

# DRIVELINE/AXLE

## 03 SECTION

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## 03-10 GENERAL PROCEDURES

GENERAL PROCEDURES (FRONT AND REAR AXLES) . . . . .	03-10-1
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### GENERAL PROCEDURES (FRONT AND REAR AXLES)

DPE031000000W01

#### Wheel and Tire Installation

1. When installing the wheels and tires, tighten the wheel nuts in a criss-cross pattern to the following tightening torque.

#### Tightening torque

88.2—117.6 N·m {9.00—11.99 kgf·m, 65.06—86.73 ft·lbf}

#### Connector Disconnection

1. Disconnect the negative battery cable before performing any work that requires handling of connectors. (See 01-17A-1 BATTERY REMOVAL/INSTALLATION [L8, LF].) ~~(See 01-17B-1 BATTERY REMOVAL/INSTALLATION [MZR-CD (RF Turbo)].)~~

#### Suspension Links Removal/Installation

1. For the joint sections with rubber bushings, raise the vehicle using a lift, and then temporarily tighten the installation bolts and nuts. Lower the vehicle to the ground and tighten them completely with the specified torque.

03

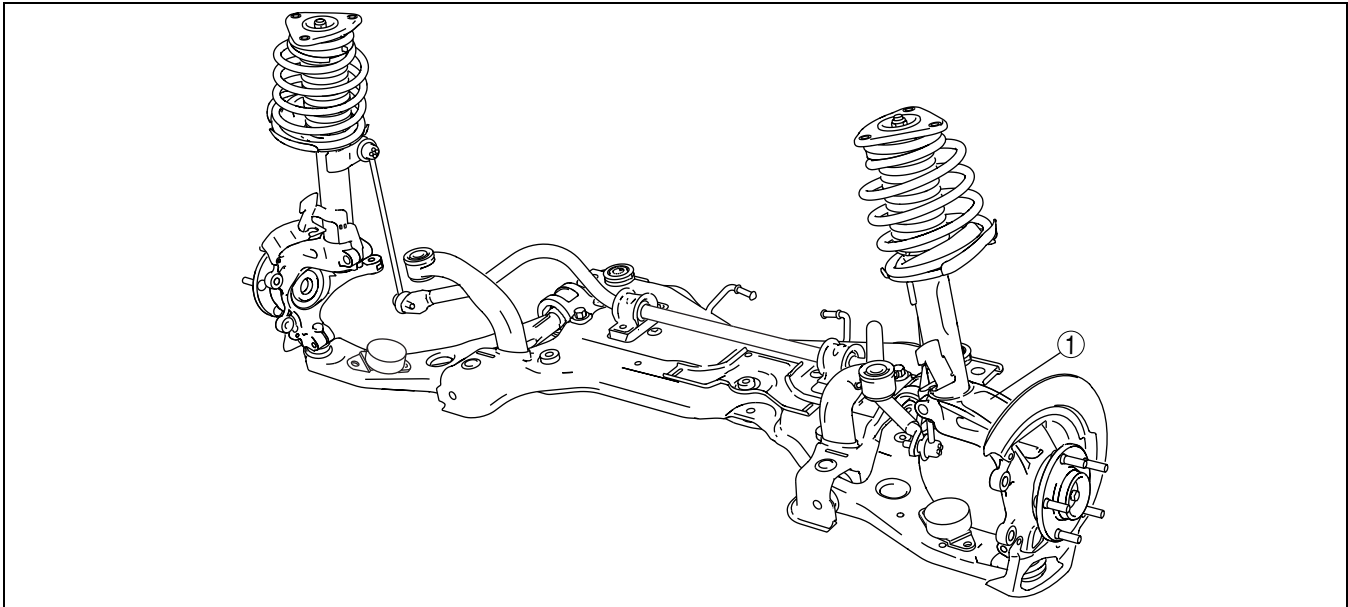
FRONT AXLE

03-11 FRONT AXLE

FRONT AXLE LOCATION INDEX.....	03-11-1	WHEEL HUB, STEERING KNUCKLE	
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FRONT AXLE LOCATION INDEX

DPE031104000W01



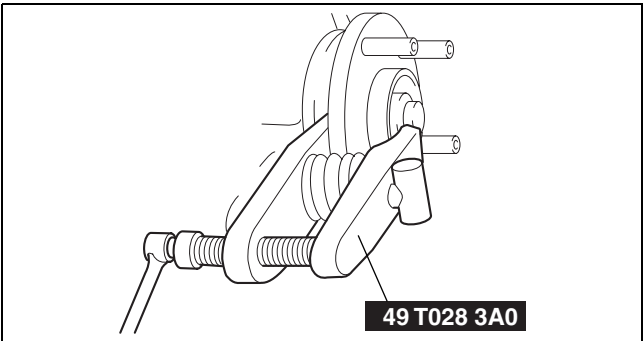
B3E0311W001

1	Wheel hub, steering knuckle (See 03-11-2 WHEEL HUB, STEERING KNUCKLE INSPECTION.) (See 03-11-1 FRONT WHEEL HUB BOLT REPLACEMENT.) (See 03-11-2 WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION.)
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FRONT WHEEL HUB BOLT REPLACEMENT

DPE031104000W02

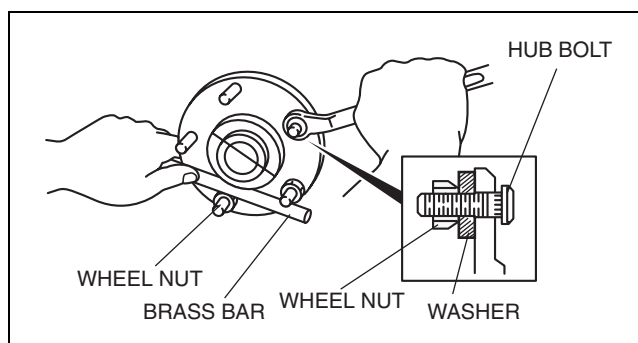
1. Remove the brake calliper component and disc plate.
2. Remove the wheel hub bolt using the **SST** as shown in the figure.
3. Place a new wheel hub bolt in the wheel hub.



D3U312ZSI001

## FRONT AXLE

4. Install the wheel hub by placing a proper sized washer on the hub, and tightening the nut as shown in the figure.



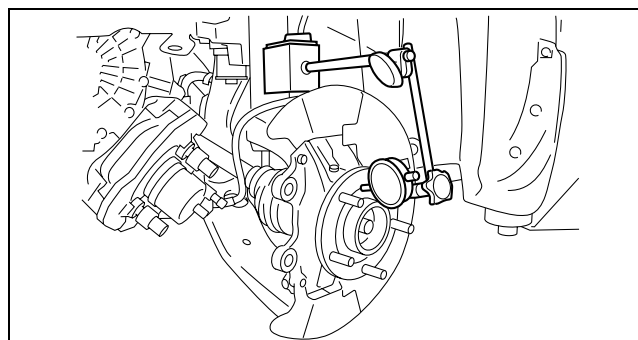
CHU0311W005

### WHEEL HUB, STEERING KNUCKLE INSPECTION

#### Wheel Bearing Excessive Play Inspection

1. Install the magnetic base and dial gauge as shown in the figure and measure the wheel bearing axial excessive play.
  - If it exceeds the maximum specification, replace the wheel hub bearing.

**Maximum wheel bearing play**  
**0.05 mm {0.002 in}**



B3E0311W002

### WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION

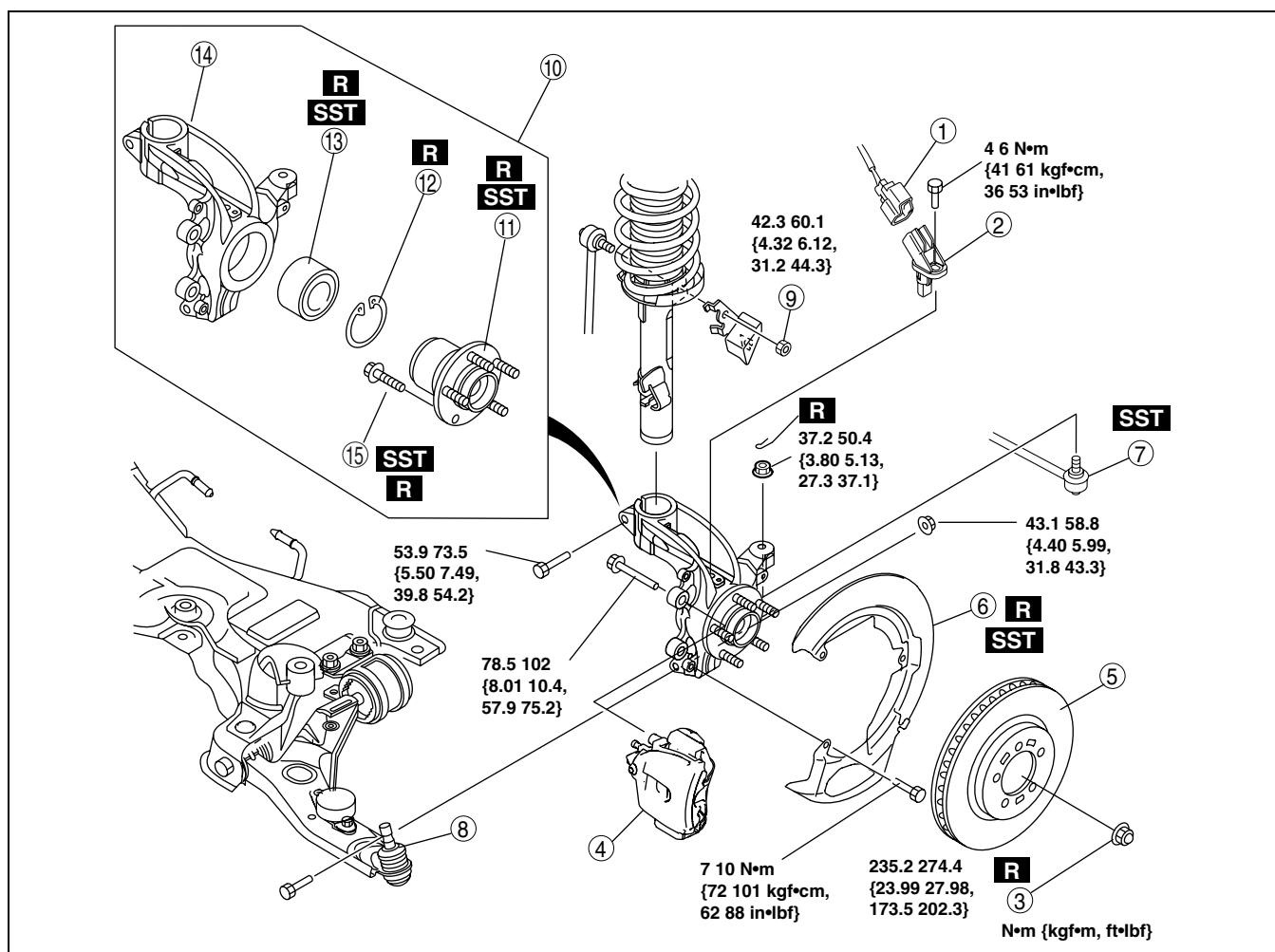
DPE031104060W02

#### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the wiring harness if it is pulled by mistake. Before performing the following procedures, disconnect the ABS wheel-speed sensor connector (axle side) and fix the wiring harness to an appropriate place where it will not be pulled by mistake while servicing the vehicle.

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. After installation, inspect the front wheel alignment and adjust it if necessary. (See 02-11-2 FRONT WHEEL ALIGNMENT.)

## FRONT AXLE



DPE311ZW1001

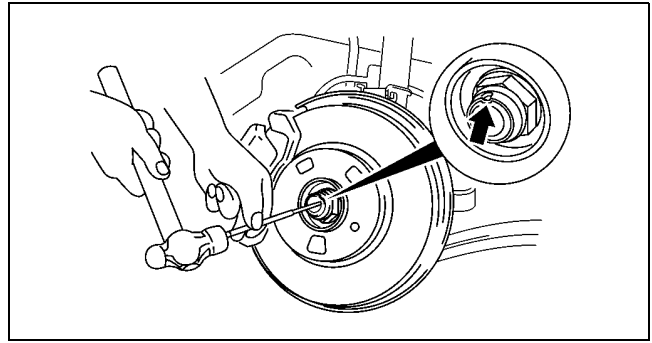
1	ABS wheel-speed sensor connector
2	ABS wheel-speed sensor
3	Locknut (See 03-11-7 Locknut Installation Note.) (See 03-11-7 Locknut Installation Note.)
4	Brake caliper component (See 03-11-4 Brake Caliper Removal Note.)
5	Disc plate (See 04-11-19 FRONT BRAKE (DISC) REMOVAL/INSTALLATION.)
6	Dust cover <del>(European (L.H.D., UK) spec.)</del>
7	Tie-rod end ball joint (See 02-13-11 FRONT CROSSMEMBER REMOVAL/INSTALLATION.)
8	Front lower arm ball joint
9	Stabilizer control link upper nut

10	Wheel hub, steering knuckle component (See 03-11-4 Wheel Hub, Steering Knuckle Component Removal Note.)
11	Wheel hub component (See 03-11-4 Wheel Hub Component Removal Note.) (See 03-11-6 Wheel Hub Component Installation Note.)
12	Retaining clip
13	Wheel bearing (See 03-11-5 Wheel Bearing Removal Note.) (See 03-11-6 Wheel Bearing Installation Note.)
14	Steering knuckle
15	Hub bolt (See 03-11-5 Wheel Hub Bolt Removal Note.) (See 03-11-6 Wheel Hub Bolt Installation Note.)

## FRONT AXLE

### Locknut Removal Note

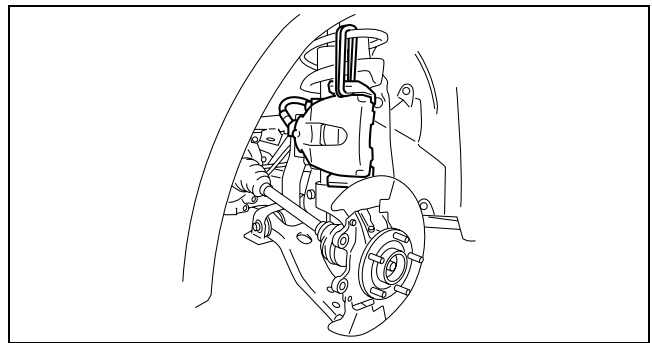
1. Knock the crimped portion of the locknut outward using a small chisel and a hammer.
2. Lock the hub by applying the brakes.
3. Remove the locknut.



A6E6321W001

### Brake Caliper Removal Note

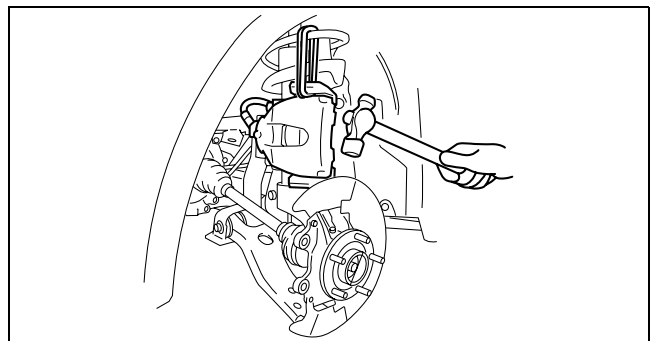
1. Remove the brake caliper component from the steering knuckle and suspend it out of the way using a cable.



B3E0311W004

### Wheel Hub, Steering Knuckle Component Removal Note

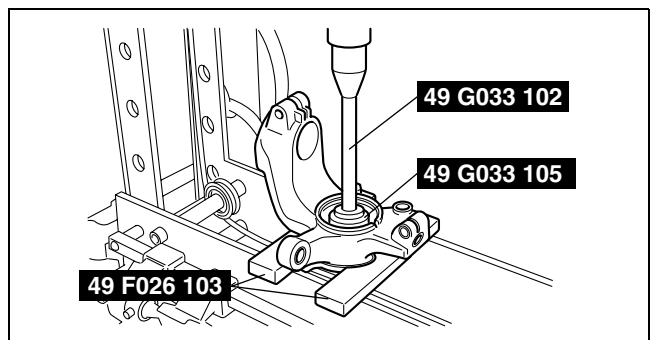
1. Separate the shock absorber from the wheel hub, steering knuckle component by tapping the upper part of the steering knuckle with a hammer.



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### Wheel Hub Component Removal Note

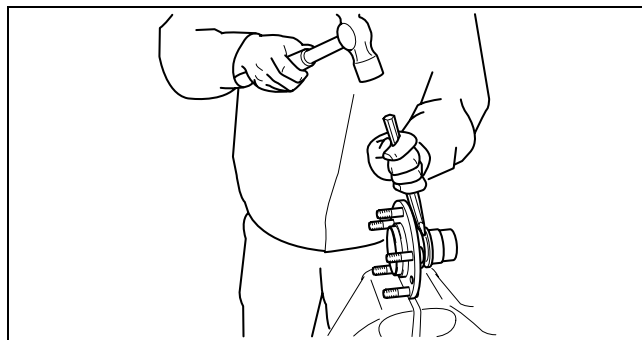
1. Remove the wheel hub component using the SSTs.



CPJ311ZWB004

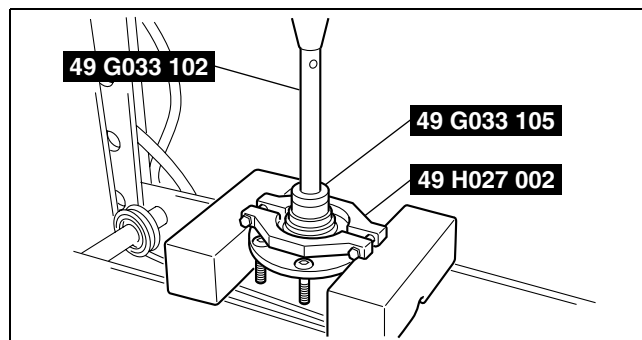
## FRONT AXLE

2. If the bearing inner race remains on the wheel hub component, use a chisel to secure a sufficient space for installing the **SST** between wheel hub component and bearing inner race.



DPE311ZW999

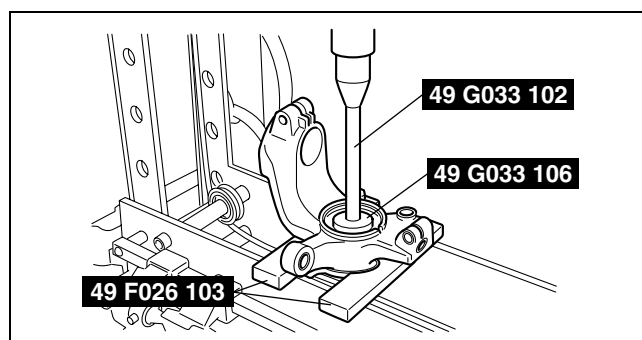
3. Remove the bearing inner race using the **SSTs**.



CPJ311ZWB007

### Wheel Bearing Removal Note

1. Remove the wheel bearing using the **SSTs**.



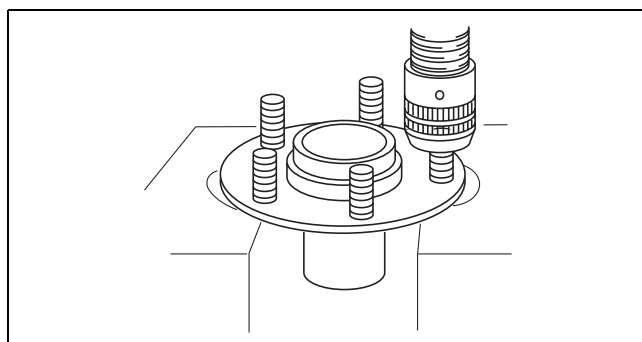
CPJ311ZWB002

### Wheel Hub Bolt Removal Note

#### Note

- The hub bolts do not need to be removed unless they are being replaced.

1. Remove the hub bolt using a press.

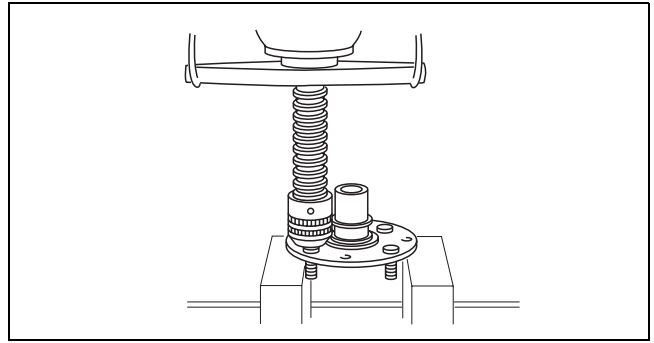


A6E6312W003

## FRONT AXLE

### Wheel Hub Bolt Installation Note

1. Install the new hub bolt using a press.

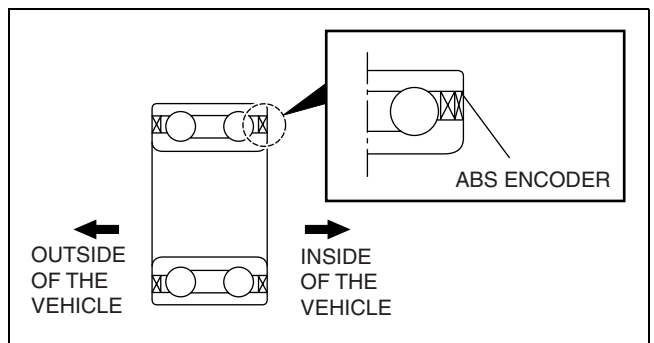


A6E6312W004

### Wheel Bearing Installation Note

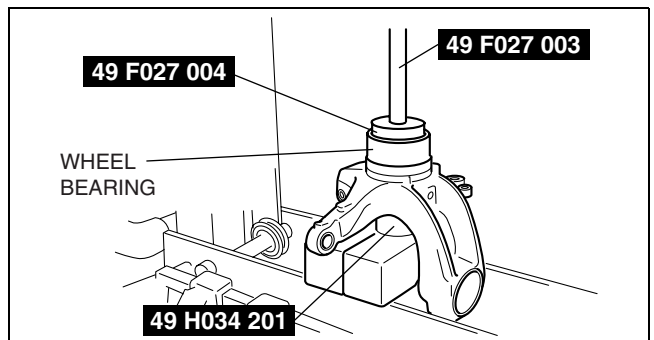
#### Caution

- Install the wheel bearing with the ABS encoder facing inside of the vehicle.



DPE311ZW1002

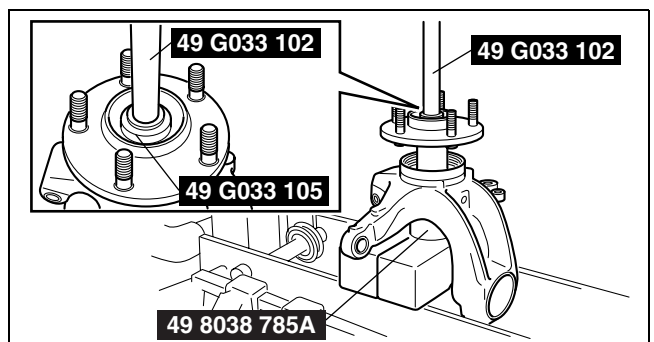
1. Install the new wheel bearing using the **SSTs**.



DPE311ZW1003

### Wheel Hub Component Installation Note

1. Install the wheel hub component so that there is no clearance between the wheel hub and the bearing using the **SSTs**.

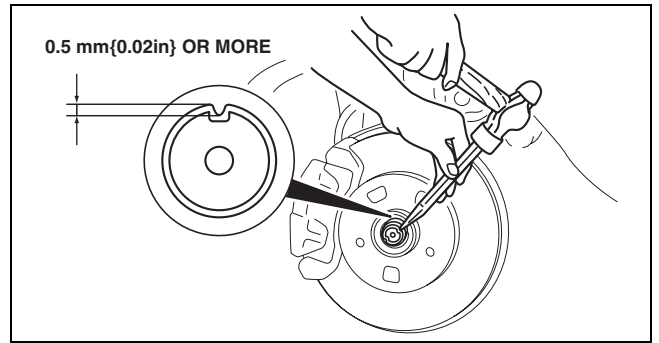


CPJ311ZWB005

## FRONT AXLE

### Locknut Installation Note

1. Install a new locknut and stake it as shown.



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## REAR AXLE

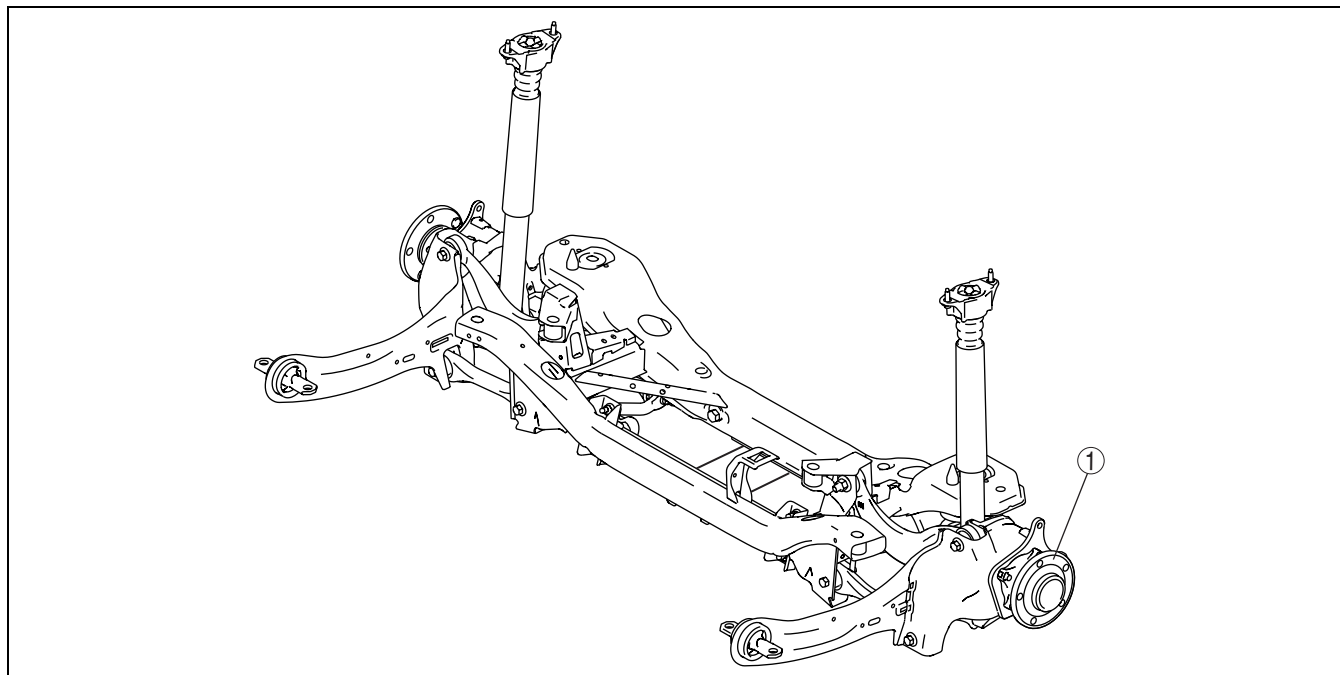
### 03-12 REAR AXLE

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REAR WHEEL HUB BOLT  
REPLACEMENT ..... 03-12-1

WHEEL HUB COMPONENT  
INSPECTION ..... 03-12-2  
WHEEL HUB COMPONENT REMOVAL/  
INSTALLATION..... 03-12-2

#### REAR AXLE LOCATION INDEX

DPE031205000W01



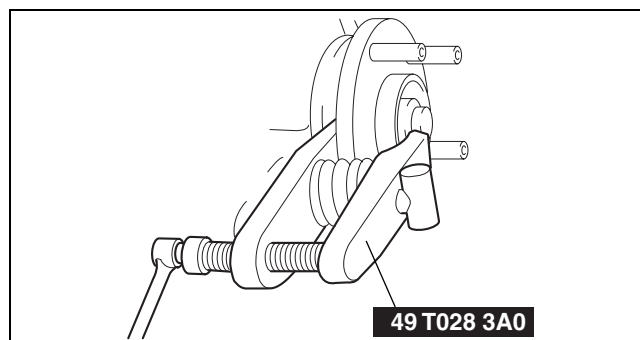
B3E0312W001

- |   |  |
|---|--|
| 1 | Wheel hub component<br>(See 03-12-2 WHEEL HUB COMPONENT<br>INSPECTION.)<br>(See 03-12-1 REAR WHEEL HUB BOLT<br>REPLACEMENT.)<br>(See 03-12-2 WHEEL HUB COMPONENT<br>REMOVAL/INSTALLATION.) |
|---|--|

#### REAR WHEEL HUB BOLT REPLACEMENT

DPE031205000W02

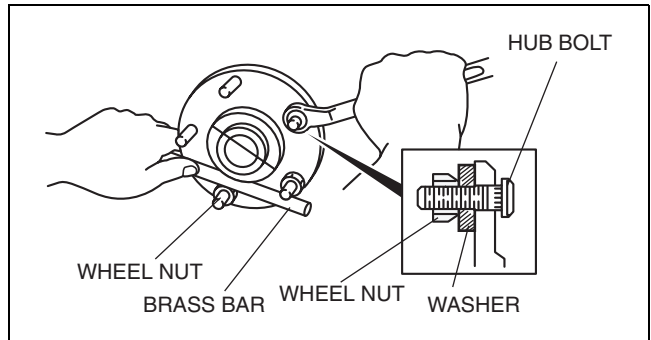
1. Remove the brake calliper component and disc plate.
2. Remove the wheel hub bolt using the SST as shown in the figure.
3. Place a new wheel hub bolt in the wheel hub.



D3U312ZS001

## REAR AXLE

4. Install the wheel hub by placing a proper sized washer on the hub, and tightening the nut as shown in the figure.



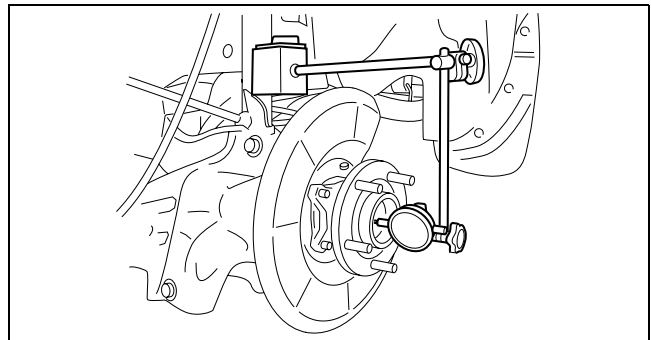
CHU0311W005

### WHEEL HUB COMPONENT INSPECTION

#### Wheel Bearing Excessive Play Inspection

1. Install the magnetic base and dial gauge as shown in the figure and measure the wheel bearing axial excessive play.
  - If it exceeds the maximum specification, replace the wheel hub component.

**Maximum wheel bearing play**  
**0.05 mm {0.002 in}**



B3E0312W002

### WHEEL HUB COMPONENT REMOVAL/INSTALLATION

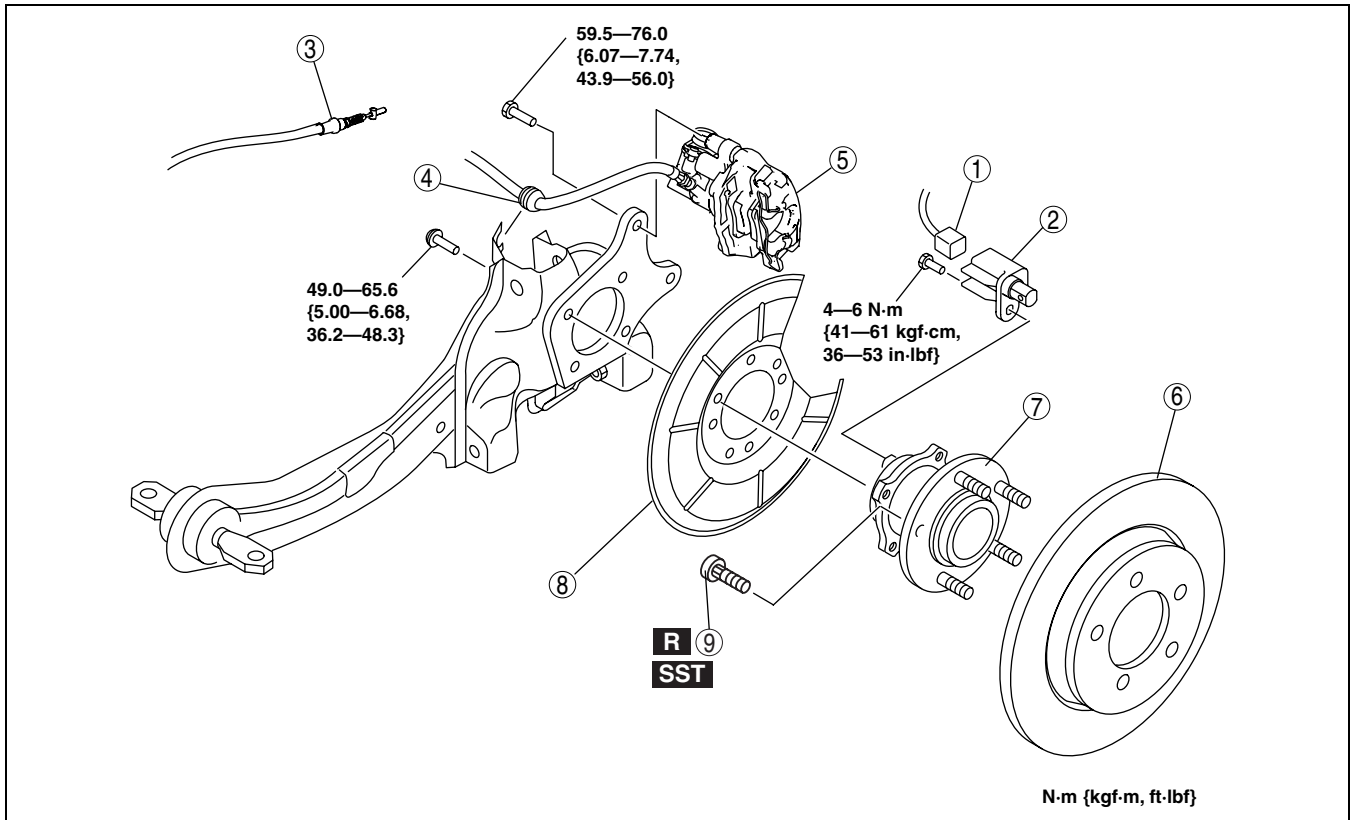
DPE031205060W02

#### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the wiring harness if it is pulled by mistake. Before performing the following procedures, disconnect the ABS wheel-speed sensor connector (body side) and fix the wiring harness to an appropriate place where it will not be pulled by mistake while servicing the vehicle.

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.

## REAR AXLE



D3E312SI2001

1	ABS wheel-speed sensor connector
2	ABS wheel-speed sensor
3	Parking brake cable
4	Brake hose
5	Brake caliper component (See 03-12-3 Brake Caliper Component Removal Note.)

6	Disc plate
7	Wheel hub component
8	Dust cover
9	Wheel hub bolt (See 03-11-5 Wheel Hub Bolt Removal Note.) (See 03-11-6 Wheel Hub Bolt Installation Note.)

### Brake Caliper Component Removal Note

1. Remove the brake caliper component from the trailing link and suspend it out of the way using a cable.

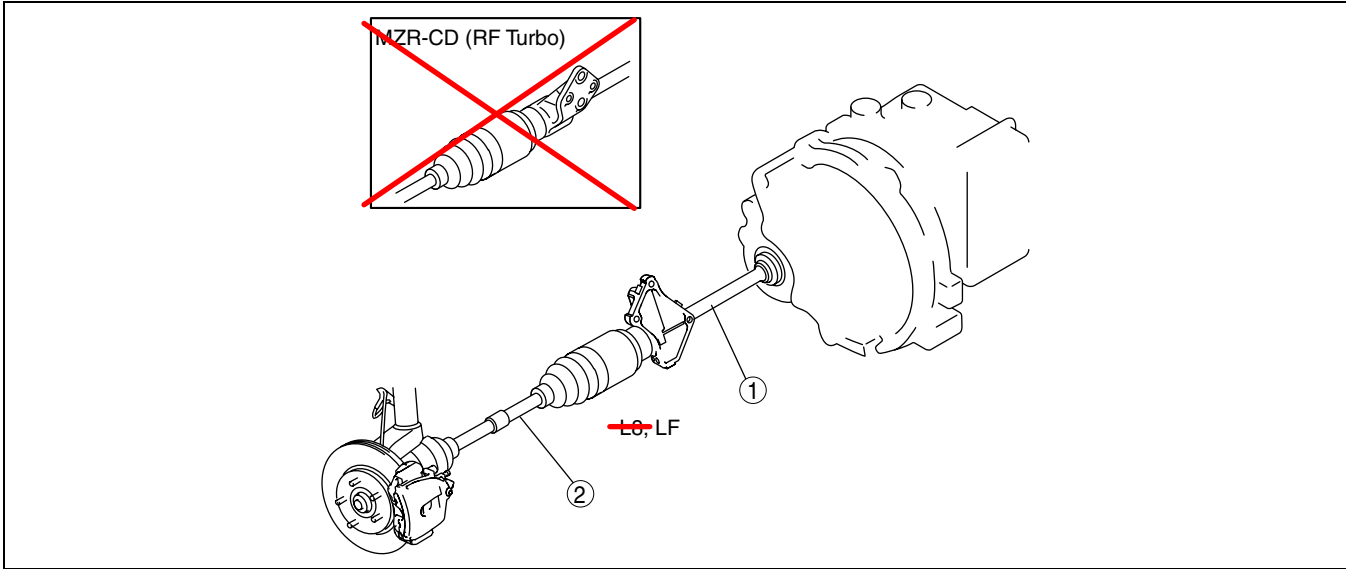
03-13 DRIVE SHAFT

DRIVE SHAFT LOCATION INDEX . . . . .	03-13-1	JOINT SHAFT DISASSEMBLY/	
JOINT SHAFT INSPECTION. . . . .	03-13-1	ASSEMBLY. . . . .	03-13-5
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[L8, LF] . . . . .	03-13-2	DRIVE SHAFT REMOVAL/	
<del>JOINT SHAFT REMOVAL/INSTALLATION [MZR-CD</del>		INSTALLATION. . . . .	03-13-7
<del>(RF Turbo)] . . . . .</del>	<del>03-13-3</del>	DRIVE SHAFT (TRIPOD JOINT) DISASSEMBLY/	
		ASSEMBLY. . . . .	03-13-10

DRIVE SHAFT LOCATION INDEX

DPE031325500W01

03



DPE313ZW1001

1	Joint shaft (See 03-13-1 JOINT SHAFT INSPECTION.) (See 03-13-2 JOINT SHAFT REMOVAL/ INSTALLATION [L8, LF].) <del>(See 03-13-3 JOINT SHAFT REMOVAL/ INSTALLATION [MZR-CD (RF Turbo)].)</del> (See 03-13-5 JOINT SHAFT DISASSEMBLY/ ASSEMBLY.)	2	Drive shaft (See 03-13-7 DRIVE SHAFT INSPECTION.) (See 03-13-7 DRIVE SHAFT REMOVAL/ INSTALLATION.) (See 03-13-10 DRIVE SHAFT (TRIPOD JOINT) DISASSEMBLY/ASSEMBLY.)
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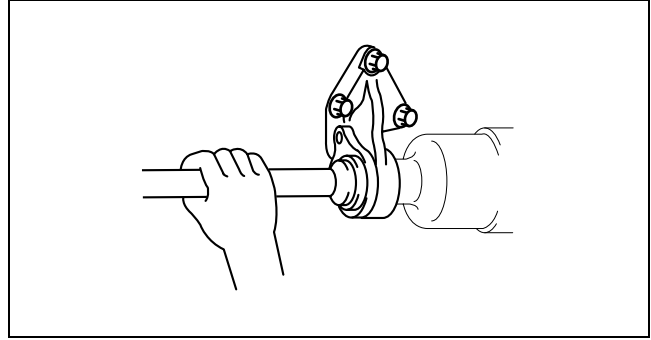
JOINT SHAFT INSPECTION

DPE031325700W01

1. Verify that there is no torsion or cracks on the joint shaft.
  - If there is any malfunction, replace the joint shaft.

## DRIVE SHAFT

2. Turn the joint shaft by hand and verify that the bearing rotates smoothly.
  - If there is any malfunction, replace the joint shaft.



B3E0313W500

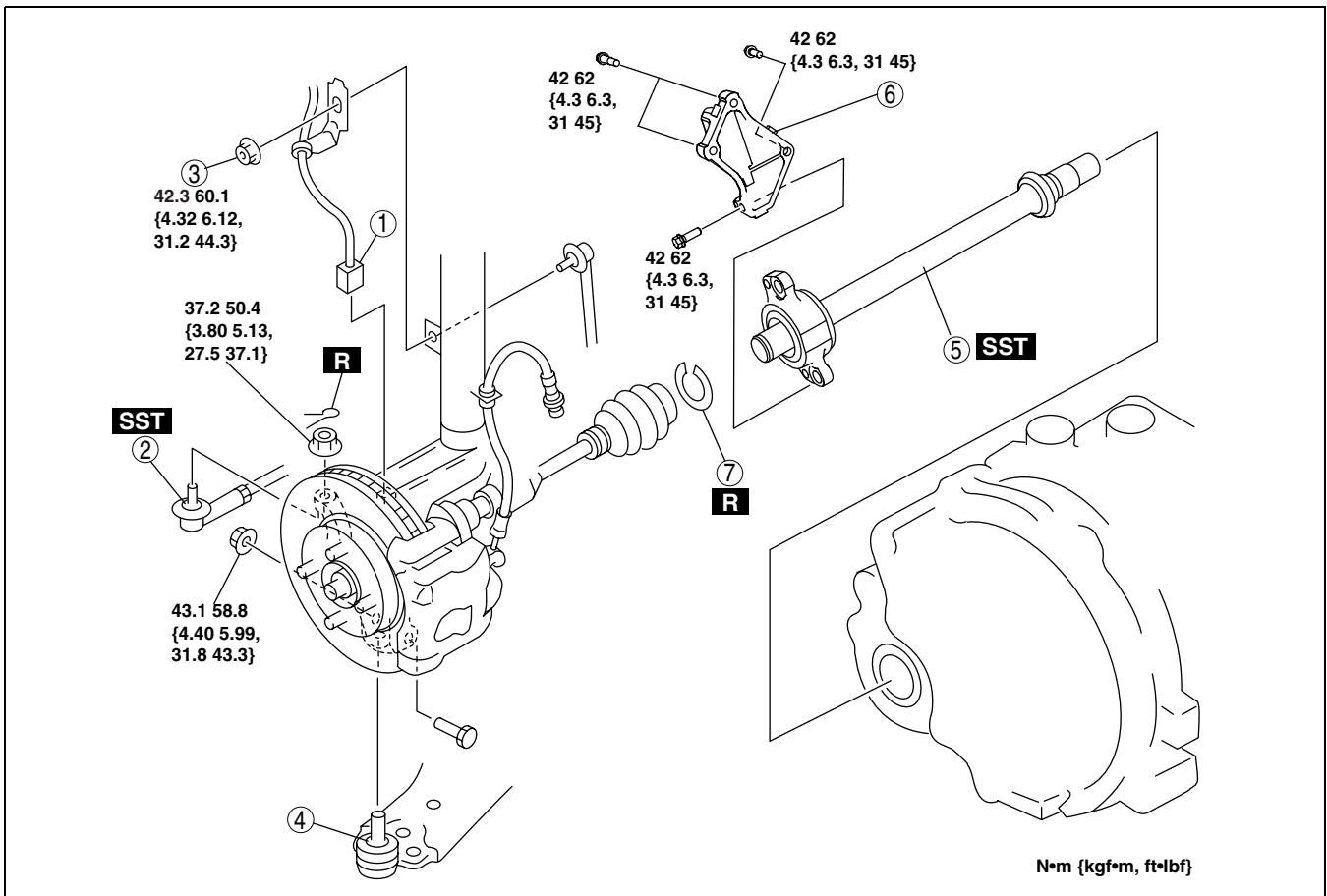
### JOINT SHAFT REMOVAL/INSTALLATION [~~L8~~, LF]

DPE031325700W02

#### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the wiring harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the sensor wiring harness will not be pulled by mistake while servicing the vehicle.

1. Drain the transaxle oil. (~~See 05-15-2 TRANAXLE OIL REPLACEMENT [C05M-R]~~) (See 05-17-9 AUTOMATIC TRANAXLE FLUID (ATF) REPLACEMENT [FN4A-EL].)
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.



DPE313ZW1002

1	ABS wheel-speed sensor connector
2	Tie-rod end ball joint (See 06-14-11 STEERING GEAR AND LINKAGE REMOVAL/INSTALLATION.)
3	Stabilizer control link upper nut

4	Front lower arm ball joint
5	Joint shaft (See 03-13-3 Joint Shaft Removal Note.)
6	Clip (See 03-13-3 Clip Installation Note.)

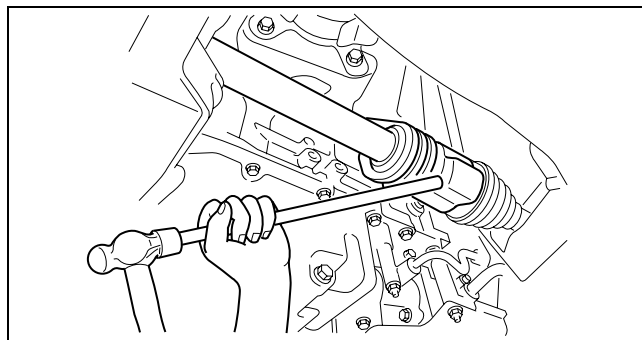
## DRIVE SHAFT

### Joint Shaft Removal Note

1. Disconnect the drive shaft (RH) from the joint shaft by tapping the transaxle side outer ring with a brass bar and hammer.
2. Disconnect the joint shaft bracket from the cylinder block and remove the joint shaft.

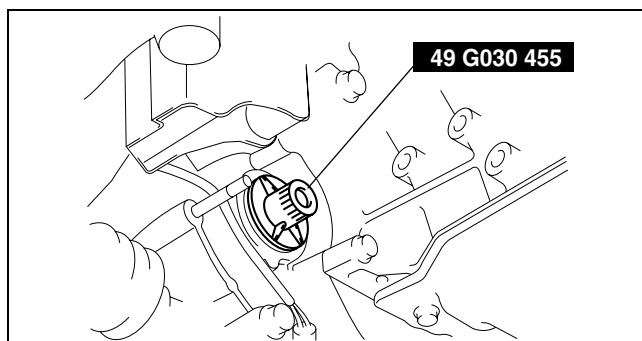
#### Caution

- The sharp edges of the joint shaft can slice or puncture the oil seal. Be careful when removing the joint shaft from the transaxle.



B3E0313W002

3. Install the **SST** to the transaxle after the joint shaft is removed.



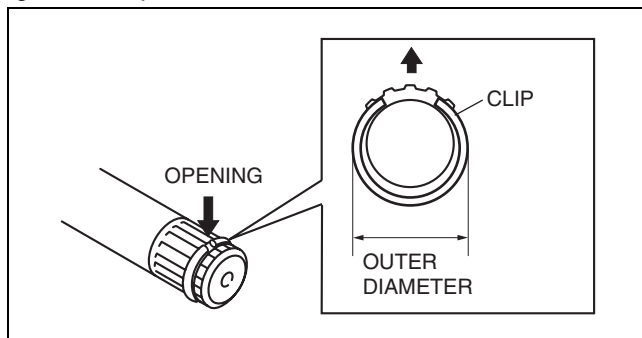
DPE313ZW1003

### Clip Installation Note

1. Install a new joint shaft clip to the clip groove at the end of the joint shaft with the clip opening facing upward and the clip width within the specification.
2. After installation, measure the outer diameter.
  - If it exceeds the specification, repeat installation using a new clip.

#### Standard

31.2 mm {1.23 in} or less



B3E0313W003

### JOINT SHAFT REMOVAL/INSTALLATION [MZR-CD (RF TURBO)]

DPE031325700W03

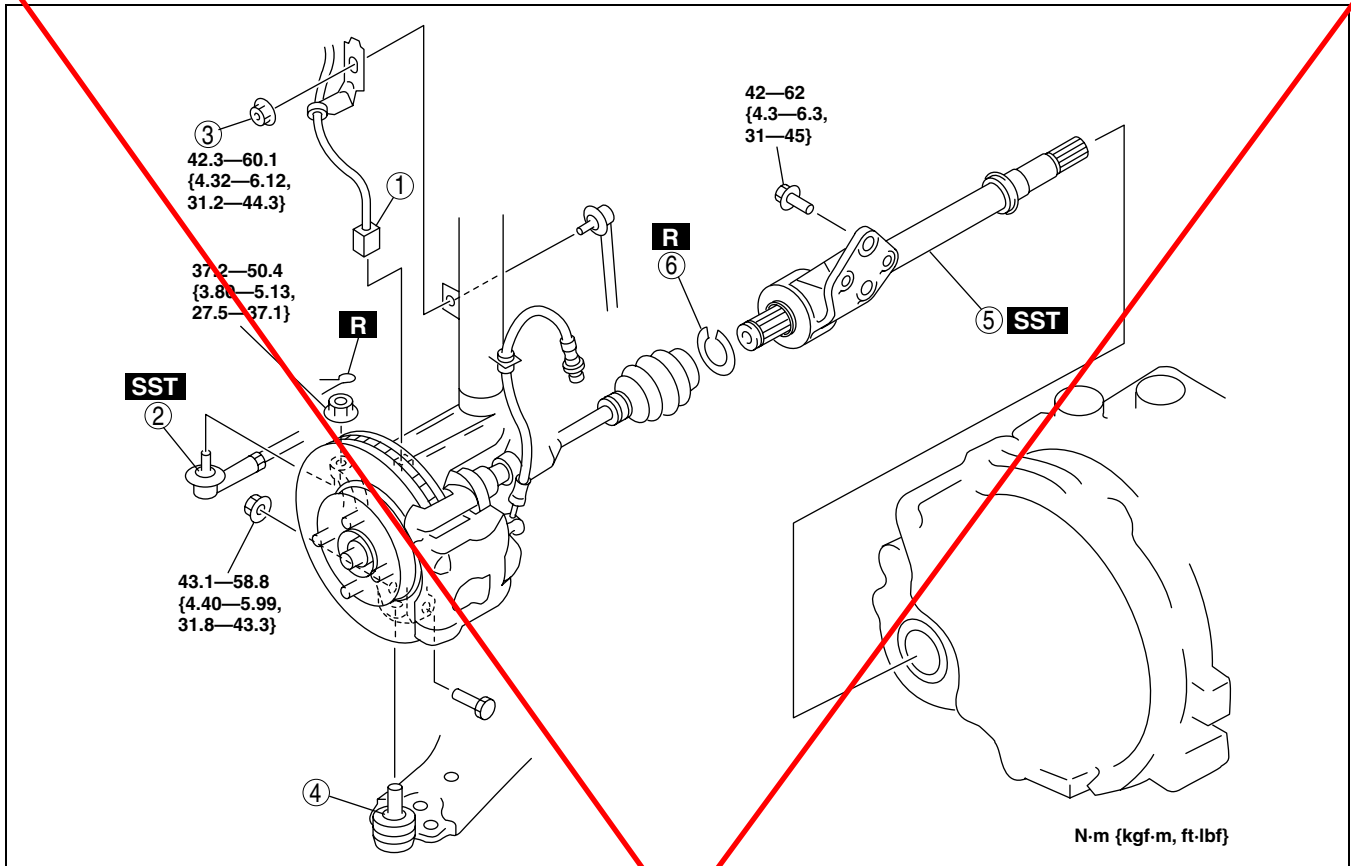
#### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the wiring harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the sensor wiring harness will not be pulled by mistake while servicing the vehicle.

1. Drain the transaxle oil. (See 05-15-2 TRANSAXLE OIL REPLACEMENT [G35M-R].)
2. Remove in the order indicated in the table.

## DRIVE SHAFT

3. Install in the reverse order of removal.



DPE313ZW1004

1	ABS wheel-speed sensor connector
2	Tie-rod end ball joint (See 02–13–11 FRONT CROSSMEMBER REMOVAL/INSTALLATION.)
3	Stabilizer control link upper nut

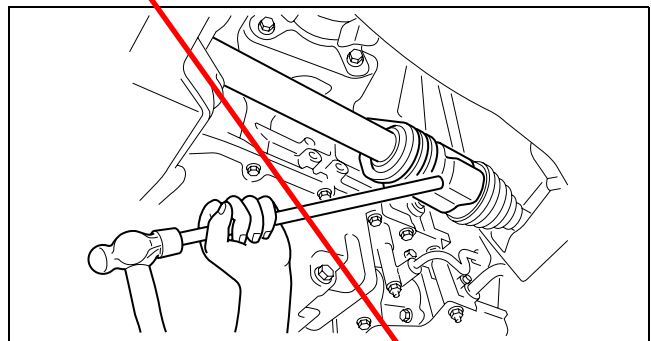
4	Front lower arm ball joint
5	Joint shaft (See 03–13–4 Joint Shaft Removal Note.)
6	Clip (See 03–13–4 Clip Installation Note.)

### Joint Shaft Removal Note

1. Disconnect the drive shaft (RH) from the joint shaft by tapping the transaxle side outer ring with a brass bar and hammer.
2. Remove the joint shaft.

#### Caution

- The sharp edges of the joint shaft can slice or puncture the oil seal. Be careful when removing the joint shaft from the transaxle.



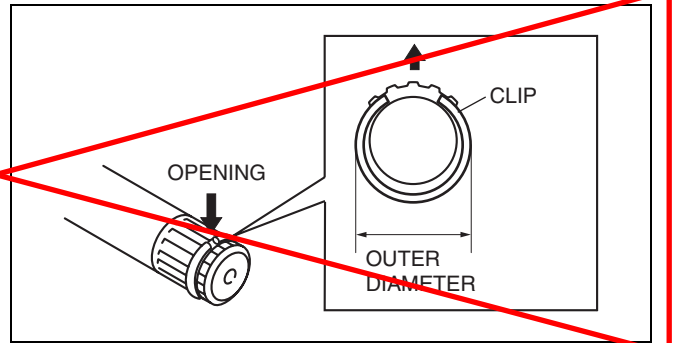
B3E0313W002

### Clip Installation Note

1. Install a new joint shaft clip to the clip groove at the end of the joint shaft with the clip opening facing upward and the clip width within the specification.
2. After installation, measure the outer diameter.
  - If it exceeds the specification, repeat installation using a new clip.

## DRIVE SHAFT

Standard  
31.2 mm {1.23 in} or less

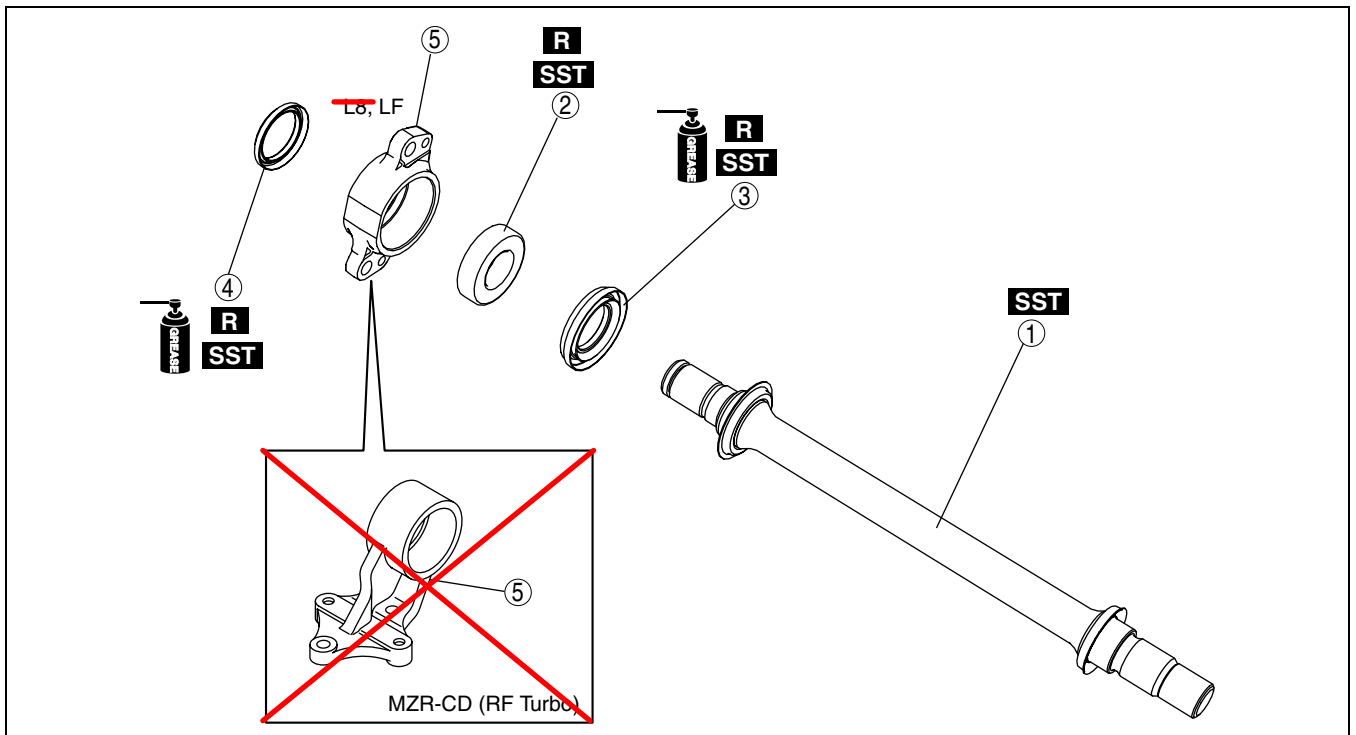


B3E0313W003

### JOINT SHAFT DISASSEMBLY/ASSEMBLY

DPE031325700W04

1. Disassemble in the order indicated in the table.
2. Assemble in the reverse order of disassembly.



DPE313ZW1013

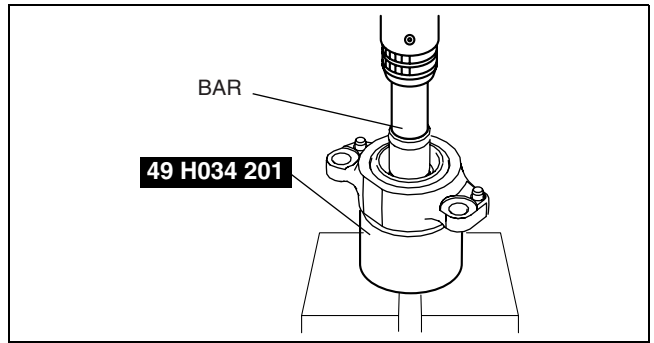
1	Joint shaft (See 03-13-6 Joint Shaft Disassembly Note.) (See 03-13-7 Joint Shaft Assembly Note.)
2	Bearing (See 03-13-6 Bearing Disassembly Note.) (See 03-13-7 Bearing Assembly Note.)

3	Dust seal (LH) (See 03-13-7 Dust Seal (LH) Assembly Note.)
4	Dust seal (RH) (See 03-13-6 Dust Seal (RH) Assembly Note.)
5	Bearing housing component (L8, LF), Bracket (MZR-CD)

## DRIVE SHAFT

### Joint Shaft Disassembly Note

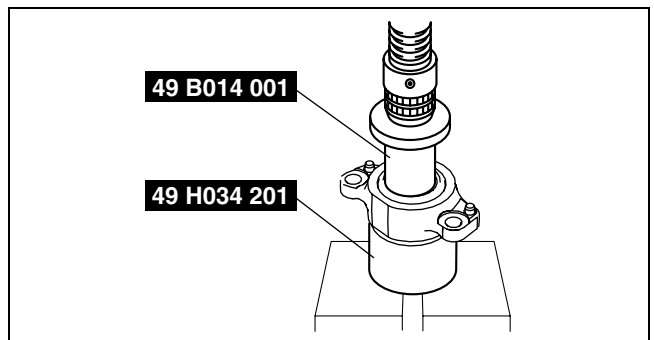
1. Remove the joint shaft using the **SST**.



DPE313ZW1005

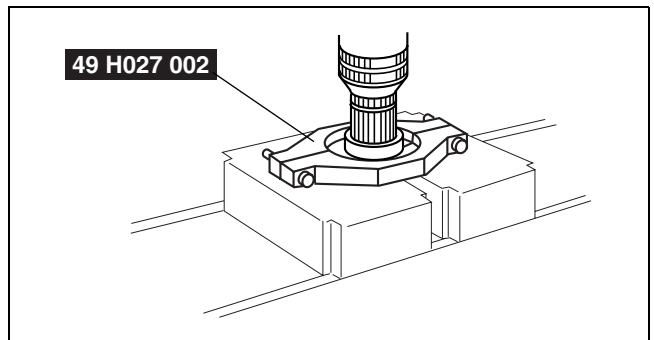
### Bearing Disassembly Note

1. Remove the bearing and the dust seal (RH/LH) using the **SSTs**.



DPE313ZW1014

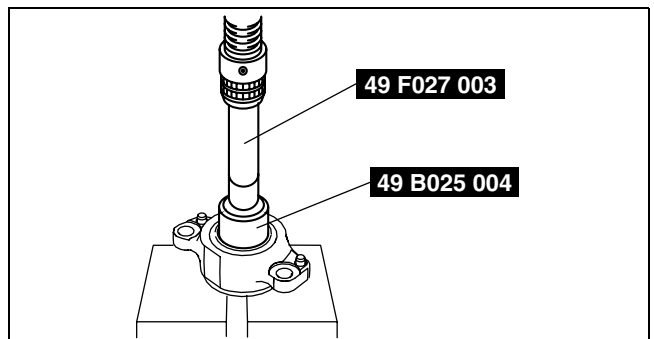
2. If the bearing remains on the joint shaft, set the **SST** and joint shaft to the press.



B3E0313W503

### Dust Seal (RH) Assembly Note

1. Apply grease to a new dust seal lip.
2. Install the dust seal (RH) using the **SSTs**.

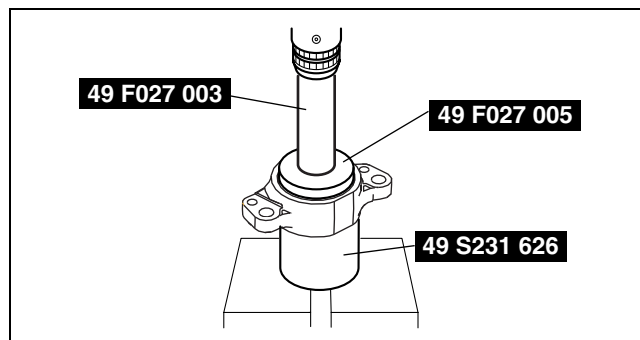


CPJ313ZWB008

## DRIVE SHAFT

### Bearing Assembly Note

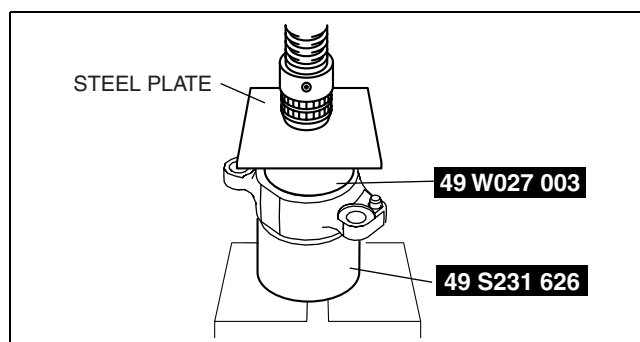
1. Install a new bearing using the **SSTs**.



CPJ313ZW009

### Dust Seal (LH) Assembly Note

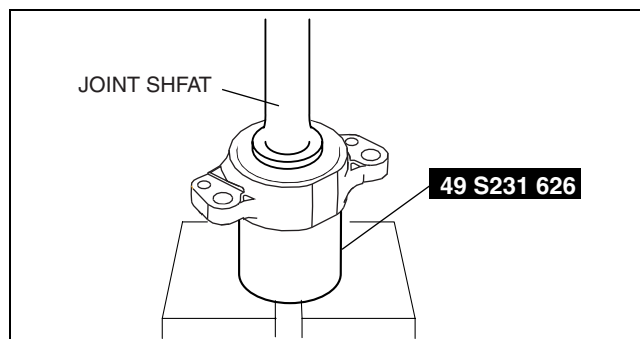
1. Apply grease to a new dust seal lip.
2. Install a new dust seal (LH) using the steel plate and the **SSTs**.



DPE313ZW1010

### Joint Shaft Assembly Note

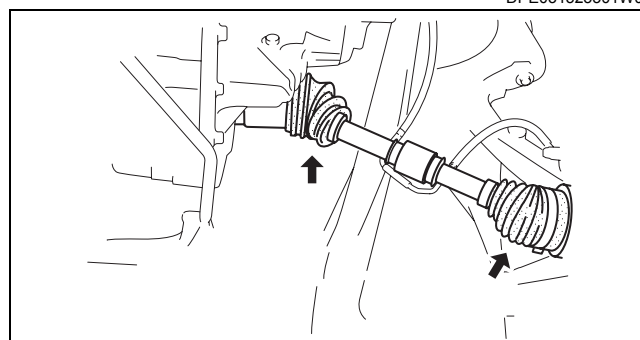
1. Press fit the joint shaft using the **SST** and a press.



DPE313ZW1011

### DRIVE SHAFT INSPECTION

1. Inspect the connections for any looseness.
  - If there is any malfunction, tighten or replace the applicable part.
2. Inspect the dust boot for damage and cracks.
  - If there is any malfunction, replace the applicable part.
3. Move the spline and joint up and down, left and right by hand and verify that there is no excessive play.
  - If there is any malfunction, replace the applicable part.



DPE031325501W01

B3E0313W501

### DRIVE SHAFT REMOVAL/INSTALLATION

DPE031325501W02

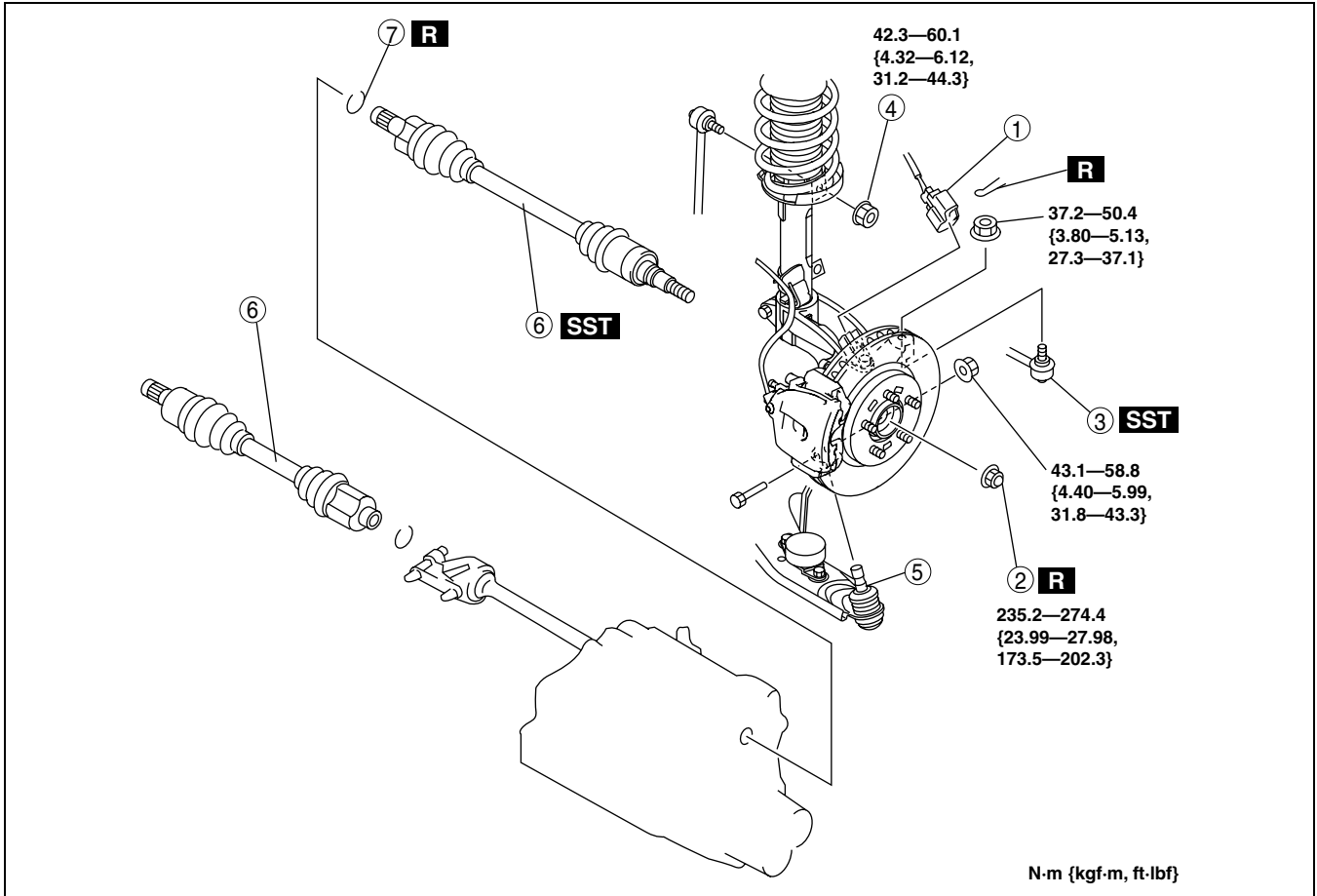
#### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the wiring harness if it is pulled by mistake. Before performing the following procedures, disconnect the ABS wheel-speed sensor connector (axle side) and fix

## DRIVE SHAFT

the wiring harness to an appropriate place where it will not be pulled by mistake while servicing the vehicle.

1. Drain the transaxle oil. (~~See 05-15-2 TRANSEXLE OIL REPLACEMENT [G05M-R].~~) (See 05-17-9 AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FN4A-EL].)
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.



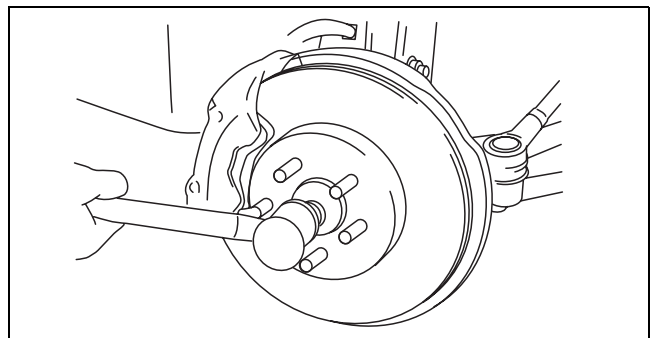
DPE313ZW1012

1	ABS wheel-speed sensor connector
2	Locknut (See 03-11-2 WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION.)
3	Tie-rod end ball joint (See 02-13-11 FRONT CROSSMEMBER REMOVAL/INSTALLATION.)

4	Stabilizer control link upper nut
5	Front lower arm ball joint
6	Drive shaft (See 03-13-8 Drive Shaft Removal Note.) (See 03-13-9 Drive Shaft Installation Note.)
7	Clip (See 03-13-9 Clip Installation Note.)

### Drive Shaft Removal Note

1. Install a spare bolt onto the drive shaft.
2. Tap the bolt with a copper hammer and separate the drive shaft from the axle.
3. Separate the drive shaft from the wheel hub.



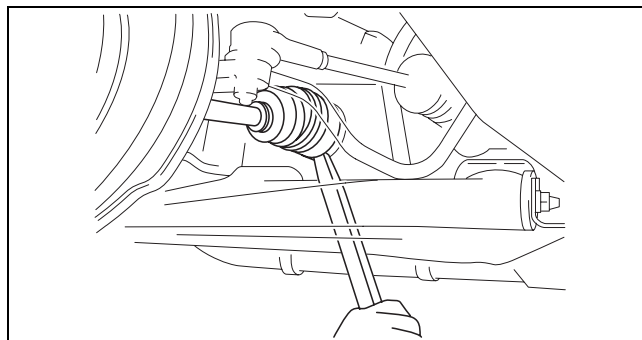
B3E0313W502

## DRIVE SHAFT

- Separate the drive shaft (LH) from the transaxle by prying with a bar inserted between the outer ring and the transaxle.

### Caution

- Be careful not to damage the transaxle oil seal with the bar.

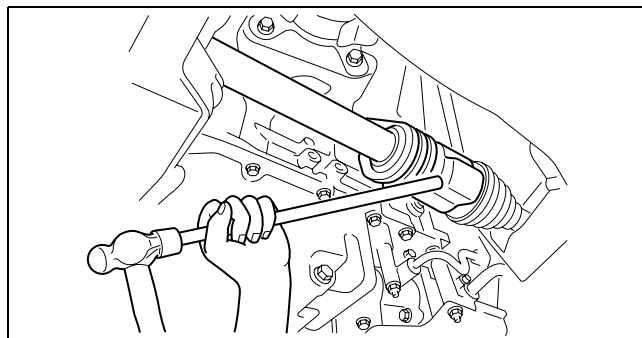


ADJ6316W017

- Disconnect the drive shaft (RH) from the joint shaft by tapping the transaxle side outer ring with a brass bar and hammer.

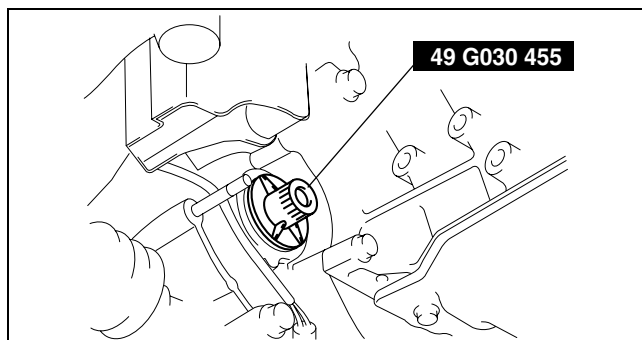
### Caution

- The sharp edges of the drive shaft can slice or puncture the oil seal. Be careful when removing the drive shaft from the transaxle.



B3E0313W002

- Install the **SSTs** to the transaxle after the drive shaft is removed.



DPE313ZW1003

03

### Clip Installation Note

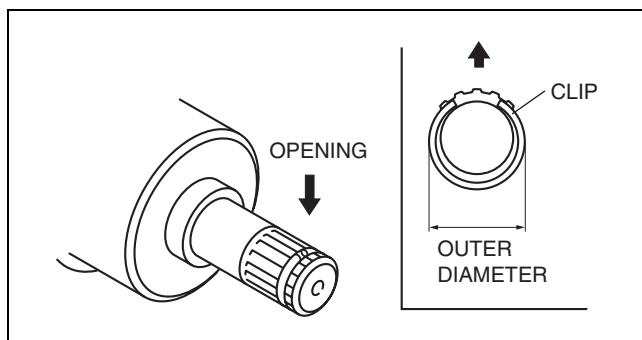
- Install a new drive shaft clip to the clip groove at the end of the drive shaft with the clip opening facing upward and the clip width within the specification.

### Standard

~~L8 and LF: 31.2 mm {1.23 in}~~

~~MZR CD (RF Turbo): 33.2 mm {1.31 in}~~

- After installation, measure the outer diameter.
  - If it exceeds the specification, repeat installation using a new clip.



B3E0213W030

### Drive Shaft Installation Note

#### Left side

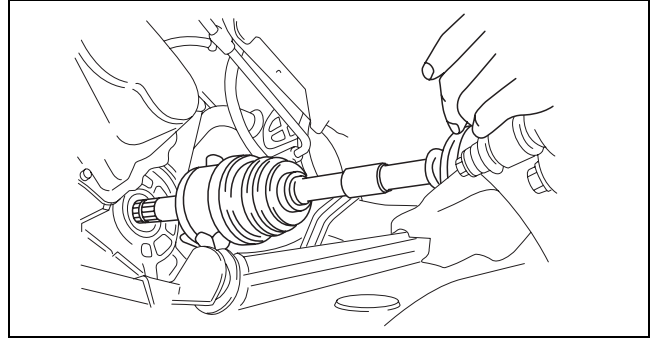
### Caution

- The sharp edges of the drive shaft can slice or puncture the oil seal. Be careful when installing the drive shaft from the transaxle.

- Insert the drive shaft into the wheel hub.
- Apply transaxle oil to the oil seal lip.

## DRIVE SHAFT

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



ADJ6316W018

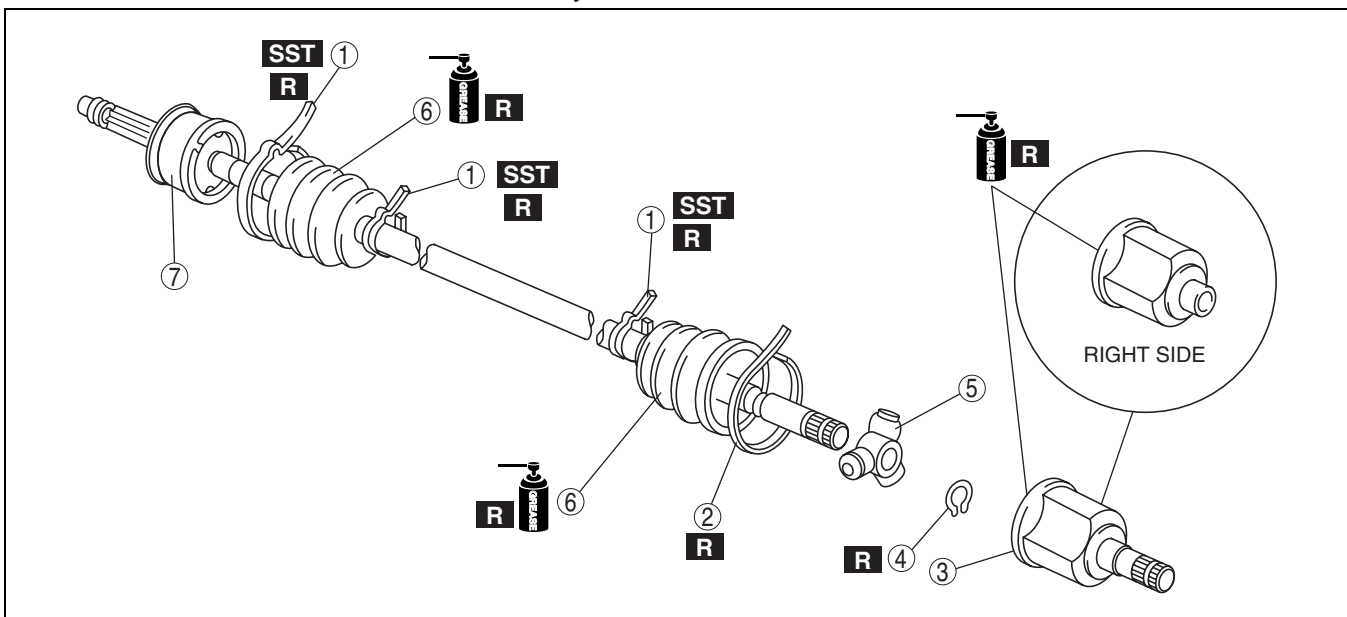
### Right side

1. Install a new clip onto the joint shaft. (~~See 03-13-3 JOINT SHAFT REMOVAL/INSTALLATION [MZR-CD (RF Turbo)].~~)
2. Insert the drive shaft to the wheel hub.
3. Insert the drive shaft to the joint shaft.
4. After installation, pull the transaxle side outer ring forward to confirm that the drive shaft is securely held by the clip.

### DRIVE SHAFT (TRIPOD JOINT) DISASSEMBLY/ASSEMBLY

DPE031325501W03

1. Disassemble in the order indicated in the table.
2. Assemble in the reverse order of disassembly.



B3E0313W008

1	Boot band (wheel side, transaxle side: smaller diameter) (See 03-13-11 Boot Band (Wheel Side, Transaxle Side: Smaller Diameter) Disassembly Note.) (See 03-13-14 Boot Band (Wheel Side, Transaxle Side Smaller Diameter) Assembly Note.)
2	Boot band (transaxle side larger diameter) (See 03-13-11 Boot Band (Transaxle Side Larger Diameter) Disassembly Note.) (See 03-13-14 Boot Band (Transaxle Side Larger Diameter) Assembly Note.)
3	Outer ring (See 03-13-11 Outer Ring Disassembly Note.) (See 03-13-13 Outer Ring Assembly Note.)

4	Snap ring (See 03-13-11 Snap Ring, Tripod Joint Disassembly Note.) (See 03-13-12 Tripod Joint, Snap Ring Assembly Note.)
5	Tripod joint (See 03-13-11 Snap Ring, Tripod Joint Disassembly Note.) (See 03-13-12 Tripod Joint, Snap Ring Assembly Note.)
6	Boot (See 03-13-12 Boot Disassembly Note.) (See 03-13-12 Boot Assembly Note.)
7	Shaft and ball joint component

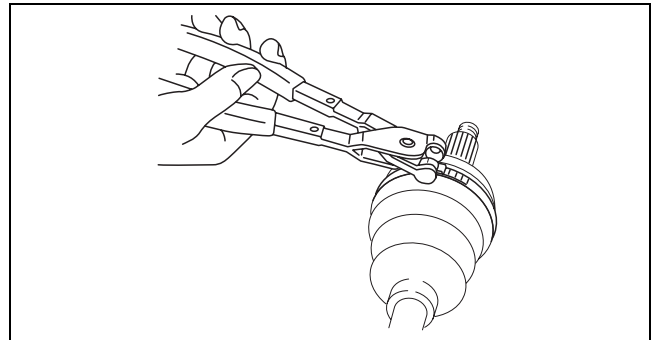
## DRIVE SHAFT

### Boot Band (Wheel Side, Transaxle Side: Smaller Diameter) Disassembly Note

#### Note

- Remove the boot band only if there is a malfunction.

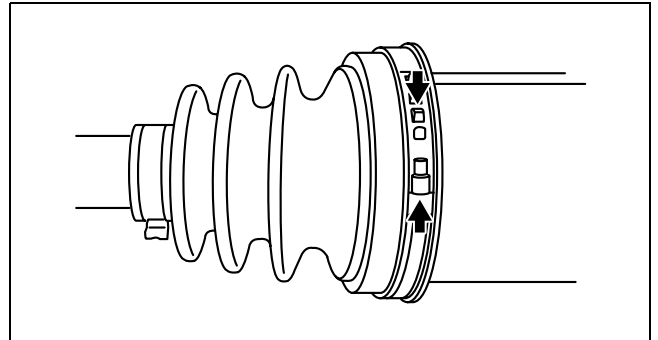
1. Remove the boot band using end clamp pliers.



A6E6316W004

### Boot Band (Transaxle Side Larger Diameter) Disassembly Note

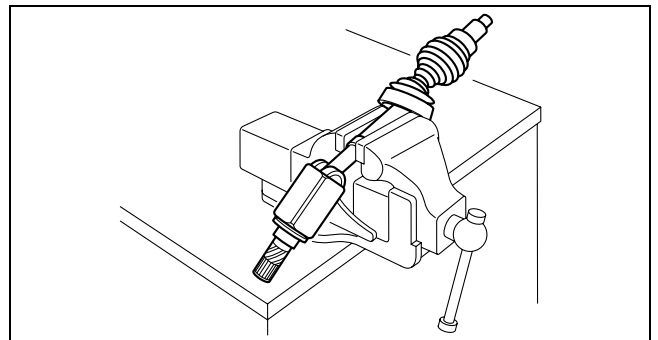
1. Pry up the boot band at the points indicated in the figure using pliers and remove the band.



ADJ6316W032

### Outer Ring Disassembly Note

1. Secure the driveshaft using a vise.

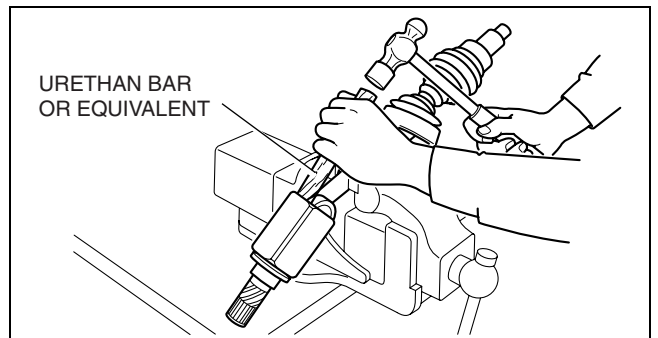


CPJ313ZWB013

2. Tap the outer ring slightly by using a hammer and urethan bar or equivalent, and remove the outer ring from the drive shaft.

#### Caution

- Do not damage the roller.



DPE313ZW1015

### Snap Ring, Tripod Joint Disassembly Note

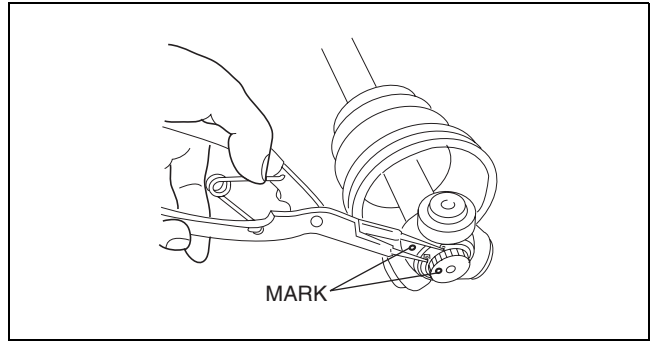
1. Place an alignment mark on the shaft and tripod joint.

## DRIVE SHAFT

2. Remove the snap ring using snap ring pliers.
3. Remove the tripod joint from the shaft.

### Caution

- Do not tap the tripod joint with a hammer.



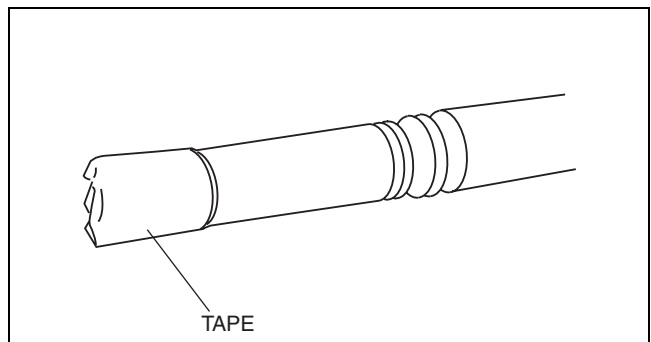
ADA6316W023

### Boot Disassembly Note

#### Note

- Remove the wheel side boot only if there is any malfunction.

1. Wrap the shaft splines with tape.
2. Remove the boot.



ADA6316W024

### Boot Assembly Note

#### Note

- The boot shapes on the wheel side and the differential side are different. Do not install the wrong boot by mistake.

1. Fill the inside of the new dust boot (wheel side) with grease.

### Caution

- Do not touch the grease with your hand. Apply it from the tube to prevent foreign matter from entering the boot.

### Grease amount

95—115 g {3.36—4.05 oz}

2. Install the boot with the drive shaft spline still wrapped with vinyl tape.
3. Remove the vinyl tape.

### Tripod Joint, Snap Ring Assembly Note

1. While aligning the marks on the shaft and the tripod joint, insert the tripod joint using a bar and a hammer.

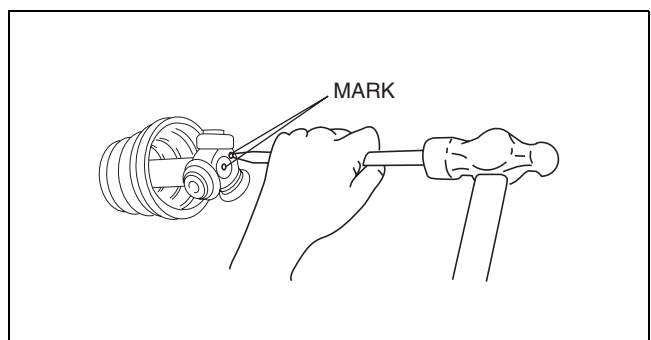
### Caution

- Do not tap the roller with a hammer.

2. Insert a new snap ring using snap ring pliers.

### Caution

- Be sure the snap ring engages correctly in the groove of the shaft.



ADA6316W026

## DRIVE SHAFT

### Outer Ring Assembly Note

1. Fill the outer ring and boot (transaxle side) with the specified grease.

#### Caution

- Do not touch the grease with your hand. Apply it from the tube to prevent foreign matter from entering the boot.

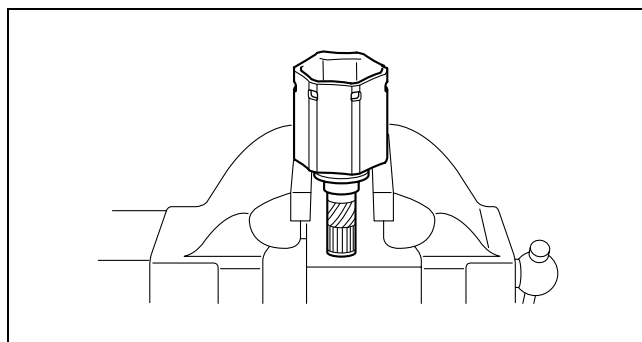
#### Grease amount

- ~~L8 (RH): 140—145 g {4.95—5.11 oz}~~
- ~~L8 (LH): 153—167 g {5.41—5.89 oz}~~
- ~~LF (MTX/LH): 153—167 g {5.41—5.89 oz}~~
- ~~LF (ATX): 139—153 g {4.91—5.40 oz}~~
- ~~MZR-CD (RF Turbo) (RH): 140—145 g {4.95—5.11 oz}~~
- ~~MZR-CD (RF Turbo) (LH): 153—167 g {5.41—5.89 oz}~~

2. Secure the outer ring using a vise.

#### Caution

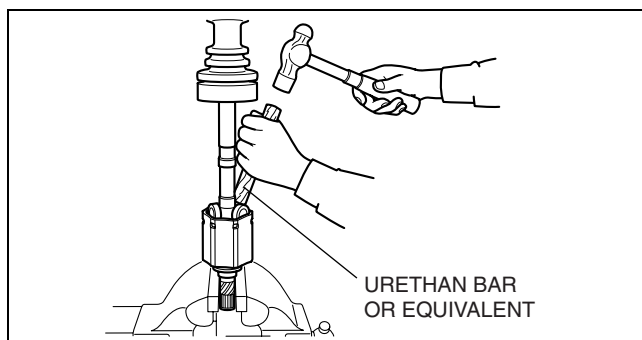
- Do not damage or deform the oil seal.



CPJ313ZWB015

03

3. Align the roller with the outer ring, tap the roller slightly using a hammer and urethan bar or equivalent, and install the drive shaft to the outer ring with keeping the drive shaft verticality.



DPE313ZW1016

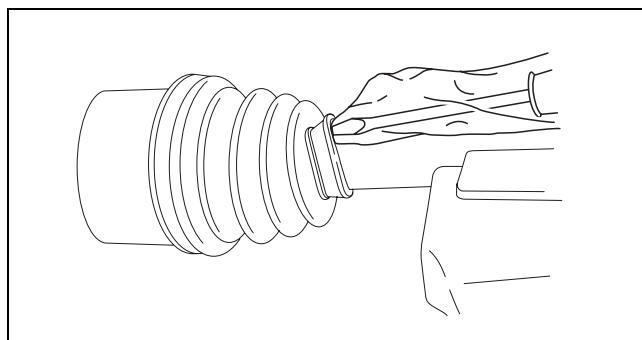
4. Release any trapped air from the boots by carefully lifting up the small end of each boot with a cloth wrapped screwdriver.

#### Caution

- Do not let the grease leak.
- Do not damage the boot.

#### Drive shaft standard length

- ~~L8 (LH) and LF (MTX, LH): 650.04 mm {25.946 in}~~
- ~~L8 (RH): 610.02 mm {24.016 in}~~
- ~~LF (ATX, LH): 646.86 mm {25.467 in}~~
- ~~LF (ATX, RH): 575.23 mm {22.647 in}~~
- ~~MZR-CD (RF Turbo) (LH): 610.37 mm {24.030 in}~~
- ~~MZR-CD (RF Turbo) (RH): 571.05 mm {22.518 in}~~



A6E6316W007

5. Verify that the drive shaft length is within the specification under atmospheric pressure inside the boot.
  - If not within the specification, repeat from Step 4.

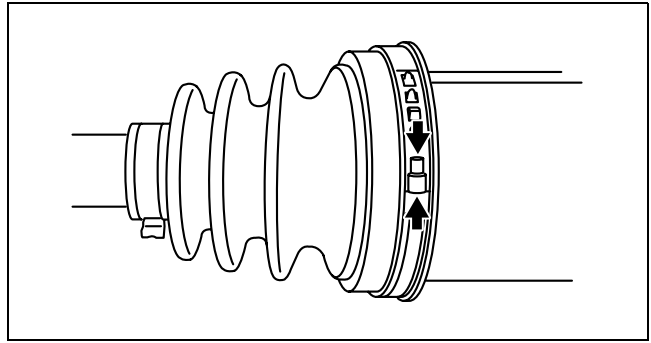
## DRIVE SHAFT

### Boot Band (Transaxle Side Larger Diameter) Assembly Note

1. Pry up the boot band at the points indicated in the figure using pliers and tighten the boot band.

#### Caution

- Verify that the boot band is installed securely to the boot slot.



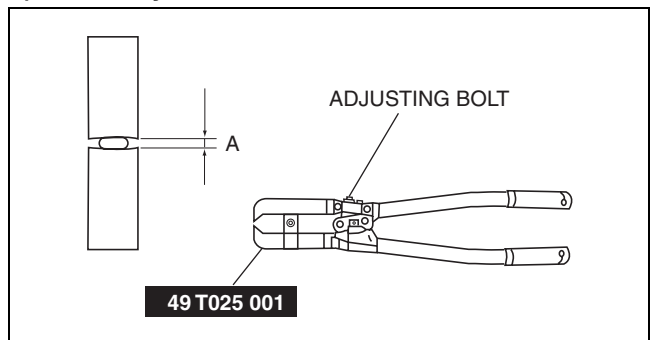
ADJ6316W033

### Boot Band (Wheel Side, Transaxle Side Smaller Diameter) Assembly Note

1. Adjust opening width A by turning the adjusting bolt of the **SST**.

#### Standard A

1.6 mm {0.063 in}

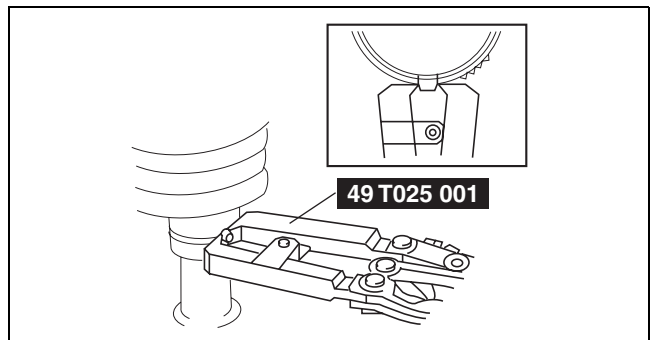


ADA6316W027

2. Crimp the wheel side small boot band completely closed so there is no gap using the **SST**.
3. Verify that the boot band does not protrude from the boot band installation area.
  - If the boot band protrudes from the boot band installation area, replace the boot band and repeat Step 2.
4. Fill the boot with the repair kit grease.
5. Adjust opening width A of the **SST** to the specification.

#### Standard A

2.0 mm {0.079 in}



ADJ6316W035

6. Crimp the wheel side large boot band completely closed so there is no gap using the **SST**.
7. Verify that the boot band does not protrude from the boot band installation area.
  - If the boot band protrudes from the boot band installation area, replace the boot band and repeat Step 6.

## TECHNICAL DATA

### 03-50 TECHNICAL DATA

#### DRIVELINE/AXLE TECHNICAL DATA . . 03-50-1

#### DRIVELINE/AXLE TECHNICAL DATA

DPE03500000W01

Item	Specification
Maximum wheel bearing play	0.05 mm {0.002 in}
Maximum wheel bearing play	0.05 mm {0.002 in}
Drive shaft standard length	<del>L8 (LH) and LF (MTX, LH): 650.04 mm {25.946 in}</del> <del>L8 (RH): 610.02 mm {24.016 in}</del> LF (ATX, LH): 646.86 mm {25.467 in} LF (ATX, RH): 575.23 mm {22.647 in} <del>MZR CD (RF Turbo) (LH): 610.37 mm {24.030 in}</del> <del>MZR CD (RF Turbo) (RH): 571.95 mm {22.518 in}</del>

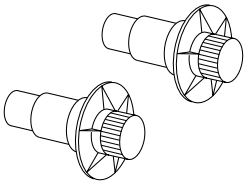
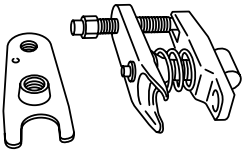
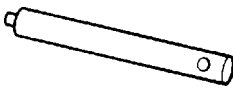

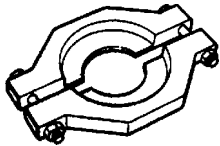
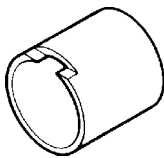
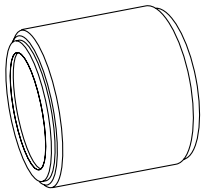
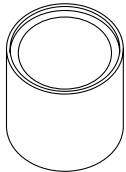
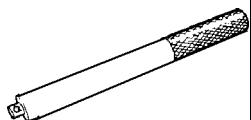
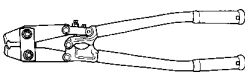
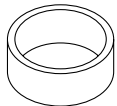
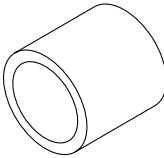
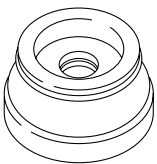
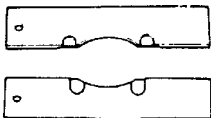
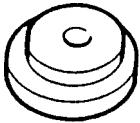
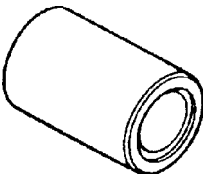
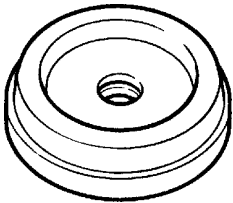
## SERVICE TOOLS

### 03-60 SERVICE TOOLS

DRIVELINE/AXLE SST ..... 03-60-1

#### DRIVELINE/AXLE SST

DPE03600000W01

<p>49 G030 455</p> <p>Diff. side gear holder</p> 	<p>49 T028 3A0</p> <p>Ball joint puller set</p> 	<p>49 G033 102</p> <p>Handle</p> 
<p>49 G030 105</p> <p>Attachment</p> 	<p>49 H027 002</p> <p>Bearing remover</p> 	<p>49 H034 201</p> <p>Support block</p> 
<p>49 B014 001</p> <p>Oil seal installer</p> 	<p>49 B025 004</p> <p>Dust seal installer</p> 	<p>49 F027 003</p> <p>Handle</p> 
<p>49 T025 001</p> <p>Boot clamp crimper</p> 	<p>49 S231 626</p> <p>Support block</p> 	<p>49 W027 003</p> <p>Bearing installer</p> 
<p>49 F027 005</p> <p>Attachment ø62</p> 	<p>49 F026 103</p> <p>Wheel hub puller</p> 	<p>49 G033 106</p> <p>Attachment</p> 
<p>49 8038 785A</p> <p>Dust boot installer</p> 	<p>49 F027 004</p> <p>Attachment ø80</p> 	<p>—</p>