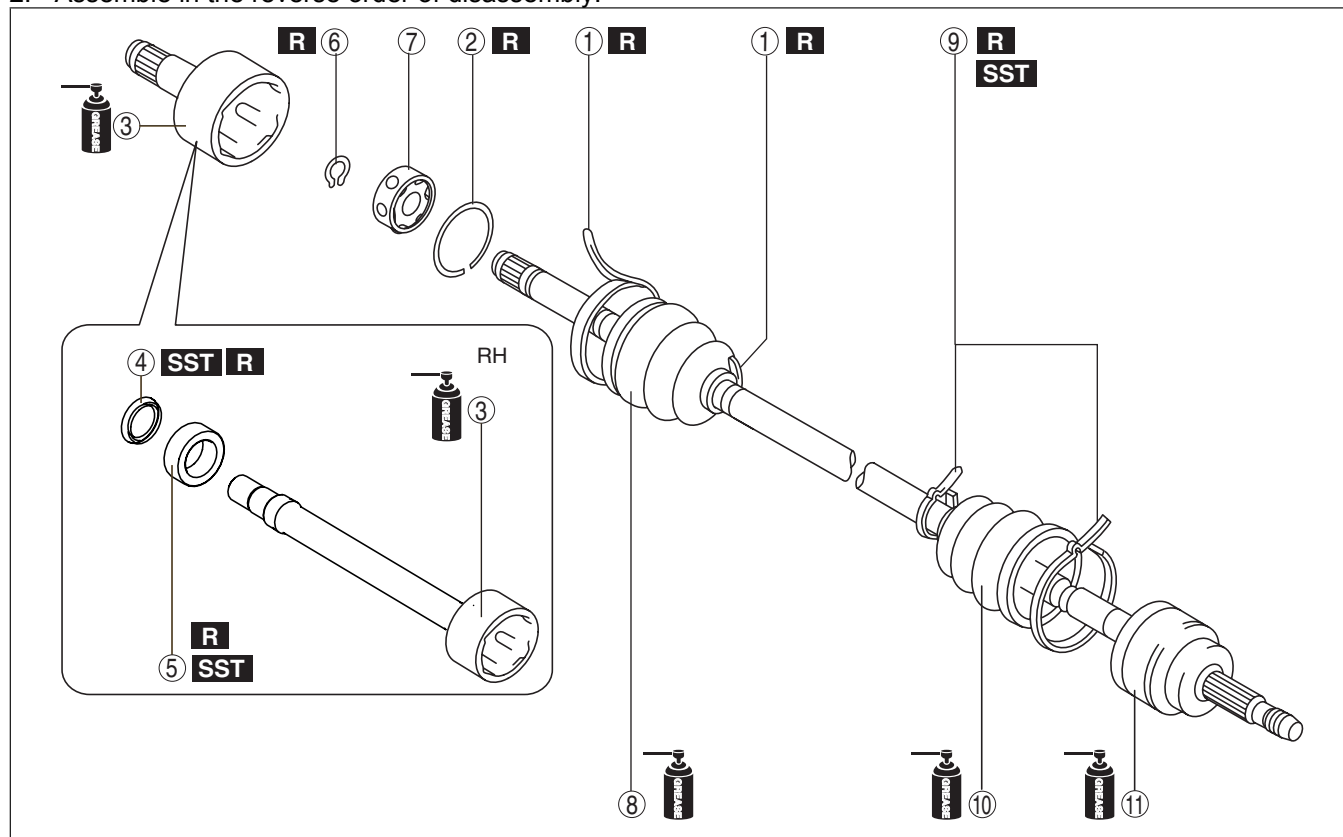


## FRONT DRIVE SHAFT (DOUBLE OFFSET JOINT) DISASSEMBLY/ASSEMBLY

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1. Disassemble in the order shown in the figure.
2. Assemble in the reverse order of disassembly.



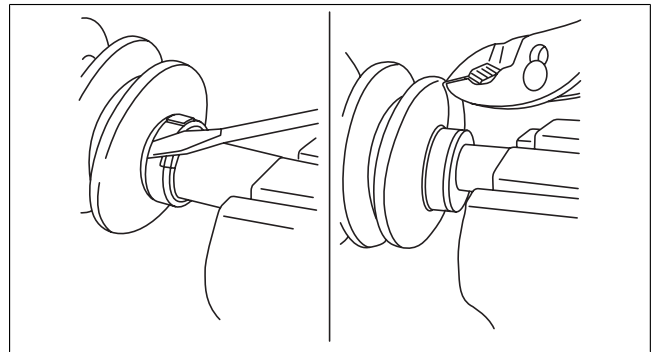
atstjw00000060

1	Boot band (transaxle side) (See Boot Band (Transaxle Side) Disassembly Note.) (See Boot Band (Transaxle Side) Assembly Note.)
2	Clip (See Clip, Outer Ring Disassembly Note.) (See Outer Ring, Clip Assembly Note.)
3	Outer ring (See Clip, Outer Ring Disassembly Note.) (See Outer Ring, Clip Assembly Note.)
4	Dust cover (See Dust Cover Disassembly Note.) (See Dust Cover Assembly Note.)
5	Bearing (See Bearing Disassembly Note.) (See Bearing Assembly Note.)
6	Snap ring (See Snap ring, Ball, Inner Ring, Cage Disassembly Note.) (See Ball, Inner Ring, Cage, Snap Ring Assembly Note.)

7	Ball, inner ring, cage (See Snap ring, Ball, Inner Ring, Cage Disassembly Note.) (See Ball, Inner Ring, Cage, Snap Ring Assembly Note.)
8	Boot (transaxle side) (See Boot (Transaxle Side) Disassembly Note.) (See Boot (Transaxle Side) Assembly Note.)
9	Boot band (wheel side) (See Boot Band (Wheel Side) Disassembly Note.) (See Boot Band (Wheel Side) Assembly Note.)
10	Boot (wheel side) (See Boot (Wheel Side) Disassembly Note.) (See Boot (Wheel Side) Assembly Note.)
11	Shaft and ball joint component

### Boot Band (Transaxle Side) Disassembly Note

1. Press the lock clip up using a screwdriver.
2. Remove the boot band using pliers.



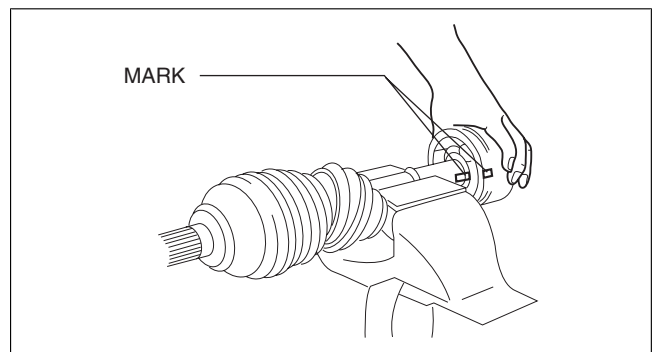
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### Clip, Outer Ring Disassembly Note

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

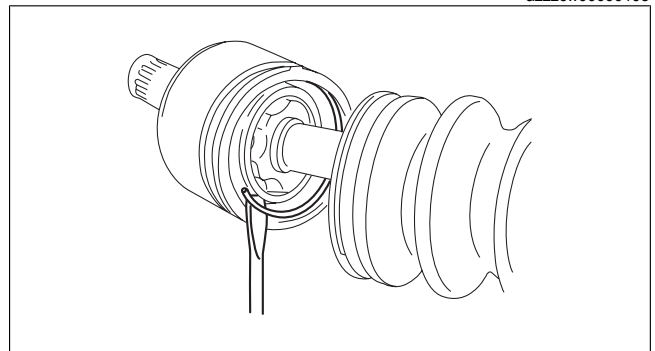
#### Caution

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



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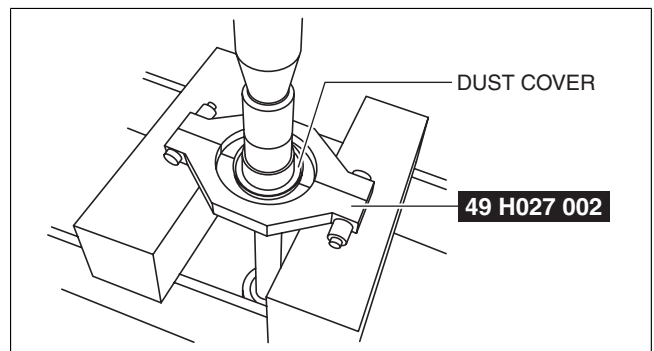
2. Remove the clip using a screwdriver.
3. Remove the outer ring from the shaft.
4. Wipe off grease on the outer ring using a clean rag.



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### Dust Cover Disassembly Note

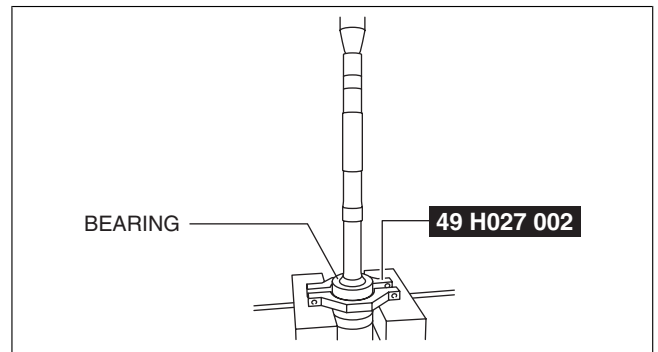
1. Remove the dust cover using a press and the SST.



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### Bearing Disassembly Note

1. Remove the bearing using a press and the **SST**.



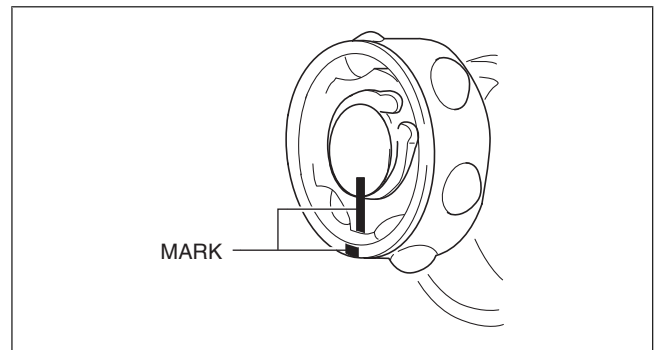
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### Snap ring, Ball, Inner Ring, Cage Disassembly Note

1. Place alignment marks on the shaft, inner ring, and cage.

#### Caution

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



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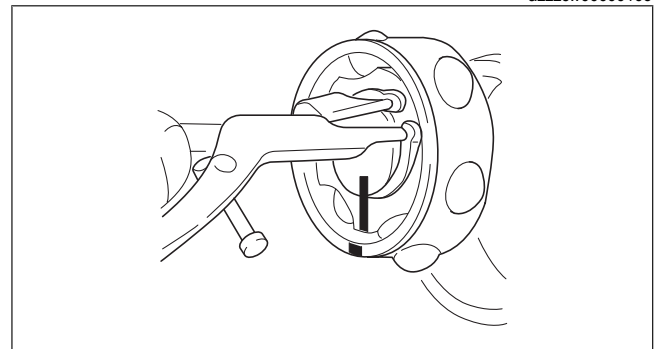
2. Remove the snap ring using snap ring pliers.
3. Remove the ball, inner ring, and cage from the shaft.

#### Caution

- When using a hammer and urethane bar or equivalent, be careful not to damage the ball, ball sliding area, and cage.

#### Note

- If the ball, inner ring, and cage cannot be removed from the shaft, lightly tap the inner ring evenly using a hammer and urethane bar or equivalent, and remove the ball, inner ring, and cage from the shaft.

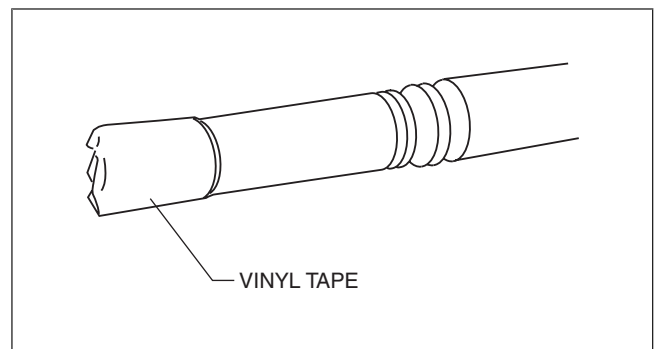


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4. Wipe off grease on the shaft, ball, inner ring, and cage using a clean rag.

### Boot (Transaxle Side) Disassembly Note

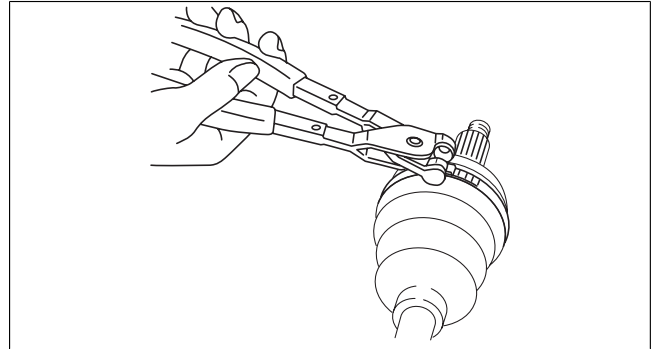
1. Wrap vinyl tape around the spline area of the shaft to prevent damage to the boot.
2. Remove the boot (transaxle side).
3. Wipe off grease on the boot (transaxle side) using a clean rag.



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### Boot Band (Wheel Side) Disassembly Note

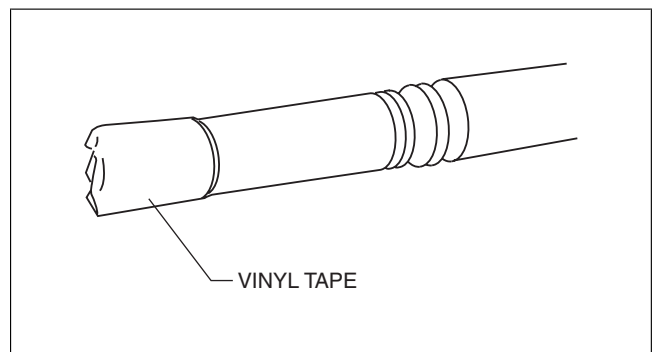
1. Remove the boot band using end clamp pliers.



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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.
2. Remove the boot (wheel side).
3. Wipe off grease on the boot (wheel side) and ball joint using a clean rag.



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### Boot (Wheel Side) Assembly Note

#### Note

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

1. Insert the shaft through the boot (wheel side) with vinyl tape left wrapped around the spline area of the shaft.
2. Apply the specified grease to the ball joint and boot (wheel side).

#### Note

- Apply the grease from the tube. Do not touch the grease directly with your hand.

#### Grease amount

125—145 g {4.41—5.11 oz}

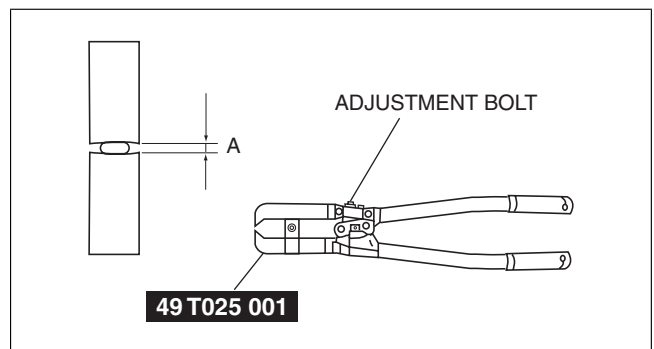
3. Assemble the boot (wheel side) to the ball joint.

### Boot Band (Wheel Side) Assembly Note

1. Adjust opening A of the SST to the standard by rotating the adjustment bolt.

#### Standard A

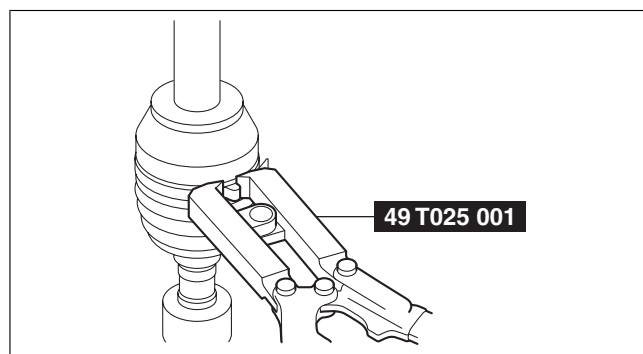
Approx. 4.6 mm {0.18 in}



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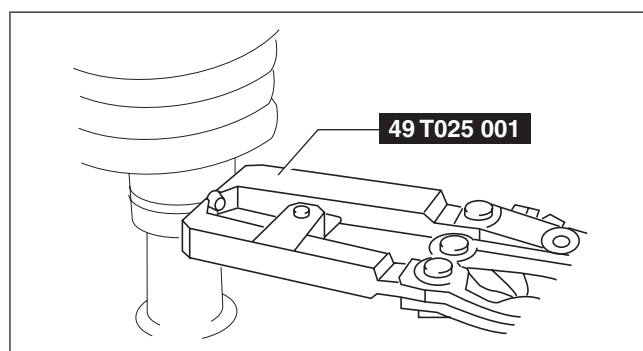
2. Crimp the boot band using the SST.

## Large diameter side



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## Small diameter side



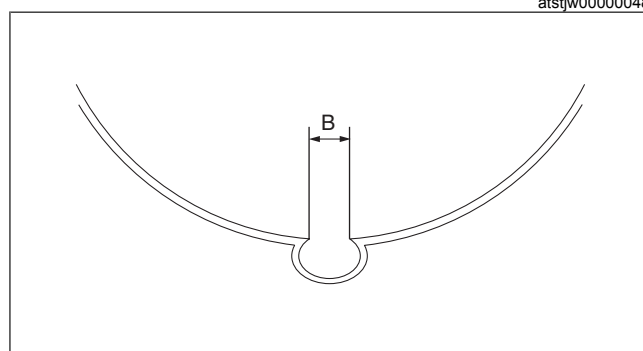
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3. Verify that crimp B of the boot band is within the standard.

### Standard B

1.2—4.0 mm {0.05—0.15 in}

- If crimp B exceeds the standard, decrease opening A of the **SST** and crimp the boot band again.
  - If crimp B is less than the standard, replace the boot band, increase opening A of the **SST**, and crimp the new boot band.
4. Verify that the boot band does not protrude from the boot band assembly area.
    - If the boot band protrudes from the assembly area, replace it with a new one and repeat Steps 1 to 3.



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## Boot (Transaxle Side) Assembly Note

### Note

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

1. Insert the shaft through the boot (transaxle side) with vinyl tape left wrapped around the spline area of the shaft.
2. Remove vinyl tape wrapped around the spline area of the shaft.

## Ball, Inner Ring, Cage, Snap Ring Assembly Note

1. Assemble the shaft, inner ring, and cage with the alignment marks aligned.

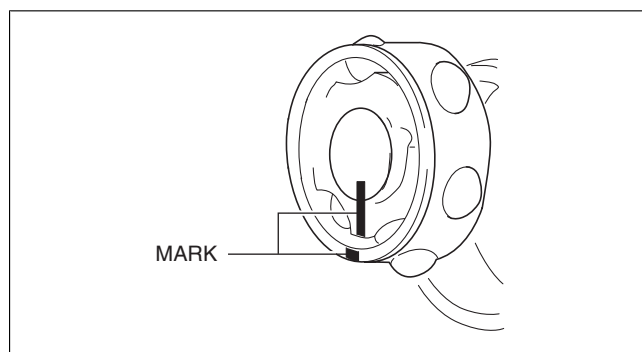
### Caution

- When using the hammer and urethane bar or equivalent, be careful not to damage the ball, ball sliding area, and cage.

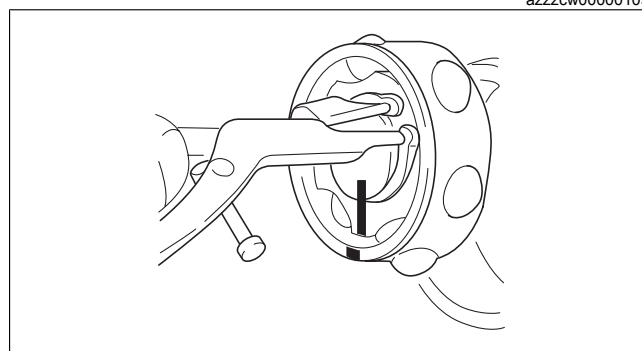
### Note

- If the ball, inner ring, and cage cannot be assembled to the shaft, lightly tap the inner ring evenly using a hammer and urethane bar or equivalent, and assemble the ball, inner ring, and cage to shaft.

2. Assemble a new snap ring using snap ring pliers.
3. Verify that the snap ring is assembled correctly in the groove of the shaft.



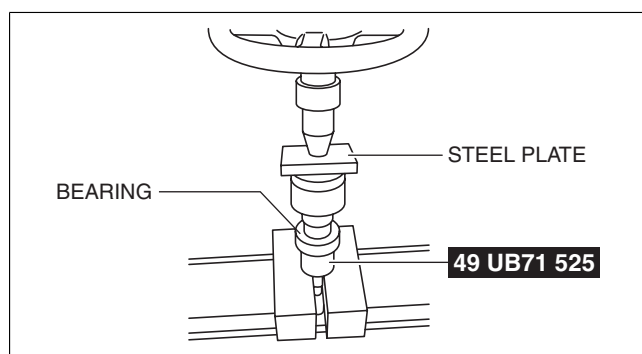
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#### Bearing Assembly Note

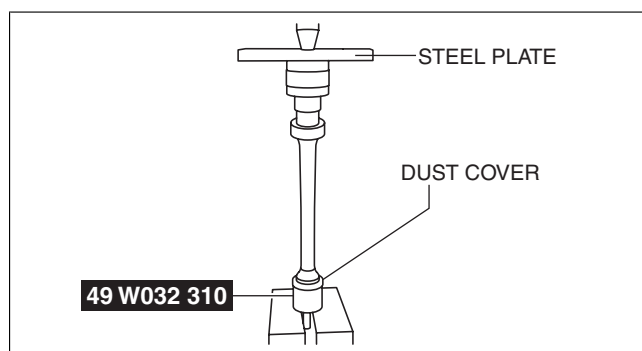
1. Assemble a new bearing using the **SST** and a press.



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#### Dust Cover Assembly Note

1. Assemble a new dust cover using the **SST** and a press.



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#### Outer Ring, Clip Assembly Note

1. Apply the specified grease to the outer ring and boot (transaxle side).

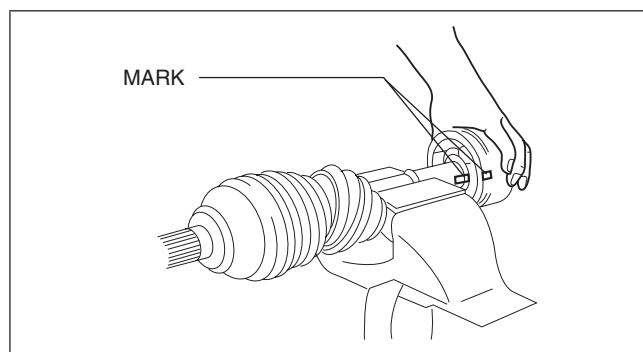
##### Note

- Apply the grease from the tube. Do not touch the grease directly with your hand.

##### Grease amount

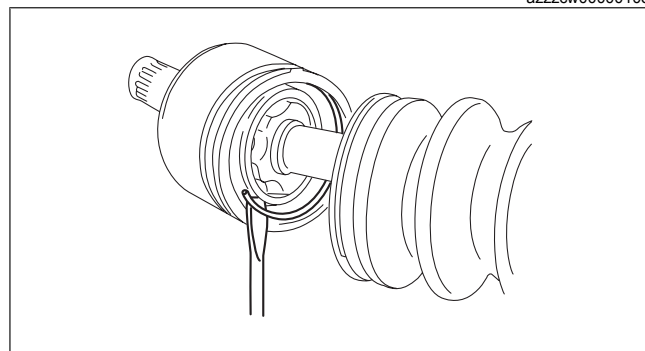
100—120 g {3.53—4.23 oz}

2. Assemble the outer ring with the alignment marks on the shaft and outer ring aligned.



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3. Assemble a new clip using a screwdriver.
4. Verify that the clip is assembled correctly in the groove of the outer ring.
5. Assemble the boot (transaxle side) to the outer ring.
6. Set the drive shaft length to the standard.



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#### Drive shaft full length (standard)

##### LH

- SKYACTIV-G 2.0: 673.8—679.0 mm {26.53—26.73 in}
- SKYACTIV-D 2.2: 663.1—668.3 mm {26.11—26.31 in}

##### RH

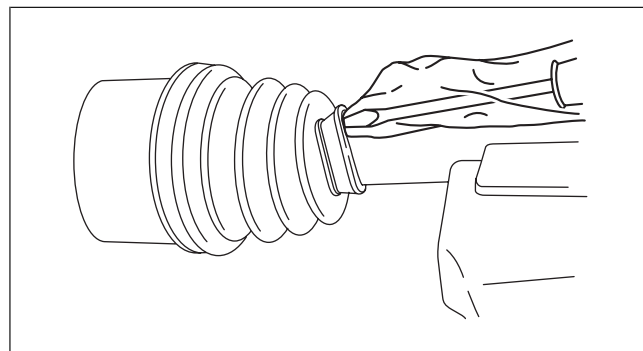
- SKYACTIV-G 2.0: 1036.6—1042.8 mm {40.812—41.055 in}
- SKYACTIV-D 2.2: 1044.1—1049.3 mm {41.107—41.311 in}

7. Release any trapped air from the boot by carefully lifting up the small end of the boot with a screwdriver wrapped in a clean rag.

#### Note

- Do not damage the boot. Verify that there is no grease leakage.
- If the boot is deformed, it may not be possible to perform the full-length adjustment of the shaft.

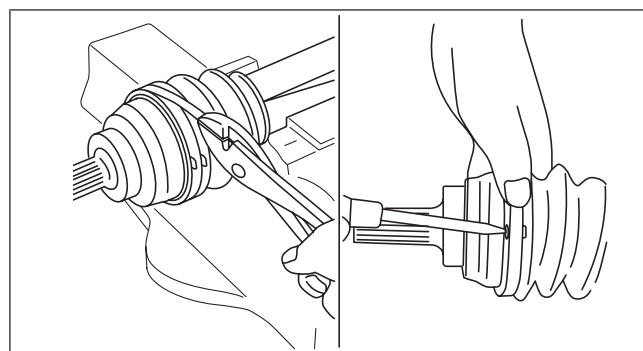
8. Verify that the drive shaft length is within the standard when the inside of the boot is at atmospheric pressure.
  - If not within the standard, repeat from Step 6.



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

1. Bend the boot band in the opposite direction from the forward rotation direction, and pull it using pliers to tighten.
2. Secure the bent boot band by bending the lock clip.
3. Verify that the boot band does not protrude from the band assembly area.
  - If the boot band protrudes from the assembly area, replace it with a new one and repeat Steps 1 to 2.



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