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2011 MAZDA 6/Atenza Hatchback OEM Service and Repair Workshop Manual

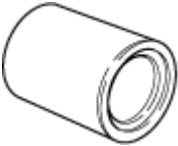
[Go to manual page](#)

WHEEL HUB COMPONENT REMOVAL/INSTALLATION [AWD]

SM2898009

id0312008004a

Special Service Tool (SST)

49 T028 301 Dust boot installer		49 U034 204 Dust boot installer		49 W032 310 Support block	
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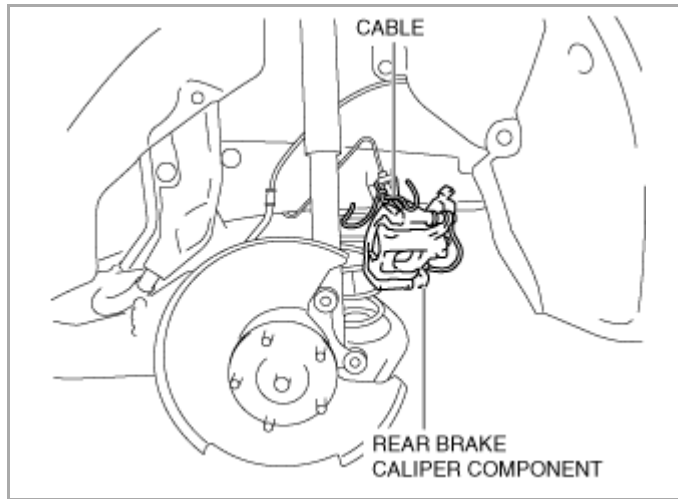
Replacement Part

Locknut	Wheel hub bolt	Hub support bushing (front)
Quantity: 1	Quantity: 5	Quantity: 1
Location of use: Disc plate	Location of use: Wheel hub	Location of use: Hub support
Hub support bushing (rear)		
Quantity: 1	-	-
Location of use: Hub support		

Caution

- Performing the following procedures could cause an open circuit in the rear ABS wheel-speed sensor wiring harness if it is pulled by mistake. Before servicing, disconnect the rear ABS wheel-speed sensor and set it aside so that the wiring harness will not be pulled by mistake.

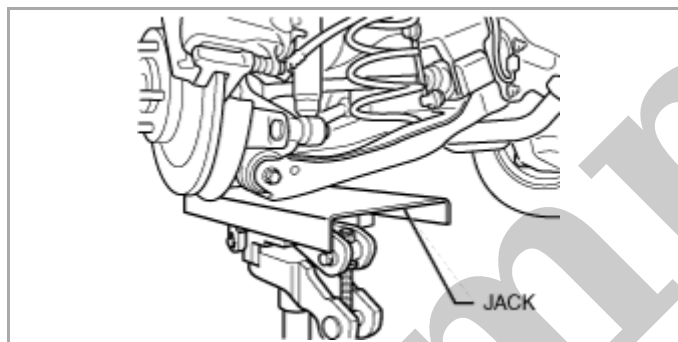
- Switch the ignition ON (engine off).
- Release the electric parking brake.
- Switch the ignition off.
- Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
- Remove the wheel and tire. (See [WHEEL AND TIRE REMOVAL/INSTALLATION.](#))
- Remove in the order indicated in the table.
- Install in the reverse order of removal. (See [Suspension Links Installation Note.](#))



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Rear Lower Arm Outer Bolt Removal Note

1. Support the rear lower arm using a jack.



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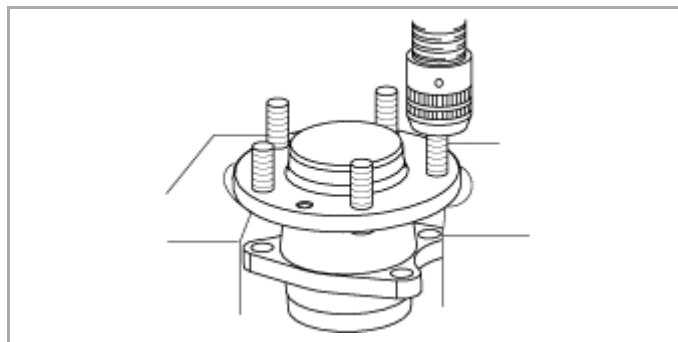
2. Remove the rear lower arm outer bolt.

Wheel Hub Bolt Removal Note

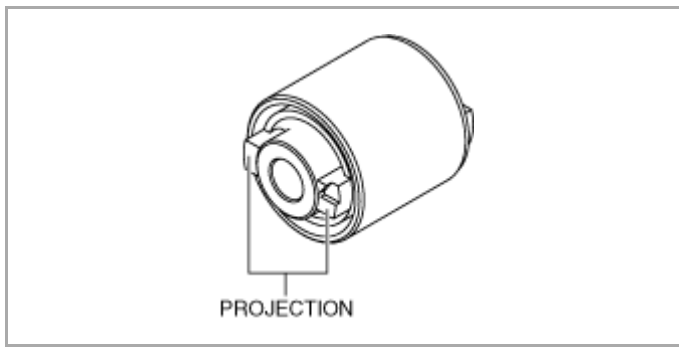
Note

- Remove the wheel hub bolt only if there is any malfunction.

1. Remove the wheel hub bolt using a press.

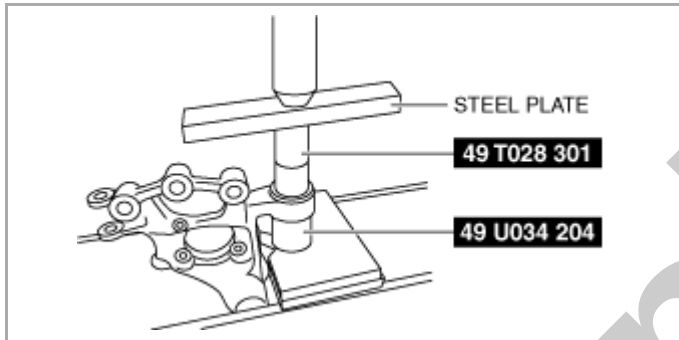


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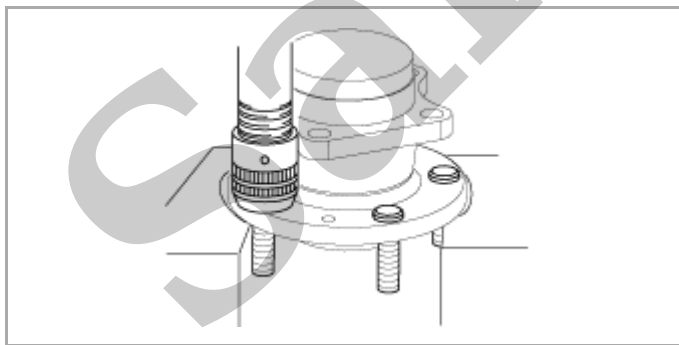
2. Install a new hub support bushing (front) using the SSTs.



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Wheel Hub Bolt Installation Note

1. Install the new wheel hub bolt using a press.



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Locknut Installation Note

Caution

- When installing the locknut, install it manually without using an electric or pneumatic tool. Otherwise, the locknut may seize and the tightening force of the wheel hub may decrease and cause excessive play or abnormal noise.
- When installing the locknut, do not apply load at the ground to the axle. Otherwise, it could damage the wheel hub.

1. If dust or grease is on the drive shaft thread area, wipe it off with a cloth.

2. Tighten the locknut using the following procedure and with the brake pedal depressed.

FRONT DRIVE SHAFT REMOVAL/INSTALLATION

SM2898015

id03130080250

Special Service Tool (SST)

49 B025 017		49 B025 010	
Sliding hammer		Attachment A	

Replacement Part

Locknut	Snap pin	Transfer oil seal (RH) No.1
Quantity: 1	Quantity: 1	Quantity: 1
Location of use: Front drive shaft	Location of use: Tie-rod end	Location of use: Front drive shaft (RH) [AWD]
Transfer oil seal (RH) No.3	Front drive shaft clip	
Quantity: 1	Quantity: 1	-
Location of use: Front drive shaft (RH) [AWD]	Location of use: Front drive shaft (LH)	

Oil and Chemical Type

Grease
Type: D4Y0 33247 or equivalent

Caution

- Performing the following procedures could cause an open circuit in the front ABS wheel-speed sensor wiring harness if it is pulled by mistake. Before servicing, disconnect the front ABS wheel-speed sensor and set it aside so that the wiring harness will not be pulled by mistake.

- Remove the wheel and tire. (See [WHEEL AND TIRE REMOVAL/INSTALLATION](#).)
- Disconnect the front ABS wheel-speed sensor wiring harness installed to the steering knuckle and set it aside. (See [FRONT ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION](#).)

10	Front drive shaft (RH) (See Front Drive Shaft Removal Note .) (See Bracket, Front Drive Shaft (RH) Installation Note [Except SKYACTIV-G 2.5T].) (See Bracket, Front Drive Shaft (RH) Installation Note [SKYACTIV-G 2.5T].)
11	Bracket No.1 (See Bracket No.1 Removal Note [SKYACTIV-G 2.5T].) (See Bracket No.1 Removal Note [SKYACTIV-D 2.2].) (See Bracket, Front Drive Shaft (RH) Installation Note [Except SKYACTIV-G 2.5T].) (See Bracket, Front Drive Shaft (RH) Installation Note [SKYACTIV-G 2.5T].)
12	Transfer oil seal (RH) No.1 (See TRANSFER OIL SEAL REPLACEMENT [FW6AX-EL, GW6AX-EL].)
13	Transfer oil seal (RH) No.3 (See TRANSFER OIL SEAL REPLACEMENT [FW6AX-EL, GW6AX-EL].)

Locknut Removal Note

Caution

- When removing the locknut, remove it manually without using an electric or pneumatic tool. Otherwise, the locknut may seize.
- When removing the locknut, do not apply load at the ground to the axle. Otherwise, it could damage the wheel hub.

1.Remove the locknut with the brake pedal depressed.

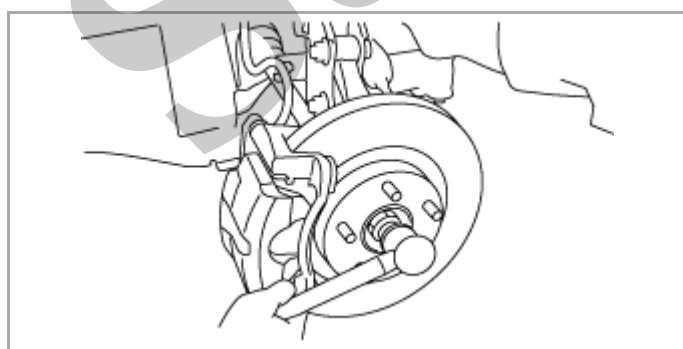
Front Drive Shaft Removal Note

Caution

- The oil seal at the front end of the front drive shaft could be damaged. When removing the front drive shaft, be careful not to damage the oil seal.

1.Install a spare nut onto the front drive shaft.

2.Tap the nut with a copper hammer and separate the front drive shaft from the axle.

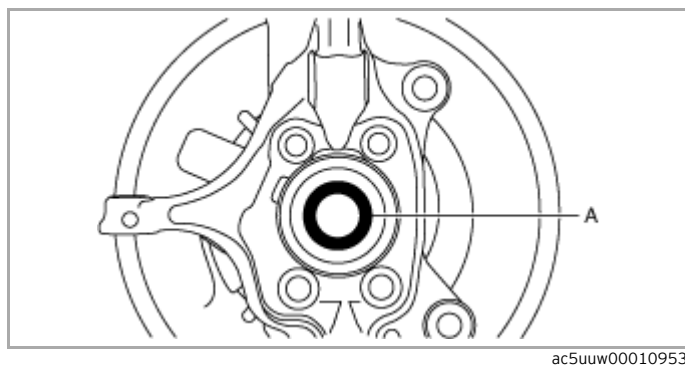


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3.Separate the front drive shaft from the wheel hub.

4.Separate the front drive shaft (LH) from the transaxle using the SSTs.

7. Apply grease (D4Y0 33247 or equivalent) to the wheel bearing inner race and front drive shaft contact surface (Area A in figure).



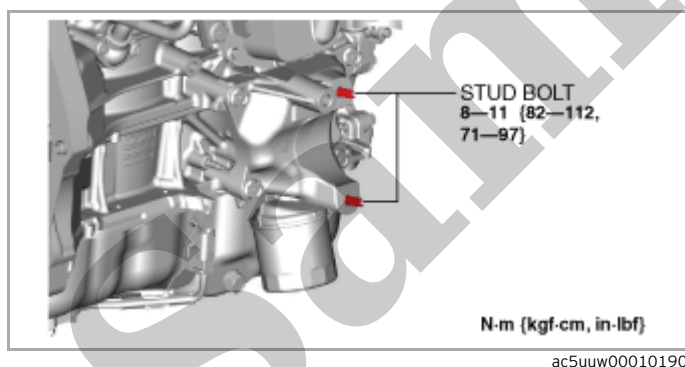
8. Insert the front drive shaft into the wheel hub.

Bracket, Front Drive Shaft (RH) Installation Note [SKYACTIV-G 2.5T]

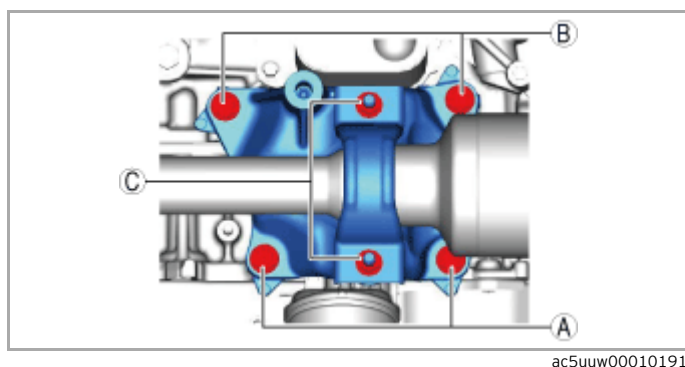
Caution

- The oil seal could be damaged at the end area of the front drive shaft. When installing the front drive shaft to the transaxle, be careful not to damage the oil seal. If the oil seal is damaged, replace it with a new one.
- Retighten the bracket No.1 stud bolts when the bracket No.2 nuts are loosened.

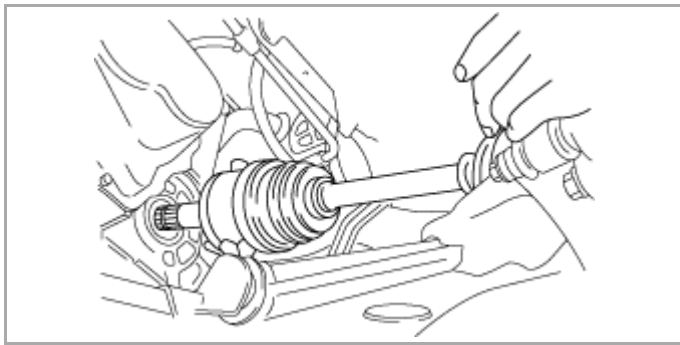
1. Tighten the bracket No.1 stud bolts.



2. Temporarily tighten the bolts A and B.



3. Tighten the bolts A, then tighten the bolt B to the specified torque.



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5. After installation, pull the transaxle side outer ring forward to confirm that the front drive shaft is securely held by the clip.

Locknut Installation Note

Caution

- When installing the locknut, install it manually without using an electric or pneumatic tool. Otherwise, the locknut may seize and the tightening force of the wheel hub may decrease and cause excessive play or abnormal noise.
- When installing the locknut, do not apply load at the ground to the axle. Otherwise, it could damage the wheel hub.

1. If dust or grease is on the drive shaft thread area, wipe it off with a cloth.

2. Tighten the locknut using the following procedure and with the brake pedal depressed.

(1) Tighten locknut to 100–150 N·m {11–15 kgf·m, 74–110 ft·lbf} torque.

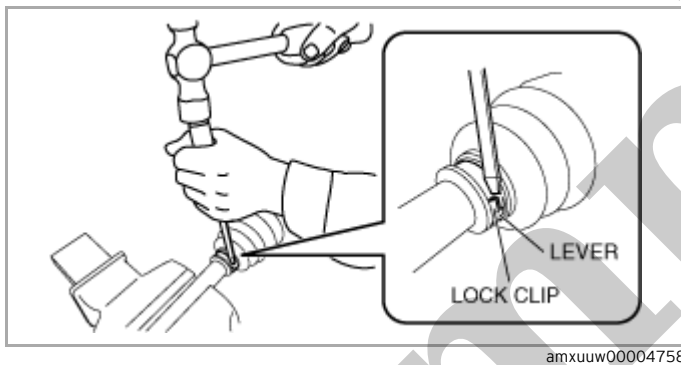
(2) Loosen locknut to 180°.

(3) Tighten locknut to 236–274 N·m {25–27 kgf·m, 175–202 ft·lbf} torque.

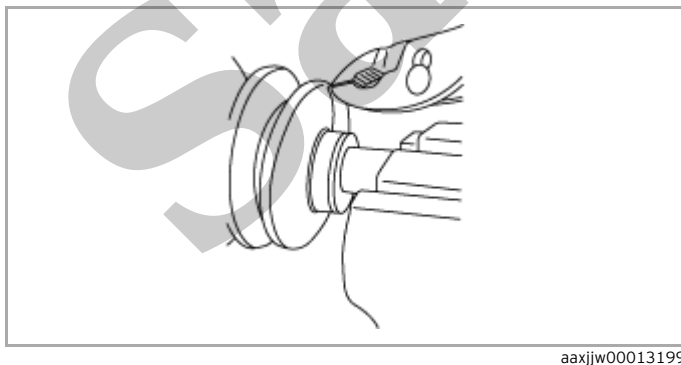
8	Tripod joint (See Snap Ring, Tripod Joint Disassembly Note.) (See Tripod Joint, Snap Ring Assembly Note.)
9	Boot (transaxle side) (See Boot (Transaxle Side) Disassembly Note.) (See Boot (Transaxle Side) Assembly Note.)
10	Boot band (wheel side) (See Boot Band (Wheel Side) Disassembly Note.) (See Boot Band (Wheel Side) Assembly Note.)
11	Boot (wheel side) (See Boot (Wheel Side) Disassembly Note.) (See Boot (Wheel Side) Assembly Note.)
12	Shaft and ball joint component
13	Outer joint component

Boot Band (Transaxle Side) Disassembly Note

1. Using a flat chisel and hammer, lightly tap the lever of the boot band to disconnect the lock clip.



2. Remove the boot band using pliers.



Clip, Outer Ring Disassembly Note

Caution

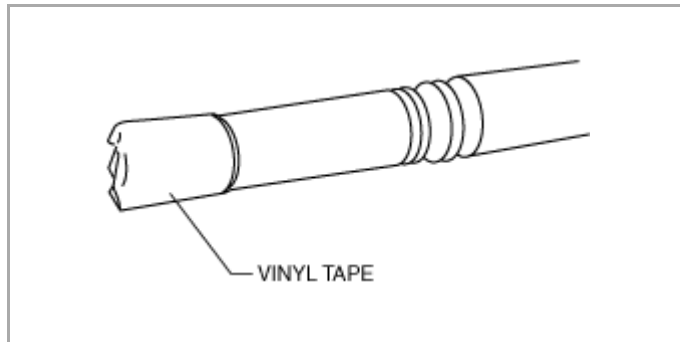
- To prevent part damage, do not use a punch or similar tool to place alignment marks. Use paint.

1. Place alignment marks on the shaft and outer ring.

4.Wipe off grease on the shaft and tripod joint using a clean rag.

Boot (Transaxle Side) Disassembly Note

1.Wrap vinyl tape around the spline area of the shaft to prevent damage to the boot.



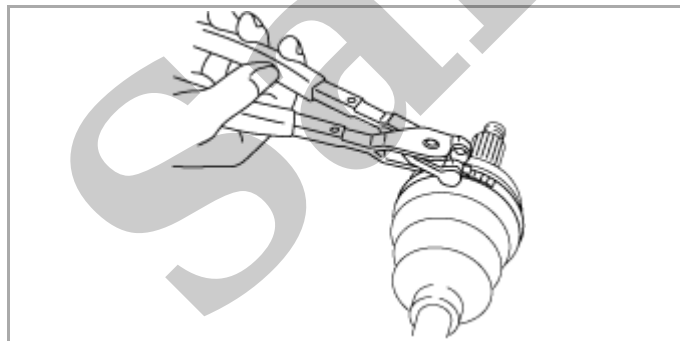
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2.Remove the boot (transaxle side).

3.Wipe off grease on the boot (transaxle side) using a clean rag.

Boot Band (Wheel Side) Disassembly Note

1.Remove the boot band using end clamp pliers.



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Boot (Wheel Side) Disassembly Note

1.Wrap vinyl tape around the spline area of the shaft to prevent damage to the boot.