

SECTION **FAX**
FRONT AXLE

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FAX

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PRECAUTIONS

PRECAUTIONS

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Caution

NDS0008P

Observe the following precautions when disassembling and servicing drive shaft.

- Joint sub-assembly 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.

PREPARATION

PREPARATION

PFP:00002

Special Service Tools

NDS0008Q

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

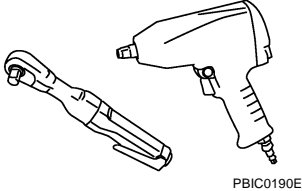
Tool number (Kent-Moore No.) Tool name	Description
HT72520000 (J-25730-A) Ball joint remover a: 33 mm (1.30 in) b: 50 mm (1.97 in) r: 11.5 mm (0.453 in)	Removing steering outer socket
KV40107300 (-) Boot band crimping tool	Installing boot band
KV40107500 (-) Drive shaft attachment	Removing drive shaft
ST17130000 (-) Drift a: 32 mm (1.26 in) dia. b: 60 mm (2.36 in) dia.	Removing support bearing
ST35271000 (-) Drift a: 72 mm (2.83 in) dia. b: 63 mm (2.48 in) dia.	Installing support bearing
ST33252000 (-) Drift a: 82 mm(3.23 in) dia. b: 60 mm (2.36 in) dia.	Installing support bearing

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PREPARATION

Commercial Service Tools

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Tool name	Description
<p data-bbox="140 259 252 285">Power tool</p>  <p data-bbox="833 463 906 478">PBIC0190E</p>	<p data-bbox="992 259 1248 285">Loosening bolts and nuts</p>

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

PPF:00003

NVH Troubleshooting Chart

NDS0008S

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

Reference page		—	—	—	—	—	—	—	—	—	—	—	—	
		FAX-16 , FAX-21		FAX-6										
		Excessive joint angle		Joint sliding resistance		Imbalance		Improper installation, looseness		Parts interference		FRONT AXLE AND FRONT SUSPENSION		
												FRONT AXLE		
												TIRES		
												ROAD WHEEL		
												DRIVE SHAFT		
												BRAKES		
												STEERING		
Symptom	DRIVE SHAFT	Noise	x	x						x	x	x	x	
		Shake	x		x					x	x	x	x	
	FRONT AXLE	Noise				x	x	x		x	x	x	x	x
		Shake				x	x	x		x	x	x	x	x
		Vibration				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			

x: Applicable

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FAX

FRONT WHEEL HUB AND KNUCKLE

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FRONT WHEEL HUB AND KNUCKLE

On-Vehicle Inspection

NDS0008T

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

WHEEL BEARING INSPECTION

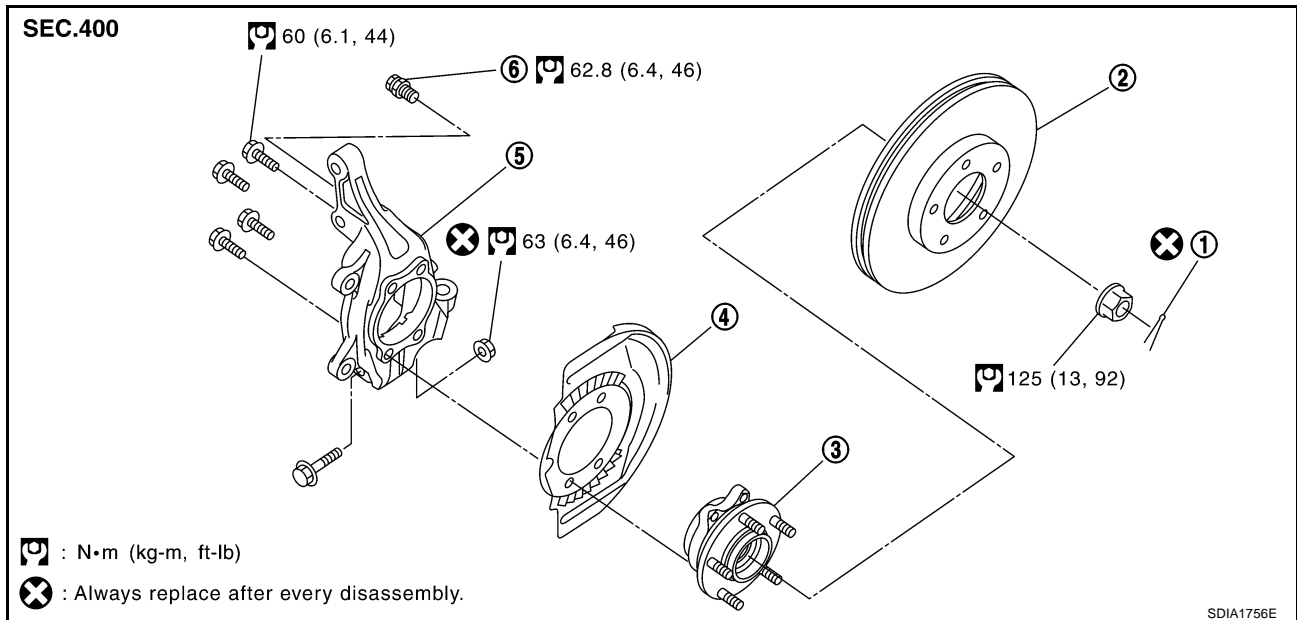
- Move wheel hub in the axial direction by hand. Make sure there is no looseness of wheel bearing.

Axial end play limit : 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 COMPONENTS

NDS0008U



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

REMOVAL

1. Remove tires from vehicle with power tool.
2. Remove torque member fixing bolts with power tool. Hang torque member in a place where it will not interfere with work. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#).

NOTE:

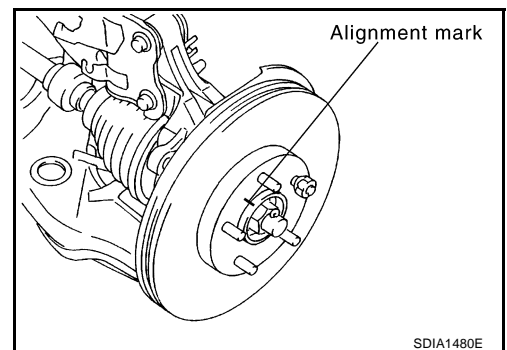
Avoid depressing brake pedal while brake caliper is removed.

3. Put alignment marks on disc rotor and wheel hub and bearing assembly, then remove disc rotor.
4. Remove wheel sensor from steering knuckle. Refer to [BRC-40, "WHEEL SENSORS"](#)

CAUTION:

Do not pull on wheel sensor harness.

5. Remove cotter pin, then remove lock nut from drive shaft.
6. Remove steering outer socket and cotter pin at steering knuckle, then loosen mounting nut.

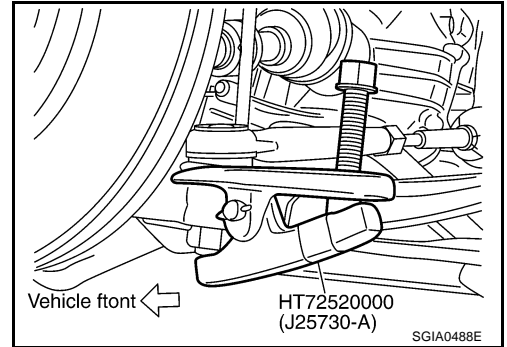


FRONT WHEEL HUB AND KNUCKLE

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

CAUTION:

To prevent damage to threads and to prevent ball joint remover (SST) from coming off suddenly, temporarily tighten mounting nut.



8. Using a puller (suitable tool), remove wheel hub and bearing assembly from drive shaft.

NOTE:

- When removing wheel hub and bearing assembly, 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 with out support.
9. Remove wheel hub and bearing assembly fixing bolt.
 10. Remove splash guard and wheel hub and bearing assembly from steering knuckle.
 11. Remove strut assembly and steering knuckle fixing bolts and nuts. Refer to [FSU-7, "Components"](#).
 12. Remove transverse link and steering knuckle fixing bolt and nut.
 13. Remove steering knuckle from vehicle.

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 ball joint. Refer to [FSU-12, "INSPECTION AFTER REMOVAL"](#).

INSTALLATION

CAUTION:

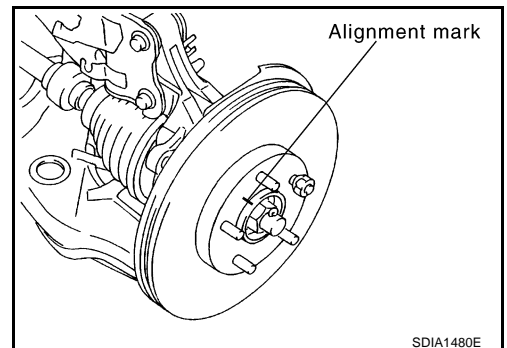
Be sure to replace the new differential side oil seal every removal of drive shaft. Refer to [CVT-213, "DIFFERENTIAL SIDE OIL SEAL"](#).

- Refer to [FAX-6, "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.

- To assemble disc rotor and wheel hub and bearing assembly, align the marks.
(When not using the alignment mark, refer to [BR-32, "DISC ROTOR INSPECTION"](#).)



FRONT DRIVE SHAFT

FRONT DRIVE SHAFT

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On-Vehicle Inspection

NDS000G4

- Check drive shaft mounting point and joint for looseness and other damage.
- Check boot for cracks and other damage.

CAUTION:

Replace entire drive shaft assembly when noise or vibration occur from drive shaft.

DRIVE SHAFT BOOT REPLACEMENT

1. Remove tires from vehicle with power tool.
2. Remove wheel sensor from steering knuckle. Refer to [BRC-40, "WHEEL SENSORS"](#).

CAUTION:

Do not pull on wheel sensor harness.

3. Remove torque member fixing bolts. Hang torque member in a place where it will not interfere with work. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#).

NOTE:

Do not depress brake pedal while brake caliper is removed.

4. Remove disc rotor. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#).
5. Remove cotter pin, then loosen hub lock nut with power tool.
6. Remove strut assembly and steering knuckle fixing bolts and nuts. Refer to [FSU-7, "Components"](#).
7. Separate wheel hub and bearing assembly from drive shaft by lightly tapping the end with hammer (suitable tool) and a wood block, and then remove hub lock nut.

CAUTION:

- Do not place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Do not allow drive shaft to hang down without support for housing (or joint sub-assembly), shaft and the other parts.

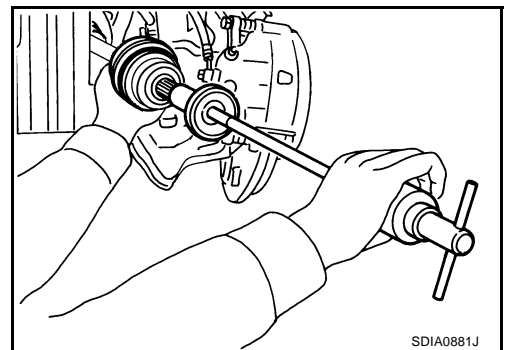
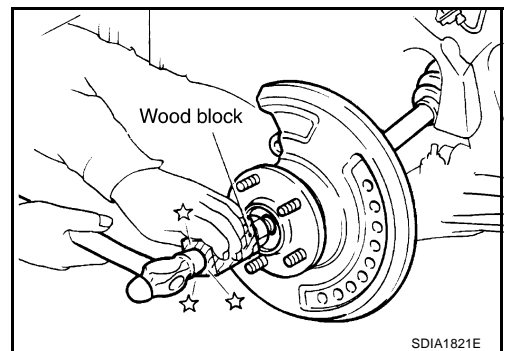
NOTE:

Use a puller (suitable tool) if wheel hub and drive shaft cannot be separated even after performing the above procedure.

8. Remove drive shaft from wheel hub and bearing assembly.
9. Remove boot bands, and then remove boot from joint sub-assembly.
10. Screw a drive shaft puller (suitable tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly with a sliding hammer (suitable tool) from shaft.

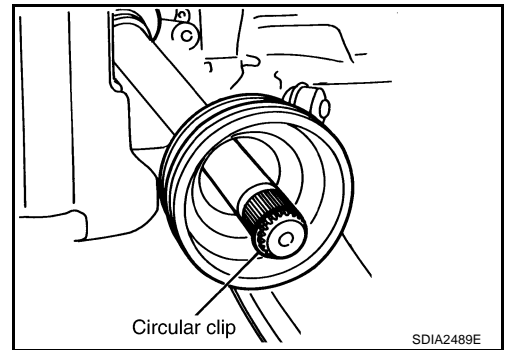
CAUTION:

- Align a sliding hammer and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be pulled out, try after removing drive shaft from vehicle.

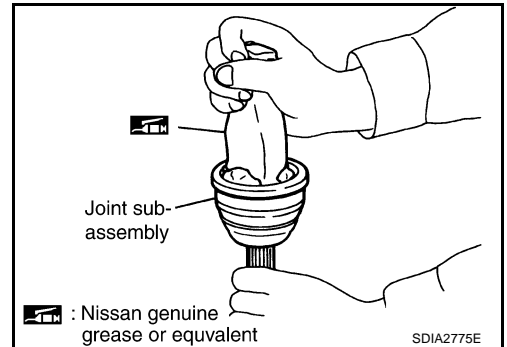


FRONT DRIVE SHAFT

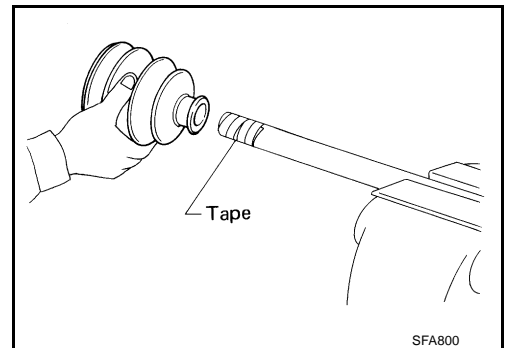
11. Remove circular clip from shaft.
12. Remove boot from shaft.
13. Clean the old grease on joint sub-assembly with paper towels.



14. Apply the specified amount of grease (NISSAN genuine grease or equivalent) inside joint sub-assembly serration hole until grease begins to ooze from ball groove and serration hole. After applying grease, use a shop cloth to wipe off old grease that has oozed out.



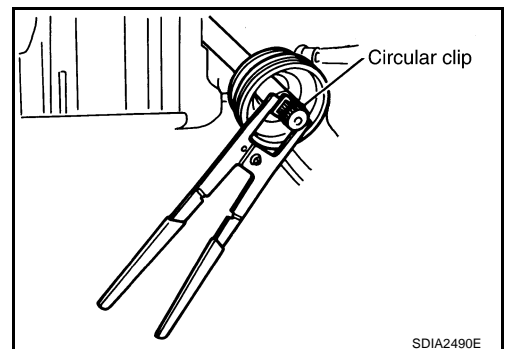
15. Wrap serration on shaft with tape to protect the boot from damage. Install new boot and boot bands to shaft.
16. Remove the tape wrapped around the serration on shaft.



17. Position circular clip on groove at the shaft edge. Align both counter axles of the shaft edge and joint sub-assembly. Then, assemble shaft with circular clip onto joint sub-assembly.

NOTE:

Drive joint inserter (suitable tool) is recommended when installing circular clip.



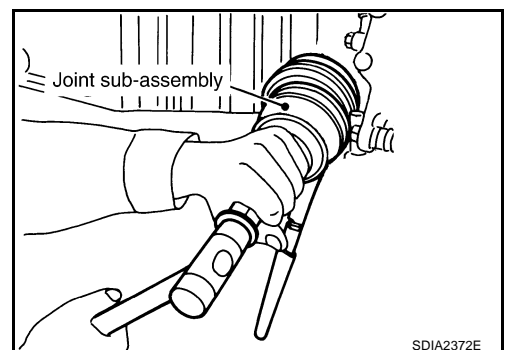
18. Install joint sub-assembly to shaft using plastic hammer.

CAUTION:

Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.

19. Apply the balance of the specified amount of grease (NISSAN genuine grease or equivalent) into the boot inside from large diameter side of boot.

Grease amount : 145 – 165 g (5.11 – 5.82 oz)



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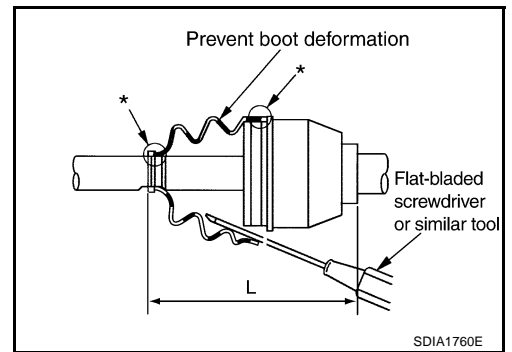
FRONT DRIVE SHAFT

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

CAUTION:

If grease adheres to the boot mounting surfaces (indicated by * marks) on the shaft and joint sub-assembly, boot may come off. Remove all grease from surfaces.

21. To prevent from the deformation of the boot, adjust the boot installation length to the specified value shown below (L) by inserting the flat-bladed screwdriver into inside of the boot from the large diameter side of the boot and discharging the inside air.

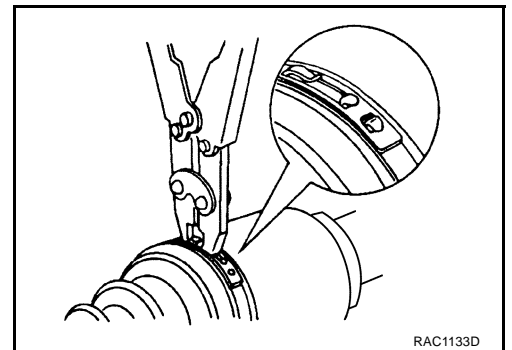


Boot installation lengthy (L) : 170.3 mm (6.70 in)

CAUTION:

- If the boot mounting length is outside the standard, it may cause breakage in the boot.
- Be careful not to touch the inside of the boot with a tip of a flat-bladed screwdriver.

22. Secure the large and small ends of the boot with new boot bands using the boot band crimping tool [SST: KV40107300 (-)] as shown in the figure.

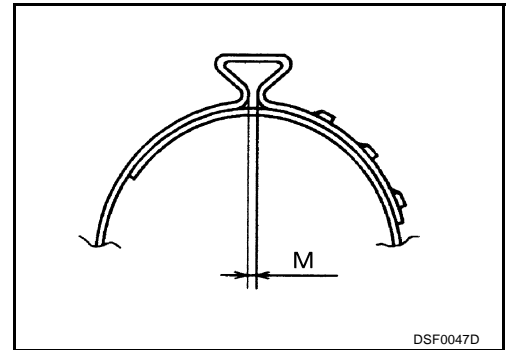


NOTE:

Secure boot band so that dimension "M" meets the specification as shown.

Dimension "M" : 2.0 – 3.0 mm (0.079 – 0.118 in)

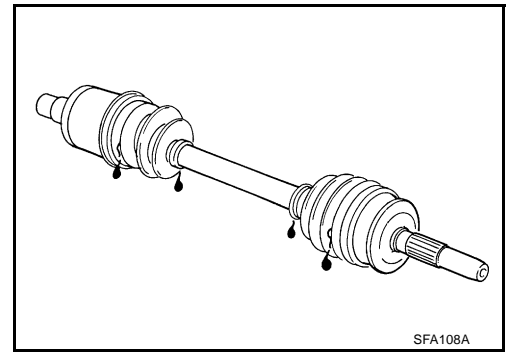
23. Secure joint sub-assembly and shaft, and then make sure that they are in the correct position when rotating boot. Install them with new boot band when boot installation positions become incorrect.
24. Insert drive shaft to wheel hub and bearing assembly, and then temporarily tighten hub lock nut.
25. Install nuts and bolts to steering knuckle and strut. Refer to [FSU-7, "Components"](#), "FRONT SUSPENSION ASSEMBLY" for tightening torque.



26. Install disc rotor. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#).
27. Install torque member fixing bolts to steering knuckle. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#).
28. Install wheel sensor to steering knuckle. Refer to [BRC-40, "WHEEL SENSORS"](#).
29. Tighten the hub lock nut to the specified torque. Refer to [FAX-6, "COMPONENTS"](#).
30. Install cotter pin.
31. Install tires to vehicle.

FRONT DRIVE SHAFT

- 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

CAUTION:

Be sure to replace the new transaxle side oil seal every removal of drive shaft. Refer to [CVT-213, "DIFFERENTIAL SIDE OIL SEAL"](#) .

- Refer to [FAX-11, "Removal and Installation \(Left Side\)"](#) for tightening torque. Install in the reverse order of removal.

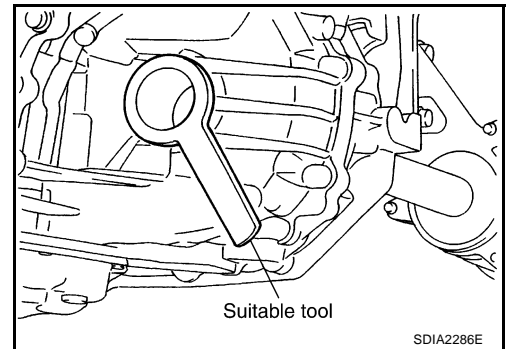
CAUTION:

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

- In order to prevent damage to transaxle side oil seal, first fit a protector (suitable tool) onto oil seal before inserting drive shaft. Slide drive shaft into slide joint and tap with a hammer to install securely.

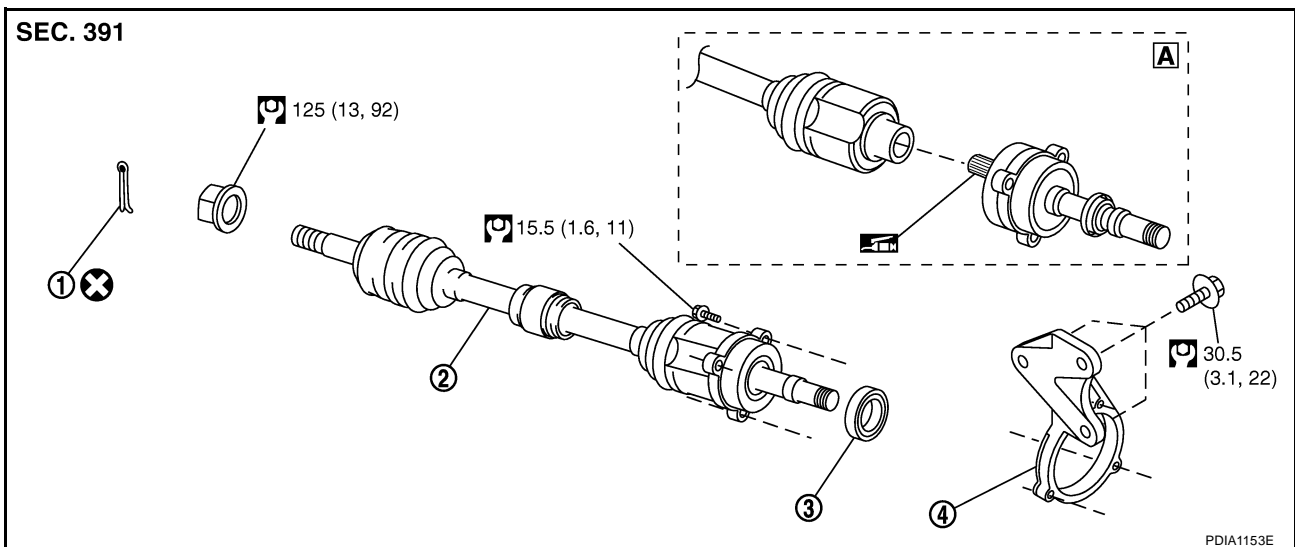
CAUTION:

Be sure to make sure circular clip is securely fastened.



Removal and Installation (Right Side) COMPONENTS

NDS0008W



1. Cotter pin
2. Drive shaft
3. Dust shield
4. Support bearing bracket

A: AWD models

Refer to [GI-10, "Components"](#) and the followings for the symbols in the figure.

: Apply NISSAN genuine grease or equivalent.

FRONT DRIVE SHAFT

REMOVAL

2WD Models

1. Remove tires from vehicle with power tool.
2. Remove wheel sensor from steering knuckle. Refer to [BRC-40, "WHEEL SENSORS"](#) .

CAUTION:

Do not pull on wheel sensor harness.

3. Remove torque member fixing bolts. Hang torque member in a place where it will not interfere with work. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#) .

NOTE:

Do not depress brake pedal while brake caliper is removed.

4. Remove disc rotor. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#) .

5. Remove cotter pin, then loosen hub lock nut with power tool.

6. Remove strut assembly and steering knuckle fixing bolts and nuts. Refer to [FSU-7, "Components"](#) .

7. Separate wheel hub and bearing assembly from drive shaft by lightly tapping the end with hammer (suitable tool) and a wood block, and then remove hub lock nut.

CAUTION:

- Do not place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Do not allow drive shaft to hang down without support for housing (or joint sub-assembly), shaft and the other parts.

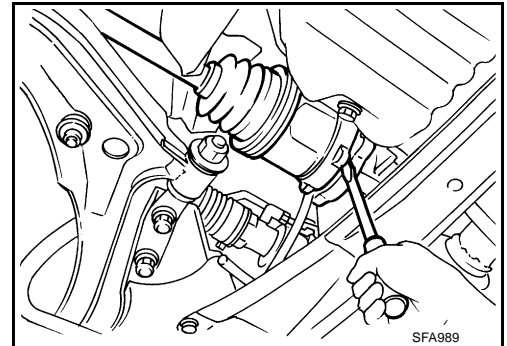
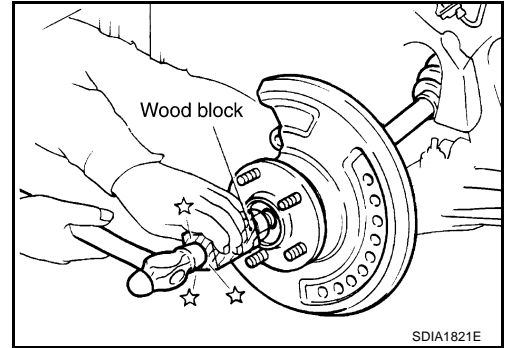
NOTE:

Use a puller (suitable tool) if wheel hub and drive shaft cannot be separated even after performing the above procedure.

8. Remove support bearing bolts using power tool, and pull drive shaft from transaxle.

- Pry off drive shaft from transaxle.

9. Remove fixing bolts between support bearing bracket and engine cylinder block, then remove support bearing bracket from vehicle.



AWD Models

1. Remove tires from vehicle with power tool.
2. Remove wheel sensor from steering knuckle. Refer to [BRC-40, "WHEEL SENSORS"](#) .

CAUTION:

Do not pull on wheel sensor harness.

3. Remove torque member fixing bolts. Hang torque member in a place where it will not interfere with work. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#) .

NOTE:

Do not depress brake pedal while brake caliper is removed.

4. Remove disc rotor. Refer to [BR-29, "Removal and Installation of Brake Caliper Assembly"](#) .

5. Remove cotter pin, then loosen hub lock nut with power tool.

6. Remove strut assembly and steering knuckle fixing bolts and nuts. Refer to [FSU-7, "Components"](#) .

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FRONT DRIVE SHAFT

7. Separate wheel hub and bearing assembly from drive shaft by lightly tapping the end with hammer (suitable tool) and a wood block, and then remove hub lock nut.

CAUTION:

- Do not place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Do not allow drive shaft to hang down without support for housing (or joint sub-assembly), shaft and the other parts.

NOTE:

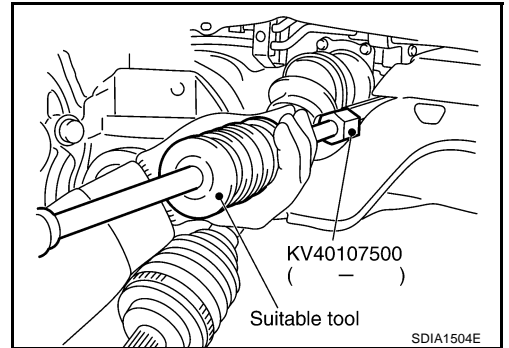
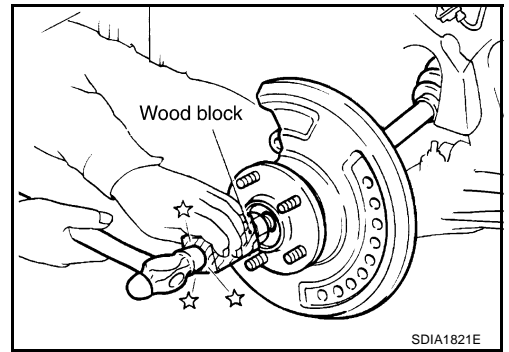
Use a puller (suitable tool) if wheel hub and drive shaft cannot be separated even after performing the above procedure.

8. Remove drive shaft from side shaft.

- Set an drive shaft attachment (SST) and a drive shaft puller (suitable tool) between drive shaft (slide joint side) and side shaft as shown in the figure and remove drive shaft.

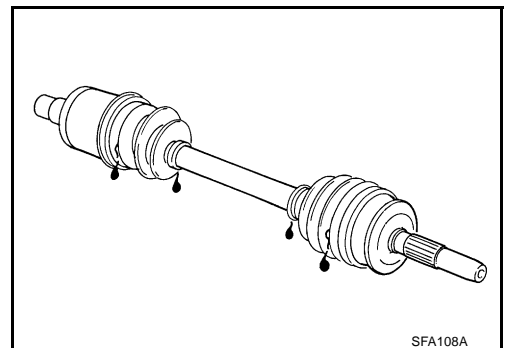
9. Remove fixing bolts between side shaft and support bearing bracket, and pull side shaft from transaxle.

10. Remove fixing bolts between support bearing bracket and engine cylinder block, then remove support bearing bracket from vehicle.



INSPECTION AFTER REMOVAL

- Move joint up/down, left/right, and in 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 [RAX-7, "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.

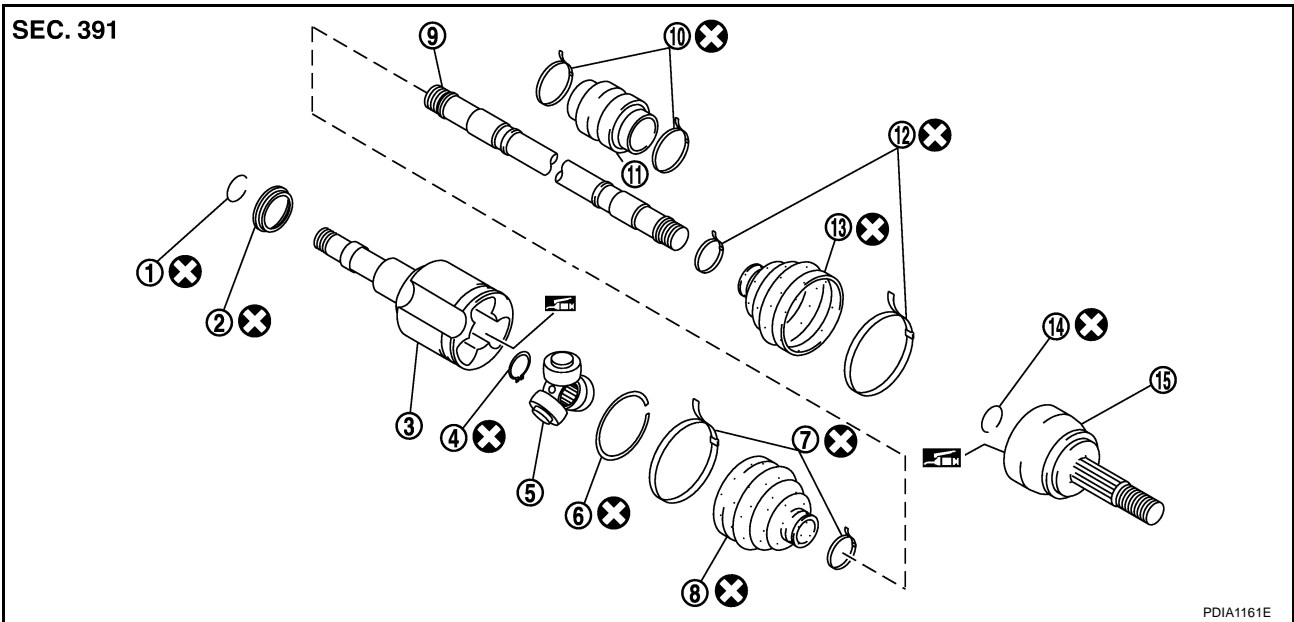
- Push drive shaft, then press-fit circular clip on the drive shaft into circular clip groove of side gear.
- After its insertion, try to pull the flange out of the slide joint by hand. If it pulls out, the circular clip is not properly meshed with the side gear.

FRONT DRIVE SHAFT

Disassembly and Assembly (Left Side) COMPONENTS


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| 1. Circular clip | 2. Dust shield | 3. Housing assembly |
| 4. Snap ring | 5. Spider assembly | 6. Stopper ring |
| 7. Boot band (Transaxle side) | 8. Boot (Transaxle side) | 9. Shaft |
| 10. Damper band | 11. Dynamic Damper | 12. Boot band (Wheel side) |
| 13. Boot (Wheel side) | 14. Circular clip | 15. Joint sub-assembly |

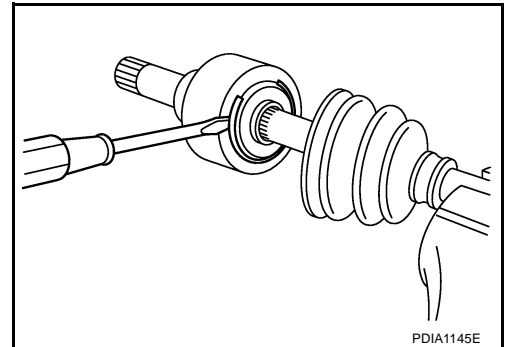
Refer to [GI-10. "Components"](#) and the followings for the symbols in the figure.

 : Fill NISSAN genuine grease or equivalent.

DISASSEMBLY

Transaxle Side

- Press shaft in a vise.
 - CAUTION:**
When retaining shaft in a vise, always use copper or aluminum plates between vise and shaft.
- Remove boot bands.
- Put matching marks on housing assembly and shaft before separating housing assembly.
 - CAUTION:**
Use paint or similar substance for matching marks. Do not scratch the surfaces.
- Remove stopper ring with a flat-bladed screwdriver, and pull out side joint housing assembly.

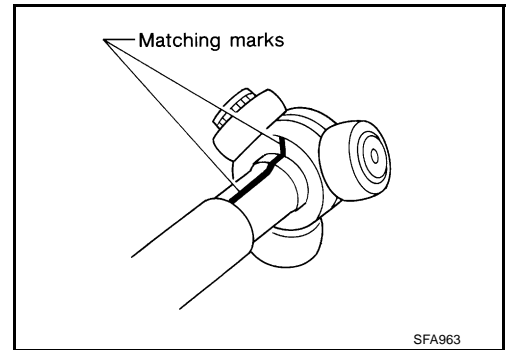


FRONT DRIVE SHAFT

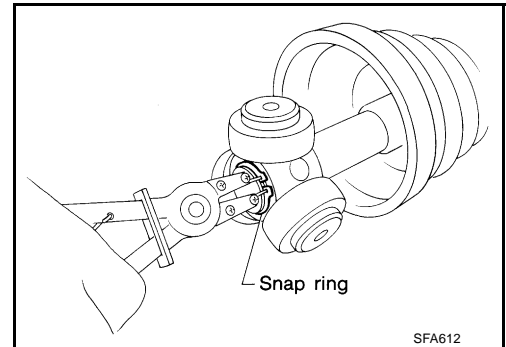
- Put matching marks on spider assembly and shaft.

CAUTION:

Use paint or similar substance for matching marks. Do not scratch the surfaces.



- Remove snap ring, then remove spider assembly from shaft.
- Remove boot from shaft.
- Remove dust shield from housing assembly
- Remove circular clip from housing assembly (shaft part).
- Remove old grease on housing assembly with paper towels.



Wheel Side

- Place shaft in a vise.

CAUTION:

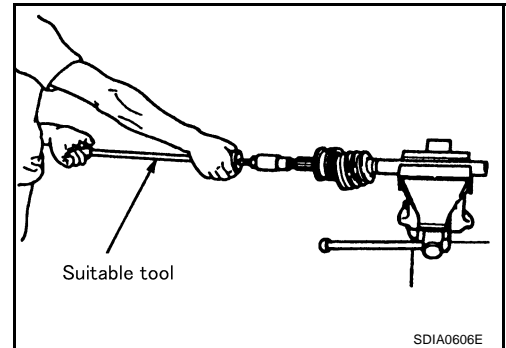
When retaining shaft in a vise, always use copper or aluminum plates between vise and shaft.

- 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 the entire drive shaft assembly.
- 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.



Damper

- Remove damper band, then remove damper from shaft.

INSPECTION AFTER DISASSEMBLY

Shaft

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

Joint Sub-Assembly (Wheel side)

Check the followings, and then replace joint sub-assembly if a malfunction is detected.

- 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 scars, cracks or fractures.

Housing and Spider Assembly (Transaxle side)

Replace housing and spider assembly if there is scratching or wear of housing roller contact surface or spider roller contact surface.

FRONT DRIVE SHAFT

NOTE:

Housing and spider assembly are used in a set.

Dynamic Damper

- Check damper for cracks or wear. Replace damper with new damper bands.

ASSEMBLY

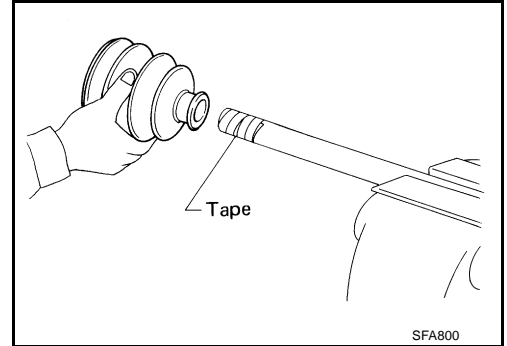
Transaxle Side

1. Install new boot and new small boot band on shaft.

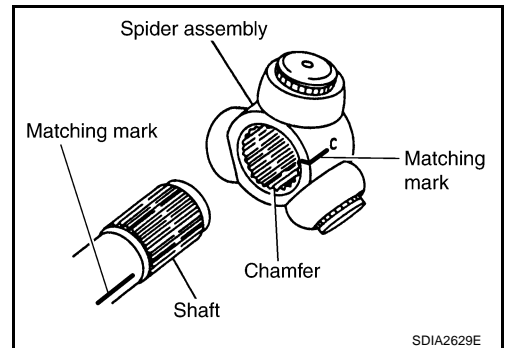
CAUTION:

Cover drive shaft serration with tape to prevent damages to boot during installation.

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

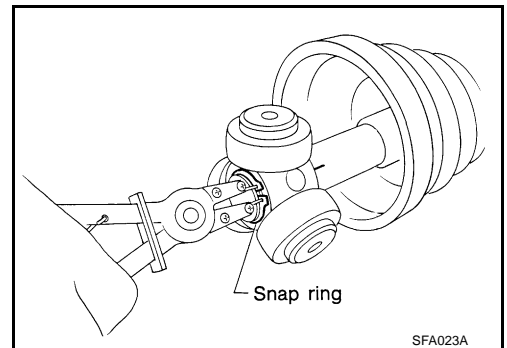


3. Install spider assembly securely, making sure the matching marks which were made during disassembly are properly aligned.



4. Install new snap ring.
5. Apply the appropriate amount of grease (NISSAN genuine grease or equivalent) to spider assembly and sliding surface.
6. Assemble the housing onto spider assembly, and apply the balance of the specified amount grease (NISSAN genuine grease or equivalent).

Grease amount : 265 – 285 g (9.35 – 10.05 oz)



7. Install new stopper ring to housing assembly.

CAUTION:

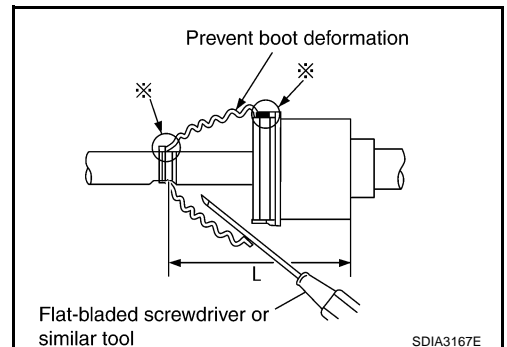
After installed, pull shaft to check engagement between housing assembly and stopper ring.

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. To prevent from the deformation of the boot, adjust the boot installation length to the specified value shown below "L" by inserting the flat-bladed screwdriver into inside of the boot from the large diameter side of the boot and discharging the inside air.



FRONT DRIVE SHAFT

Boot installation length " L "

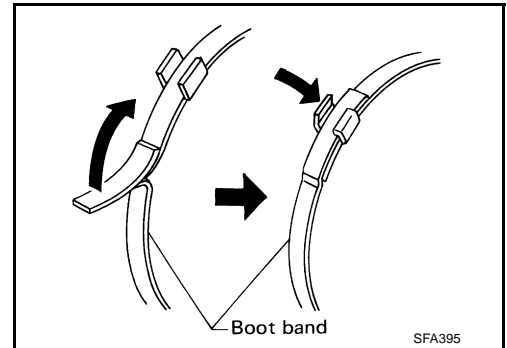
2WD models: 172.1 mm (6.78 in)

AWD models: 171.1 mm (6.74 in)

CAUTION:

- If the boot mounting length is outside the standard, it may cause breakage in the boot.
- Be careful not to touch the inside of the boot with a tip of a flat-bladed screwdriver.

10. Secure big and small ends of boot with new boot bands as shown in the figure.
11. After installing housing 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.
12. Install dust shield to housing assembly.
13. Install circular clip to housing assembly (shaft part).



Wheel Side

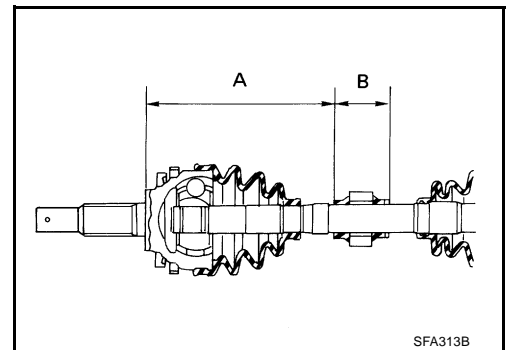
Assemble in step 14 to 23 of [FAX-8. "DRIVE SHAFT BOOT REPLACEMENT"](#)

Dynamic Damper

1. Use new damper bands when installing.
2. Install damper from stationary-joint side while holding it securely.

"A" : 207 – 213 mm (8.15 – 8.39 in)

"B" : 70 mm (2.76 in)

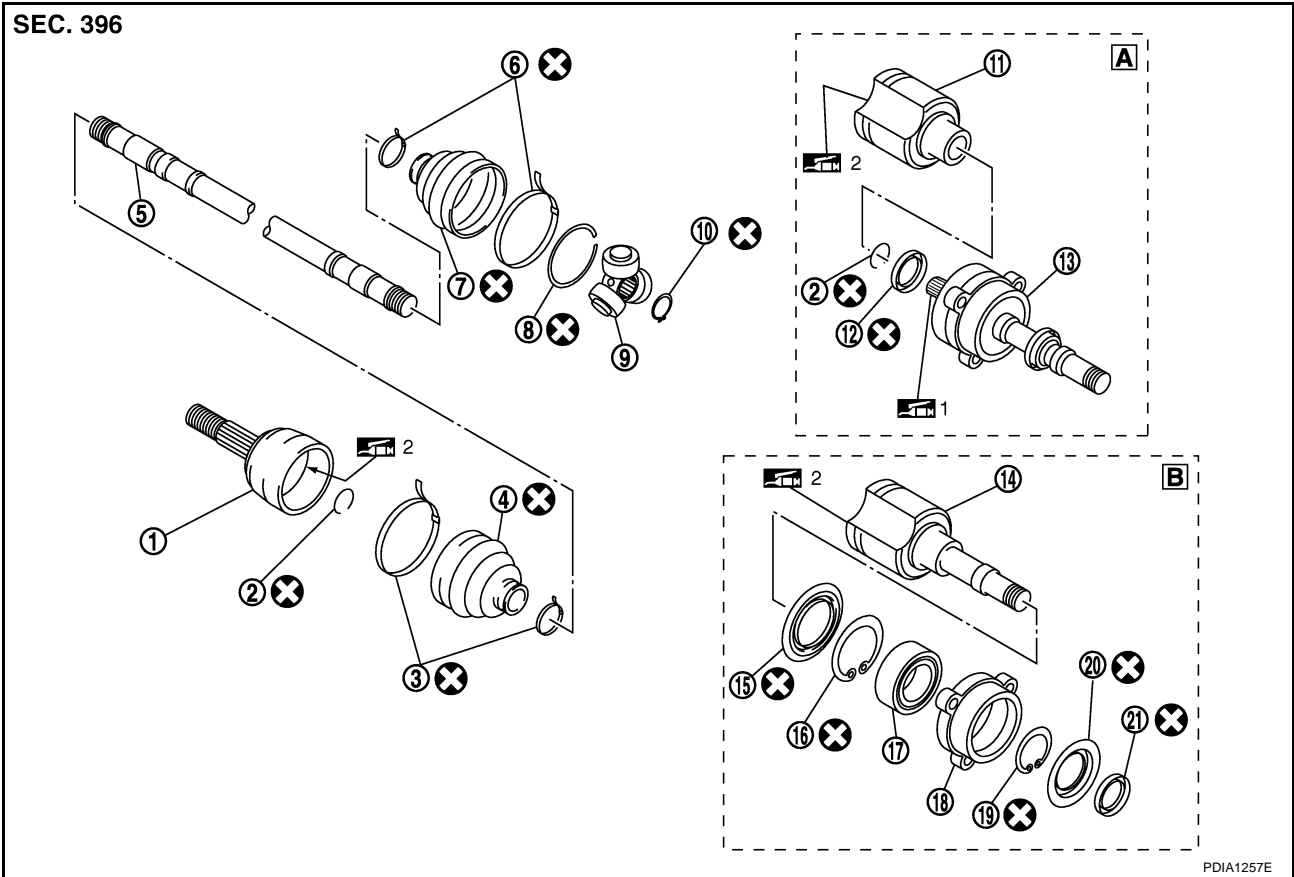


FRONT DRIVE SHAFT

NDS0008Y

Disassembly and Assembly (Right Side) COMPONENTS

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|--------------------------|----------------------|-------------------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band (wheel side) |
| 4. Boot (wheel side) | 5. Shaft | 6. Boot band (Transaxle side) |
| 7. Boot (Transaxle side) | 8. Stopper ring | 9. Spider assembly |
| 10. Snap ring | 11. Housing assembly | 12. Dust shield |
| 13. Side shaft | 14. Housing assembly | 15. Dust shield |
| 16. Snap ring | 17. Bearing | 18. Bracket |
| 19. Snap ring | 20. Dust shield | 21. Dust shield |

A: AWD models

B: 2WD models

Refer to [GI-10, "Components"](#) and the followings for the symbols in the figure.

1: Apply MOLYLEX CS NO.1 or equivalent.

2: Fill NISSAN genuine grease or equivalent.

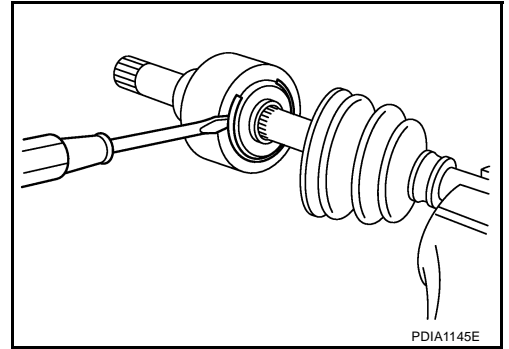
DISASSEMBLY

Transaxle Side

- Press shaft in a vise.
CAUTION:
When retaining shaft in a vise, always use copper or aluminum plates between vise and shaft.
- Remove boot bands.
- Put matching marks on housing assembly and shaft before separating housing assembly.
CAUTION:
Use paint or similar substance for matching marks. Do not scratch the surfaces.

FRONT DRIVE SHAFT

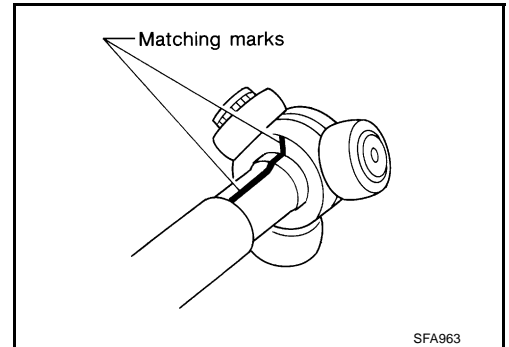
- Remove stopper ring with a flat-bladed screwdriver, and pull out housing assembly.



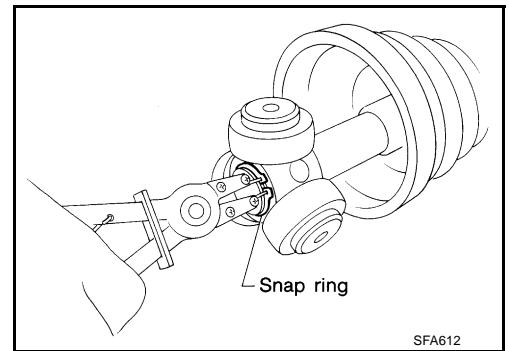
- Put matching marks on spider assembly and shaft.

CAUTION:

Use paint or similar substance for matching marks. Do not scratch the surfaces.



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



Wheel Side

- Place shaft in a vise.

CAUTION:

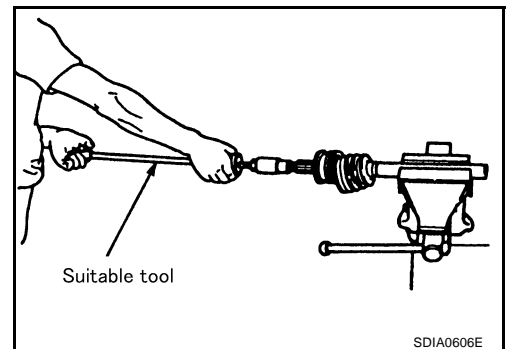
When retaining shaft in a vise, always use copper or aluminum plates between vise and shaft.

- 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 the entire drive shaft assembly.
- Align sliding hammer and drive shaft and remove them by pulling directly.

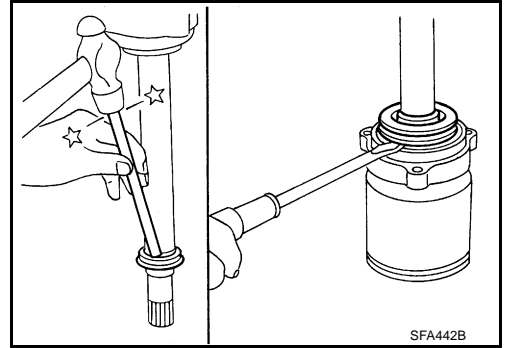
- Remove boot from shaft.
- Remove circular clip from shaft.
- While rotating ball cage, remove old grease on joint sub-assembly with paper towels.



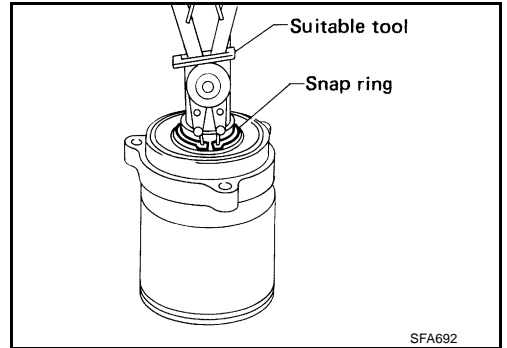
FRONT DRIVE SHAFT

Support Bearing (2WD Models)

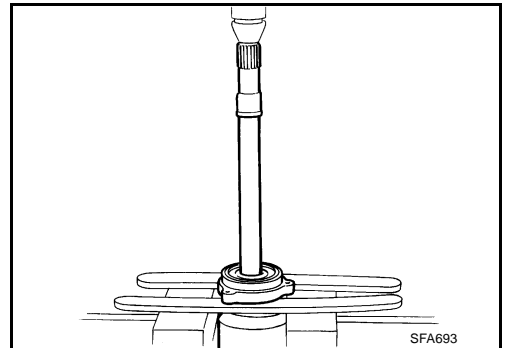
1. Remove dust shield from housing using a brass rod and flat-bladed screwdriver.



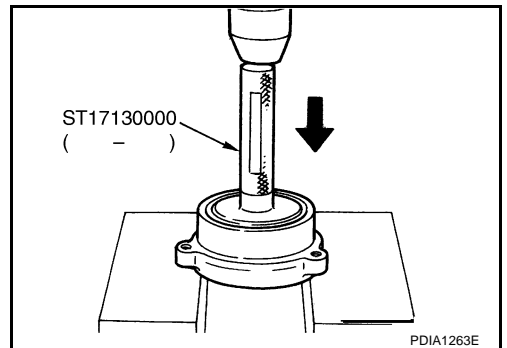
2. Remove snap ring from housing using a snap ring pliers (suitable tool).



3. Press out retainer and support bearing from housing.



4. Remove snap ring, and then remove support bearing from retainer using the drift [SST].
5. Remove dust shield from housing assembly.



Side Shaft (AWD Models)

Remove dust shield from side shaft using a brass rod and flat-bladed screwdriver.

INSPECTION AFTER DISASSEMBLY

Shaft

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

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FRONT DRIVE SHAFT

Joint Sub-Assembly (Wheel side)

Check the followings, and then replace joint sub-assembly if a malfunction is detected.

- 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 scars, crack or fractures.

Housing and Spider Assembly (Transaxle side)

Replace housing and spider assembly if there is scratching or wear of housing roller contact surface or spider roller contact surface.

NOTE:

Housing and spider assembly are used in a set.

Support Bearing (2WD Models)

Make sure wheel bearing rolls freely and is free from noise, cracks, pitting or wear.

Side shaft (AWD Models)

Check side shaft for runout, cracks, or other damage. Replace if there are.

ASSEMBLY

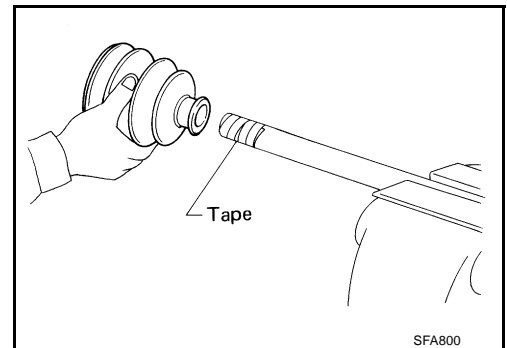
Transaxle Side

1. Install new boot and new small boot band on shaft.

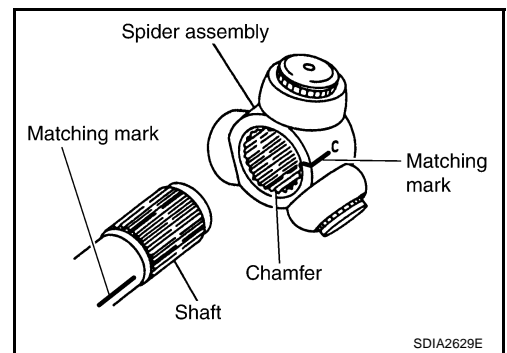
CAUTION:

Cover shaft serration with tape to prevent damage to boot during installation.

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



3. Install spider assembly securely, making sure the matching marks which were made during disassembly are properly aligned.



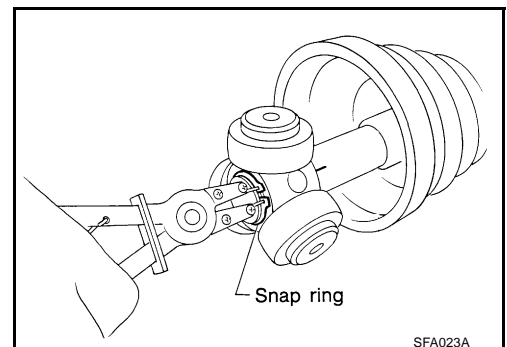
4. Install new snap ring.
5. Apply the appropriate amount of grease (NISSAN genuine grease or equivalent) to spider assembly and sliding surface.
6. Assemble the housing onto spider assembly, and apply the balance of the specified amount of grease (NISSAN genuine grease or equivalent).

Grease amount : 265 – 285 g (9.35 – 10.05 oz)

7. Install new stopper ring to housing assembly.

CAUTION:

After installed, pull shaft to check engagement between housing assembly and stopper ring.



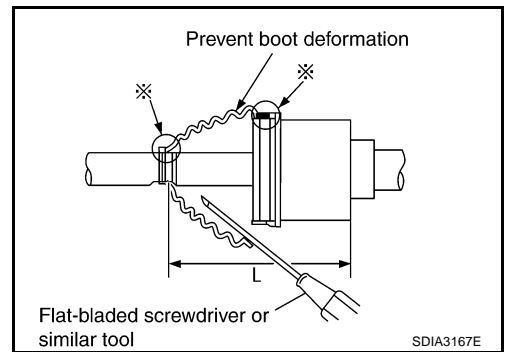
FRONT DRIVE SHAFT

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. To prevent from the deformation of the boot, adjust the boot installation length to the specified value shown below "L" by inserting the flat-bladed screwdriver into inside of the boot from the large diameter side of the boot and discharging the inside air.



Boot installation length " L "

2WD models: 172.1 mm (6.78 in)

AWD models: 171.1 mm (6.74 in)

CAUTION:

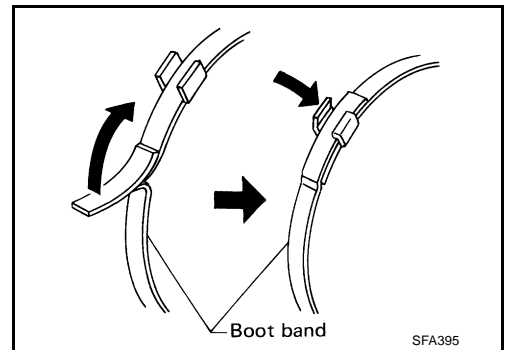
- If the boot mounting length is outside the standard, it may cause breakage in the boot.
- Be careful not to touch the inside of the boot with a tip of a flat-bladed screwdriver.

10. Secure big and small ends of boot with new boot bands as shown in the figure.

CAUTION:

Discard old boot band; replace with new ones.

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 band again.

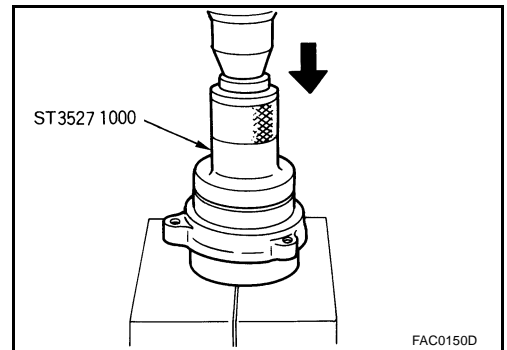


Wheel Side

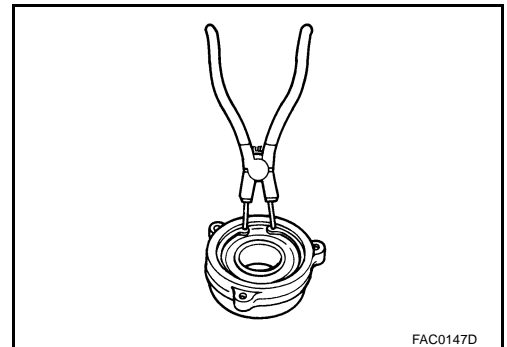
Assemble in step 14 to 23 of [FAX-8, "DRIVE SHAFT BOOT REPLACEMENT"](#) .

Support Bearing (2WD Models)

1. Install support bearing into retainer using the drift [SST].



2. Install snap ring to retainer.
3. Install dust shield to housing.

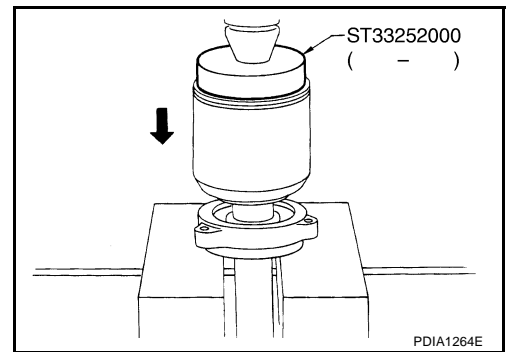


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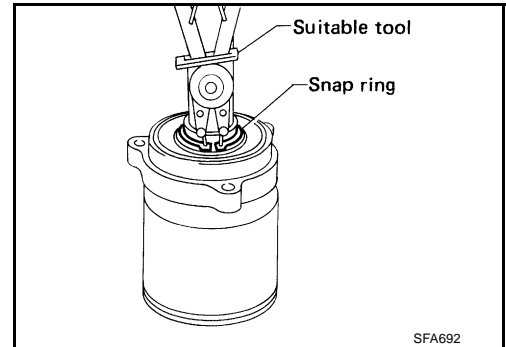
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FRONT DRIVE SHAFT

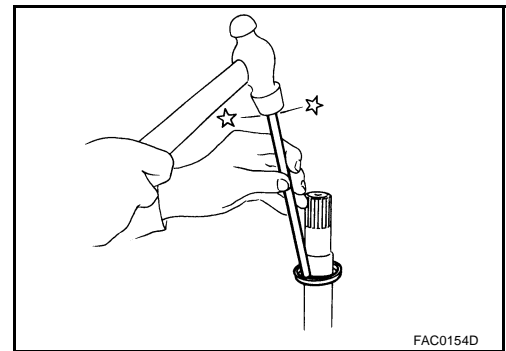
4. Install support bearing and retainer to housing using the drift [SST].



5. Install snap ring to housing assembly using a snap ring pliers (suitable tool).



6. Install dust shield to housing using a brass rod and flat-bladed screwdriver.



Side Shaft (AWD Models)

Install dust shield to side shaft using a brass rod and flat-bladed screwdriver.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

PPF:00030

Wheel Bearing

NDS0008Z

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

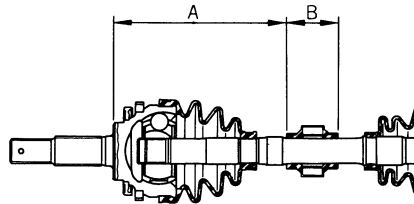
NDS00090

Joint type	Wheel side	Transaxle side
Grease quantity	145 – 165 g (5.11 – 5.82 oz)	265 – 285 g (9.35 – 10.05 oz)
Boots installed length	170.3 mm (6.70 in)	2WD: 172.1 mm (6.78 in) AWD: 171.1 mm (6.74 in)

Dynamic Damper

NDS0009L

Dimension A	207 – 213 mm (8.15 – 8.39 in)
Dimension B	70 mm (2.76 in)



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SERVICE DATA AND SPECIFICATIONS (SDS)
