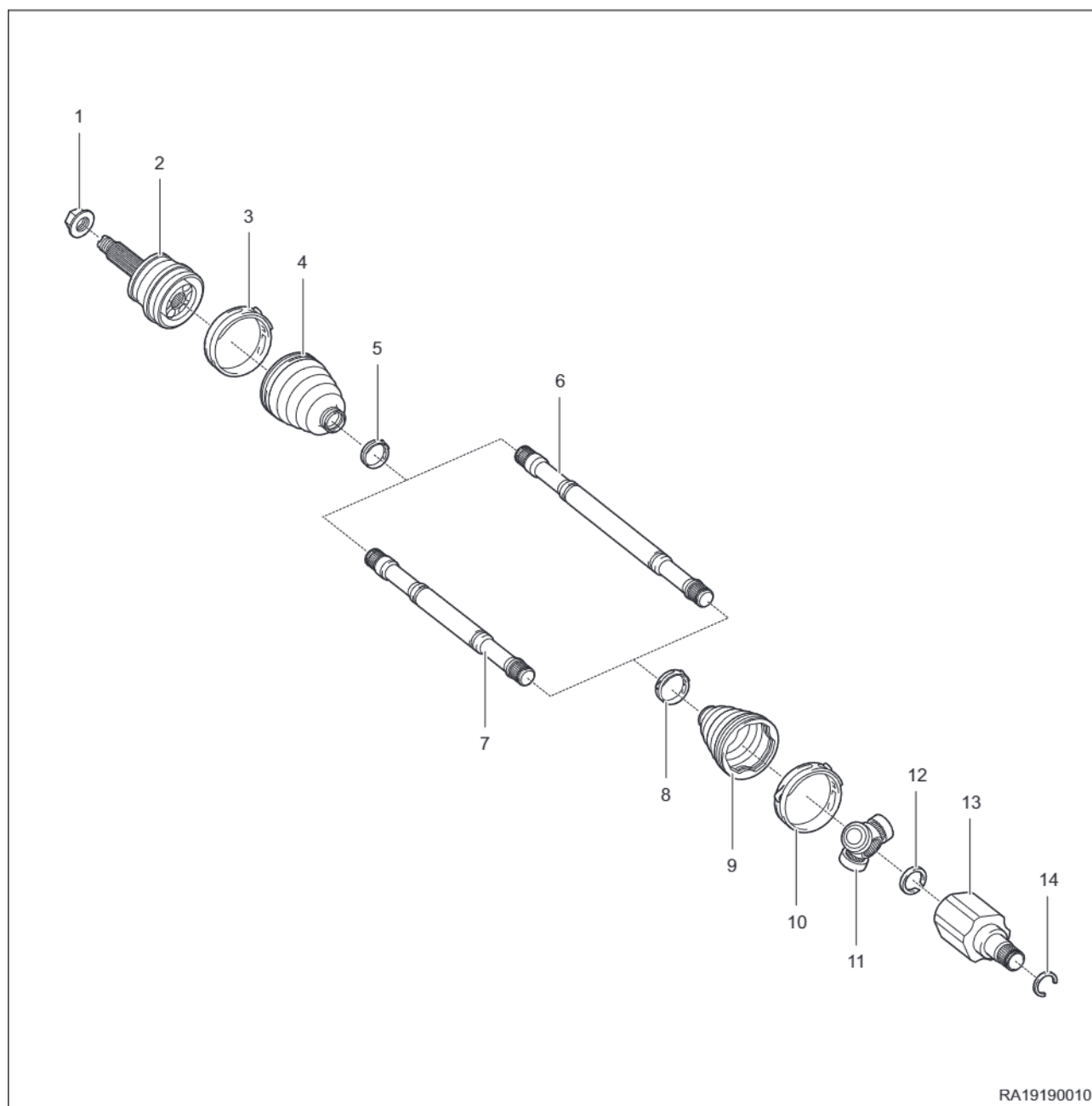

DRIVE SHAFT

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GENERAL INFORMATION

Description



19

1 - Nut	2 - Outer Ball Cage
3 - Outer Dust Boot Clamp	4 - Outer Dust Boot
5 - Outer Dust Boot Clamp	6 - Right Drive Shaft
7 - Left Drive Shaft	8 - Inner Dust Boot Clamp
9 - Inner Dust Boot	10 - Inner Dust Boot Clamp
11 - Tripod	12 - Positioning Snap Spring
13 - Inner Ball Cage	14 - Set Ring

Operation

The drive shaft assembly, which is a solid shaft, transmits the torque between differential and drive wheels. Generally, the inner end of the drive shaft is connected with the differential assembly gear by spline, and the outer end is connected with the wheel hub by spline. The drive shaft assembly transmits the torque from the differential to the wheels, thus rotating the wheels to run the vehicle.

Specifications

Torque Specifications

Description	Torque (N·m)
Speed Sensor Fixing Bolt	10 ± 1.5
Front Brake Hose Bracket Fixing Bolt	10 ± 1.5
Coupling Bolt Between Steering Knuckle and Shock Absorber	110 ± 10
Drive Shaft Assembly Fixing Nut	240 ± 20

ON-VEHICLE SERVICE

Drive Shaft Assembly

Removal

HINT:

Use the same removal and installation procedures for the left and right drive shaft assemblies.

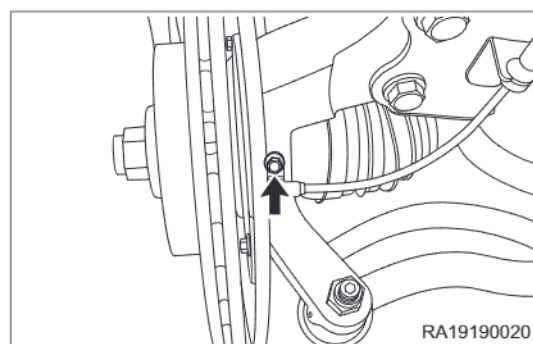
1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the front wheel ([See page 23-10](#))
4. Drain the transmission oil ([See page 17-12](#))



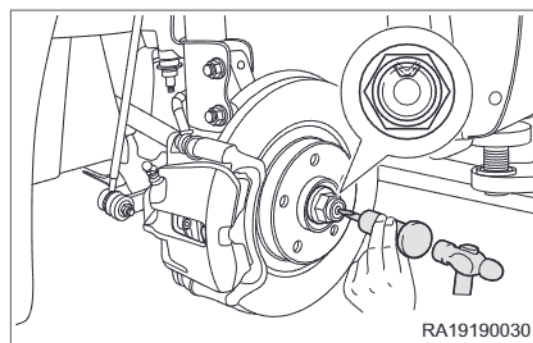
ENVIRONMENTAL PROTECTION

- The drained transmission fluid should be collected with a recovering tool.

5. Remove the wheel speed sensor
 - a. Remove the fixing bolt (arrow) from the wheel speed sensor, and remove the wheel speed sensor.
(Tightening torque: $10 \pm 1.5 \text{ N}\cdot\text{m}$)



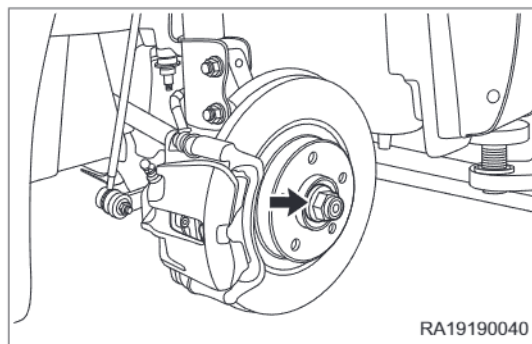
6. Remove the fixing nut from the drive shaft assembly.
 - a. Using a nut chisel and hammer, loosen the staked part of nut.



CAUTION

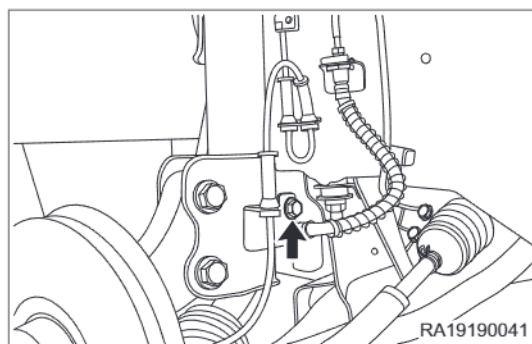
- Be sure to loosen the staked part of fixing nut completely, as the threads of drive shaft assembly may be damaged.

- b. While applying brake, remove the drive shaft assembly fixing nut (arrow).
(Tightening torque: 240 ± 20 N·m)

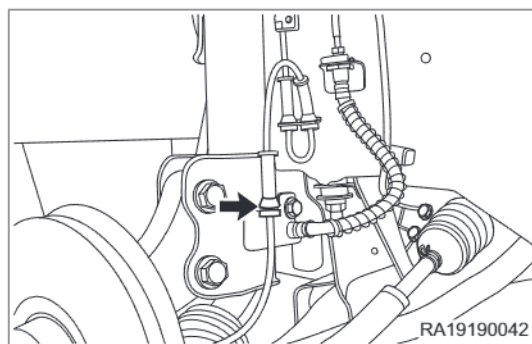


7. Remove the drive shaft assembly.

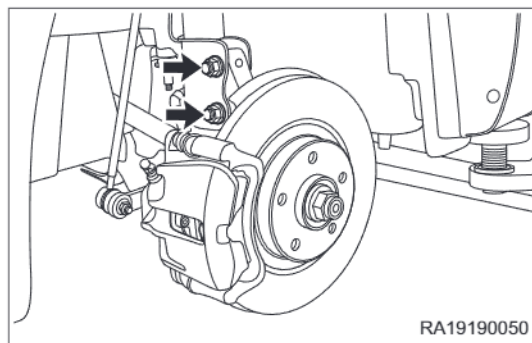
- a. Remove the front brake hose bracket fixing bolt (arrow) from the shock absorber.
(Tightening torque: 10 ± 1.5 N·m)



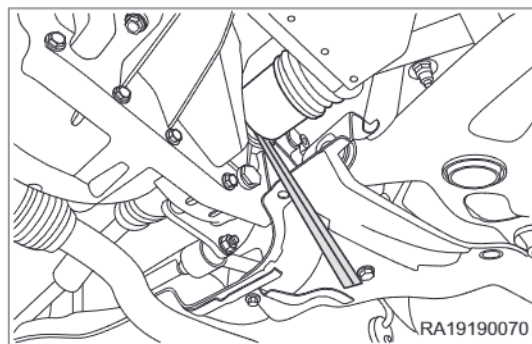
- b. Separate the wheel speed sensor connecting wire (arrow) from the shock absorber.



- c. Remove the coupling nuts (arrow) between steering knuckle and shock absorber, take out the coupling bolts and separate the shock absorber from the steering knuckle.
(Tightening torque: 110 ± 10 N·m)



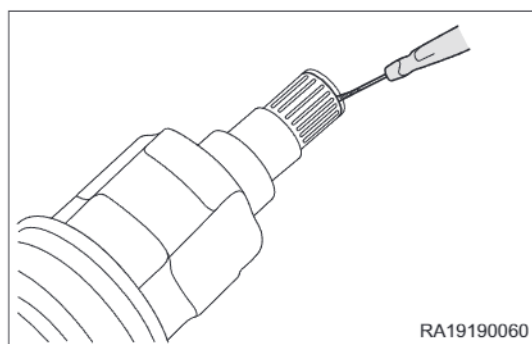
- d. Using an auxiliary tool, pry out the drive shaft assembly.



CAUTION

- DO NOT damage the differential oil seal when prying out the drive shaft assembly.
- DO NOT use excessive force to pull the drive shaft assembly to prevent the inner ball cage from dropping.

- e. Remove the set ring.



Installation

Installation is in the reverse order of removal.

CAUTION

- If the staked part of the drive shaft fixing nut is damaged, replace it with a new fixing nut.
- Adjust the wheel alignment if necessary.

Inner Ball Cage

Disassembly

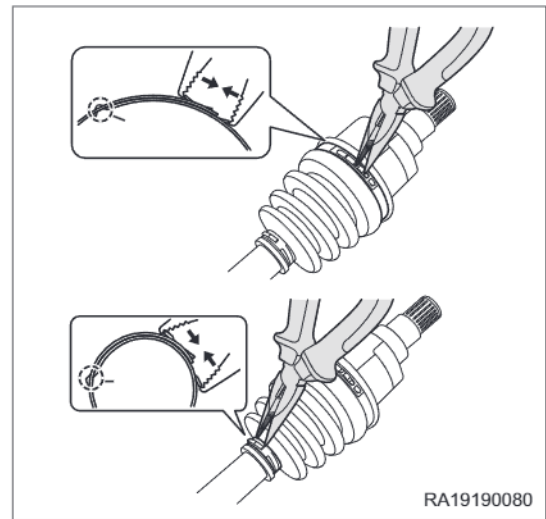
HINT:

Use the same disassembly and assembly procedures for the left and right drive shaft assemblies.

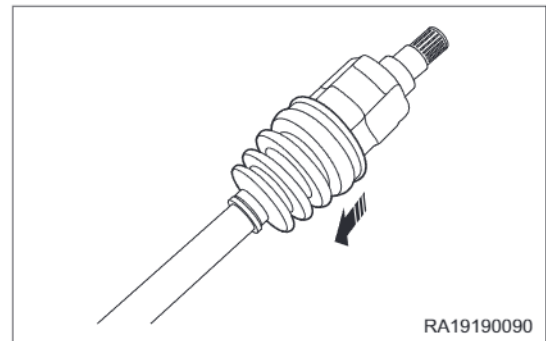
CAUTION

- DO NOT put matchmarks on the inner wall of inner ball cage.
- Operate carefully to prevent the dust boot from being damaged.

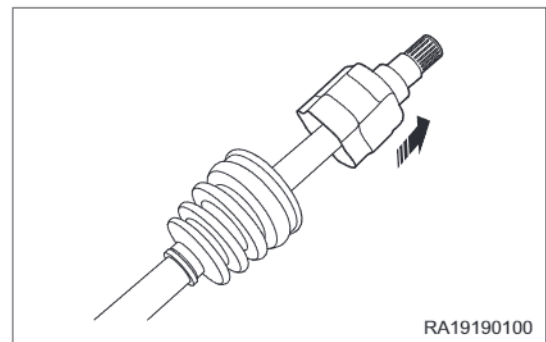
1. Remove the drive shaft assembly ([See page 19-5](#)).
2. Remove the inner ball cage dust boot clamps.
 - a. Using needle nose pliers, remove the inner ball cage dust boot clamps.



3. Remove the inner ball cage.
 - a. Separate the dust boot from the inner ball cage in the direction of arrow.

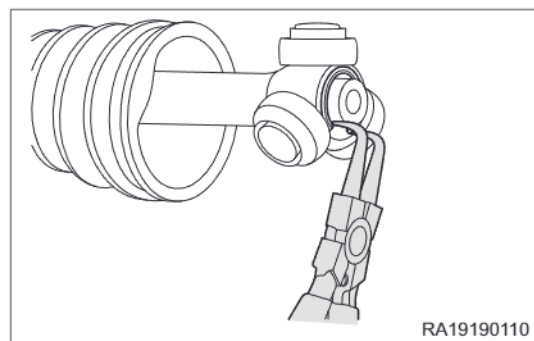


- b. Remove the inner ball cage in the direction of arrow, and place it on a clean piece of cloth.

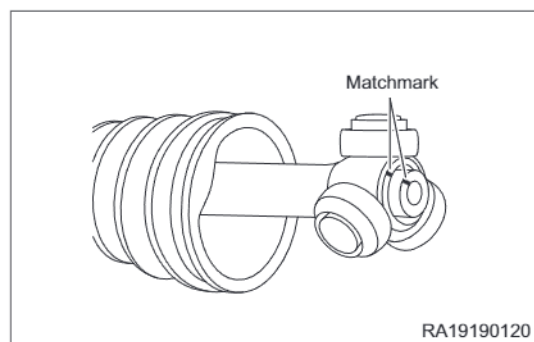


4. Remove the tripod.

- a. Using snap spring calipers, remove the positioning snap spring from the tripod.

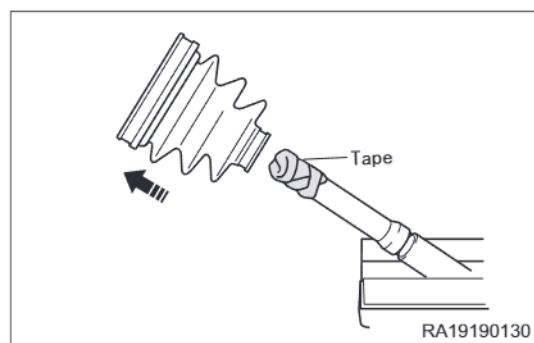


- b. Put matchmarks on the tripod and drive shaft, and remove the tripod.



5. Remove the dust boot.

- a. Wrap the spline of drive shaft with tape, and remove the dust boot.



Inspection

1. Check if the spline of drive shaft is in good condition. If it is deformed or damaged, replace it.
2. Check if the dust boot is in good condition. If it is scratched or broken, replace it.
3. Check if the positioning snap spring of tripod is deformed. If it is deformed, replace it.

19

Assembly

CAUTION

- Refill the grease during installation.
- Operate carefully to prevent the dust boot from being damaged.

Assembly is in the reverse order of disassembly.

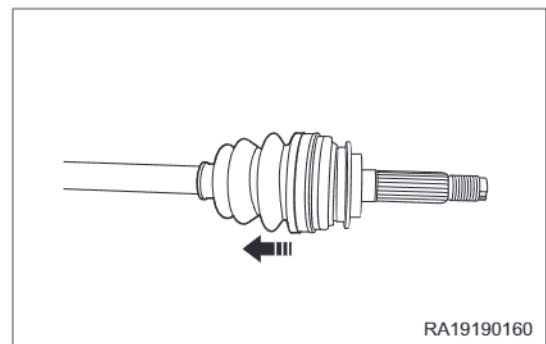
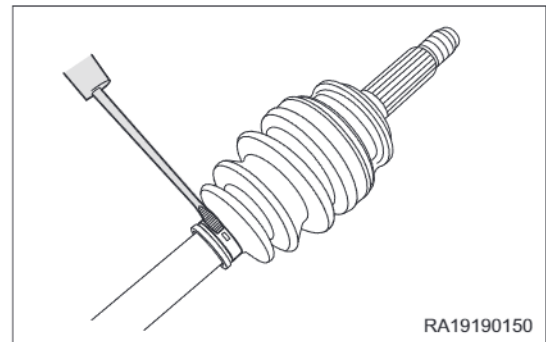
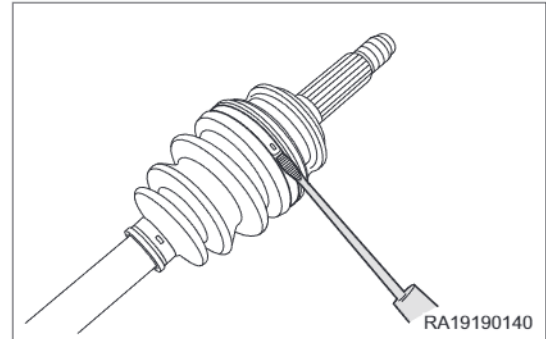
Outer Ball Cage

Disassembly

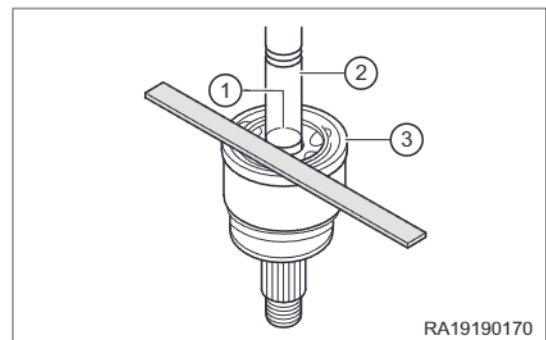
HINT:

Use the same disassembly and assembly procedures for the left and right drive shaft assemblies.

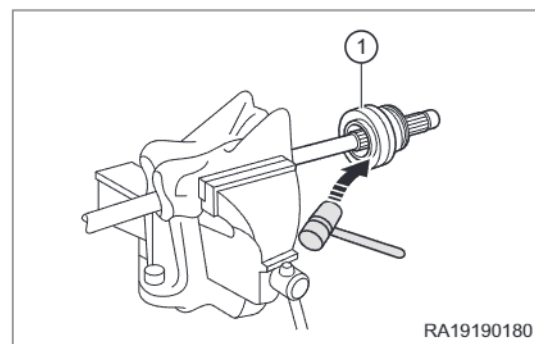
1. Remove the drive shaft assembly (See page 19-5).
2. Remove the outer ball cage dust boot outer clamp.
 - a. Using a screwdriver, pry out the striker of outer ball cage dust boot outer clamp and remove the outer ball cage dust boot outer clamp.
3. Remove the outer ball cage dust boot inner clamp.
 - a. Using a screwdriver, pry out the striker of outer ball cage dust boot inner clamp and remove the outer ball cage dust boot inner clamp.
4. Remove the outer ball cage.
 - a. Slide the outer dust boot carefully into the inner ball cage side in the direction of arrow.



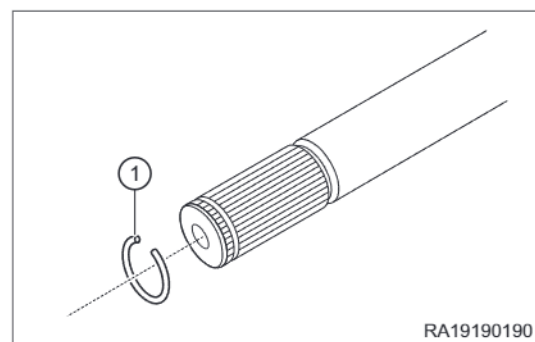
- b. Put matchmarks (1) on the area with the same height as the drive shaft assembly (2) and the edge of outer ball cage (3) for correct installation.



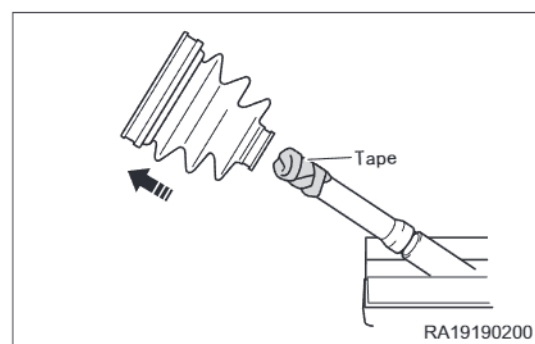
- c. Wrap the drive shaft assembly with a piece of cloth and put it onto a vise. Secure the vise to prevent the drive shaft assembly from shaking. Tap the outer ball cage (1) forcibly with a hammer, and remove the outer ball cage (1).



5. Remove the left drive shaft from the vise.
6. Remove the retaining ring (1).



7. Remove the outer ball cage dust boot.
a. Wrap the spline of drive shaft with tape, and remove the dust boot.



- b. Remove the tape.

Inspection

1. Check if the spline of drive shaft is in good condition. If it is deformed or damaged, replace it.
2. Check if the dust boot is in good condition. If it is scratched or broken, replace it.

Assembly

CAUTION

- Refill the grease during installation.
- Install them with new clamps.
- Operate carefully to prevent the dust boot from being damaged.

Assembly is in the reverse order of disassembly.

