

DRIVE SHAFT

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شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

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GENERAL INFORMATION

Description



RA13T200010

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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

20 - DRIVE SHAFT

Operation

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

Specifications

Torque Specifications

Description	Torque (N·m)
Drive Shaft Fixing Nut	240 ± 20
Coupling Nut Between Steering Knuckle and Control Arm Ball Pin	120 ± 10

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ON-VEHICLE SERVICE

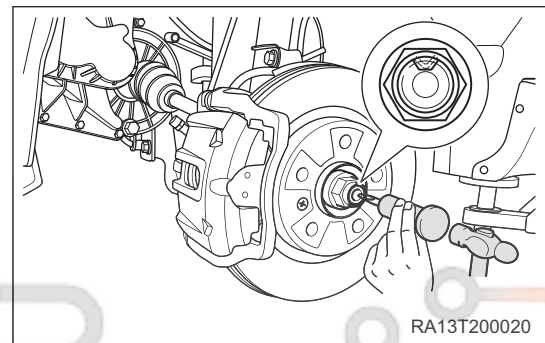
Drive Shaft Assembly

Removal

HINT:

Use same procedures for right and left sides.
Procedures listed below are for left side.

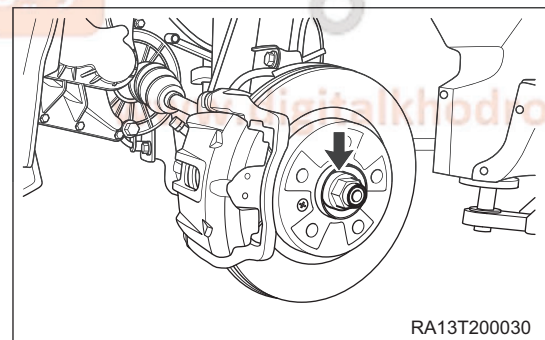
1. Remove the front left wheel (See page 24-9).
2. Drain transmission oil (See page 17-13).
3. Remove the left drive shaft.
 - a. Using a nut punch and a hammer, loosen staked part of nut.



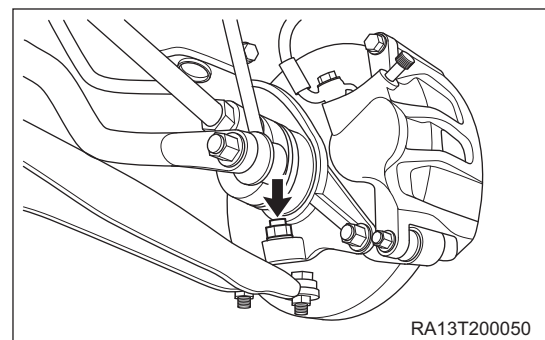
CAUTION

- Loosen staked part of nut completely, otherwise it will damage threads of drive shaft assembly.

- b. Remove front drive shaft assembly locking nut and washer (arrow) while applying brake firmly.
(Tightening torque: $240 \pm 20 \text{ N}\cdot\text{m}$)

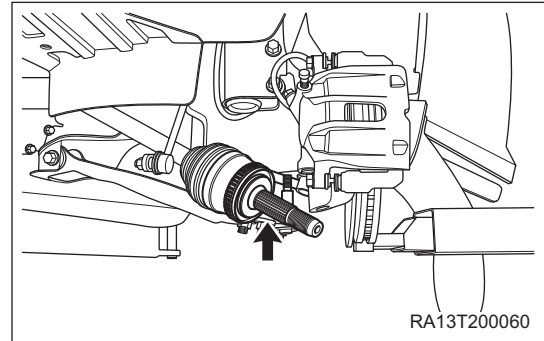


- c. Remove coupling nut between steering knuckle and control arm ball pin.
(Tightening torque: $120 \pm 10 \text{ N}\cdot\text{m}$)

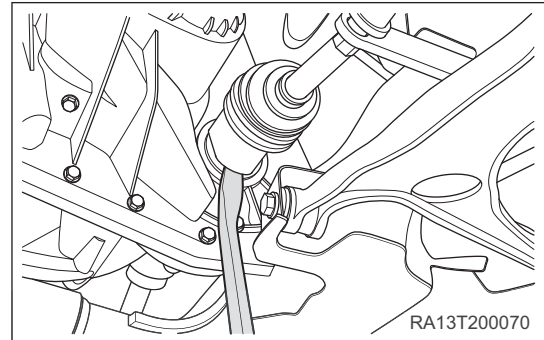


20 - DRIVE SHAFT

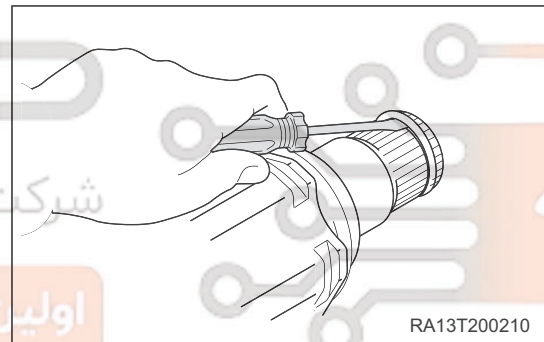
- d. Disconnect steering knuckle from control arm ball pin.
Move drive shaft from steering knuckle.



- e. Pry out the drive shaft.



- f. Remove the set ring.



Installation

Installation is in the reverse order of removal.

CAUTION

- DO NOT damage constant velocity universal joint dust boot.
- DO NOT use excessive force to pull drive shaft, to prevent inner constant velocity universal joint from dropping.
- Use crowbar carefully to prevent damage to oil seal.
- Adjust wheel alignment if necessary.

Inner Ball Cage

Disassembly

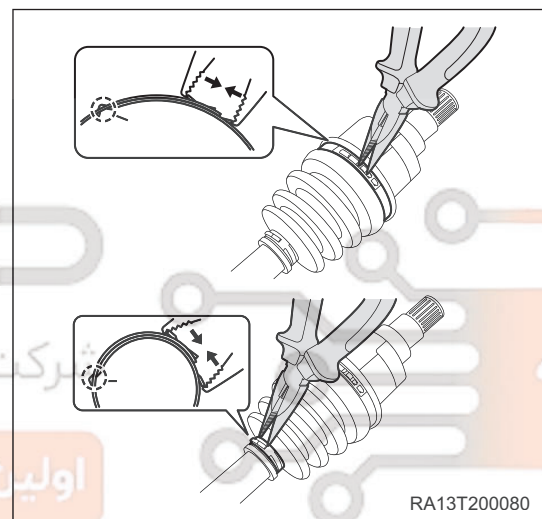
HINT:

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

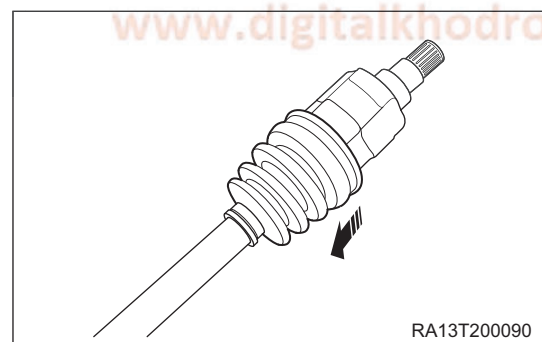
CAUTION

- DO NOT put matchmarks on rotating surface of rotary drum.
- Operate carefully to prevent dust boot from being damaged.

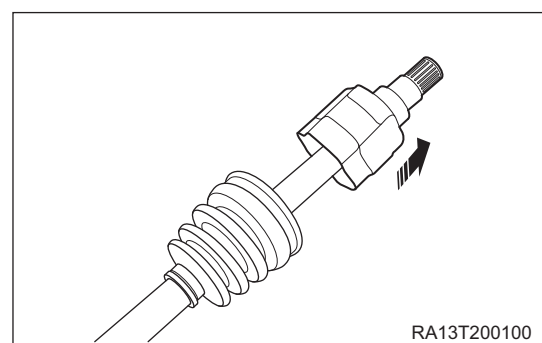
1. Remove the drive shaft assembly (See page 20-5).
2. Remove the inner ball cage dust boot clamp.
 - a. Using needle nose pliers, remove the inner ball cage dust boot clamps.



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



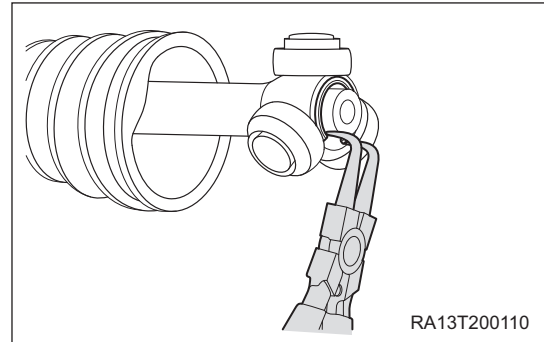
- b. Remove inner ball cage in direction of arrow, and place it on a piece of clean cloth.



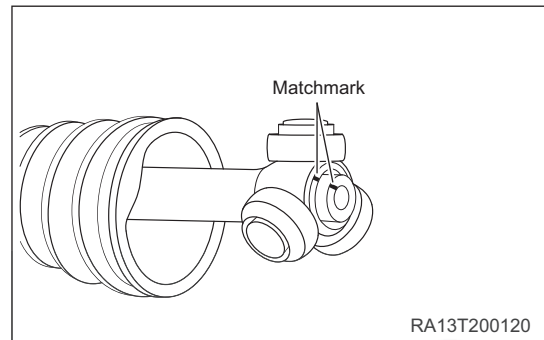
20 - DRIVE SHAFT

4. Remove the tripod.

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

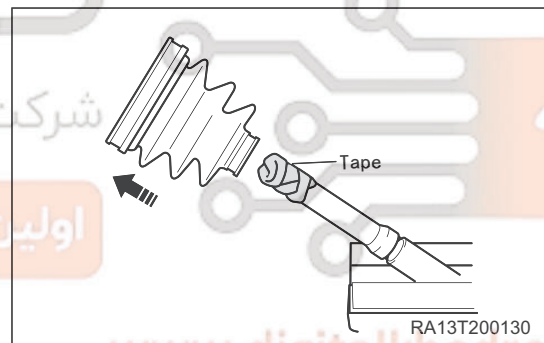


- b. Put matchmarks on tripod and drive shaft, and remove tripod.



5. Remove the dust boot.

- a. Wrap tape around drive shaft spline, and remove dust boot.



- b. Remove the tape.

Inspection

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

Assembly

CAUTION

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

Assembly is in the reverse order of disassembly.

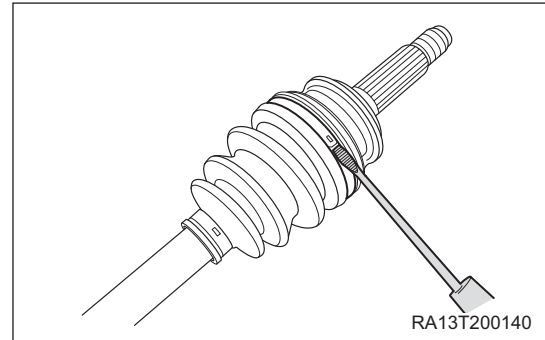
Outer Ball Cage

Disassembly

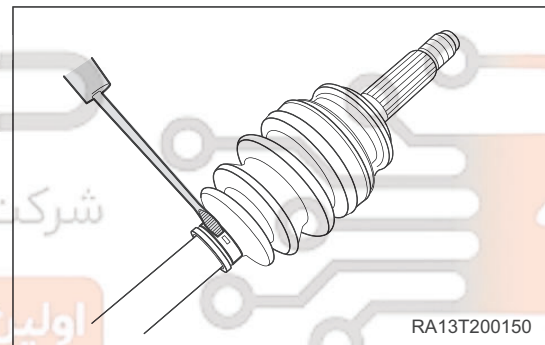
HINT:

Use same disassembly and assembly procedures for outer ball cage of left and right drive shaft assemblies.

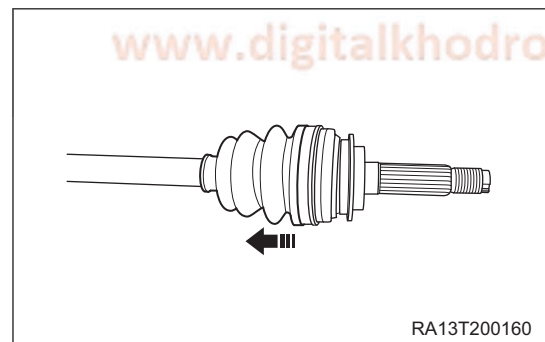
1. Remove the drive shaft assembly.
2. Remove the outer ball cage dust boot outer clamp.
 - a. Using a screwdriver, pry out striker of outer ball cage dust boot outer clamp and remove outer ball cage dust boot outer clamp.



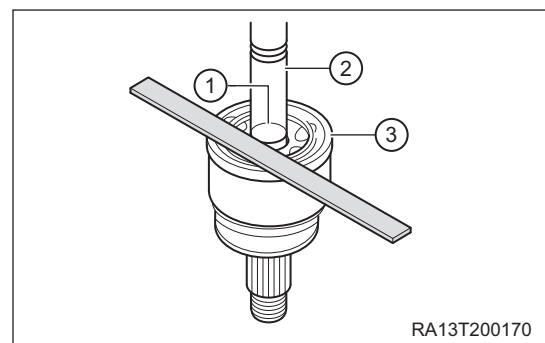
3. Remove the outer ball cage dust boot inner clamp.
 - a. Using a screwdriver, pry out striker of outer ball cage dust boot inner clamp and remove outer ball cage dust boot inner clamp.



4. Remove the outer ball cage.
 - a. Carefully slide outer dust boot into inner ball cage side in direction of arrow.

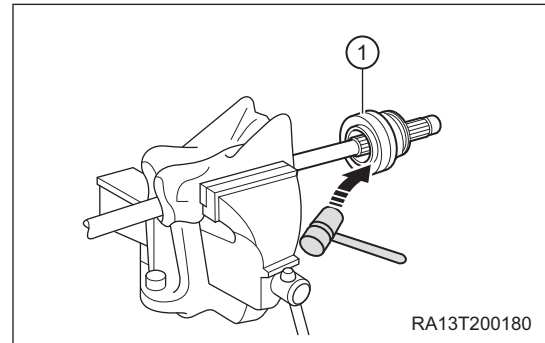


- b. Put matchmarks (1) on the area at same height as drive shaft assembly (2) and the edge of outer ball cage (3) for correct installation.

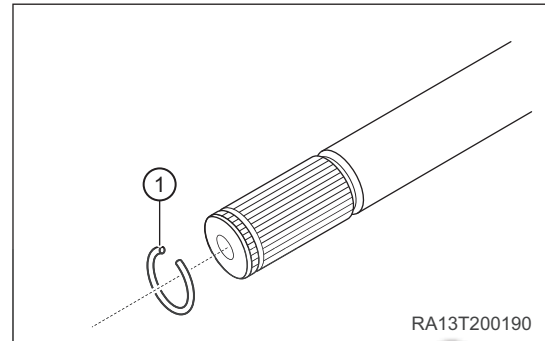


20 - DRIVE SHAFT

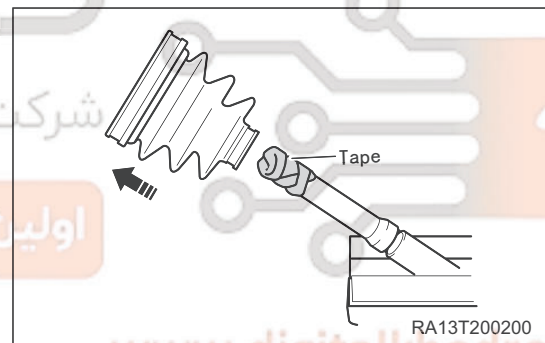
- c. Wrap drive shaft assembly with a piece of cloth, and secure it in a vise so that it does not wobble. Strike outer ball cage (1) forcefully with a hammer, and remove outer ball cage (1).



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



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



- b. Remove the tape.

Inspection

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

20

Assembly

CAUTION

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

Assembly is in the reverse order of disassembly.