

SECTION **FAX**
FRONT AXLE

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FAX

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PREPARATION

[2WD]

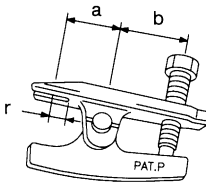
PREPARATION

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Special Service Tools (SST)

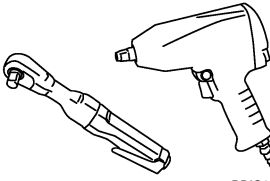
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
HT72520000 (J25730-A) Ball joint remover a: 33 mm (1.30 in) b: 50 mm (1.97 in) r: 11.5 mm (0.453 in)	 <ul style="list-style-type: none"> ● Removing steering outer socket ● Removing transverse link

Commercial Service Tools

ADS000HN

Tool name	Description
Power tool	 <ul style="list-style-type: none"> ● Removing wheel nuts ● Removing brake caliper assembly ● Removing strut lower side ● Removing wheel hub and bearing assembly

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

[2WD]

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

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NVH Troubleshooting Chart

ADS000HO

Use chart below to help you find the cause of the symptom. If necessary, repair or replace these parts.

			FAX-4	I	FAX-4	NVH in WT section	NVH in WT section	NVH in PS section
Reference page				-				
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Parts interference	Wheel bearing damage	TIRES	ROAD WHEEL	STEERING
Symptom	FRONT AXLE	Noise	x	x		x	x	x
		Shake	x	x		x	x	x
		Vibration	x	x		x		x
		Shimmy	x	x		x	x	x
		Judder	x			x	x	x
		Poor quality ride or handling	x	x	x	x	x	

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FRONT WHEEL HUB AND KNUCKLE

[2WD]

FRONT WHEEL HUB AND KNUCKLE

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On-Vehicle Inspection and Service

ADS000HP

Make sure the mounting conditions (looseness, back lash) of each component and component status (wear, damage) are normal.

WHEEL BEARING INSPECTION

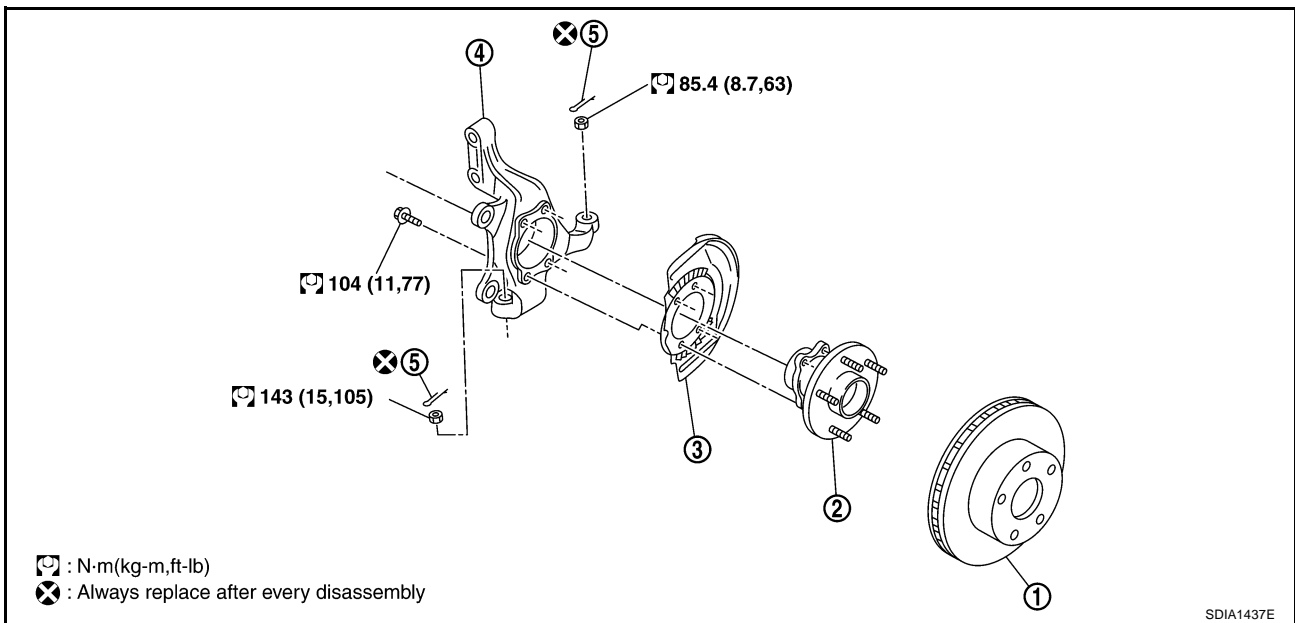
- Move wheel hub in the axial direction by hand. Make sure there is no looseness of wheel bearing.

Axial end play : 0.05 mm (0.002 in) or less

- Rotate wheel hub and make sure there is no unusual noise or other irregular conditions. If there are any irregular conditions, replace wheel hub and bearing assembly.

Removal and Installation

ADS000HQ



1. Disc rotor
2. Wheel hub and bearing assembly
3. Splash guard
4. Steering knuckle
5. Cotter pin

REMOVAL

1. Remove tire from vehicle with power tool.
2. Remove brake caliper with power tool. Hang it in a place where it will not interfere with work. Refer to [BR-20, "FRONT DISC BRAKE"](#).

NOTE:

Avoid depressing brake pedal while brake caliper is removed.

3. Remove disc rotor.
4. Remove wheel sensor from wheel hub and bearing assembly. Refer to [BRC-57, "WHEEL SENSORS"](#).

CAUTION:

Do not pull on wheel sensor harness.

5. Remove cotter pin at steering outer socket, then loosen mounting nut.

FRONT WHEEL HUB AND KNUCKLE

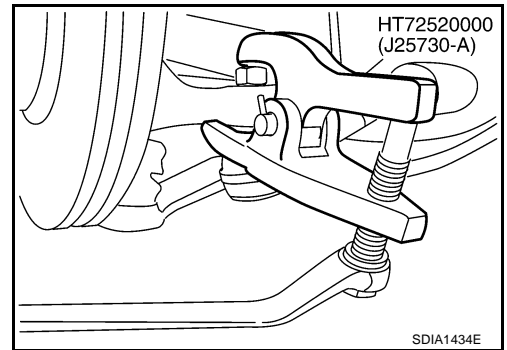
[2WD]

6. Use a ball joint remover (SST) to remove steering outer socket from steering knuckle. Be careful not to damage ball joint boot.

CAUTION:

Tighten temporarily mounting nut to prevent damage to threads and to prevent ball joint remover (SST) from coming off.

7. Remove cotter pin at transverse link, then loosen mounting nut.



8. Use a ball joint remover (SST) to remove transverse link from steering knuckle. Be careful not to damage ball joint boot.

CAUTION:

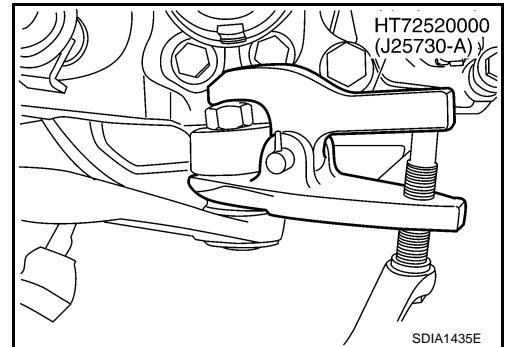
Tighten temporarily mounting nut to prevent damage to threads and to prevent ball joint remover (SST) from coming off.

9. Remove fixing bolts and nuts between strut assembly and steering knuckle with power tool.

10. Remove steering knuckle from vehicle.

11. Remove fixing bolts between steering knuckle and wheel hub and bearing assembly with power tool.

12. Remove splash guard and wheel hub and bearing assembly from steering knuckle.



INSPECTION AFTER REMOVAL

Check for deformity, cracks and damage on each parts, replace if necessary.

Ball Joint Inspection

- Check for boot breakage, axial looseness, and torque of transverse link and steering outer socket ball joint. Refer to [FSU-14, "TRANSVERSE LINK"](#) , [PS-19, "POWER STEERING GEAR AND LINKAGE"](#) .

INSTALLATION

- Refer to [FAX-4, "Removal and Installation"](#) for tightening torque. Install in the reverse order of removal.

NOTE:

Refer to component parts location and do not reuse non-reusable parts.

- After removing/installing or replacing axle components, check wheel alignment. Refer to [FSU-6, "Wheel Alignment Inspection"](#) .
- After adjusting wheel alignment, adjust neutral position of steering angle sensor. Refer to [BRC-6, "Adjustment of Steering Angle Sensor Neutral Position"](#) .
- Check the following item after service
 - Installation condition of wheel sensor harness

SERVICE DATA

[2WD]

SERVICE DATA

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Wheel Bearing

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Axial end play	0.05 mm (0.002 in) or less
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PRECAUTIONS

[AWD]

PRECAUTIONS

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Caution

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Observe the following precautions when disassembling and servicing drive shaft.

- Bearing in wheel joint does not disassemble because it is non-overhaul parts.
- Perform work in a location which is as dust-free as possible.
- Before disassembling and servicing, clean the outside of parts.
- Prevention of the entry of foreign objects must be taken into account during disassembly of the service location.
- Disassembled parts must be carefully reassembled in the correct order. If work is interrupted, a clean cover must be placed over parts.
- Paper shop cloths must be used. Fabric shop cloths must not be used because of the danger of lint adhering to parts.
- Disassembled parts (except for rubber parts) should be cleaned with kerosene which shall be removed by blowing with air or wiping with paper shop cloths.

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PREPARATION

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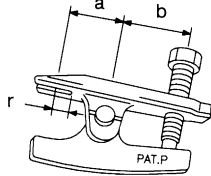
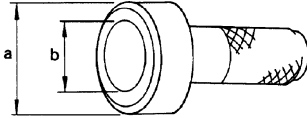
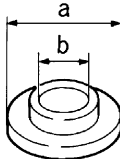
PREPARATION

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Special Service Tools (SST)

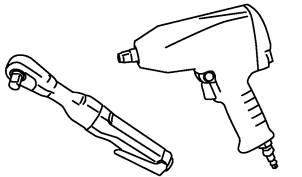
ADS0000I

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
HT72520000 (J25730-A) Ball joint remover a: 33 mm (1.30 in) b: 50 mm (1.97 in) r: 11.5 mm (0.453 in)	 <p style="text-align: center;">NT546</p>	<ul style="list-style-type: none"> ● Removing steering outer socket ● Removing transverse link
KV381 00500 (—) Drift a: 80 mm (3.15 in) dia. b: 60 mm (2.36 in) dia.	 <p style="text-align: center;">ZZA0701D</p>	Installing drive shaft plug
KV381 02200 (—) Drift a: 90 mm (3.54 in) dia. b: 31 mm (1.22 in) dia.	 <p style="text-align: center;">ZZA0920D</p>	Installing drive shaft plug

Commercial Service Tools

ADS0000J

Tool name		Description
Power tool	 <p style="text-align: center;">PBIC0190E</p>	<ul style="list-style-type: none"> ● Removing wheel nuts ● Removing brake caliper assembly ● Removing hub lock nut ● Removing strut lower side ● Removing wheel hub and bearing assembly ● Removing undercover

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

[AWD]

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

PFP:00003

NVH Troubleshooting Chart

ADS0000K

Use chart below to help you find the cause of the symptom. If necessary, repair or replace these parts.

Reference page			—	FAX-15	—	FAX-10	—	FAX-10	NVH in FFD section	NVH in FAX and FSU section	Refer to FRONT AXLE in this chart.	NVH in WT section	NVH in WT section	Refer to DRIVE SHAFT in this chart.	NVH in BR section	NVH in PS section	
Possible cause and SUSPECTED PARTS			Excessive joint angle	Joint sliding resistance	Imbalance	Improper installation, looseness	Parts interference	Wheel bearing damage	FRONT DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	FRONT AXLE	TIRES	ROAD WHEEL	DRIVE SHAFT	BRAKES	STEERING	
Symptom	DRIVE SHAFT	Noise	x	x				x	x	x	x	x	x		x	x	
		Shake	x		x			x		x	x	x			x	x	
	FRONT AXLE	Noise				x	x	x	x		x	x	x	x	x	x	x
		Shake				x	x	x			x	x	x	x	x	x	x
		Vibration				x	x	x			x	x		x			x
		Shimmy				x	x				x	x	x		x		x
		Judder				x					x	x	x		x		x
		Poor quality ride or handling				x	x				x	x	x				

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FRONT WHEEL HUB AND KNUCKLE

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FRONT WHEEL HUB AND KNUCKLE

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On-Vehicle Inspection and Service

ADS0000L

Make sure the mounting conditions (looseness, back lash) of each component and component status (wear, damage) are normal.

WHEEL BEARING INSPECTION

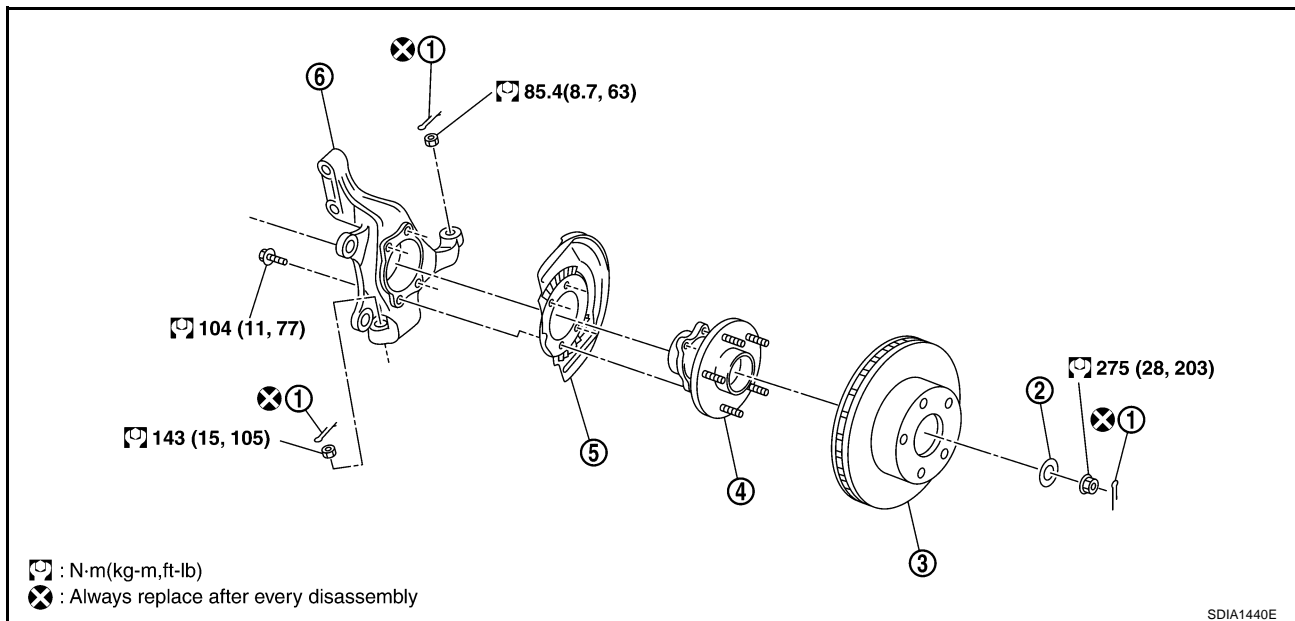
- Move wheel hub in the axial direction by hand. Make sure there is no looseness of wheel bearing.

Axial end play : 0.05 mm (0.002 in) or less

- Rotate wheel hub and make sure there is no unusual noise or other irregular conditions. If there are any irregular conditions, replace wheel hub and bearing assembly.

Removal and Installation

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|-----------------------------------|-----------------|---------------------|
| 1. Cotter pin | 2. Washer | 3. Disc rotor |
| 4. Wheel hub and bearing assembly | 5. Splash guard | 6. Steering knuckle |

REMOVAL

1. Remove tire from vehicle with power tool.
2. Remove brake caliper with power tool. Hang it in a place where it will not interfere with work. Refer to [BR-20, "FRONT DISC BRAKE"](#).

NOTE:

Avoid depressing brake pedal while brake caliper is removed.

3. Remove disc rotor.
4. Remove wheel sensor from wheel hub and bearing assembly. Refer to [BRC-57, "WHEEL SENSORS"](#).

CAUTION:

Do not pull on wheel sensor harness.

5. Remove cotter pin at steering outer socket, then loosen mounting nut.

FRONT WHEEL HUB AND KNUCKLE

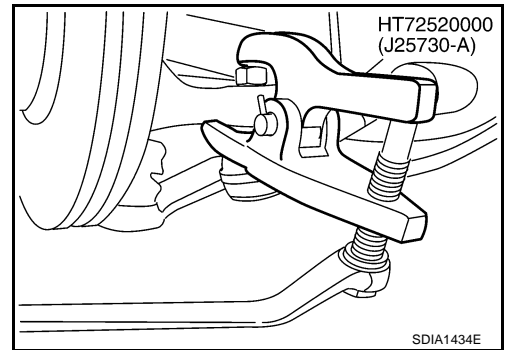
[AWD]

6. Use a ball joint remover (SST) to remove steering outer socket from steering knuckle. Be careful not to damage ball joint boot.

CAUTION:

Tighten temporarily mounting nut to prevent damage to threads and to prevent ball joint remover (SST) from coming off.

7. Remove cotter pin at transverse link, then loosen mounting nut.



8. Use a ball joint remover (SST) to remove transverse link from steering knuckle. Be careful not to damage ball joint boot.

CAUTION:

Tighten temporarily mounting nut to prevent damage to threads and to prevent ball joint remover (SST) from coming off.

9. Remove cotter pin, then remove lock nut from drive shaft with power tool.

10. Remove steering knuckle from drive shaft.

CAUTION:

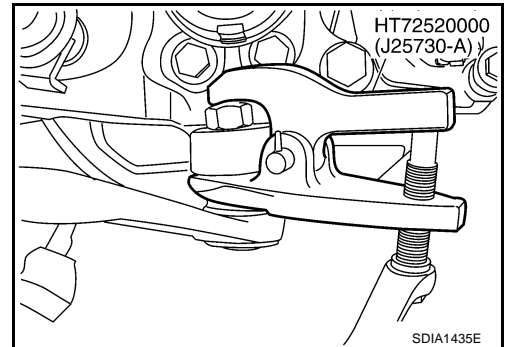
- **When removing steering knuckle, do not apply an excessive angle to drive shaft joint. Also be careful not to excessively extend slide joint.**
- **Do not hang over drive shaft without support.**

11. Remove fixing bolts and nuts between strut assembly and steering knuckle with power tool.

12. Remove steering knuckle from vehicle.

13. Remove fixing bolts between steering knuckle and wheel hub and bearing assembly with power tool.

14. Remove splash guard and wheel hub and bearing assembly from steering knuckle.



INSPECTION AFTER REMOVAL

Check for deformity, cracks and damage on each parts, replace if necessary.

Ball Joint Inspection

Check for boot breakage, axial looseness, and torque of transverse link and steering outer socket ball joint. Refer to [FSU-14, "TRANSVERSE LINK"](#) , [PS-19, "POWER STEERING GEAR AND LINKAGE"](#) .

INSTALLATION

- Refer to [FAX-10, "Removal and Installation"](#) for tightening torque. Install in the reverse order of removal.

NOTE:

Refer to component parts location and do not reuse non-reusable parts.

- After removing/installing or replacing axle components, check wheel alignment. Refer to [FSU-6, "Wheel Alignment Inspection"](#) .
- After adjusting wheel alignment, adjust neutral position of steering angle sensor. Refer to [BRC-6, "Adjustment of Steering Angle Sensor Neutral Position"](#) .
- Check the following item after service.
 - Installation condition of wheel sensor harness.

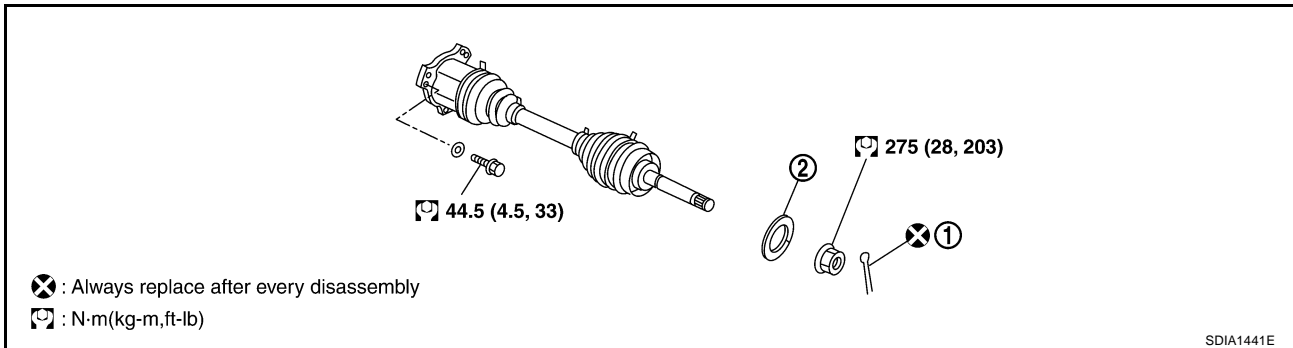
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FRONT DRIVE SHAFT

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Removal and Installation (Left Side)

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1. Cotter pin

2. Washer

REMOVAL

1. Remove tire from vehicle with power tool.
2. Remove undercover with power tool.
3. Remove cotter pin. Then remove lock nut from drive shaft with power tool.
4. Remove wheel sensor harness from strut assembly. Refer to [BRC-57, "WHEEL SENSORS"](#).

CAUTION:**Do not pull on wheel sensor harness.**

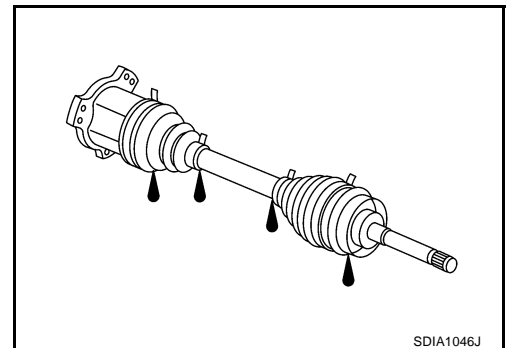
5. Remove brake hose lock plate. Then remove brake hose from strut assembly. Refer to [BR-11, "BRAKE PIPING AND HOSE"](#).
6. Remove fixing bolts and nuts between strut assembly and steering knuckle with power tool.
7. Remove drive shaft from steering knuckle.

CAUTION:**When removing drive shaft, do not apply an excessive angle to drive shaft joint. Also be careful not to excessively extend slide joint.**

8. Remove fixing bolt of front final drive side assembly drive shaft with power tool, then remove drive shaft from vehicle.

INSPECTION AFTER REMOVAL

- Move joint up/down, left /right, and in the axial direction. Check for any rough movement or significant looseness.
- Check boot for cracks or other damage, and also for grease leakage.
- If a trouble is found, disassemble drive shaft, and then replace with new one.



INSTALLATION

- Refer to [FAX-12, "Removal and Installation \(Left Side\)"](#) for tightening torque. Install in the reverse order of removal.

NOTE:

Refer to component parts location and do not reuse non-reusable parts.

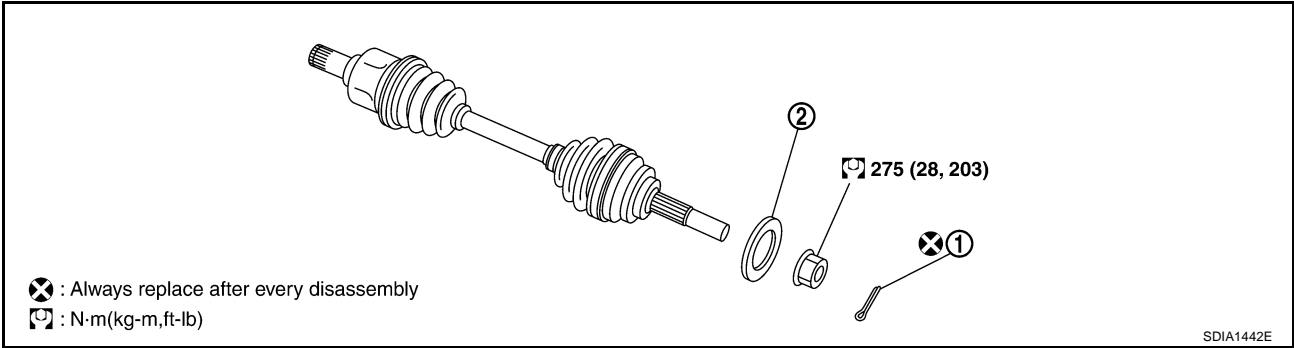
- Check the following item after service.
 - Installation condition of wheel sensor harness

FRONT DRIVE SHAFT

[AWD]

Removal and Installation (Right Side)

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1. Cotter pin
2. Washer

REMOVAL

1. Remove tire from vehicle with power tool.
2. Remove undercover with power tool.
3. Remove cotter pin. Then remove lock nut from drive shaft with power tool.
4. Remove wheel sensor harness from strut assembly. Refer to [BRC-57, "WHEEL SENSORS"](#).

CAUTION:

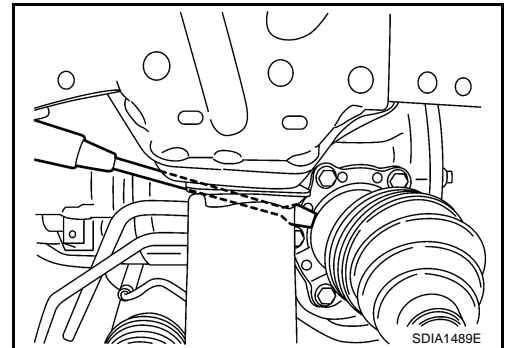
Do not pull on wheel sensor harness.

5. Remove brake hose lock plate. Then remove brake hose from strut assembly. Refer to [BR-11, "BRAKE PIPING AND HOSE"](#).
6. Remove fixing bolts and nuts between strut assembly and steering knuckle with power tool.
7. Remove drive shaft from steering knuckle.

CAUTION:

When removing drive shaft, do not apply an excessive angle to drive shaft joint. Also be careful not to excessively extend slide joint.

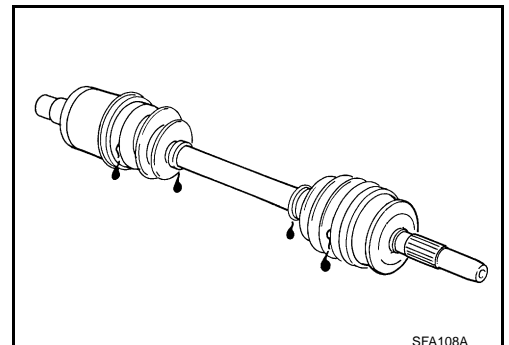
8. Pry off drive shaft from front final drive assembly side as shown in the figure.



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INSPECTION AFTER REMOVAL

- Move joint up/down, left/right, and in the axial direction. Check for any rough movement or significant looseness.
- Check boot for cracks or other damage, and also for grease leakage.
- If a trouble is found, disassemble drive shaft, and then replace with new one.



INSTALLATION

- Refer to [FAX-13, "Removal and Installation \(Right Side\)"](#) for tightening torque. Install in the reverse order of removal.

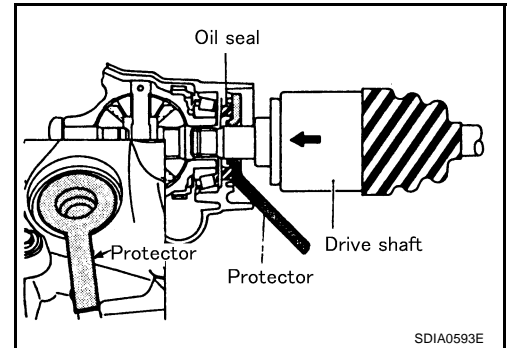
NOTE:

Refer to component parts location and do not reuse non-reusable parts.

- Check the following item after service.
 - Installation condition of wheel sensor harness.
- In order to prevent damage to front final drive assembly side oil seal, first fit a protector onto oil seal before inserting drive shaft. Slide drive shaft into slide joint and tap with a hammer to install securely.

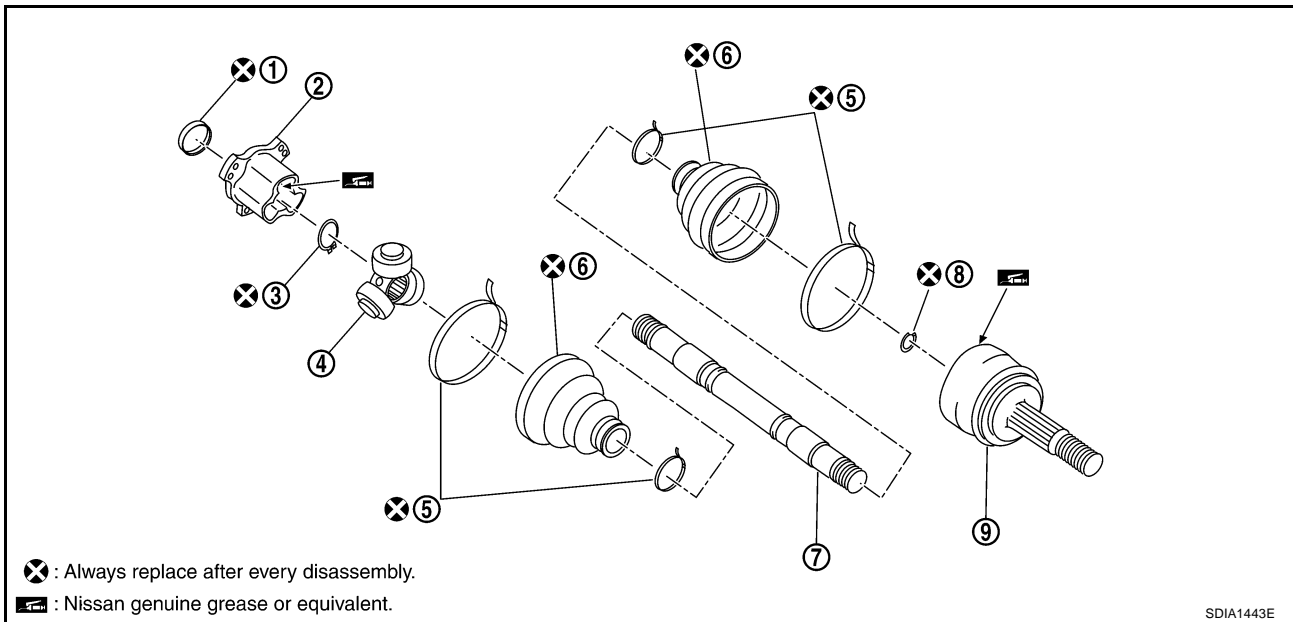
CAUTION:

Be sure to check that circular clip is securely fastened.



Disassembly and Assembly (Left Side)

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|--------------------|------------------|-----------------------|
| 1. Plug | 2. Housing | 3. Snap ring |
| 4. Spider assembly | 5. Boot band | 6. Boot |
| 7. Shaft | 8. Circular clip | 9. Joint sub-assembly |

DISASSEMBLY

Front Final Drive Assembly Side

1. Press drive shaft in a vice.

CAUTION:

When retaining shaft in a vice, always use copper or aluminum plates between vise and shaft.

2. Remove boot bands.
3. If plug needs to be removed, move boot to wheel side, and drive it out with a plastic hammer.

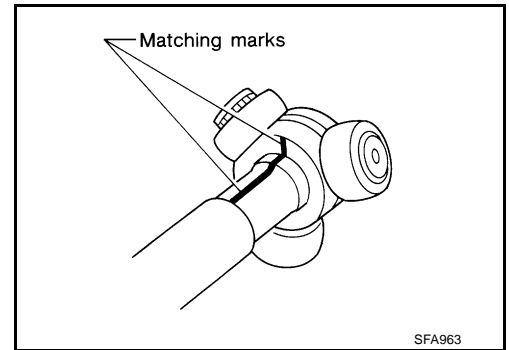
FRONT DRIVE SHAFT

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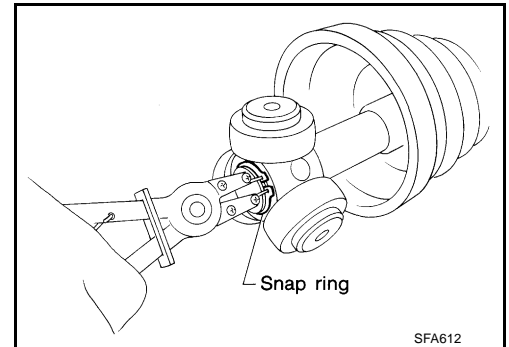
- Put matching marks on spider assembly and shaft.

CAUTION:

Use paint for matching mark, but don't damage to spider assembly and drive shaft.



- Remove snap ring, then remove spider assembly from shaft.
- Remove boot from shaft.
- Remove old grease on slide joint assembly with paper towels.



Wheel Side

- Place drive shaft in a vice.

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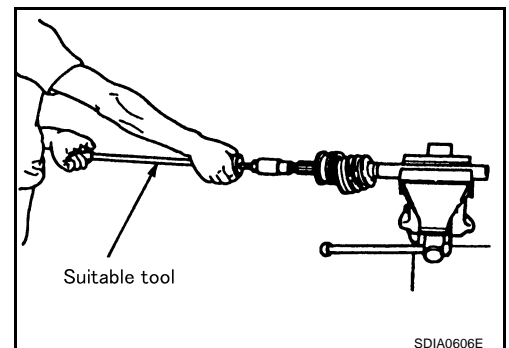
When retaining drive shaft in a vice, always use copper or aluminum plates between a vise and shaft.

- Remove boot bands. Then remove boot from joint sub-assembly.
- Screw a drive shaft puller (suitable tool) 30 mm (1.18 in) or more into threaded part of joint sub-assembly. Pull joint sub-assembly out of shaft.

CAUTION:

- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub-assembly as a set.
- Align sliding hammer and drive shaft and remove them by pulling directly.

- Remove boot from shaft.
- Remove circular clip from shaft.
- While rotating ball cage, remove old grease on joint sub-assembly with paper towels.



INSPECTION AFTER DISASSEMBLY

Shaft

Replace shaft if there is any runout, cracking, or other damage.

Joint Sub-Assembly

- Make sure there is no rough rotation or unusual axial looseness.
- Make sure there is no foreign material inside joint sub-assembly.
- Check joint sub-assembly for compression scar, cracks or fractures.

CAUTION:

If there are any irregular conditions of joint sub-assembly components, replace the entire joint sub-assembly.

Slide Joint Side

Housing and spider assembly

- If roller or roller surface of spider assembly has scratch or wear, replace housing and spider assembly.

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NOTE:

Housing and spider assembly are components which are used as a set.

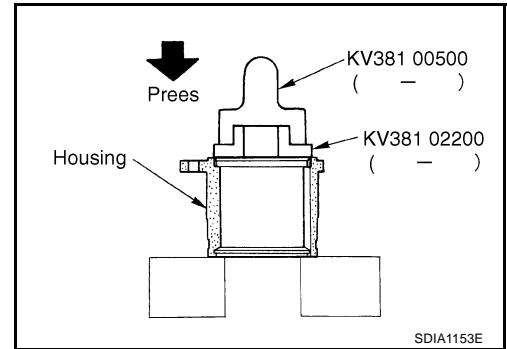
ASSEMBLY

Front Final Drive Assembly Side

1. If plug has been removed, use a drift (SST) to press in a new one.

NOTE:

Discard old plug; replace with new ones.

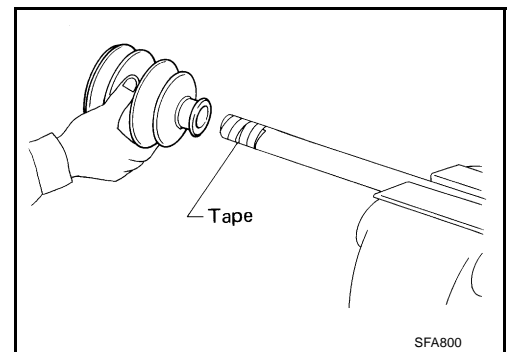


2. Wind serrated part of shaft with tape. Install boot band and boot to shaft. Be careful not to damage boot.

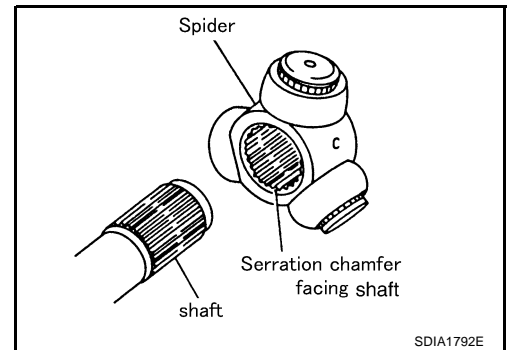
NOTE:

Discard old boot band and boot; replace with each new one.

3. Remove protective tape wound around serrated part of shaft.



4. Line up alignment marks which were made when spider assembly was removed. Install spider assembly, with serration chamfer facing shaft.

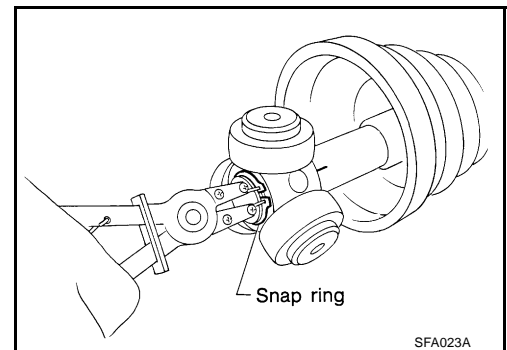


5. Secure spider assembly with snap ring.

NOTE:

Discard old snap ring; replace with new one.

6. Apply Nissan genuine grease or equivalent to spider assembly and sliding surface.

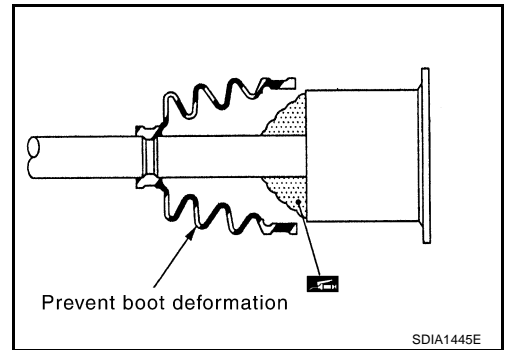


FRONT DRIVE SHAFT

[AWD]

7. Install housing to spider assembly. Apply Nissan genuine grease or equivalent to housing.

Grease amount : 95 – 105 g (3.35 – 3.70 oz)



8. Install boot securely into grooves (indicated by * marks) shown in the figure.

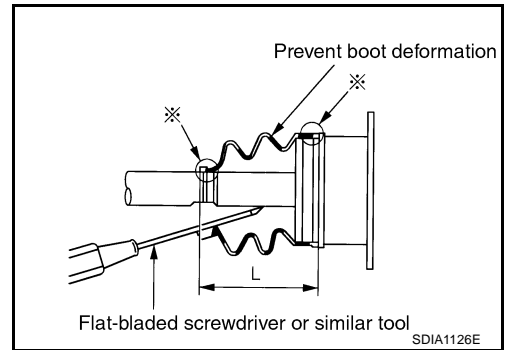
CAUTION:

If there is grease on boot mounting surfaces (indicated by* marks) of shaft and housing, boot may come off. Remove all grease from surfaces.

9. Make sure boot installation length “L” is the length indicated below. Insert a flat-bladed screwdriver or similar tool into smaller side of boot. Bleed air from boot to prevent boot deformation.

Boot installation Length “L”:

95 – 97 mm (3.74 – 3.82 in)



CAUTION:

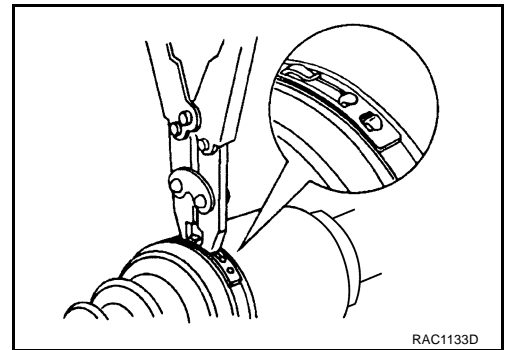
- **Boot may break if boot installation length is less than standard value.**
- **Take care not to touch the tip of screwdriver to inside surface of boot.**

10. Install new larger and smaller boot bands securely.

- a. For one-touch clamp band:

NOTE:

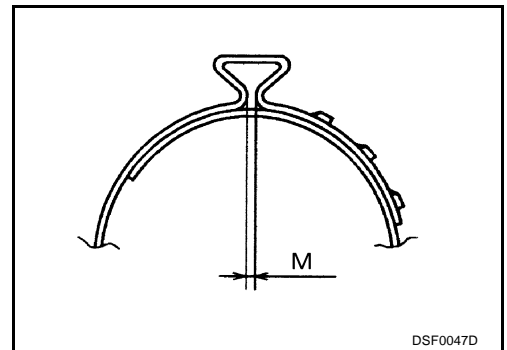
- Discard old boot bands; replace with new ones with a suitable tool.



- Secure boot band so that dimension “M” shown below right satisfies the following:

Large diameter side : 3.0 mm (0.118 in)

Small diameter side : 2.0 mm (0.079 in)



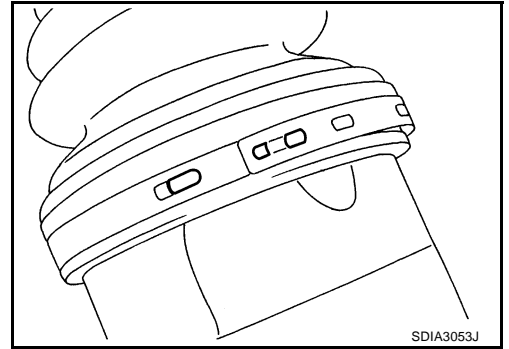
- b. For low profile type band:

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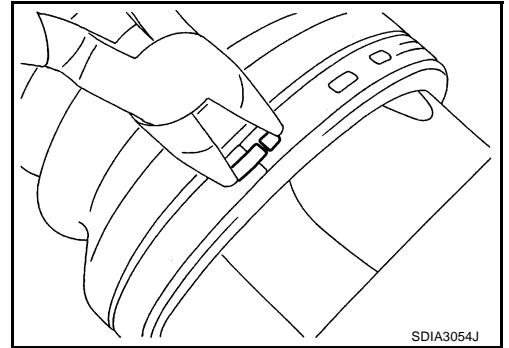
FRONT DRIVE SHAFT

[AWD]

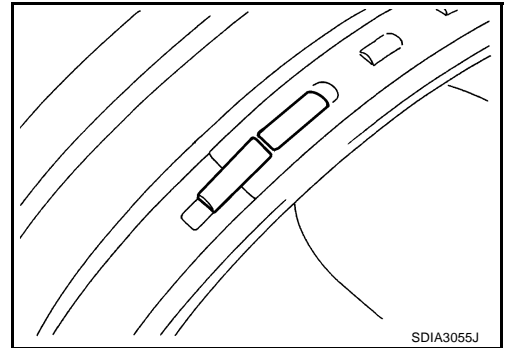
- i. Set boot band in the specified grooves. Fit band's pawl to the grooves and tack them.



- ii. Pull and tighten the pawls of tool hanger by using a pair of long-nose pliers.

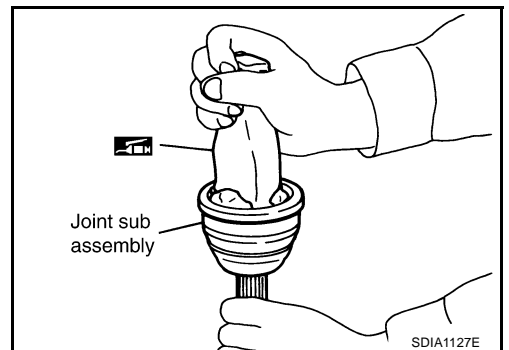


- iii. Insert band's tip into end of tool pawl.
 - iv. Check if displacement occurs when rotating boot with housing and shaft fixed. Assemble them again with a new boot band if displacement occurs.
11. After installing housing and shaft, rotate boot to check whether or not the actual position is correct. If boot position is not correct, secure boot with new boot bands again.



Wheel Side

1. Insert the amount grease (Nissan genuine grease or equivalent) into joint sub-assembly serration hole until grease begins to ooze from ball groove and serration hole. After inserting grease, use a shop cloth to wipe off old grease that has oozed out.



FRONT DRIVE SHAFT

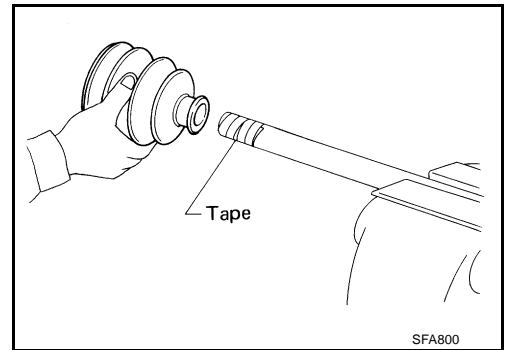
[AWD]

2. Wind serrated part of shaft with tape. Install boot band and boot to shaft. Be careful not to damage boot.

NOTE:

Discard old boot band and boot; replace with new ones.

3. Remove protective tape wound around serrated part of shaft.



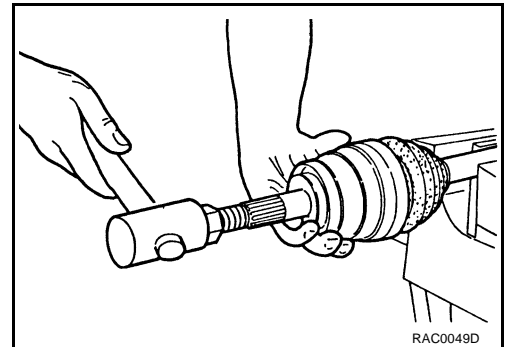
4. Attach circular clip to shaft. At this time, circular clip must fit securely into shaft groove. Attach nut to joint sub-assembly. Use a wooden hammer to press-fit.

NOTE:

Discard old circular clip; replace with new one.

5. Insert the specified amount of grease (Nissan genuine grease or equivalent) listed below into boot from large end of boot.

Grease amount : 95 – 115 g (3.35 – 4.06 oz)



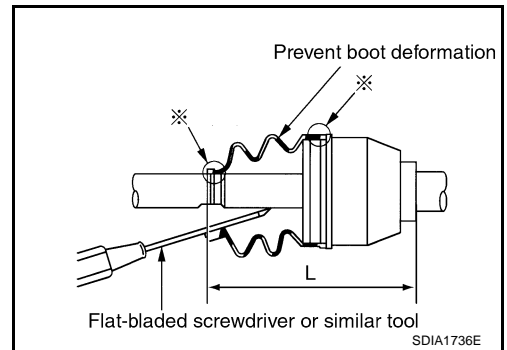
6. Install boot securely into grooves (indicated by * marks) shown in the figure.

CAUTION:

If there is grease on boot mounting surfaces (indicated by* marks) of shaft and housing of joint sub assembly, boot may come off. Remove all grease from surfaces.

7. Make sure boot installation length "L" is the length indicated below. Insert a flat-bladed screwdriver or similar tool into smaller side of boot. Bleed air from boot to prevent boot deformation.

Boot installation length "L" : 136 mm (5.35 in)



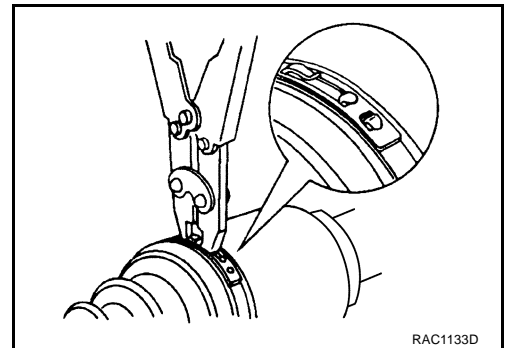
CAUTION:

- Boot may brake if boot installation length is less than standard value.
- Be careful that screwdriver tip does not contact inside surface of boot.

8. Install new larger and smaller boot bands securely with a suitable tool.

NOTE:

- Discard old boot bands; replace with new ones.



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FRONT DRIVE SHAFT

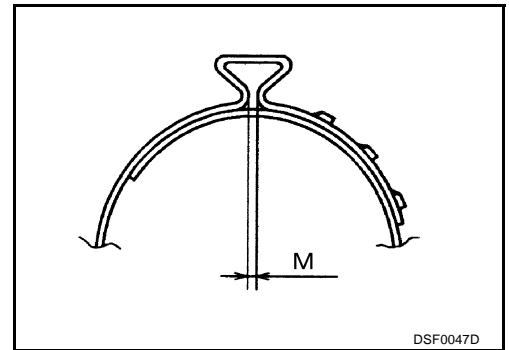
[AWD]

- Secure boot band so that dimension "M" shown below right satisfies the following:

Large diameter side : 3.0 mm (0.118 in)

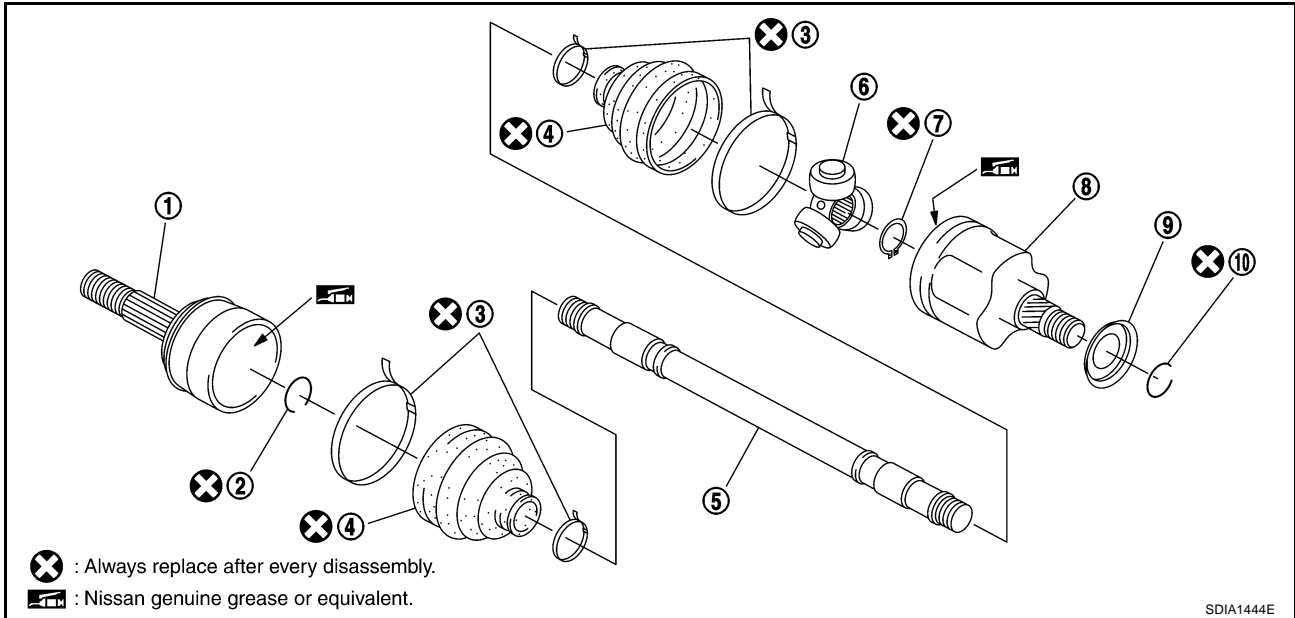
Small diameter side : 2.0 mm (0.079 in)

- After installing joint sub-assembly and shaft, rotate boot to check whether or not the actual position is correct. If boot position is not correct, secure boot with new boot bands again.



Disassembly and Assembly (Right Side)

ADS0000Q



- | | | |
|-----------------------|------------------|--------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band |
| 4. Boot | 5. Shaft | 6. Spider assembly |
| 7. Snap ring | 8. Housing | 9. Dust shield |
| 10. Circular clip | | |

DISASSEMBLY

Front Final Drive Assembly Side

- Press drive shaft in a vice.

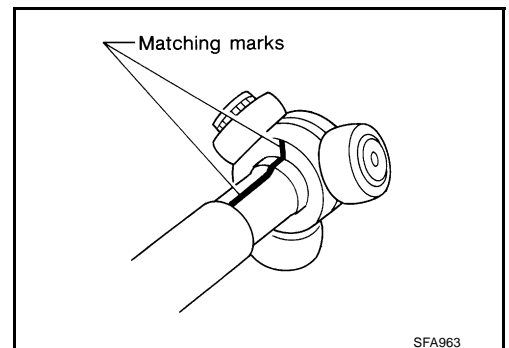
CAUTION:

When retaining drive shaft in a vice, always use copper or aluminum plates between a vise and shaft.

- Remove boot bands.
- Put matching marks on spider assembly and shaft.

CAUTION:

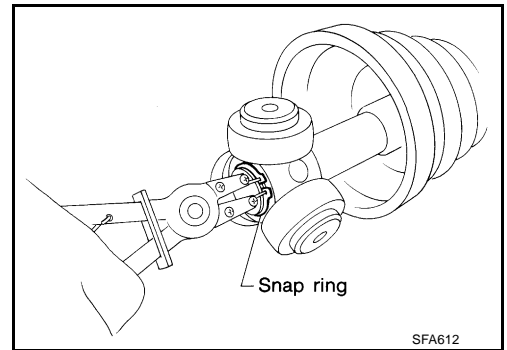
Use paint for matching mark, but don't damage to spider assembly and shaft.



FRONT DRIVE SHAFT

[AWD]

4. Remove snap ring, then remove spider assembly from shaft.
5. Remove boot from shaft.
6. Remove old grease on slide joint assembly with paper towels.



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FAX

Wheel Side

1. Place drive shaft in a vice.

CAUTION:

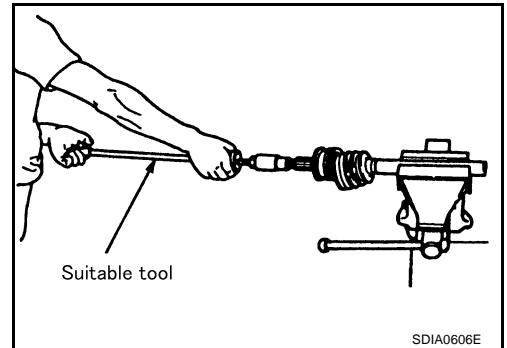
When retaining drive shaft in a vice, always use copper or aluminum plates between vise and shaft.

2. Remove boot bands. Then remove boot from joint sub-assembly.
3. Screw a drive shaft puller (suitable tool) 30 mm (1.18 in) or more into threaded part of joint sub-assembly. Pull joint sub-assembly out of shaft.

CAUTION:

- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub-assembly as a set.
- Align sliding hammer and drive shaft and remove them by pulling directly.

4. Remove boot from shaft.
5. Remove circular clip from shaft.
6. While rotating ball cage, remove old grease on joint sub-assembly with paper towels.



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INSPECTION AFTER DISASSEMBLY

Shaft

Replace shaft if there is any runout, cracking, or other damage.

Joint Sub-Assembly

- Make sure there is no rough rotation or unusual axial looseness.
- Make sure there is no foreign material inside joint sub-assembly.
- Check joint sub-assembly for compression scar, cracks or fractures.
- If there are any irregular conditions of joint sub-assembly components, replace the entire joint sub-assembly.

K

L

M

Slide Joint Side

Housing and spider assembly

- If roller or roller surface of spider assembly has scratch or wear, replace housing and spider assembly.

NOTE:

Housing and spider assembly are components which are used as a set.

FRONT DRIVE SHAFT

[AWD]

ASSEMBLY

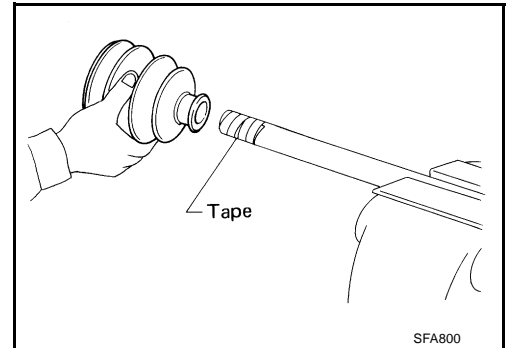
Front Final Drive Assembly Side

1. Wind serrated part of drive shaft with tape. Install boot band and boot to shaft. Be careful not to damage boot.

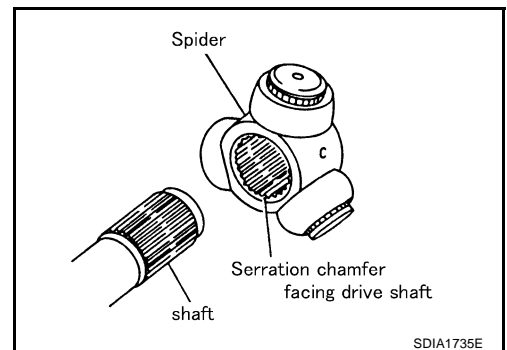
NOTE:

Discard old boot band and boot; replace with each new one.

2. Remove protective tape wound around serrated part of shaft.



3. Line up alignment marks which were made when spider assembly was removed. Install spider assembly, with serration chamfer facing drive shaft.

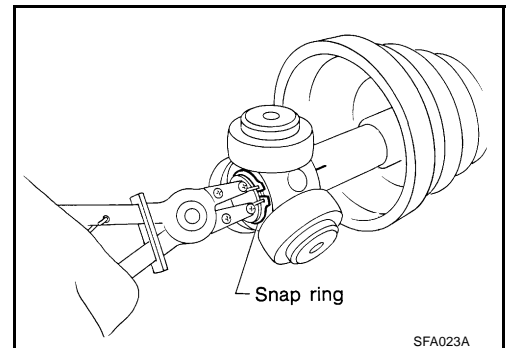


4. Secure spider assembly with snap ring.

NOTE:

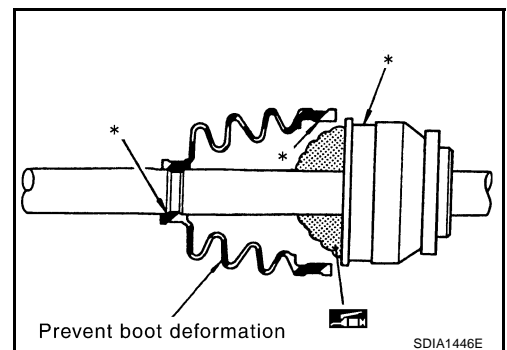
Discard old snap ring; replace with new one.

5. Apply Nissan genuine grease or equivalent to spider assembly and sliding surface.



6. Install housing to spider assembly. Apply Nissan genuine grease or equivalent to housing.

Grease amount : 113 – 123 g (3.99 – 4.34 oz)



FRONT DRIVE SHAFT

[AWD]

7. Install boot securely into grooves (indicated by * marks) shown in the figure.

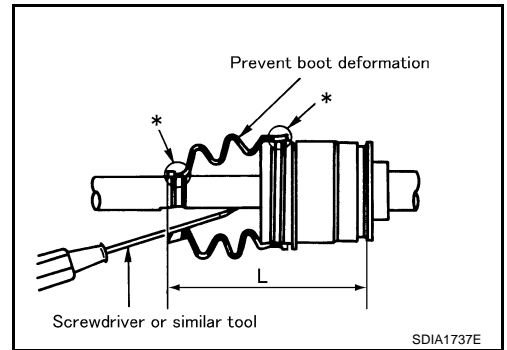
CAUTION:

If there is grease on boot mounting surfaces (indicated by* marks) of shaft and housing, boot may come off. Remove all grease from surfaces.

8. Make sure boot installation length "L" is the length indicated below. Insert a flat-bladed screwdriver or similar tool into smaller side of boot. Bleed air from boot to prevent boot deformation.

Boot installation Length "L":

157.8 – 159.8 mm (6.21 – 6.29 in)



CAUTION:

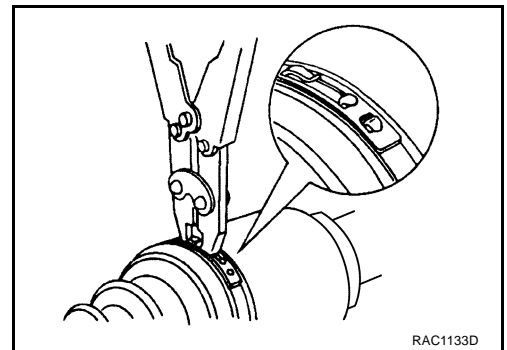
- Boot may break if boot installation length is less than standard value.
- Take care not to touch the tip of screwdriver to inside surface of boot.

9. Install new larger and smaller boot bands securely.

- a. For one-touch clamp band:

NOTE:

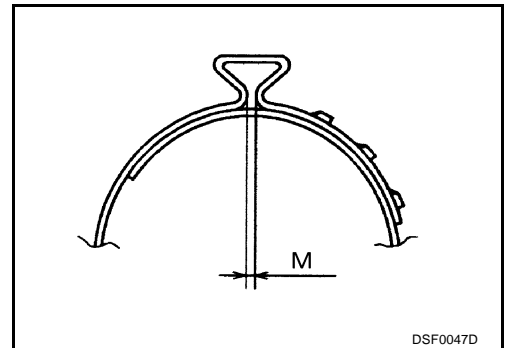
- Discard old boot bands; replace with new ones with a suitable tool.



- Secure boot band so that dimension "M" shown below right satisfies the following:

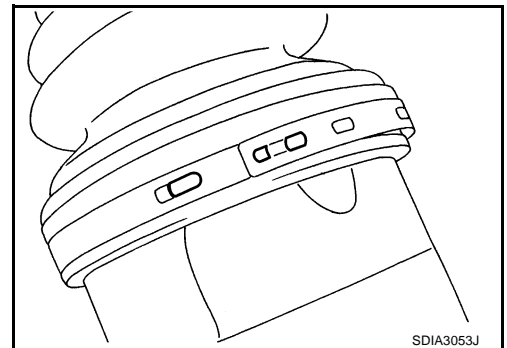
Large diameter side : 3.0 mm (0.118 in)

Small diameter side : 2.0 mm (0.079 in)



- b. For low profile type band:

- i. Set boot band in the specified grooves. Fit band's pawl to the grooves and tack them.



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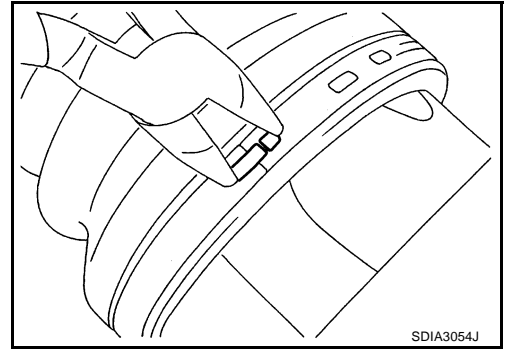
L

M

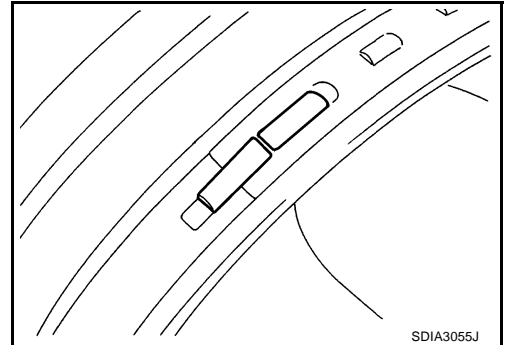
FRONT DRIVE SHAFT

[AWD]

- ii. Pull and tighten the pawls of tool hanger by using a pair of long-nose pliers.



- iii. Insert band's tip into end of tool pawl.
 - iv. Check if displacement occurs when rotating boot with housing and shaft fixed. Assemble them again with a new boot band if displacement occurs.
10. After installing housing and shaft, rotate boot to check whether or not the actual position is correct. If boot position is not correct, secure boot with new boot bands again.
 11. Install circular clip.

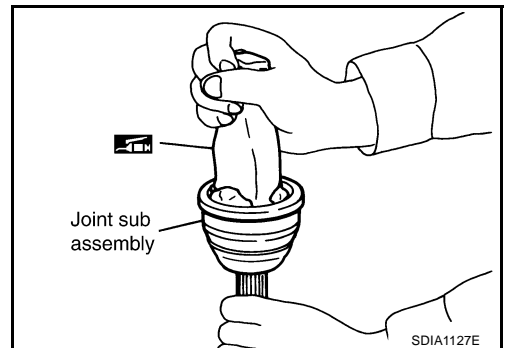


NOTE:

Discard old circular clip; replace with new one.

Wheel Side

1. Insert the amount grease (Nissan genuine grease or equivalent) into joint sub-assembly serration hole until grease begins to ooze from ball groove and serration hole. After inserting grease, use a shop cloth to wipe off old grease that has oozed out.

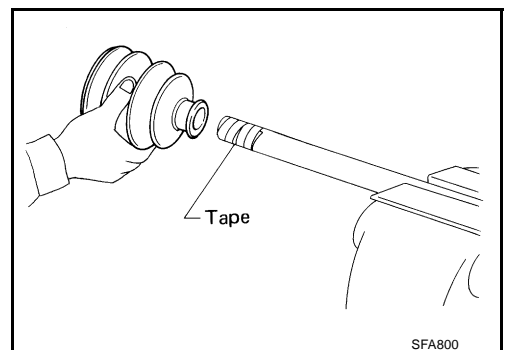


2. Wind serrated part of shaft with tape. Install boot band and boot to shaft. Be careful not to damage boot.

NOTE:

Discard old boot band and boot; replace with new ones.

3. Remove protective tape wound around serrated part of shaft.



FRONT DRIVE SHAFT

[AWD]

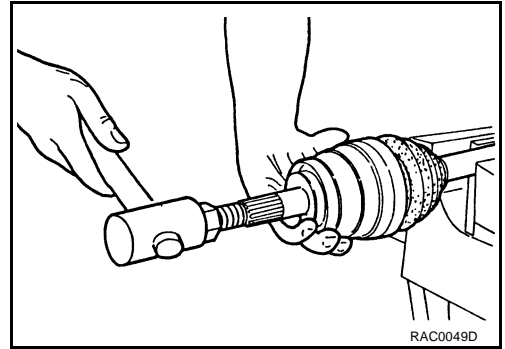
- Attach circular clip to shaft. At this time, circular clip must fit securely into shaft groove. Attach nut to joint sub-assembly. Use a wooden hammer to press-fit.

NOTE:

Discard old circular clip; replace with new one.

- Insert the specified amount of grease (Nissan genuine grease or equivalent) listed below into boot from large end of boot.

Grease amount : 95 – 115 g (3.35 – 4.06 oz)



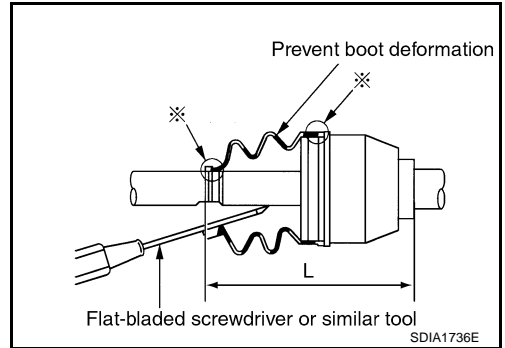
- Install boot securely into grooves (indicated by * marks) shown in the figure.

CAUTION:

If there is grease on boot mounting surfaces (indicated by* marks) of shaft and housing of joint sub-assembly, boot may come off. Remove all grease from surfaces.

- Make sure boot installation length “L” is the length indicated below. Insert a flat-bladed screwdriver or similar tool into smaller side of boot. Bleed air from boot to prevent boot deformation.

Boot installation length “L” : 136 mm (5.35 in)



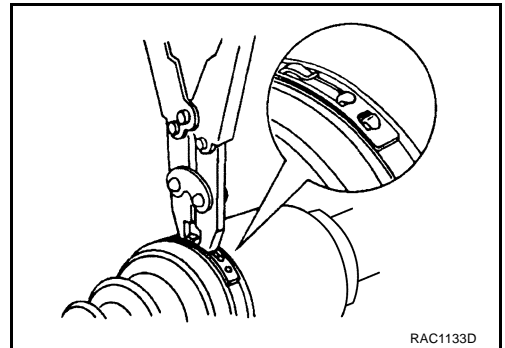
CAUTION:

- Boot may brake if boot installation length is less than standard value.
- Be careful that screwdriver tip does not contact inside surface of boot.

- Install new larger and smaller boot bands securely with a suitable tool.

NOTE:

- Discard old boot band; replace with new ones.

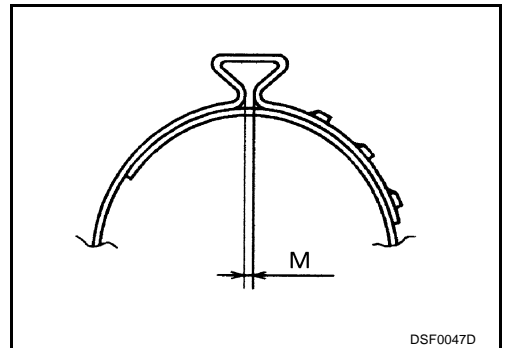


- Secure boot band so that dimension “M” shown below right satisfies the following:

Large diameter side : 3.0 mm (0.118 in)

Small diameter side : 2.0 mm (0.079 in)

- After installing joint sub-assembly and shaft, rotate boot to check whether or not the actual position is correct. If boot position is not correct, secure boot with new boot bands again.



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SERVICE DATA

[AWD]

SERVICE DATA

PFP:00030

Wheel Bearing

ADS0000R

Axial end play	0.05 mm (0.002 in) or less
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Drive Shaft

ADS0000S

Joint type	(Wheel side)	(Transaxle side)
Grease quantity	95 – 115 g (3.35 – 4.06 oz)	95 – 105 g (3.35 – 3.70 oz) (LH side) 113 – 123 g (3.99 – 4.34 oz) (RH side)
Boots installed length	136 mm (5.35 in)	95 – 97 mm (3.74 – 3.82 in) (LH side) 157.8 – 159.8 mm (6.21 – 6.29 in) (RH side)

Tightening Torque

ADS0000T

Drive shaft - Side flange	44.5 N·m (4.5 kg-m, 33 lb)
Hub lock nut	275 N·m (28 kg-m, 203 lb)