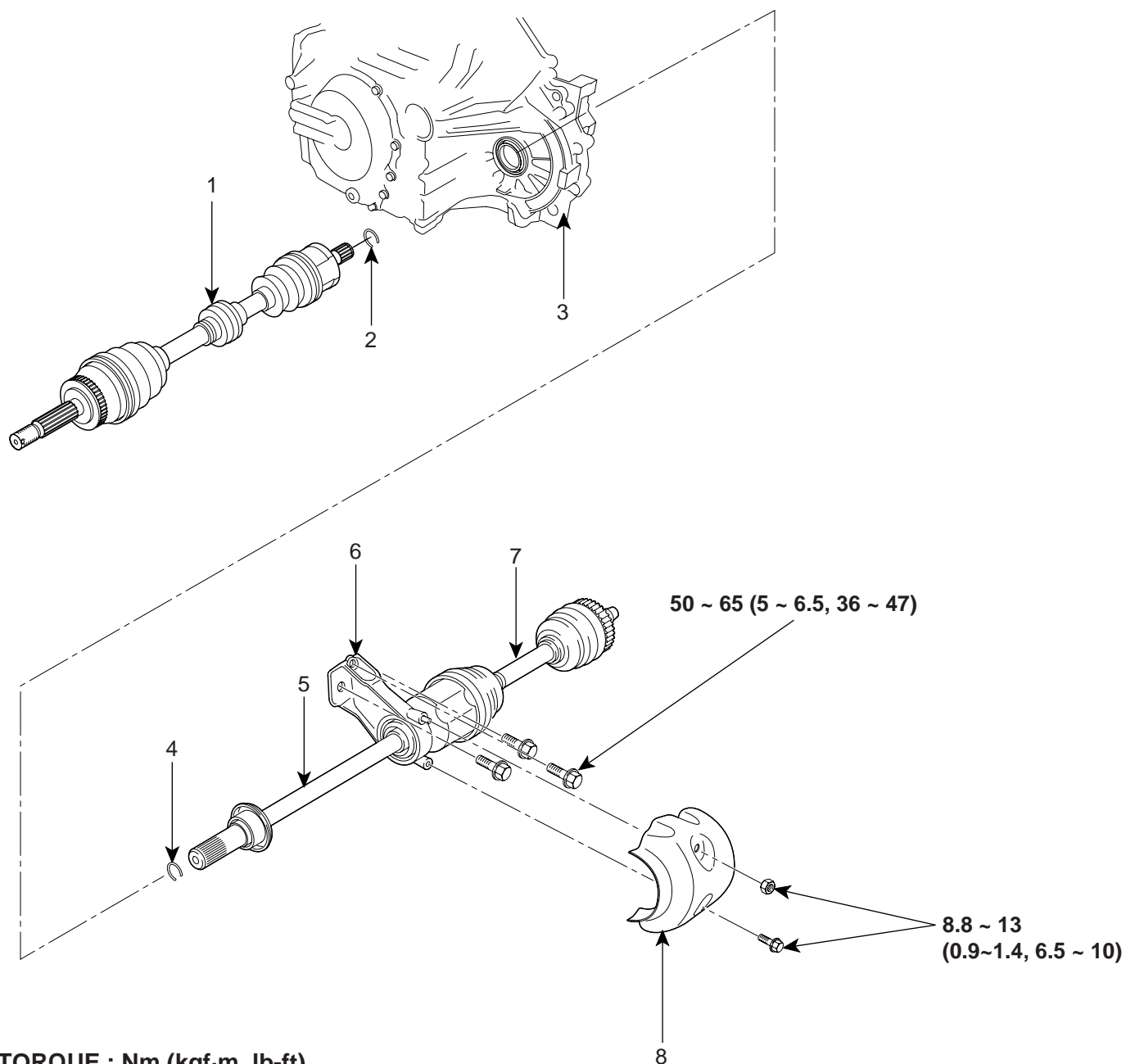
Items	Specified lubricants	Quantity
B.J Boot	CENTOPLEX 278M/136K	Joint 140g±5g, Boot 60g±5g)
SFJ	MX13-KT	Joint 100g±5g, Boot 45g±5g)

# DRIVESHAFT

## FRONT DRIVESHAFT ASSEMBLY

### COMPONENTS EDB21190

[3.3 L]

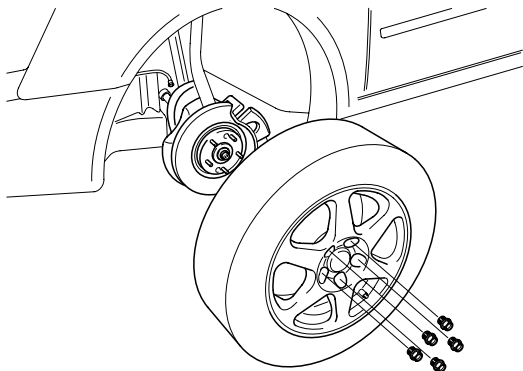


1. Driveshaft (LH)
2. Circlip
3. Transaxle
4. Circlip

5. Inner shaft
6. Inner shaft bracket mounting
7. Driveshaft (RH) [3.3L]
8. Inner shaft cover

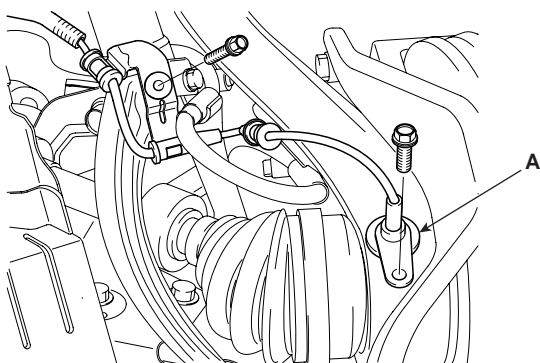
**REMOVAL** EFFD7CE0

1. Remove the wheel and tire.



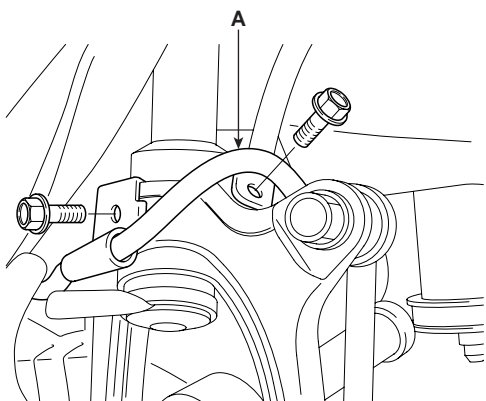
EIRF101A

2. Disconnect the wheel speed sensor(A) from the knuckle.



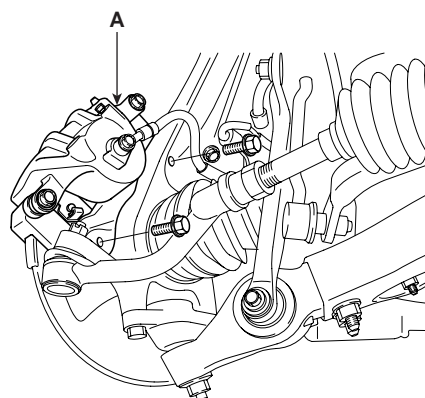
EIRF101B

3. Disconnect the brake hose(A) from the knuckle.

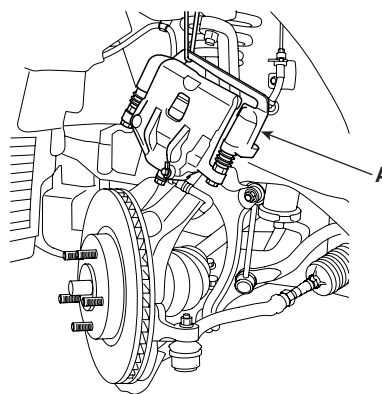


EIRF101C

4. Remove the caliper assembly(A) and suspend it with wire.

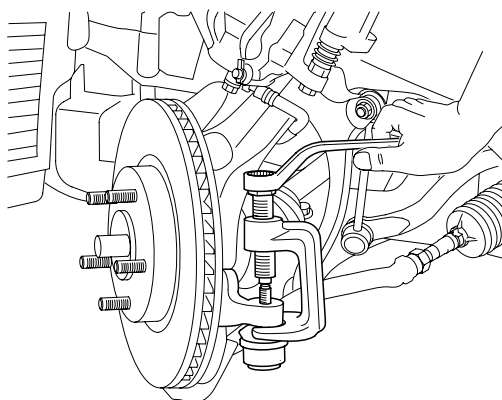


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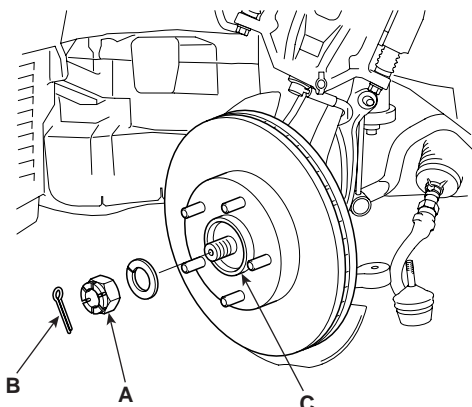
EIRF001P

5. Using the special tool (09568-4A000), disconnect the tie rod end from the knuckle.



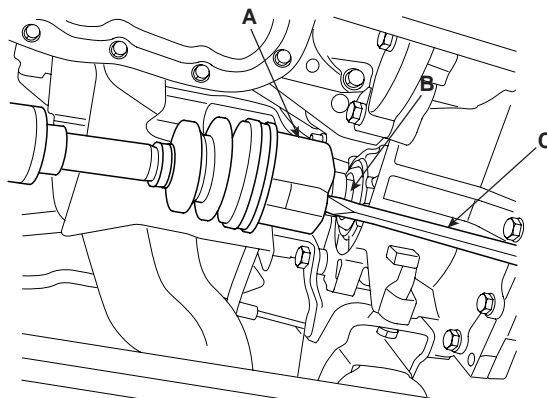
KIRE401D

6. Remove the spilt pin(B) and driveshaft castle nut(A) from the front hub(C).



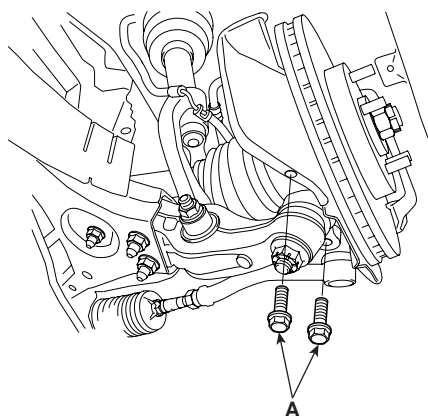
KIRF001M

9. Removing the driveshaft(A) from the transaxle(B) by using a pry bar(C) as shown below.



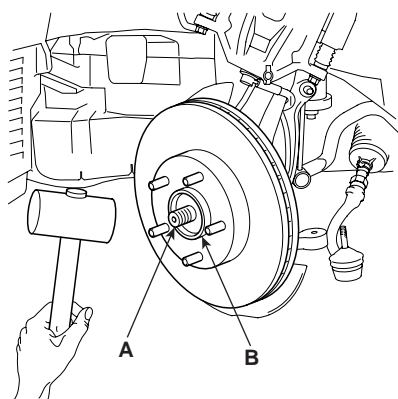
KICF201D

7. Remove the 2 bolts(A) and disconnect the ball joint from the knuckle.



EIRF001N

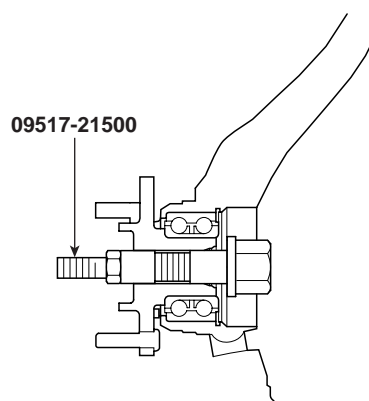
8. Using a plastic hammer, disconnect the driveshaft(A) from the axle hub(B).



KIRF001O

## **CAUTION**

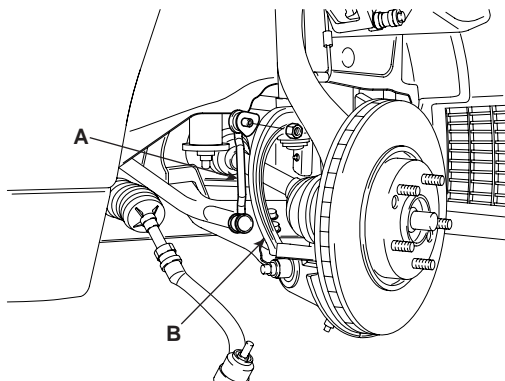
- Use a pry bar so you do not damage the joint.
- If you pull the driveshaft by excessive force, components inside the joint can be displaced causing the boot to be torn and the bearing to be damaged.
- Plug the transaxle case opening with an oil seal cap in order to avoid contamination.
- Support the driveshaft properly.
- Replace the retainer ring each time the driveshaft is removed from the transaxle case.
- While loosening the driveshaft nut, do not allow vehicle weight to be concentrated on the wheel bearing. If the vehicle moves, hold the wheel bearing using the special tool.



KIRE201E

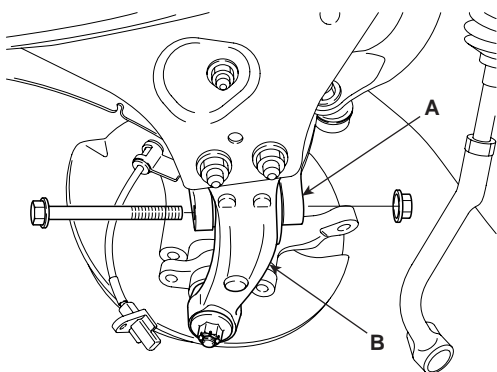
**[RH3.3]**

- a. Remove the stabilizer link(A) from the fork(B).



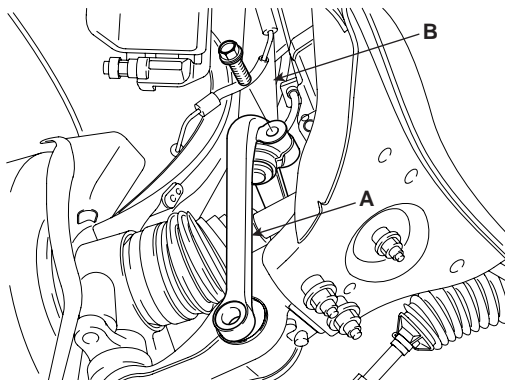
EIRF001F

- b. Remove the fork(A) from the front lower arm(B).



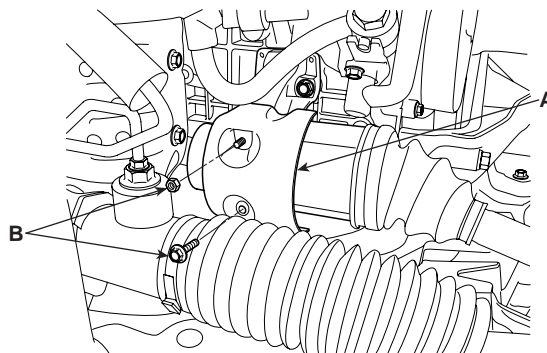
EIRF001G

- c. Remove the fork(A) from the front strut assembly(B).



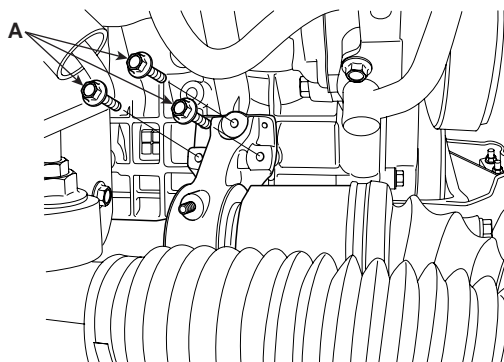
EIRF001H

- d. Remove the inner shaft cover(A) from the inner shaft bracket(B).



EIRF001I

- e. Remove the inner shaft bracket mounting bolt(A).



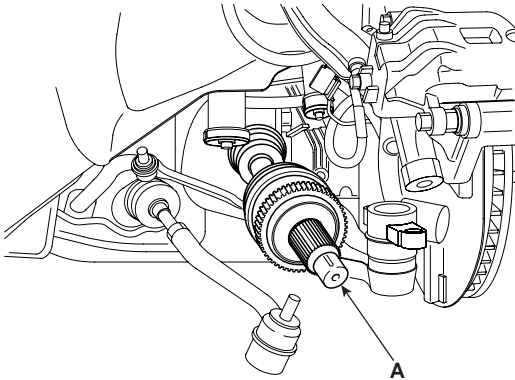
EIRF001J

- f. Remove the front driveshaft assembly(A) with the inner shaft from the transaxle.



## CAUTION

***Do not try to disconnect the inner shaft from the driveshaft. Because they can not be disconnected once assembled.***

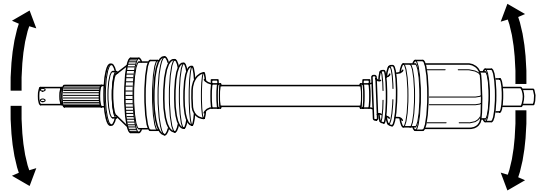


EIRF001K

## INSPECTION

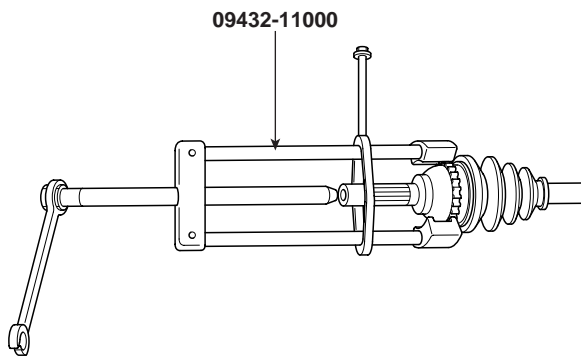
E4CC2359

1. Check the driveshaft boots for damage and deterioration.
2. Check the splines for wear and damage.
3. Check the ball joints for wear and operating condition.



EIRF002D

10. Using the special tool (09432-11000), remove the tone wheel.



EIRF002C

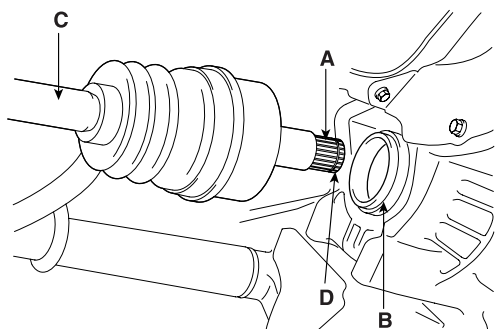
## INSTALLATION

EB4D552F

**CAUTION**

**Replace the circlip with new ones after removal.**

1. Apply gear oil on the drive shaft splines(A) and the contacting surface of differential case oil seal(B).
2. Before installing the drive shaft(C), set the opening side of the clip(D) facing downward.



BIGE003A

3. After installation, check if the drive shaft cannot be removed.
4. Install the drive shaft into the knuckle.

**CAUTION**

**Be careful not to damage the boot.**

5. Install the knuckle in the lower arm assembly.

**Tightening Torque Nm(kgf-m, lb-ft) :**

100~120 (10~12, 74~88)

6. Install the tie rod end in the knuckle.

**Tightening Torque Nm(kgf-m, lb-ft) :**

24~34 (2.4~3.4, 18~25)

7. Install the wheel speed sensor in the knuckle.

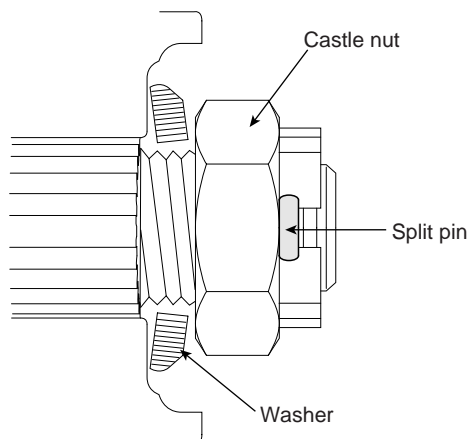
**Tightening Torque Nm(kgf-m, lb-ft) :**

8~10 (0.8~1, 5.8~7.2)

8. After installing the washer(B) with convex surface outward, install the lock nut(A) and the split pin(C)

**Tightening Torque Nm(kgf-m, lb-ft) :**

200~280 (20~28, 148~207)



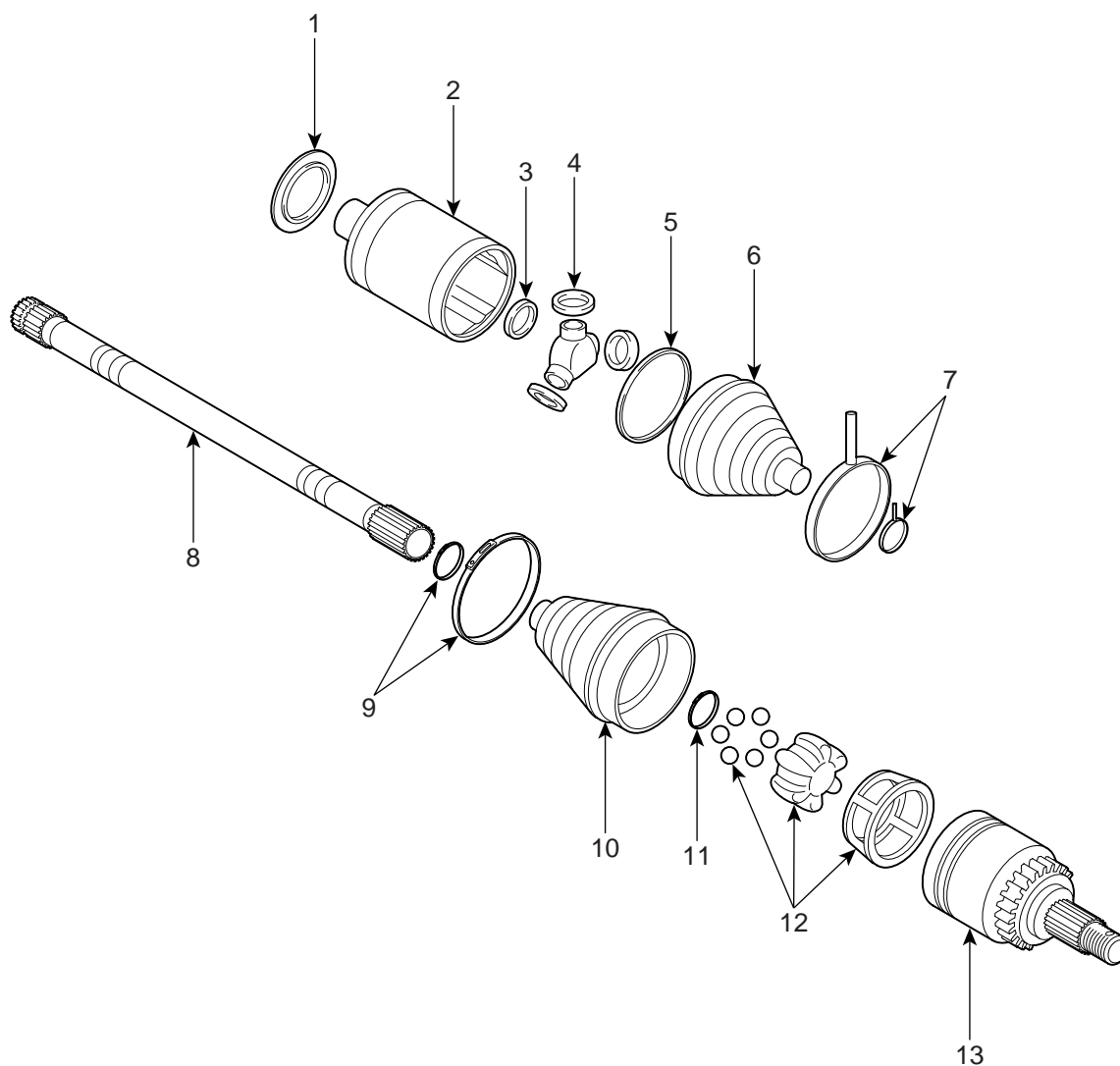
EIRF205A

9. Install the wheel and tire.



## FRONT DRIVESHAFT (SFJ-BJ TYPE)

### COMPONENTS E5DCCE86



1. Dust cover

2. SFJ assembly

3. Snap ring

4. Spider assembly

5. Circle pin

6. SFJ boot

7. SFJ boot band

8. Driveshaft (RH)

9. BJ boot band

10. BJ boot

11. Snap ring

12. BJ inner race and ball

13. BJ assembly

## DISASSEMBLY

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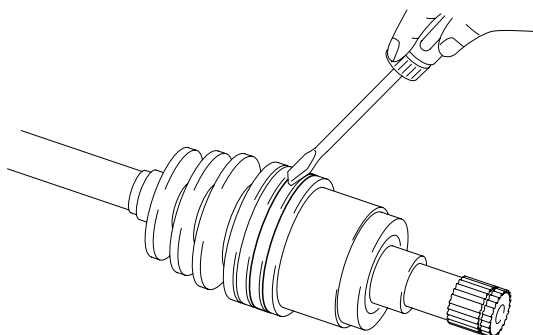
**NOTE**

- Do not disassemble the BJ assembly.
- The Driveshaft joint uses special grease. Do not substitute with another type of grease.
- The Boot band should be replaced with a new one.

1. Remove the SFJ boot band and pull the boot from SFJ outer race.

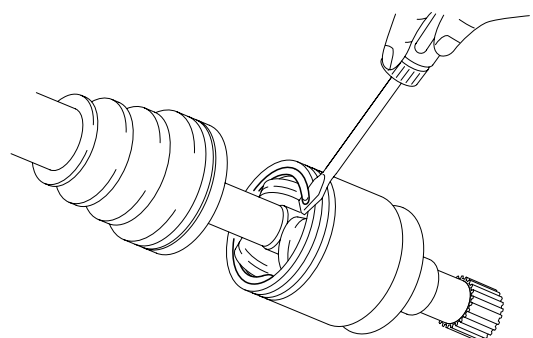
**NOTE**

Be careful not to damage it.



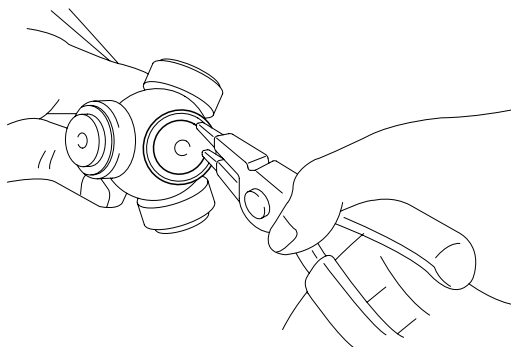
EIRF003B

2. Remove the circlip using a screwdriver.



EIRF003C

3. Remove the driveshaft from SFJ outer race.

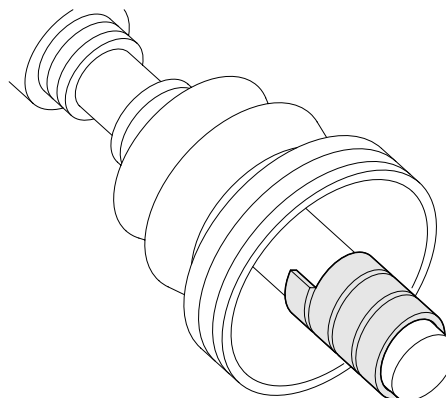


EIRF003D

4. Remove the snap ring and disassemble the spider assembly from the shaft.
5. Clean the spider assembly.
6. Remove the BJ boot band and removal of the SFJ boot and the BJ boot.

**CAUTION**

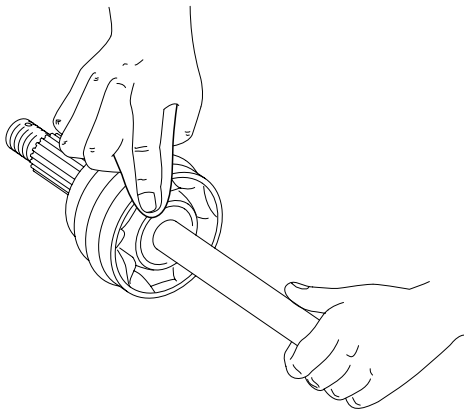
**If the boot is reused, wrap a tape around the drive-shaft splines to protect the boot.**



EIRF003K

INSPECTION EDFDA06B

- 1. Check the driveshaft spline part for wear.
- 2. Check for entry of water and foreign material into boot.
- 3. Check the spider ring for revolution and wear.
- 4. Check the SFJ case inside wear and rust.

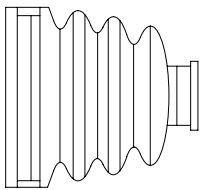


EIRF301M

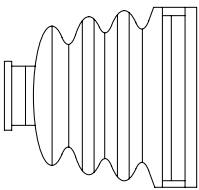
REASSEMBLY EB9FC7CC

- 1. Wrap a tape around the driveshaft spline(SFJ side) to avoid boot damage.

SFJ boot



BJ boot



EIRF003F

- 2. Apply specified grease at the driveshaft and install the boot.

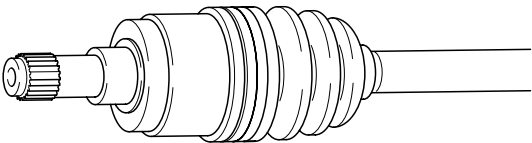
Item		3.3L
Grease filling quantity	BJ boot	155g ± 10g (Joint 85g ± 5g, Boot 70g ± 5g)
	SFJ boot	200g ± 10g (Joint 140g ± 5g, Boot 60g ± 5g)

- 3. Add specified grease as much as wiped away at the of inspection.
- 4. Tighten the boot band.



CAUTION

*Adjust the distance between boot bands within the specification range when tightening the boot band to adjust air in the boot.*

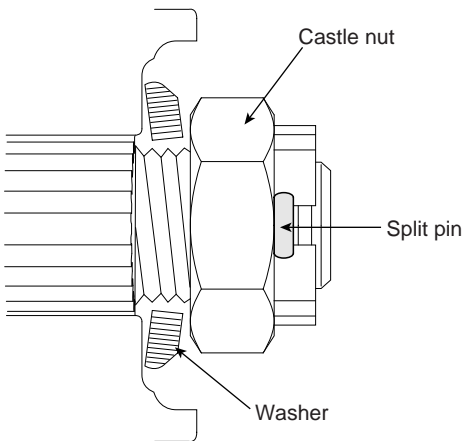


EIRF003E

INSTALLATION E305EEF0

1. Tighten the components with the tightening torque.

Item	Torque (kg·m)
Driveshaft nut	20 ~ 28
Lower arm and ball joint	10 ~ 12
Shock absorber lower mounting bolts	14 ~ 16
Tie rod end and knuckle	2.4 ~ 3.4



EIRF205A

2. Replace the retainer ring every time the driveshaft is removed from the transaxle case.
3. Install the washer on driveshaft and tighten the nut as illustrated.
4. Install the split pin.