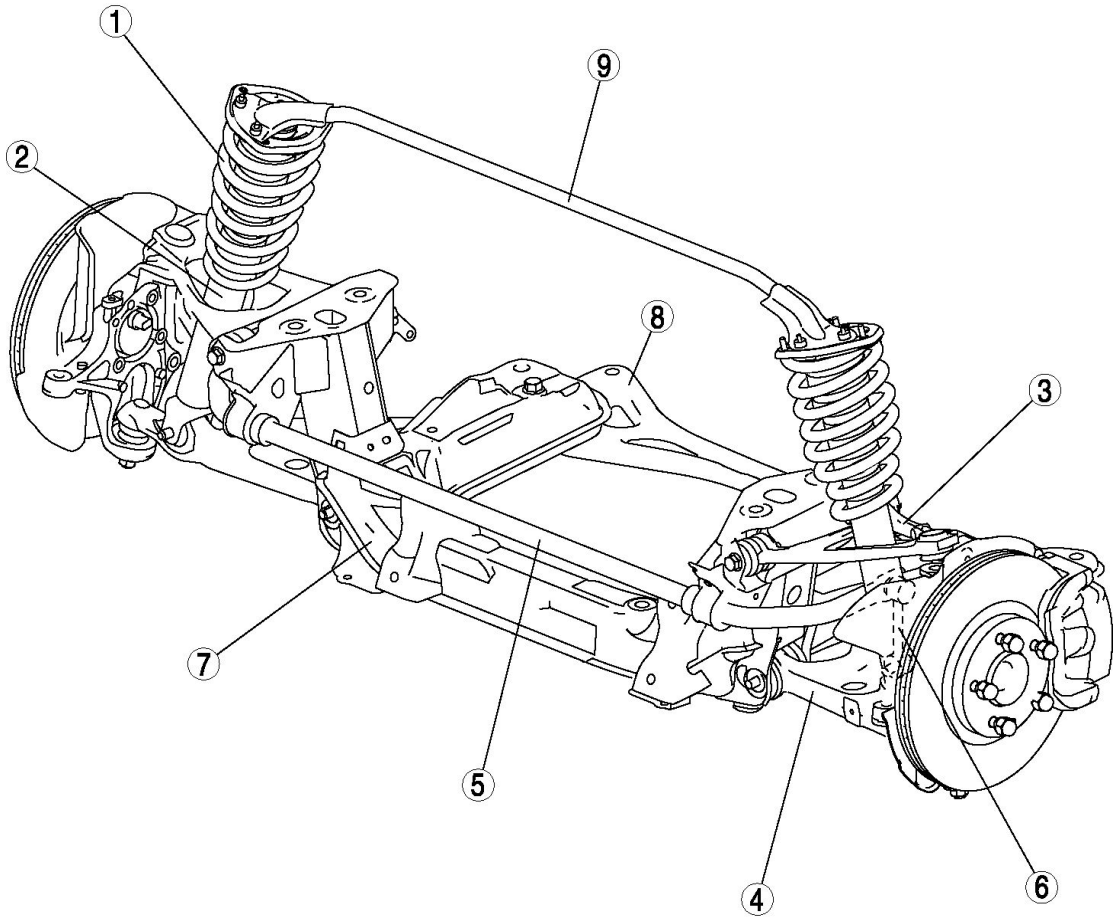
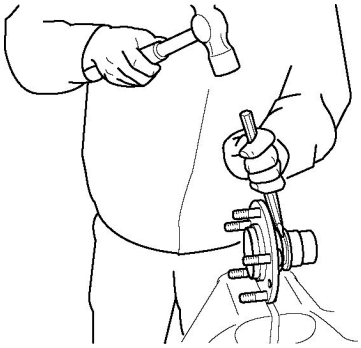
# SUSPENSION

## FRONT SUSPENSION LOCATION INDEX (w)




| | |
|---|---|
| 1 | Front shock absorber and coil spring |
| 2 | Front shock absorber |
| 3 | Front upper arm |
| 4 | Front lower arm |
| 5 | Front stabilizer |
| 6 | Stabilizer control link |
| 7 | Front crossmember |
| 8 | Transverse member |
| 9 | Front suspension tower bar |



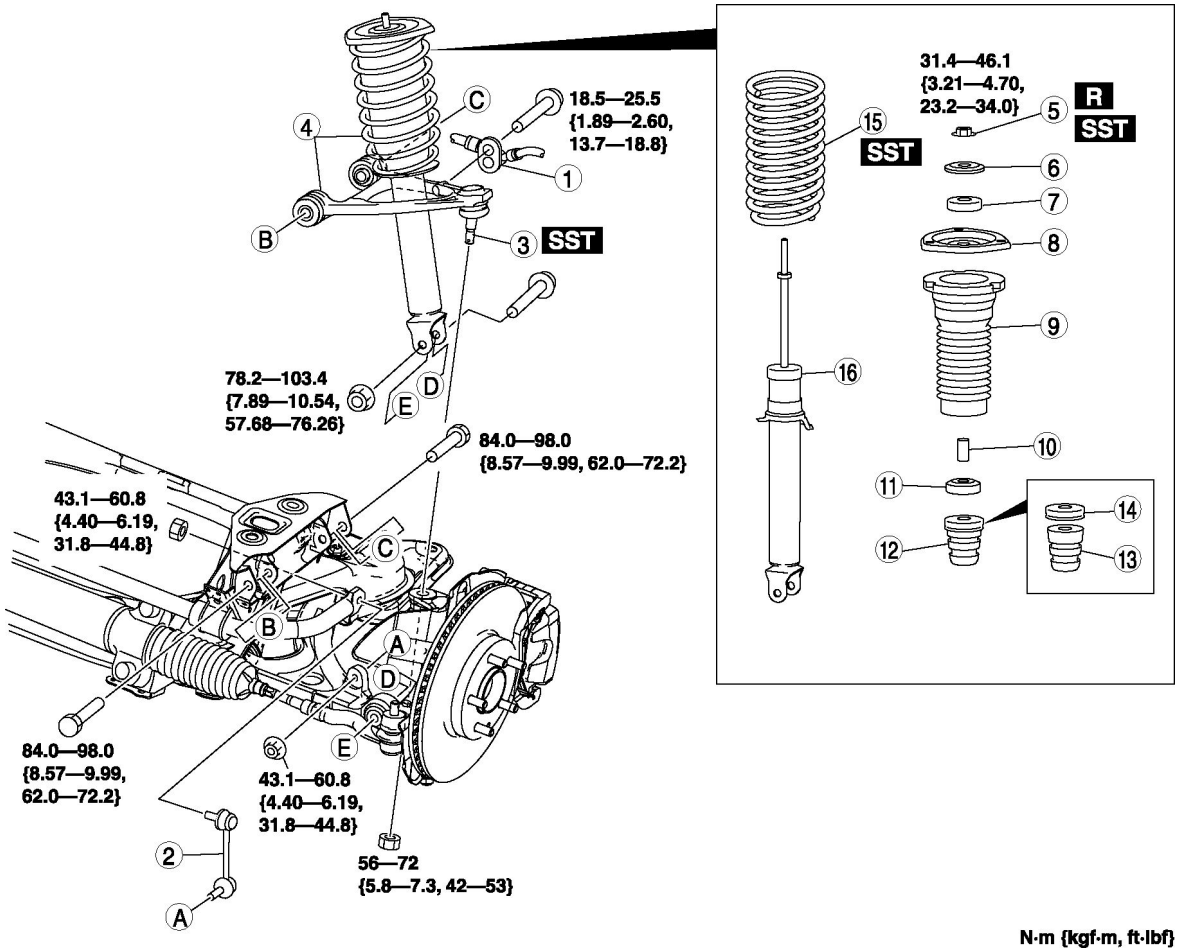
# FRONT SHOCK ABSORBER AND COIL SPRING

## FRONT SHOCK ABSORBER AND COIL SPRING REMOVAL/INSTALLATION

### 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 will not be pulled while servicing the vehicle.

1. Remove the front suspension tower bar.
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.




| | |
|---|---|
| 1 | Brake hose bracket |
| 2 | Front stabilizer control link |
| 3 | Front upper arm ball joint |
| 4 | Front shock absorber and coil spring |
| 5 | Piston rod nut |
| 6 | Retainer |
| 7 | Bushing |

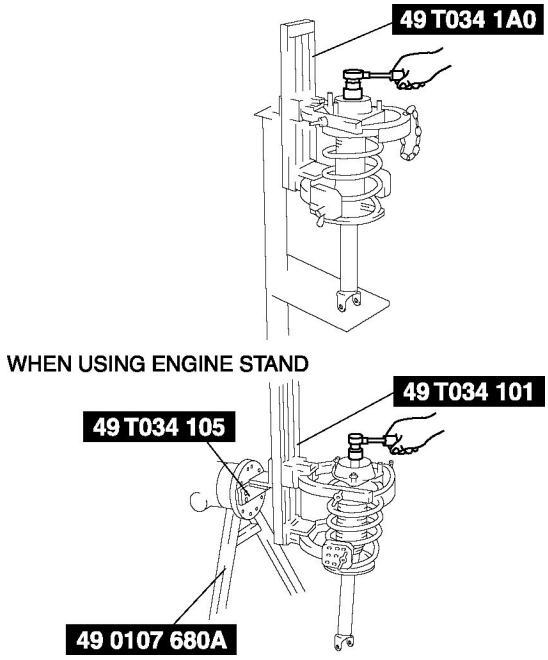
| | |
|---|---|
| 8 | Upper spring seat |
| 9 | Dust boot |
| 10 | Spacer |
| 11 | Bushing |
| 12 | Stopper casing and bound stopper |
| 13 | Bound stopper |
| 14 | Stopper casing |
| 15 | Coil spring |
| 16 | Front shock absorber |

### Piston Rod Nut Removal Note

### WARNING:

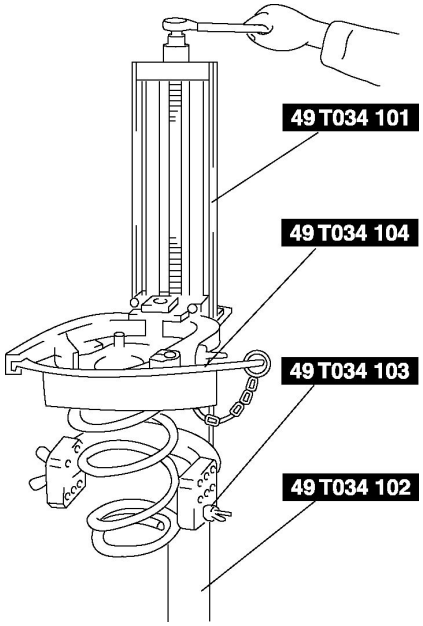
- Before removing the piston rod nut, secure the shock absorber and spring in the SSTs. Otherwise, the shock absorber and spring could fly off under tremendous pressure and cause serious injury or death, or damage to vehicle parts.

1. Protect the coil spring from scratches using a piece of cloth and install the **SSTs** .
2. Compress the coil spring using the **SSTs** and remove the piston rod nut.




### Coil Spring Installation Note

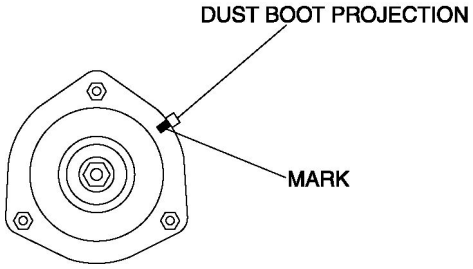
1. Protect the coil spring from scratches using a piece of cloth and install the **SSTs** .
2. Compress the coil spring using the **SSTs** .



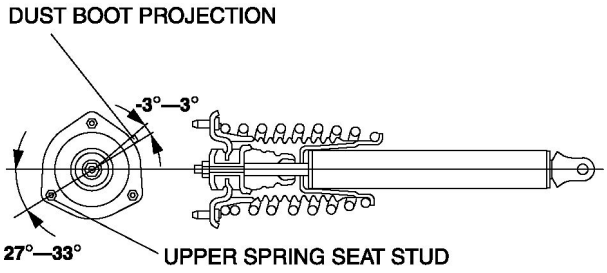

3. Install the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.

## Upper Spring Seat Installation Note

1. Align the mark on the upper spring seat with the dust boot projection.




2. Install the upper spring seat so that the upper spring seat stud is at a **27°—33°** angle to the shock absorber installation shaft (lower side).



# FRONT SHOCK ABSORBER

## FRONT SHOCK ABSORBER INSPECTION

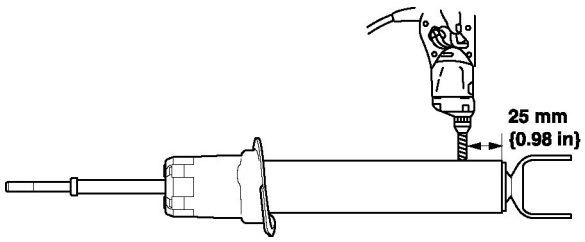
1. Remove the front shock absorber.
2. Inspect for damage and oil leakage.
3. Compress and extend the shock absorber piston rod at least three times at a steady speed. From the fourth compression stroke, verify that the operational force does not change and that there is no unusual noise.
    - If there is any malfunction, replace the shock absorber.

## FRONT SHOCK ABSORBER DISPOSAL

### WARNING:

- Whenever drilling into a shock absorber, wear protective eye wear. The gas in the shock absorber is pressurized, and could spray metal chips into the eyes and face when drilling.

1. Clamp the shock absorber on a flat surface.
2. Drill a **2—3 mm {0.08—0.12 in}** hole at a point **25 mm {0.98 in}** from the bottom of the tube, so that the gas can escape.




3. Turn the hole downwards.
4. The oil can be collected by moving the piston rod several times up and down and cutting the tube at the end.
5. Dispose of waste oil according to local waste disposal law.

### NOTE:

- Shock absorber gas contains nitrogen gas.
- Shock absorber oil contains mineral oil.

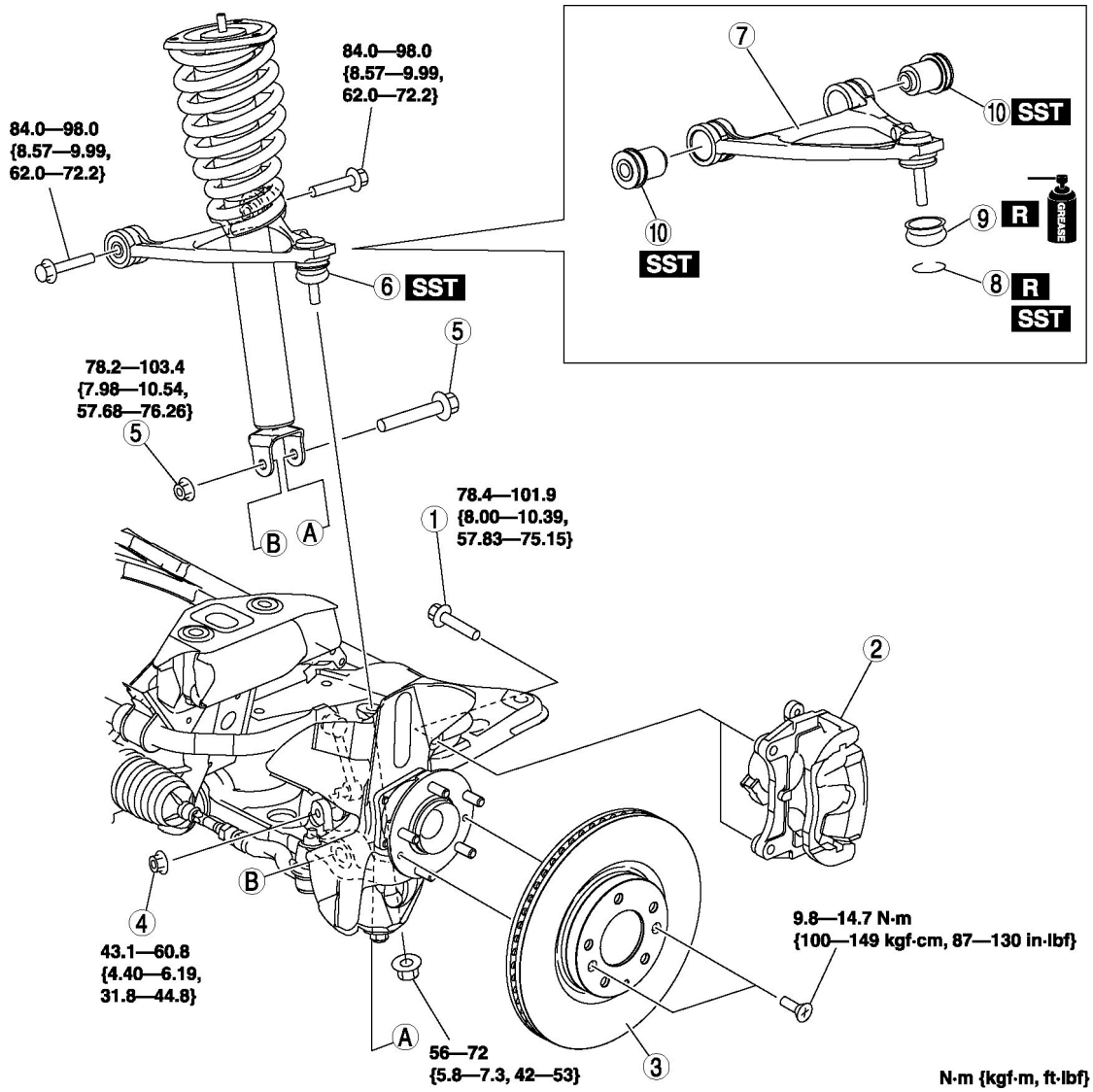
# FRONT UPPER ARM

## FRONT UPPER ARM REMOVAL/INSTALLATION

### 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 will not be pulled while servicing the vehicle.

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect the front wheel alignment.




| | |
|---|---|
| 1 | Bolt |
| 2 | Caliper and mounting support |
| 3 | Disc plate |

| | |
|---|---|
| 4 | Stabilizer control link nut |
| 5 | Shock absorber lower bolt and nut |
| 6 | Front upper arm ball joint |
| 7 | Front upper arm |
| 8 | Clip |
| 9 | Dust boot |
| 10 | Bushing |

### Caliper and Mounting Support Removal Note

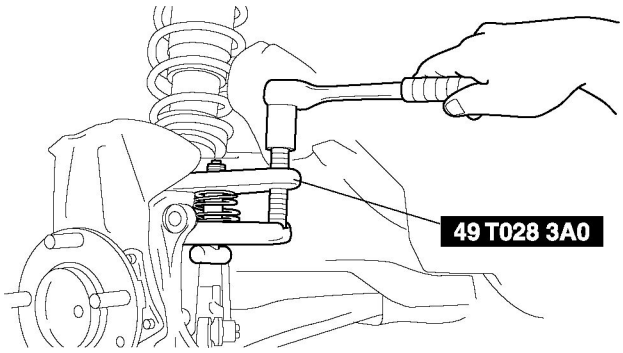
1. Remove the caliper and mounting support from the steering knuckle and suspend it with a cable in a location out of the way.

### Shock Absorber Lower Bolt and Nut Removal Note

1. Loosen the shock absorber upper nuts.
2. Remove the front shock absorber lower bolt and nut.

### Front Upper Arm Ball Joint Removal Note

1. Remove the front upper arm ball joint from the steering knuckle using the **SST** .

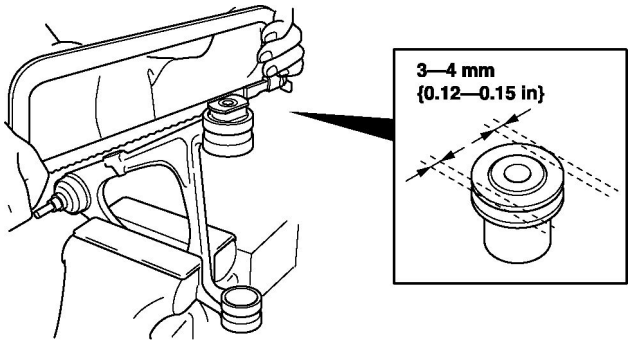



### Front Upper Arm Removal Note

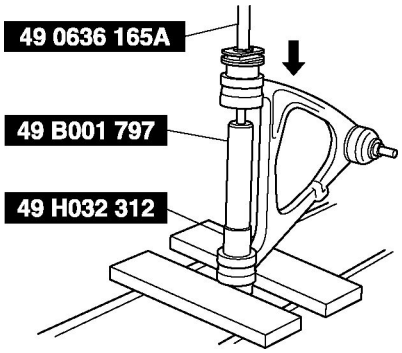
1. Remove the front upper arm bolts.
2. Push down the front lower arm, and then remove the front upper arm from the gap between the shock absorber lower end and the front lower arm.

### Bushing Removal Note

1. Cut off **3—4 mm {0.12—0.15 in}** from each side of the bushing knob using a hacksaw.

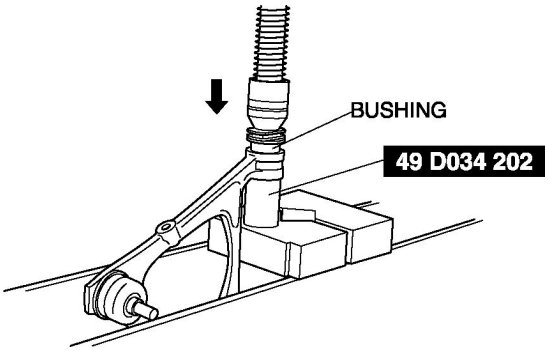



2. Remove the bushing using the **SSTs** and a press.



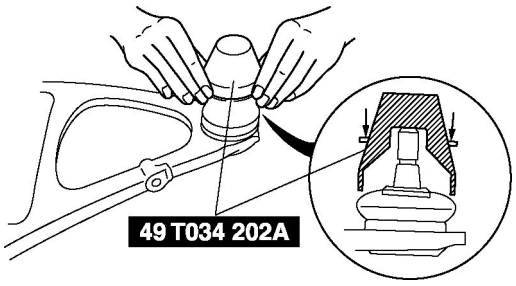

## Bushing Installation Note

1. Press the bushing in using the **SST** and a press.




## Clip Installation Note

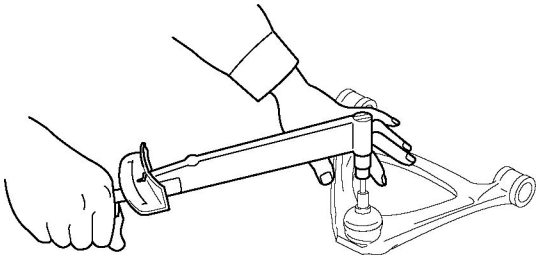
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Install the dust boot on the ball joint.
4. Install the clip using the **SST** .



5. Verify that the clip is installed securely to the groove.
6. Wipe off any excess grease.

## FRONT UPPER ARM INSPECTION

1. Remove the front upper arm from the vehicle.
2. Inspect the front upper arm for bending or damage. If there is any malfunction, replace it.
3. Inspect the ball joint for excessive play, and if there is any malfunction, replace the front upper arm.
4. Rotate the ball joint **5 times** .
5. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.



**Front upper arm ball joint rotational torque**

- 0.3—2.2 N·m {4—22 kgf·cm, 3—19 in·lbf}
- If not within the specification, replace the front upper arm.

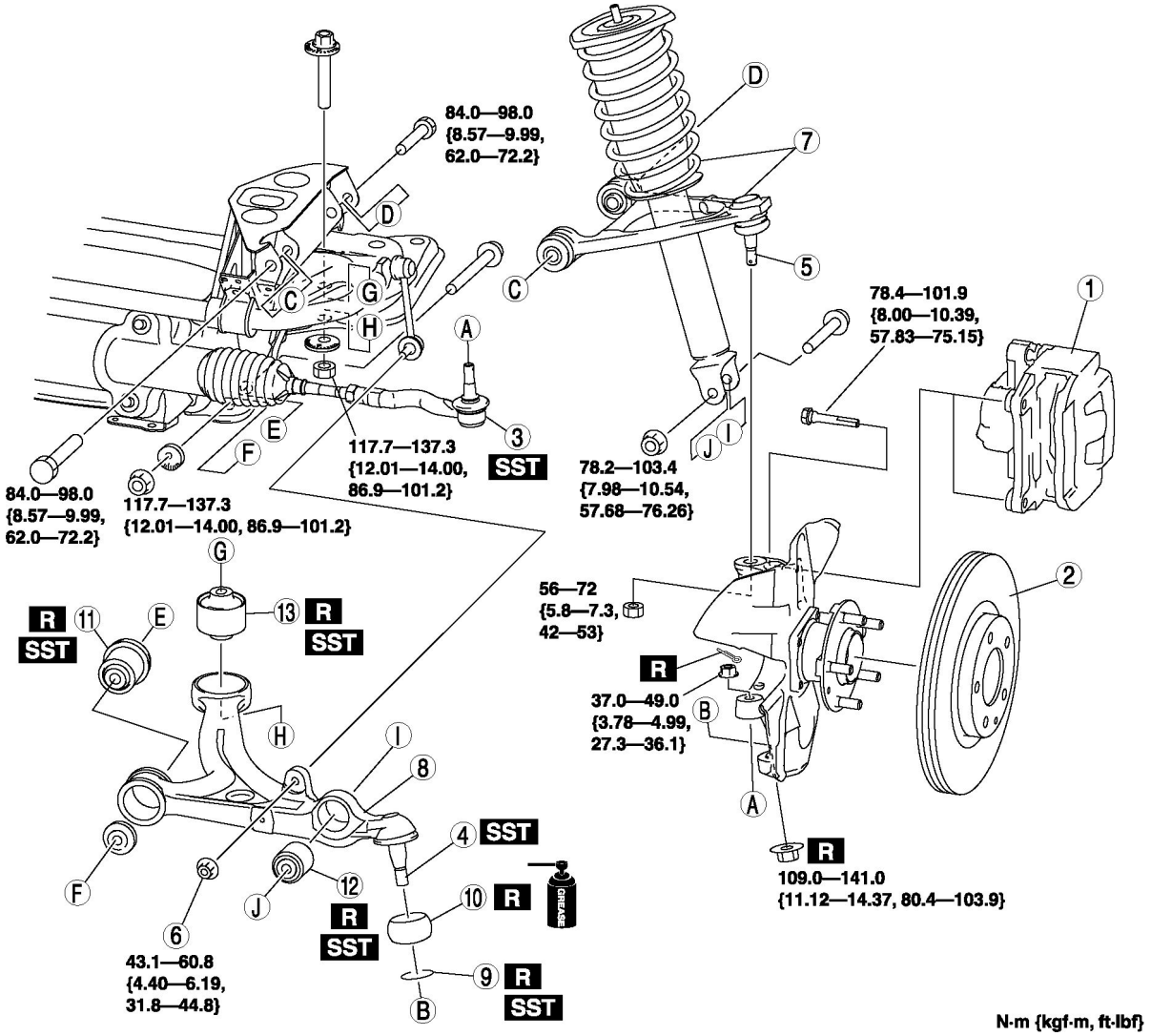
# FRONT LOWER ARM

## FRONT LOWER ARM REMOVAL/INSTALLATION

### 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 will not be pulled while servicing the vehicle.

1. Remove the front suspension tower bar.
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.




| | |
|---|---|
| 1 | Caliper and mounting support |
| 2 | Disc plate |
| 3 | Tie-rod end |
| 4 | Front lower arm bolt joint |

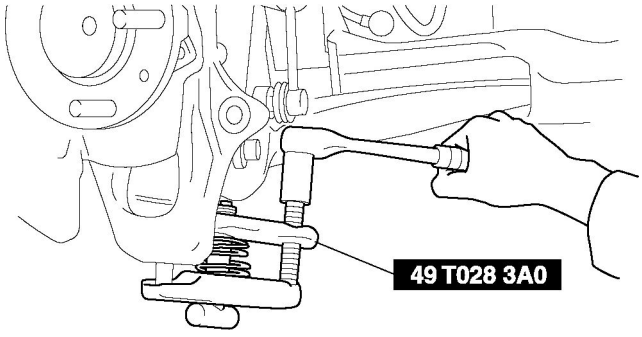
| | |
|---|---|
| 5 | Front upper arm ball joint |
| 6 | Stabilizer control link nut (front lower arm side) |
| 7 | Shock absorber and front upper arm |
| 8 | Front lower arm |
| 9 | Clip |
| 10 | Dust boot |
| 11 | Bushing (rear side) |
| 12 | Bushing (front side) |
| 13 | Bushing (shock absorber lower side connecting part) |

### Caliper and Mounting Support Removal Note

1. Remove the caliper and mounting support from the steering knuckle and suspend it with a cable in a location out of the way.

### Front Lower Arm Ball Joint Removal Note

1. Disconnect the front lower arm ball joint from the steering knuckle using the **SST** .

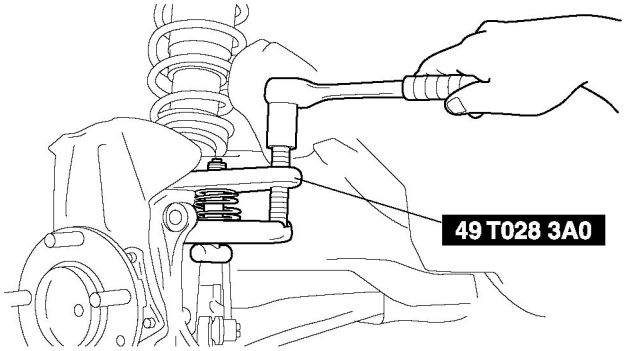



**NOTE:**

- When removing the front lower arm ball joint, the steering knuckle bushing may also come off. If it comes off, replace the steering knuckle.

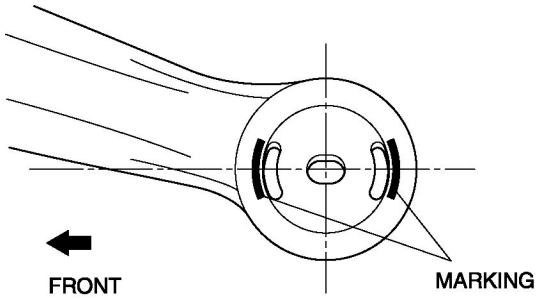
### Upper Arm Ball Joint Removal Note

1. Loosen the bolts on the vehicle side.
2. Disconnect the upper arm ball joint using the **SST** .

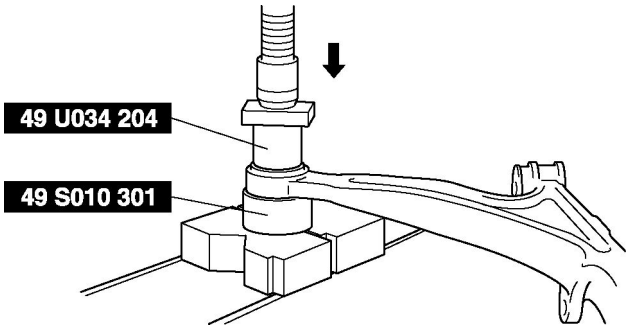


### Bushing (Rear Side) Removal Note

1. Mark the front upper arm as shown in the figure.

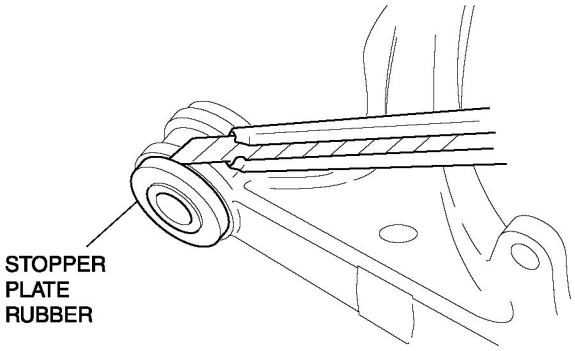



2. Remove the bushing using the **SSTs** .

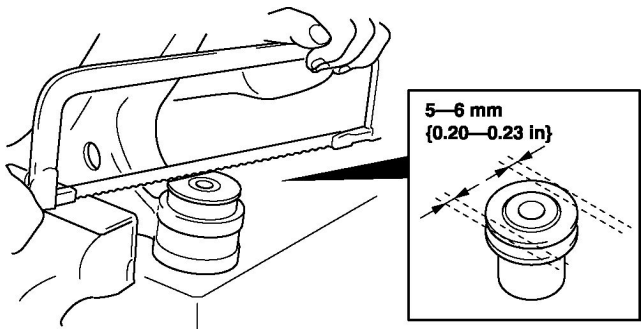



### Bushing (Front Side) Removal Note

1. Cut off the stopper plate rubber using a razor.

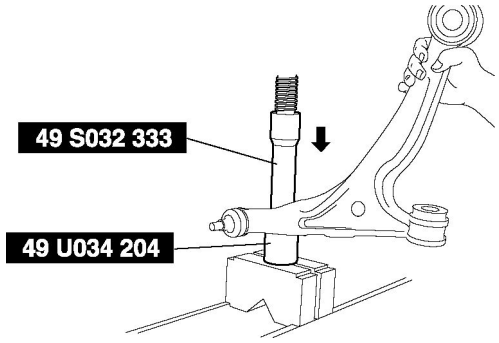



2. Cut off **5—6 mm {0.20—0.23 in}** from each side of the knob end of the bushing using a hacksaw.



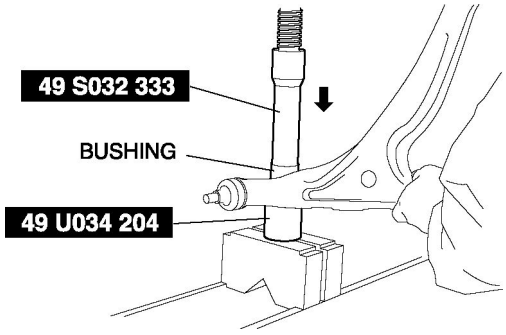

### Bushing (Shock Absorber Lower Side Connecting Part) Removal Note

1. Remove the bushing using the **SSTs** .



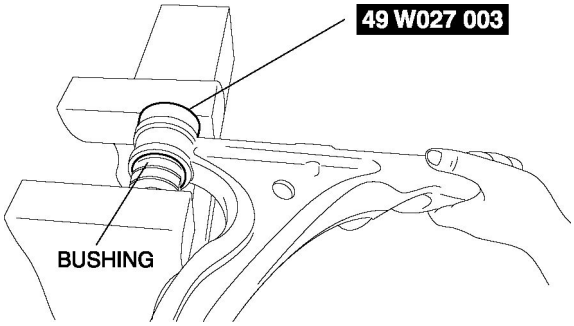

## Bushing (Shock Absorber Lower Side Connecting Part) Installation Note

1. Compress the bushing using the **SSTs** .

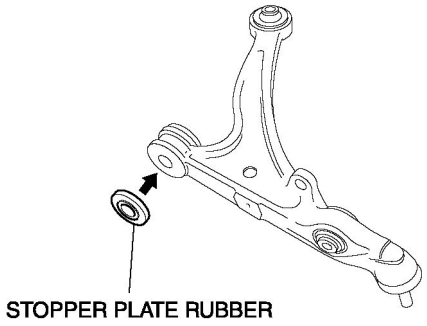



## Bushing (Front Side) Installation Note

1. Press the bushing in using the **SSTs** .

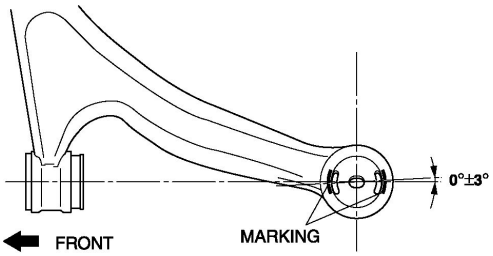



2. Insert the stopper plate rubber into the inner pipe of the bushing (front side).

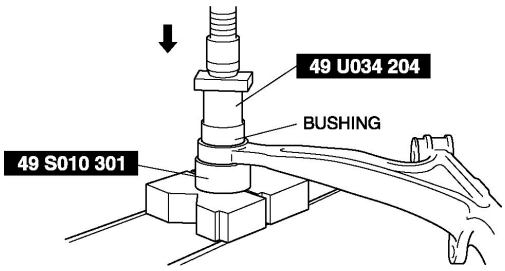



## Bushing (Rear Side) Installation Note

1. Align the marks placed during removal and install the bushing.

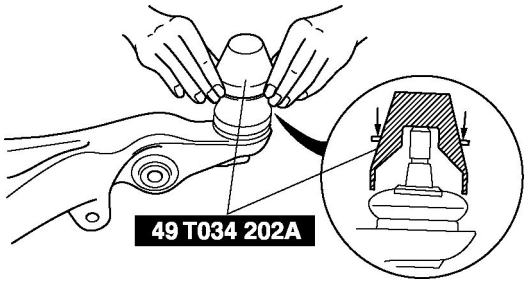



2. Press the bushing in using the **SSTs** .




### Clip Installation Note

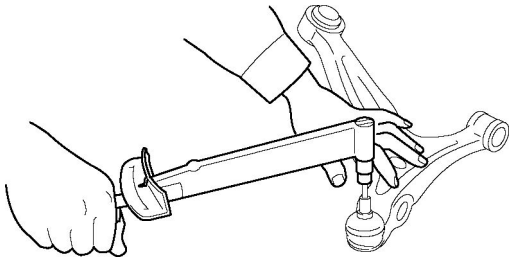
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Install the dust boot to the ball joint.
4. Install the clip using the **SST** .




5. Verify that the clip is installed securely to the groove.
6. Wipe off any excess grease.

## FRONT LOWER ARM INSPECTION

1. Remove the front lower arm from the vehicle.
2. Inspect the front lower arm for bending or damage. If there is any malfunction, replace it.
3. Inspect the ball joint for excessive play. If there is any malfunction, replace the front lower arm.
4. Rotate the ball joint **5 times** .
5. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.



**Front lower arm ball joint rotational torque**

- 0.4—2.9 N·m {5—29 kgf·cm, 4—25 in·lbf}
- If not within the specification, replace the front lower arm.

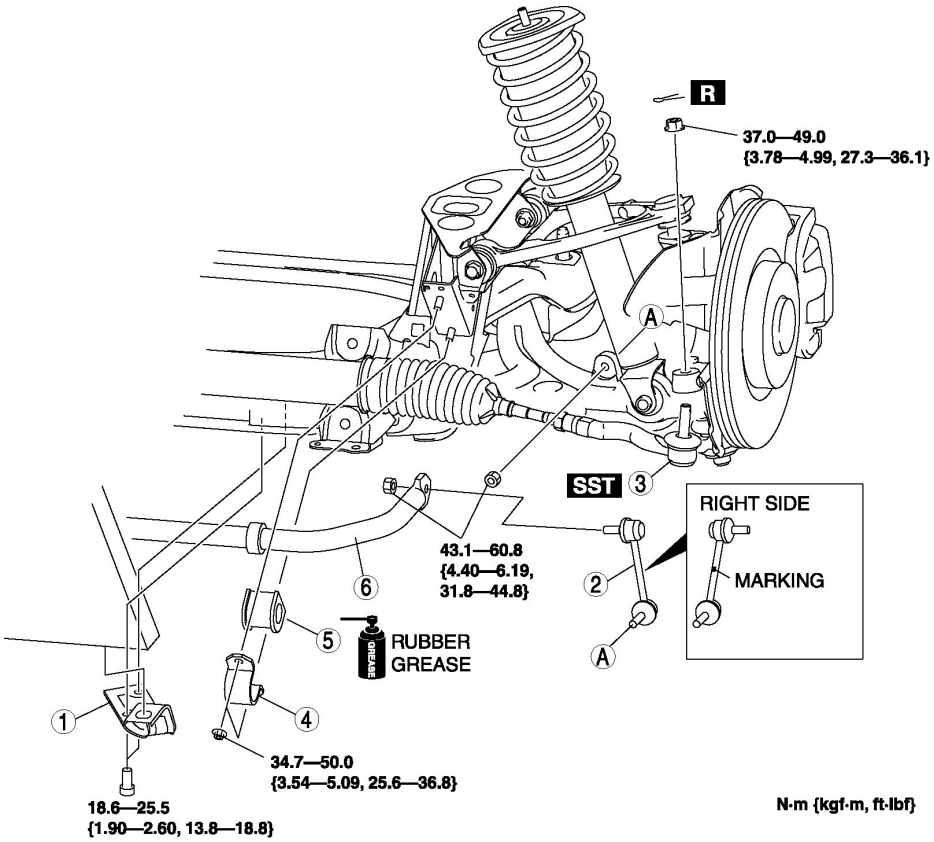
# FRONT STABILIZER

## FRONT STABILIZER REMOVAL/INSTALLATION

### 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 will not be pulled while servicing the vehicle.

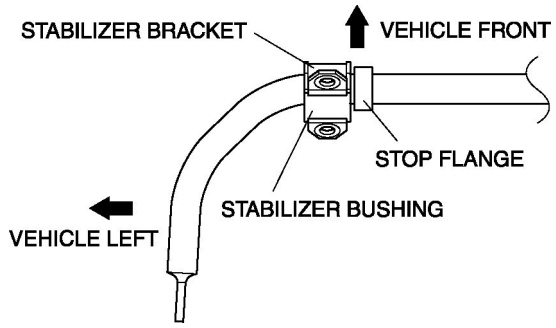
1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.



| | |
|---|---|
| 1 | Radiator mount bracket |
| 2 | Stabilizer control link |
| 3 | Tie-rod end |
| 4 | Stabilizer bracket |
| 5 | Stabilizer bushing |
| 6 | Front stabilizer |

### Stabilizer Bracket Installation Note

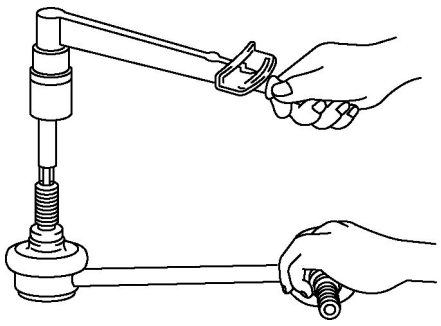
1. Apply rubber grease to the inner side of the stabilizer bushing.
2. Align the outer side of the stabilizer slide stopper with the stabilizer bushing.
3. Install the stabilizer bracket.




# STABILIZER CONTROL LINK (FRONT/REAR)

## STABILIZER CONTROL LINK INSPECTION

1. Remove the stabilizer control link from the vehicle.
2. Inspect the stabilizer control link for bending or damage. If there is any malfunction, replace it.
3. Rotate the ball joint stud **10 times** , and then rock it side to side **10 times** .
4. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.



**Stabilizer control link ball joint rotational torque**

- 0.2—2.0 N·m {3—20 kgf·cm, 2—17 in·lbf}
- If not within the specification, replace the stabilizer control link.

# FRONT CROSSMEMBER

## FRONT CROSSMEMBER REMOVAL/INSTALLATION

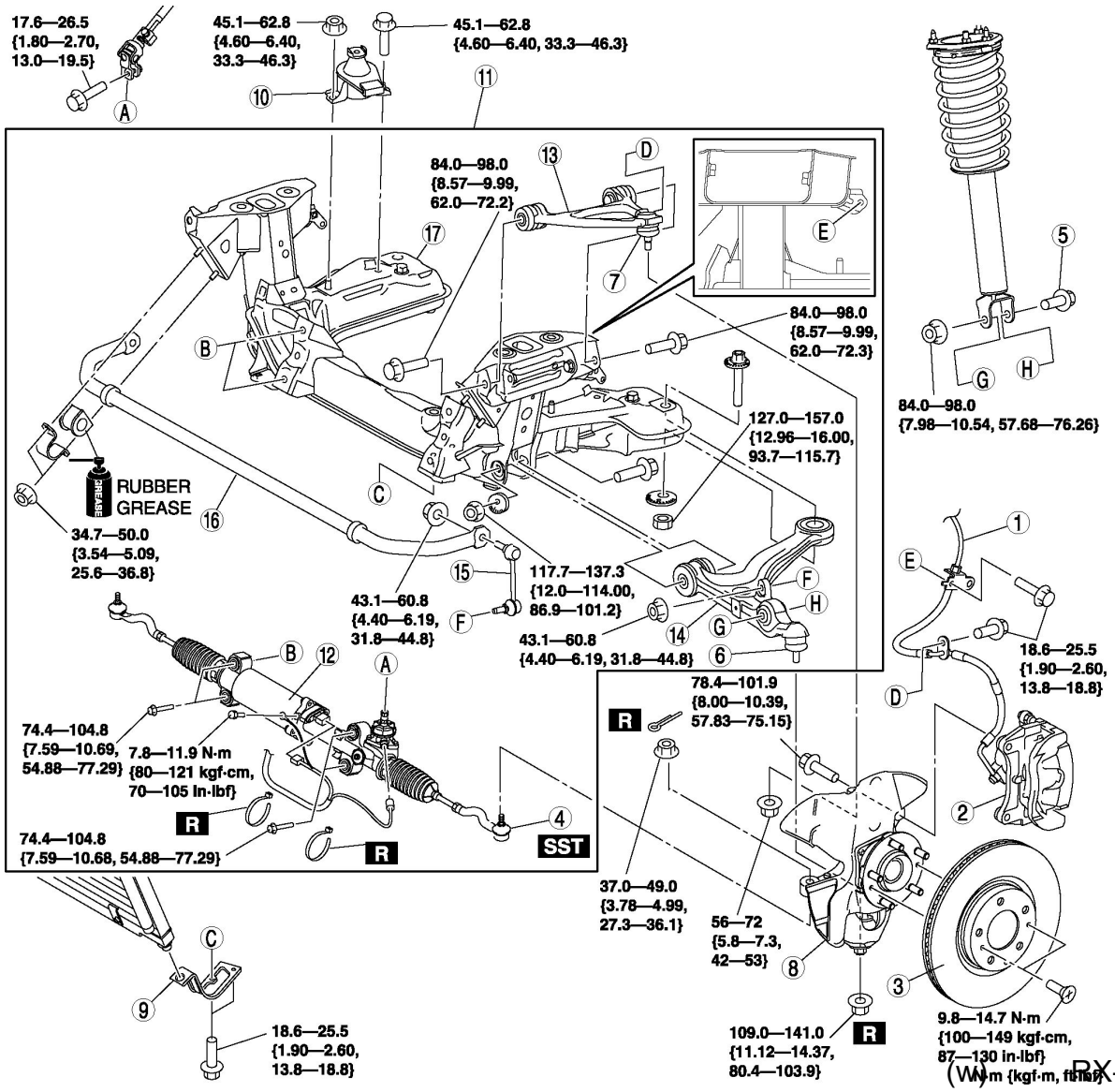
### CAUTION:

- 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 will not be pulled while servicing the vehicle.

1. Remove the front suspension tower bar.
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.
4. Inspect the front wheel alignment.
5. Set the EPS system to the neutral position.

#### CAUTION:

- After disconnecting the steering shaft joint, always set the EPS system to the neutral position to prevent system malfunction.



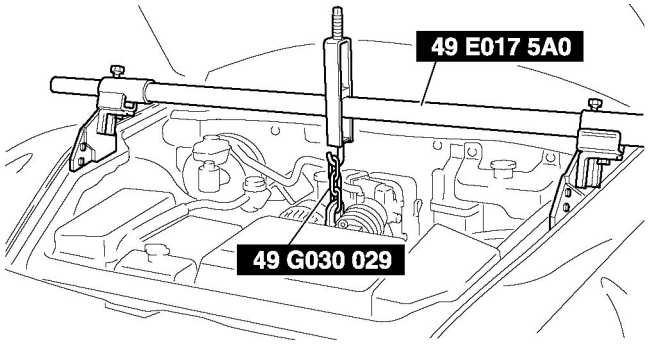
| | |
|---|---|
| 1 | Brake hose |
| 2 | Caliper and mounting support |
| 3 | Disc plate |
| 4 | Tie-rod end |
| 5 | Shock absorber bolt (lower) |
| 6 | Front lower arm bolt joint |
| 7 | Front upper arm ball joint |
| 8 | Axle and hub component |
| 9 | Radiator mounting bracket |
| 10 | Mounting rubber |
| 11 | Front crossmember component |
| 12 | Steering gear and linkage |
| 13 | Front upper arm |
| 14 | Front lower arm |
| 15 | Stabilizer control link |
| 16 | Front stabilizer |
| 17 | Front crossmember |

### Axle and Hub Component Removal Note

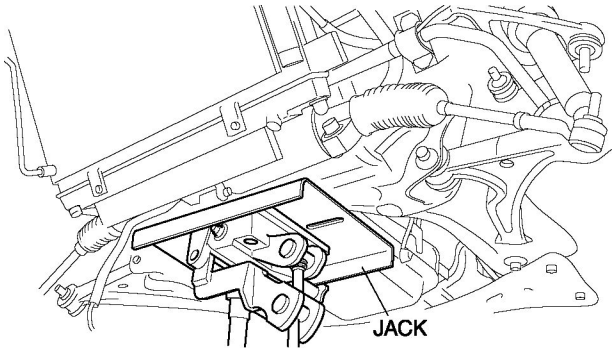
1. Loosen the front upper arm inner bolts.
2. Remove the axle and hub component.

### Mounting Rubber Removal Note

1. Suspend the engine using the **SSTs** .




2. Support the front crossmember using a jack.




**WARNING:**

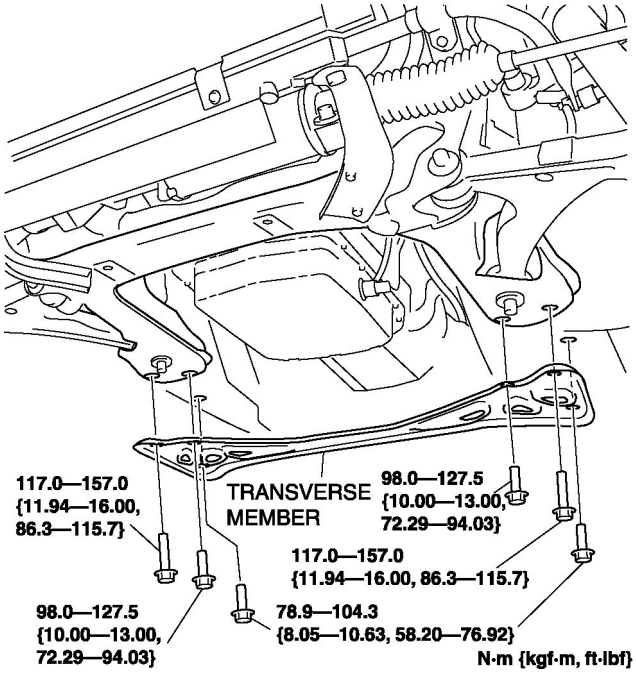
- Verify that the crossmember component is securely supported by a jack. If the crossmember component falls, it could cause serious injury or death, or damage to the vehicle.

3. Remove the transverse member.
4. Remove the mounting rubber while gradually lowering the front crossmember.

# TRANSVERSE MEMBER

## TRANSVERSE MEMBER REMOVAL/INSTALLATION

1. Remove the transverse member.

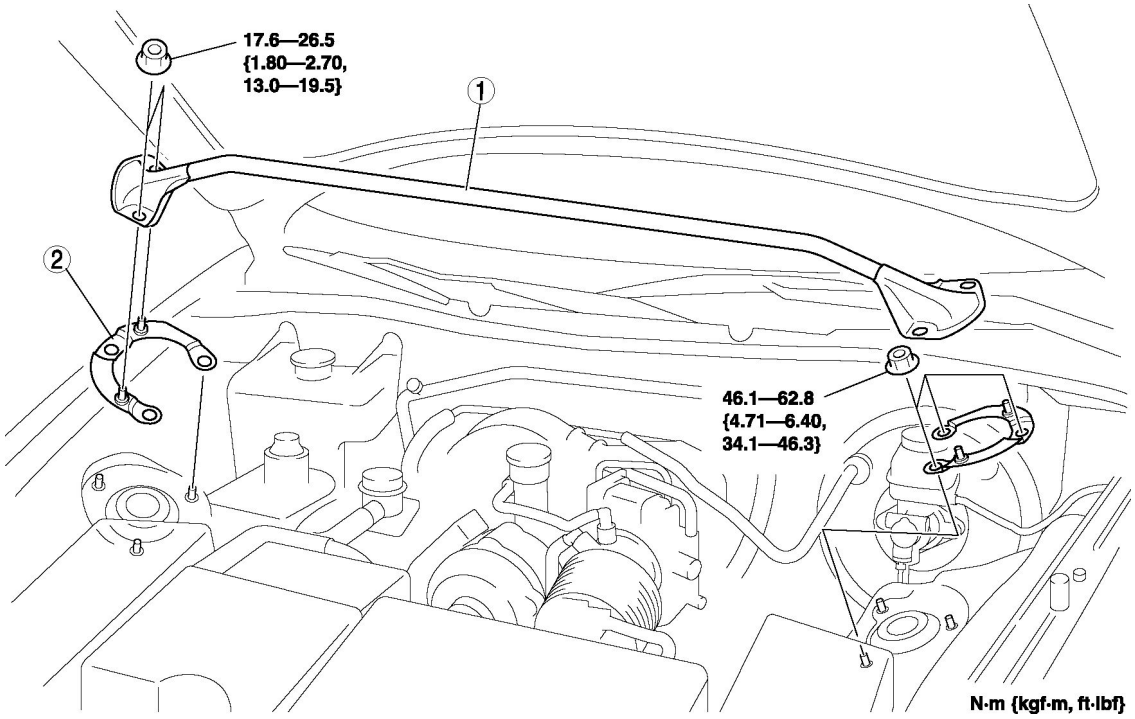



2. Install the transverse member.

# FRONT SUSPENSION TOWER BAR

## FRONT SUSPENSION TOWER BAR REMOVAL/INSTALLATION

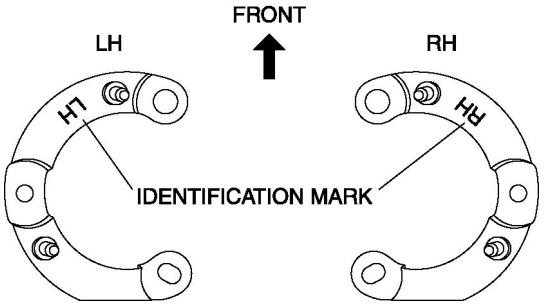
1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.




| | |
|---|---|
| 1 | Front suspension tower bar |
| 2 | Plate |

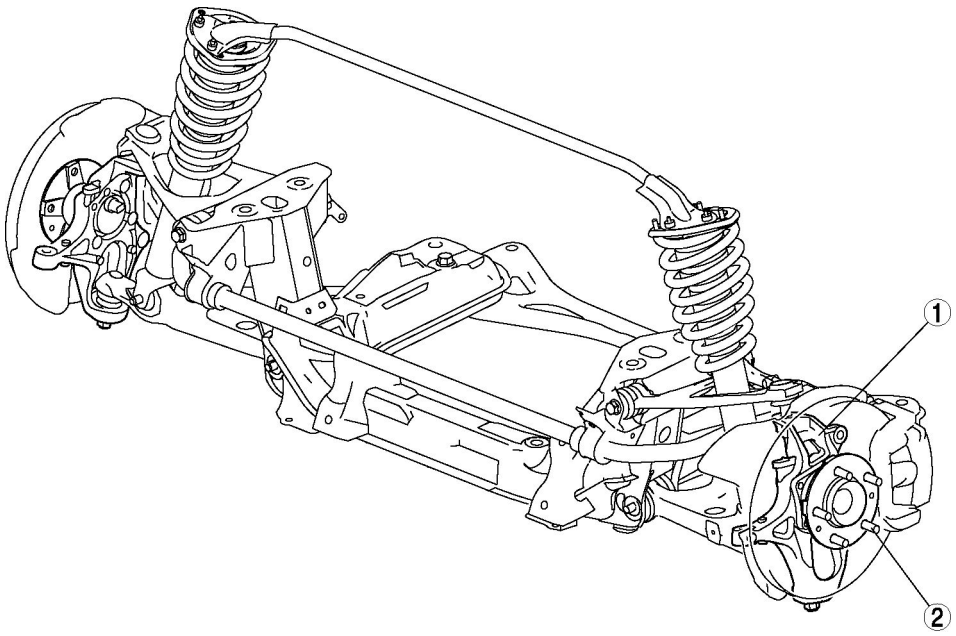
### Plate Installation Note

1. Install the plates with the identification marks facing upward.



# FRONT AXLE

## FRONT AXLE LOCATION INDEX



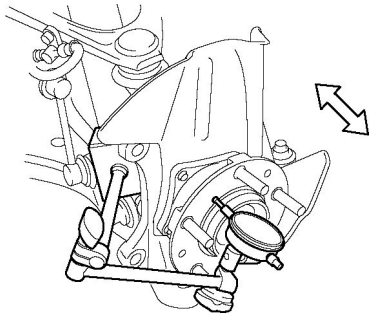

| | |
|---|---|
| 1 | Wheel hub, steering knuckle |
| 2 | Wheel hub bolt |

# WHEEL HUB, STEERING KNUCKLE

## WHEEL HUB, STEERING KNUCKLE INSPECTION

### Wheel Bearing Looseness Inspection

1. Install the magnetic vase and dial gauge as shown in the figure, and inspect the wheel bearing for axial looseness.



- If it exceeds the maximum specification, replace the wheel hub component.

  **Maximum wheel bearing play**

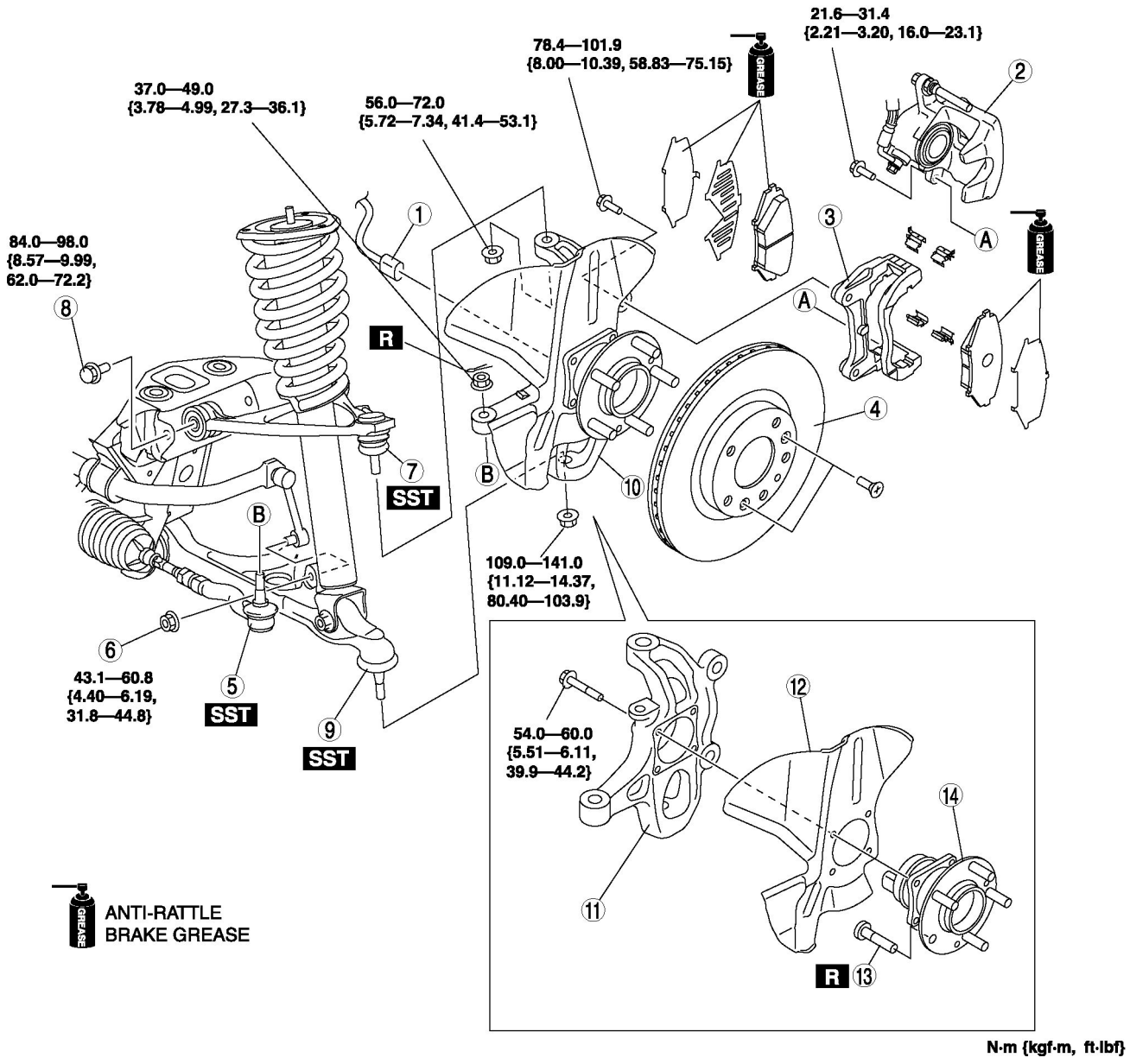
  - 0.05 mm {0.002 in}

## WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION

### 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 harness connector (axle side) and fix it to an appropriate place where the sensor 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.




| | |
|---|---|
| 1 | ABS wheel-speed sensor connector |
| 2 | Brake caliper component |
| 3 | Mounting support |
| 4 | Disc plate |
| 5 | Tie-rod end |
| 6 | Stabilizer control link (lower) |
| 7 | Front upper arm ball joint |
| 8 | Front upper arm bolt |
| 9 | Front lower arm ball joint |
| 10 | Wheel hub, steering knuckle component |
| 11 | Steering knuckle |
| 12 | Dust cover |
| 13 | Wheel hub bolt |

| 14 | Wheel hub component |
|---|---|

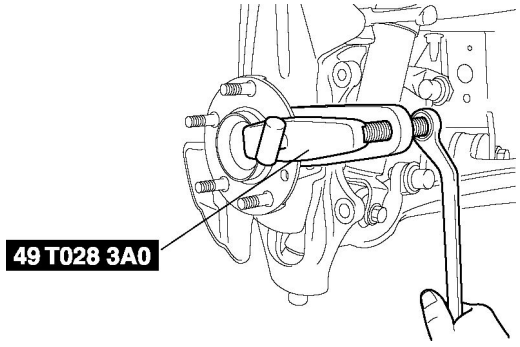
### Brake Caliper Component Removal Note

1. Remove the brake caliper component installation bolt, and suspend the brake caliper component with a cable in place out of the way.

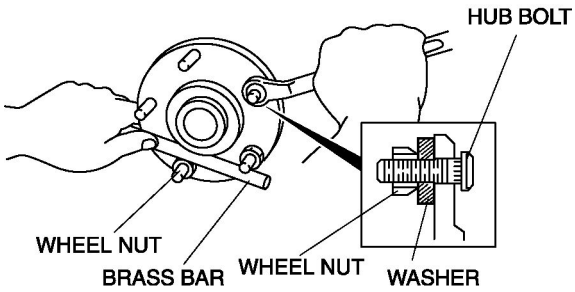
# WHEEL HUB BOLT

## WHEEL HUB BOLT REPLACEMENT

1. Remove the brake caliper component and disc plate.
2. Remove the wheel hub bolt using the **SST** as shown in the figure.

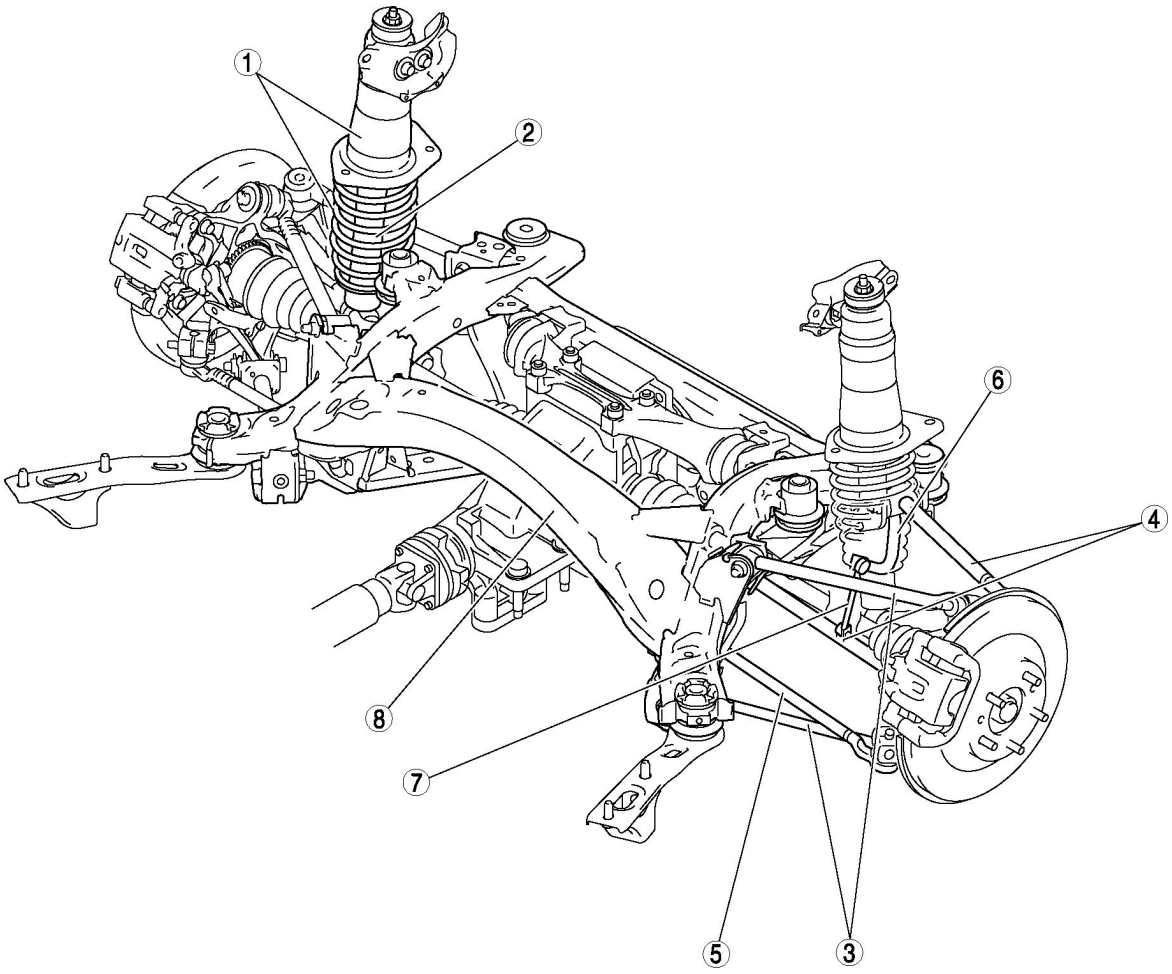



3. Place a new wheel hub bolt in the wheel hub.
4. Install the wheel hub bolt by placing a proper sized washer on the hub, and tightening the nut as shown in the figure.



# REAR SUSPENSION

## REAR SUSPENSION LOCATION INDEX




| | |
|---|---|
| 1 | Rear shock absorber and coil spring |
| 2 | Rear shock absorber |
| 3 | Rear trailing link |
| 4 | Rear lateral link |
| 5 | Toe control link |
| 6 | Rear stabilizer |
| 7 | Stabilizer control link |
| 8 | Rear crossmember |

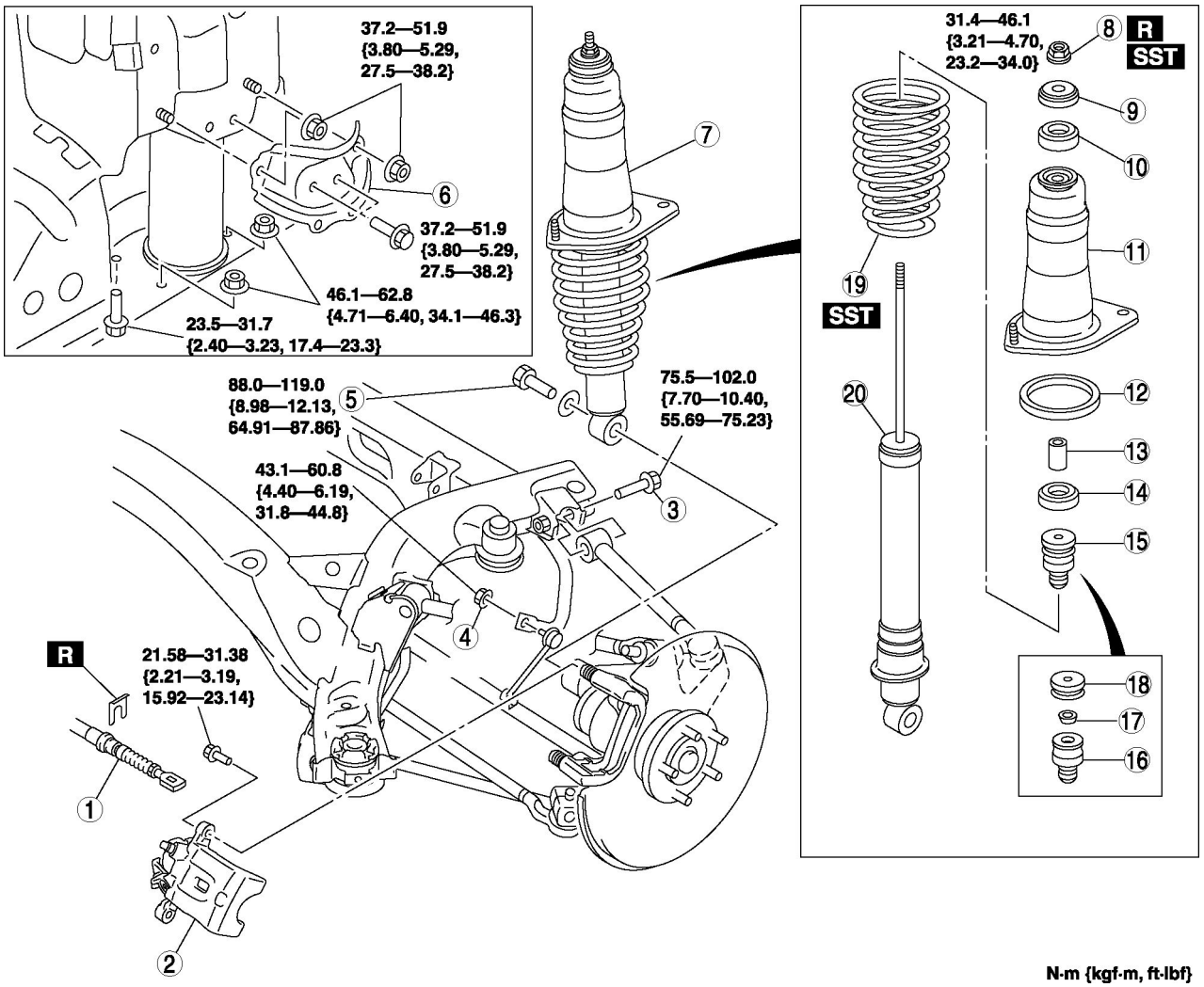
# REAR SHOCK ABSORBER AND COIL SPRING

## REAR SHOCK ABSORBER AND COIL SPRING REMOVAL/INSTALLATION

### 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 operations, remove the ABS wheel-speed sensor (axle side), and move the sensor away from the harnesses.

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




| | |
|---|---|
| 1 | Parking brake cable |
| 2 | Caliper |
| 3 | Rear lateral link (upper) inner bolt |
| 4 | Stabilizer control link upper nut |
| 5 | Rear shock absorber lower bolt |
| 6 | Rear shock absorber bracket |

| | |
|---|---|
| 7 | Rear shock absorber and coil spring |
| 8 | Piston rod nut |
| 9 | Retainer |
| 10 | Bushing |
| 11 | Upper spring seat |
| 12 | Spring seat rubber |
| 13 | Bushing |
| 14 | Spacer |
| 15 | Bound stopper and stopper casing |
| 16 | Bound stopper |
| 17 | Collar |
| 18 | Stopper casing |
| 19 | Coil spring |
| 20 | Rear shock absorber |

### Caliper Removal Note

1. Remove the caliper, and hang the cable out of the way.

### Rear Shock Absorber Bracket Removal Note

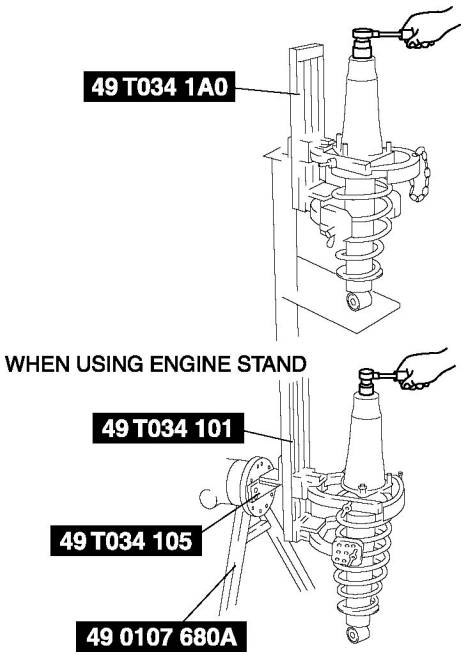
1. Remove the trunk end trim.
2. Remove the trunk side trim.
3. Remove the rear shock absorber bracket.

### Piston Rod Nut Removal Note

### WARNING:

- Before removing the piston rod nut, secure the shock absorber and spring in the SSTs. Otherwise, the shock absorber and spring could fly off under tremendous pressure and cause serious injury or death, or damage to the vehicle.

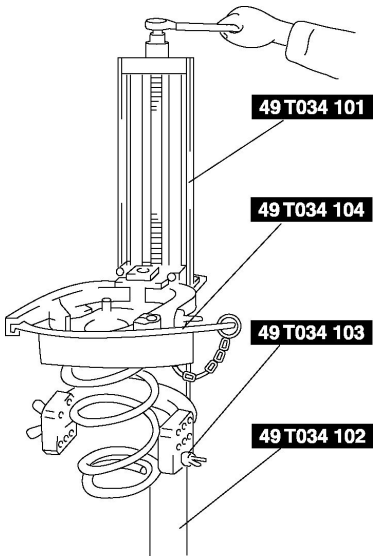
1. Set the **SSTs** using cloth to prevent the spring from being damaged.




2. Using the **SSTs** , compress the coil spring and remove the piston rod nut.

### Coil Spring Installation Note

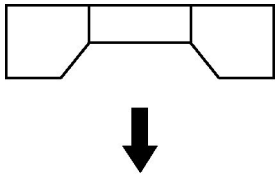
1. Set the coil spring to the **SSTs** using cloth.
2. Using the **SSTs** , compress the coil spring.




3. Install the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.

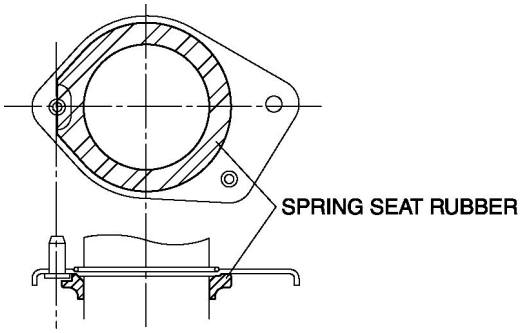
### Collar Installation Note

1. Install the collar so that the tapered side is facing downward as shown in the figure.



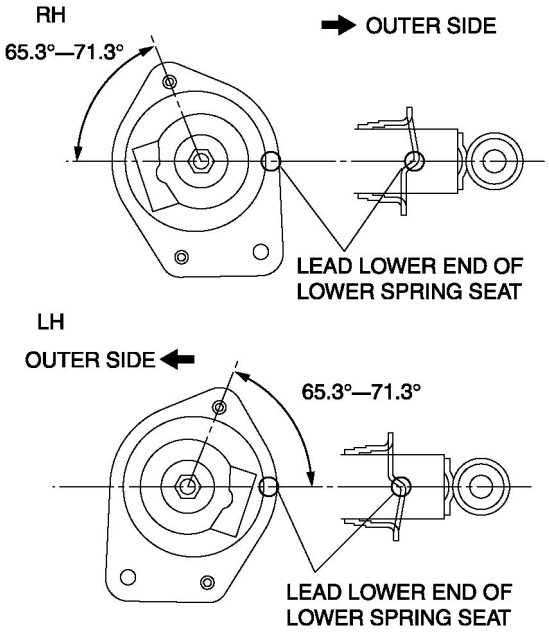

## Spring Seat Rubber Installation Note

1. Install the spring seat rubber to the upper spring seat as shown in the figure.




## Rear Shock Absorber and Coil Spring Installation Note

1. Install the coil spring with the lead lower end of the lower spring seat facing the direction shown in the figure.



# REAR SHOCK ABSORBER

## REAR SHOCK ABSORBER INSPECTION

Inspect the rear shock absorber in the same way as the front shock absorber.

## REAR SHOCK ABSORBER DISPOSAL

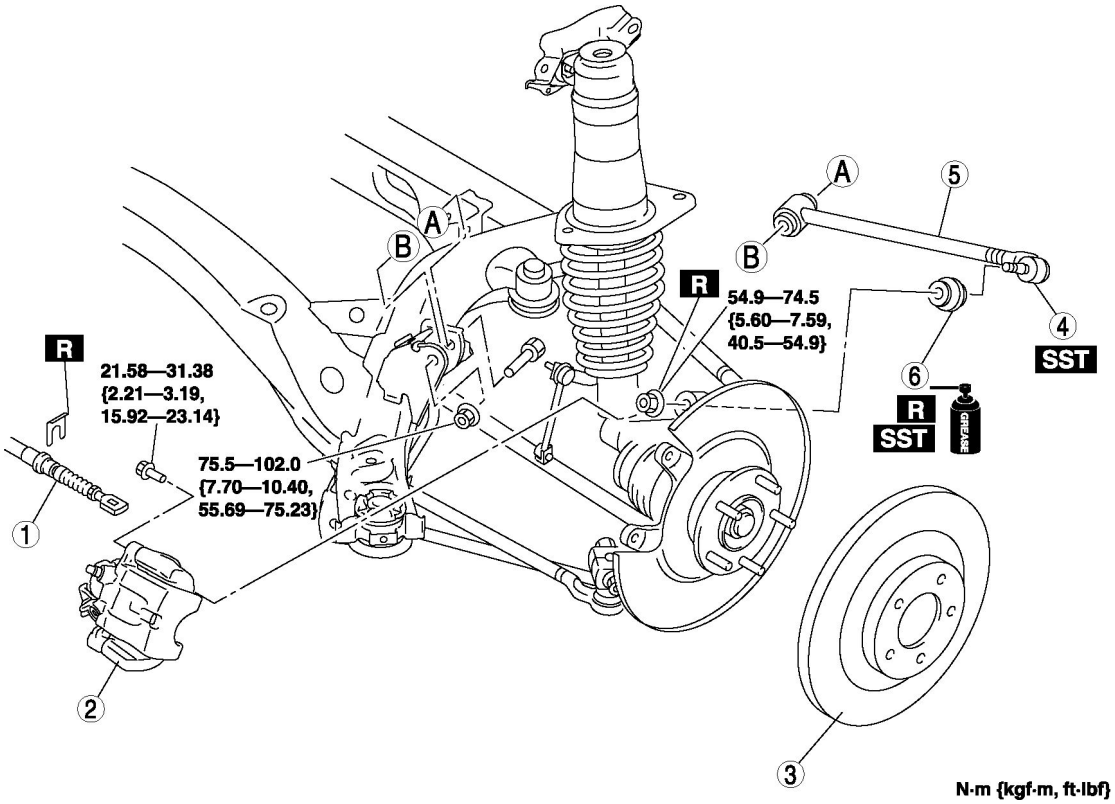
Dispose of the rear shock absorber in the same way as the front shock absorber.

# REAR TRAILING LINK

## REAR TRAILING LINK (UPPER) REMOVAL/INSTALLATION

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

Inspect the rear wheel alignment.



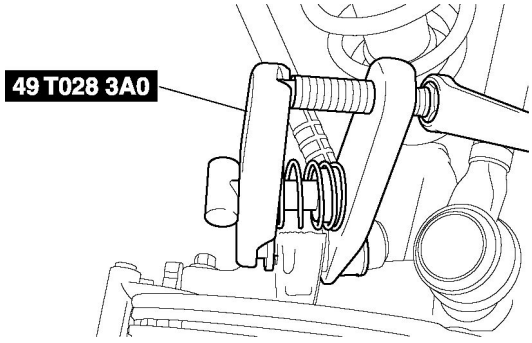

| | |
|---|---|
| 1 | Parking brake cable |
| 2 | Caliper component |
| 3 | Disc plate |
| 4 | Rear trailing link (upper) ball joint |
| 5 | Rear trailing link (upper) |
| 6 | Dust boot |

### Caliper Component Removal Note

1. Hang the caliper component by the cable and move aside.

### Rear Trailing Link (Upper) Ball Joint Removal Note

1. Using the **SST** , disconnect the ball joint.

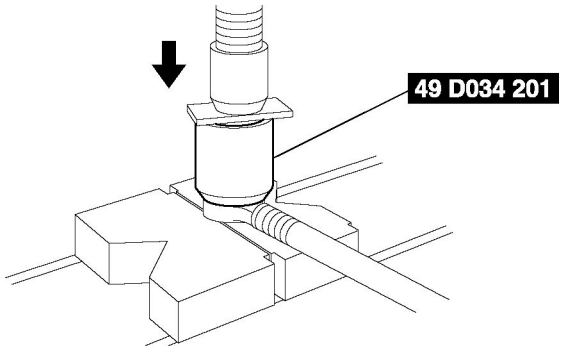



**NOTE:**

- When removing the rear trailing link (upper) ball joint, the rear knuckle bushing may also come off. If it comes off, replace the rear knuckle.

### Dust Boot Installation Note

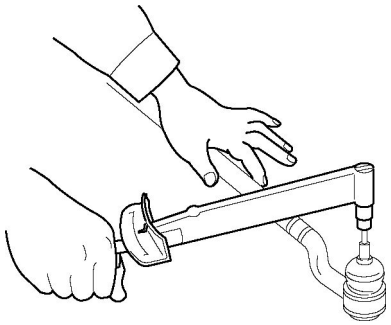
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Using the **SST** , install the dust boot to the ball joint.




4. Wipe off the excess grease.

## REAR TRAILING LINK (UPPER) INSPECTION

1. Remove the rear trailing link (upper) from the vehicle.
2. Inspect the link or bending or damage. If there is any malfunction, replace the rear trailing link (upper).
3. Inspect the ball joint for looseness. If there is any malfunction, replace the ball joint.
4. Rotate the ball joint **5 times** .
5. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.

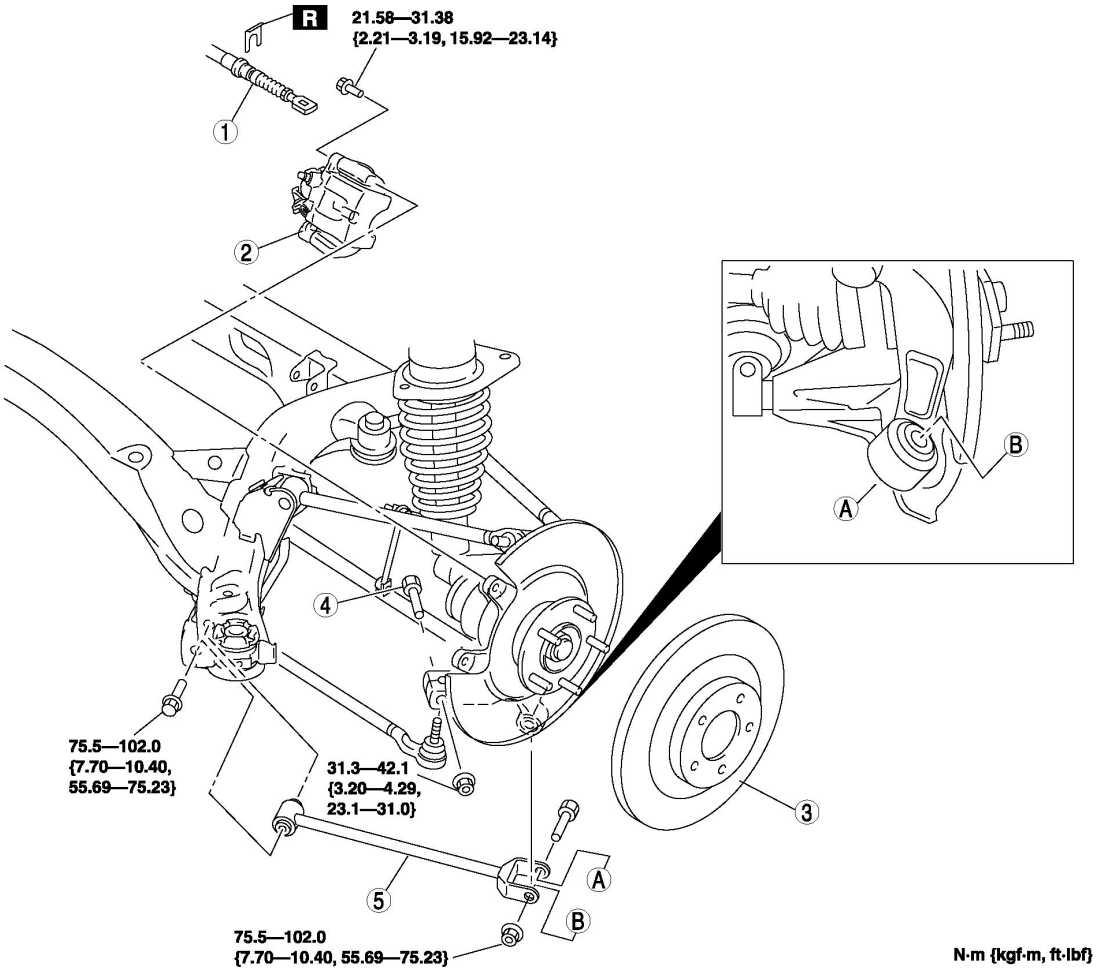


**Rear trailing link (upper) ball joint rotational torque**

- 0.4—3.3 N·m {5—33 kgf·cm, 4—29 in·lbf}
- If not within the specification, replace the rear trailing link (upper).

## REAR TRAILING LINK (LOWER) REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect the rear wheel alignment.



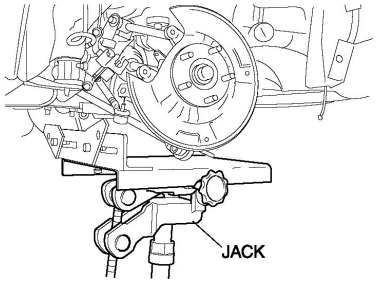

| | |
|---|---|
| 1 | Parking brake cable |
| 2 | Caliper component |
| 3 | Disc plate |
| 4 | Toe control link outer bolt |
| 5 | Rear trailing link (lower) |

## Caliper Component Removal Note

1. Hang the caliper component and move aside.

## Rear Trailing Link (Lower) Removal Note

1. Support the rear knuckle using a jack.



**CAUTION:**

- Be sure that the rear axle component is firmly supported by the jack. If not securely supported, the rear axle component could fall, resulting in serious injury or death, and damage to the vehicle.

2. Remove the rear trailing link (lower) outer bolt.
3. Remove the rear trailing link (lower) inner bolt.

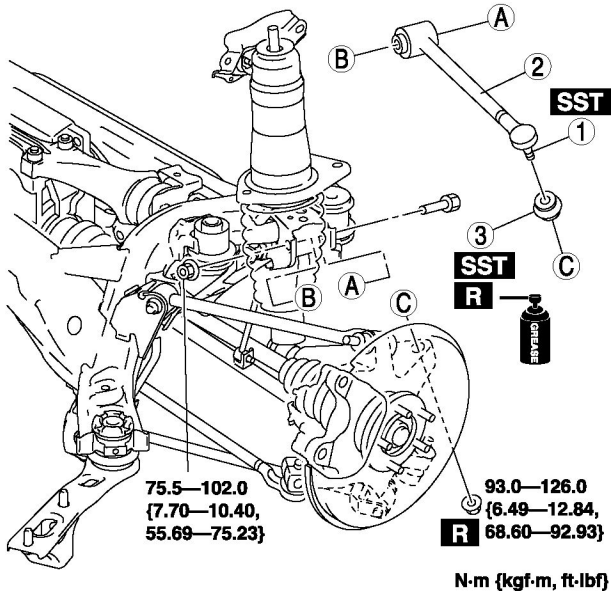
# REAR LATERAL LINK

## REAR LATERAL LINK (UPPER) REMOVAL/INSTALLATION

**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 operations, remove the ABS wheel-speed sensor (axle side) and move the sensor away from the harnesses.

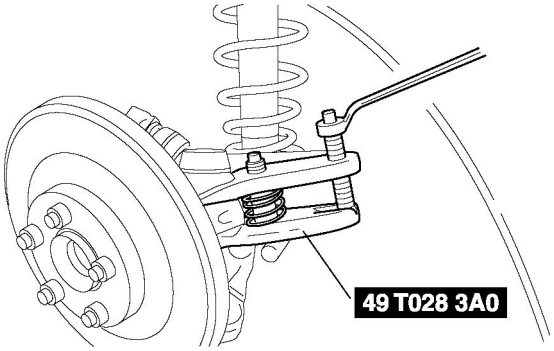
1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect the rear wheel alignment.




| | |
|---|---|
| 1 | Rear lateral link (upper) ball joint |
| 2 | Rear lateral link (upper) |
| 3 | Dust boot |

### Rear Lateral Link (Upper) Ball Joint Removal Note

1. Using the **SST** , disconnect the rear lateral link (upper) ball joint.

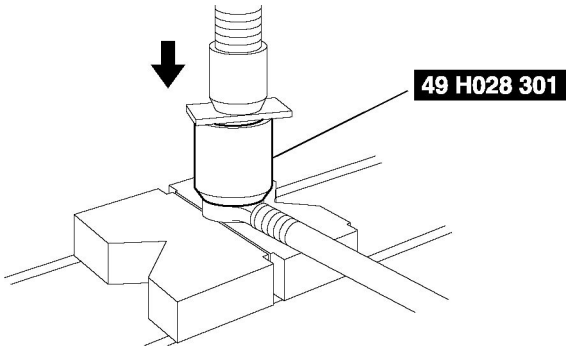



**NOTE:**

- When removing the rear lateral link (upper) ball joint, the rear knuckle bushing may also come off. If it comes off, replace the rear knuckle.

### Dust Boot Installation Note

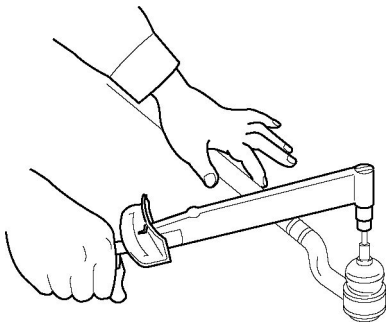
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Using the **SST** , install the dust boot to the ball joint.




4. Wipe off the excess grease.

## REAR LATERAL LINK (UPPER) INSPECTION

1. Remove the rear lateral link (upper) from the vehicle.
2. Inspect the link for bending or damage. If there is any malfunction, replace the link.
3. Inspect the ball joint for looseness. If there is any malfunction, replace the ball joint.
4. Rotate the ball joint **5 times** .
5. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.

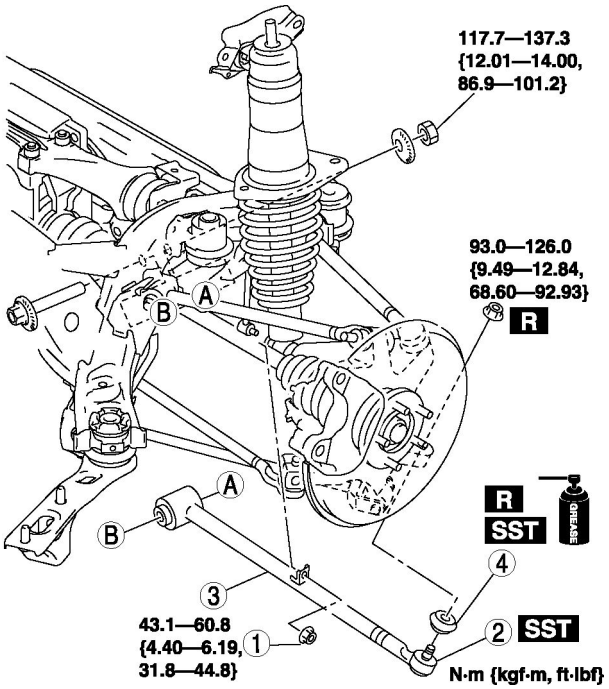


**Rear lateral link (upper) ball joint rotational torque**

- 0.4—2.8 N·m {5—28 kgf·cm, 4—24 in·lbf}
- If not within the specification, replace the rear lateral link (upper).

## REAR LATERAL LINK (LOWER) REMOVAL/INSTALLATION

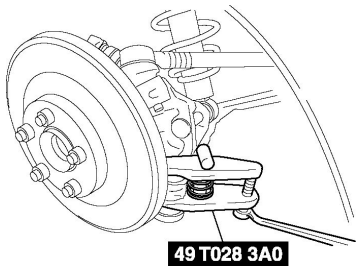
1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect the rear wheel alignment.




| | |
|---|---|
| 1 | Stabilizer control link lower nut |
| 2 | Rear lateral link (lower) ball joint |
| 3 | Rear lateral link (lower) |
| 4 | Dust boot |

### Rear Lateral Link (Lower) Ball Joint Removal Note

1. Using the **SST** , disconnect the ball joint.

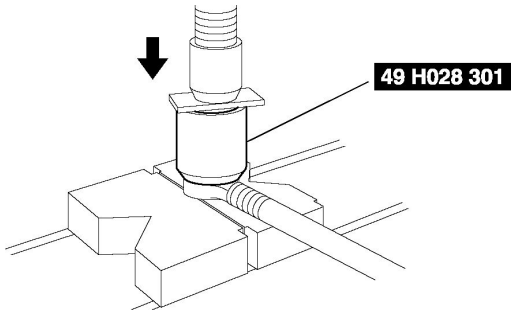


**NOTE:**

- When removing the rear lateral link (lower) ball joint, the rear knuckle bushing may also come off. If it comes off, replace the rear knuckle.

### Dust Boot Installation Note

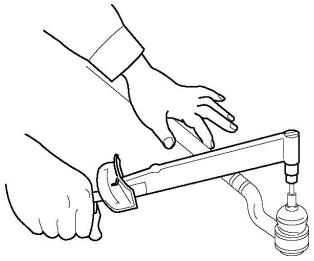
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Using the **SST** , install the dust boot to the ball joint.




4. Wipe off the excess grease.

## REAR LATERAL LINK (LOWER) INSPECTION

1. Remove the rear lateral link (lower) from the vehicle.
2. Inspect the link for bending or damage. If there is any malfunction, replace the link.
3. Inspect the ball joint for looseness. If there is any malfunction, replace the ball joint.
4. Rotate the ball joint **5 times** .
5. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.



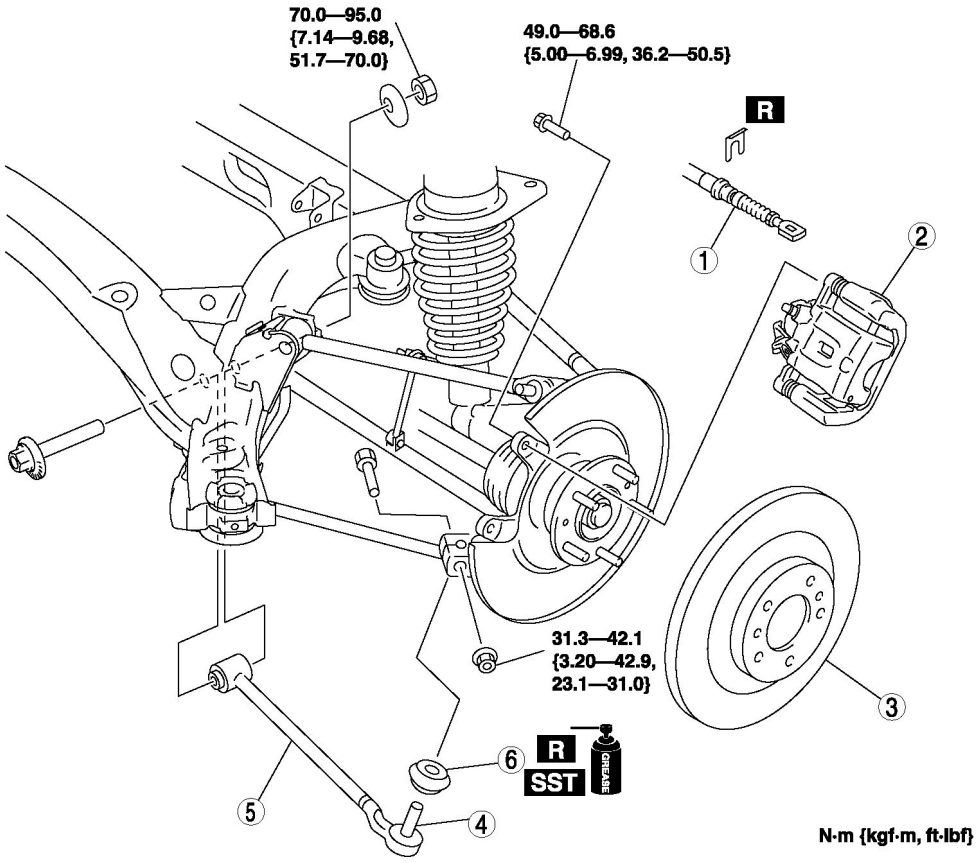
**Rear lateral link (lower) ball joint rotational torque**

- 0.4—2.8 N·m {5—28 kgf·cm, 4—24 in·lbf}
- If not within the specification, replace the rear lateral link (lower).

# TOE CONTROL LINK

## TOE CONTROL LINK REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect the rear wheel alignment. (See REAR WHEEL ALIGNMENT .)



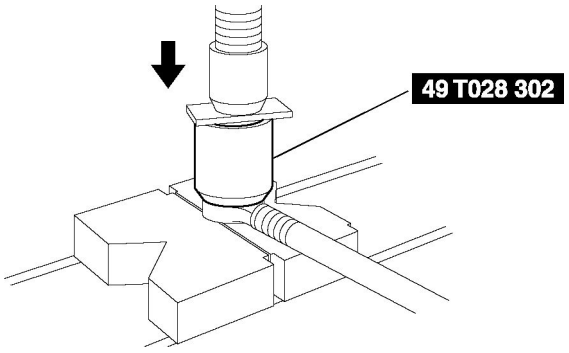

| | |
|---|---|
| 1 | Parking brake cable |
| 2 | Caliper component |
| 3 | Disc plate |
| 4 | Toe control link ball joint |
| 5 | Toe control link |
| 6 | Dust boot |

### Caliper Component Removal Note

1. Hang the caliper component using the cable and move aside.

### Dust Boot Installation Note

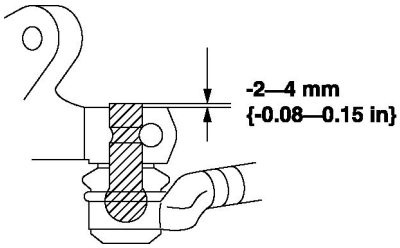
1. Wipe the grease off the ball joint stud.
2. Fill the inside of the new dust boot with grease.
3. Using the **SST** , install the dust boot to the ball joint.




4. Wipe off the excess grease.

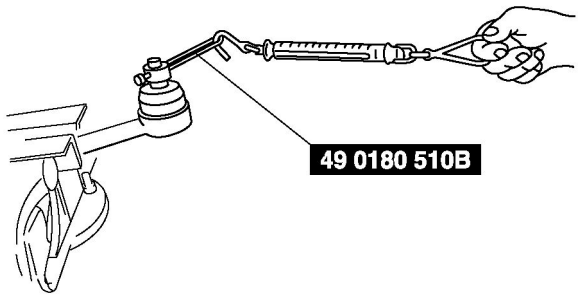
### Toe Control Link Ball Joint Installation Note

1. Install the toe control link ball joint so that the ball joint stud projection is within **-2—4 mm {-0.08—0.15 in}** .




## TOE CONTROL LINK INSPECTION

1. Remove the toe control link from the vehicle.
2. Inspect the lateral link for bending or damage. If there is any malfunction, replace the lateral link.
3. Inspect the ball joint for looseness. If there is any malfunction, replace the ball joint.
4. Rotate the ball joint **5 times** .
5. Install the **SST** to the ball stud, and measure the ball joint rotational torque using a pull scale.



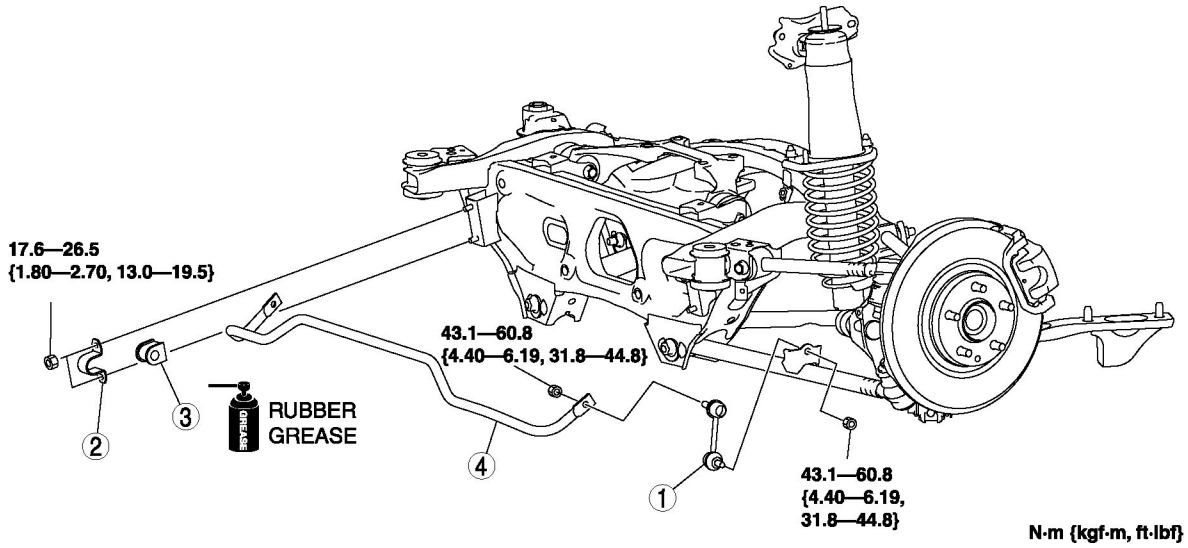

**Toe control link ball joint rotational torque**

- 0.3—2.2 N·m {4—22 kgf·cm, 3—19 in·lbf}
- Pull scale reading: 3—22 N {0.3—2.2 kgf, 0.7—4.9 lbf}
- If not within the specification, replace the toe control link.

# REAR STABILIZER

## REAR STABILIZER REMOVAL/INSTALLATION

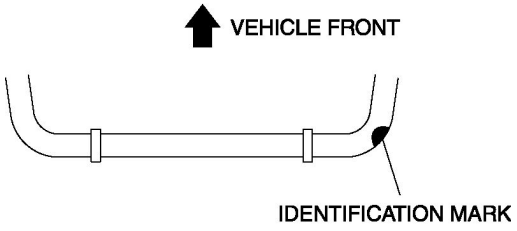
1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.




| | |
|---|---|
| 1 | Stabilizer control link |
| 2 | Stabilizer bracket |
| 3 | Bushing |
| 4 | Rear stabilizer |

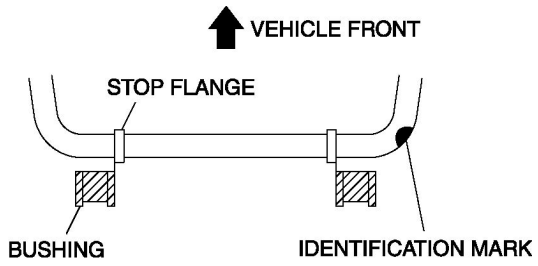
### Rear Stabilizer Installation Note

1. Install the rear stabilizer so that the identification mark is on the right side of the vehicle.



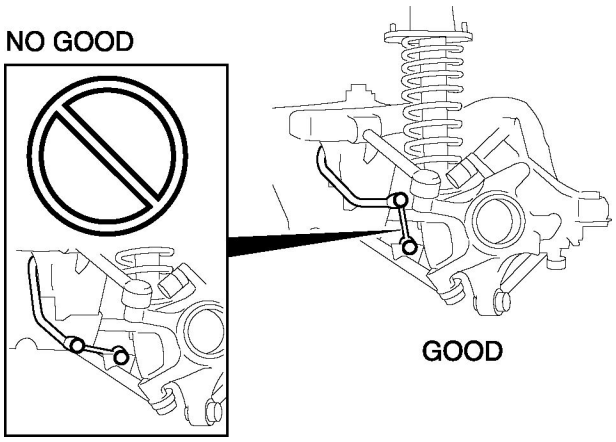

### Bushing Installation Note

1. Install the bushings aligned with the stop flanges.




## Stabilizer Control Link Installation Note

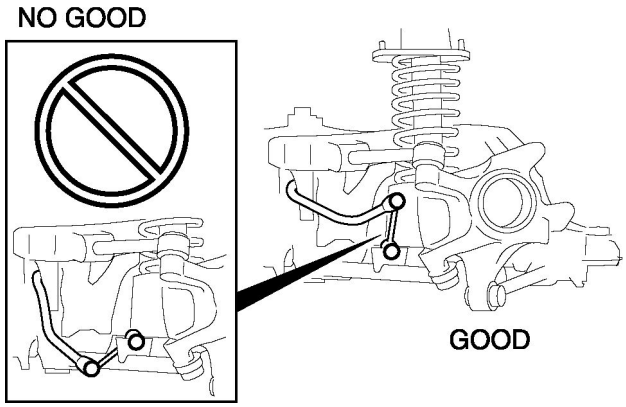
1. Install the stabilizer control link in the proper angle as shown in the figure.




**CAUTION:**

- Be sure to install the stabilizer control link in the proper position. If it is not installed properly, the stabilizer control link may interfere with peripheral components when driving, causing damage to each other.

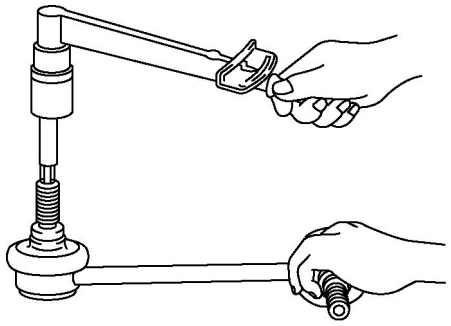
2. Place the vehicle on the ground and verify that the stabilizer control link is installed in the angle shown in the figure.



# STABILIZER CONTROL LINK (FRONT/REAR)

## STABILIZER CONTROL LINK INSPECTION

1. Remove the stabilizer control link from the vehicle.
2. Inspect the link for bending or damage. If there is any malfunction, replace the link.
3. Rotate the ball joint **10 times** , and rock the ball joint **10 times** .
4. Measure the ball-joint rotational torque using an Allen wrench and a torque wrench.



**Stabilizer control link ball joint rotational torque**

- 0.23—0.47 N·m {2.35—4.79 kgf·cm, 2.04—4.15 in·lbf}
- If not within the specification, replace the stabilizer control link ball joint.

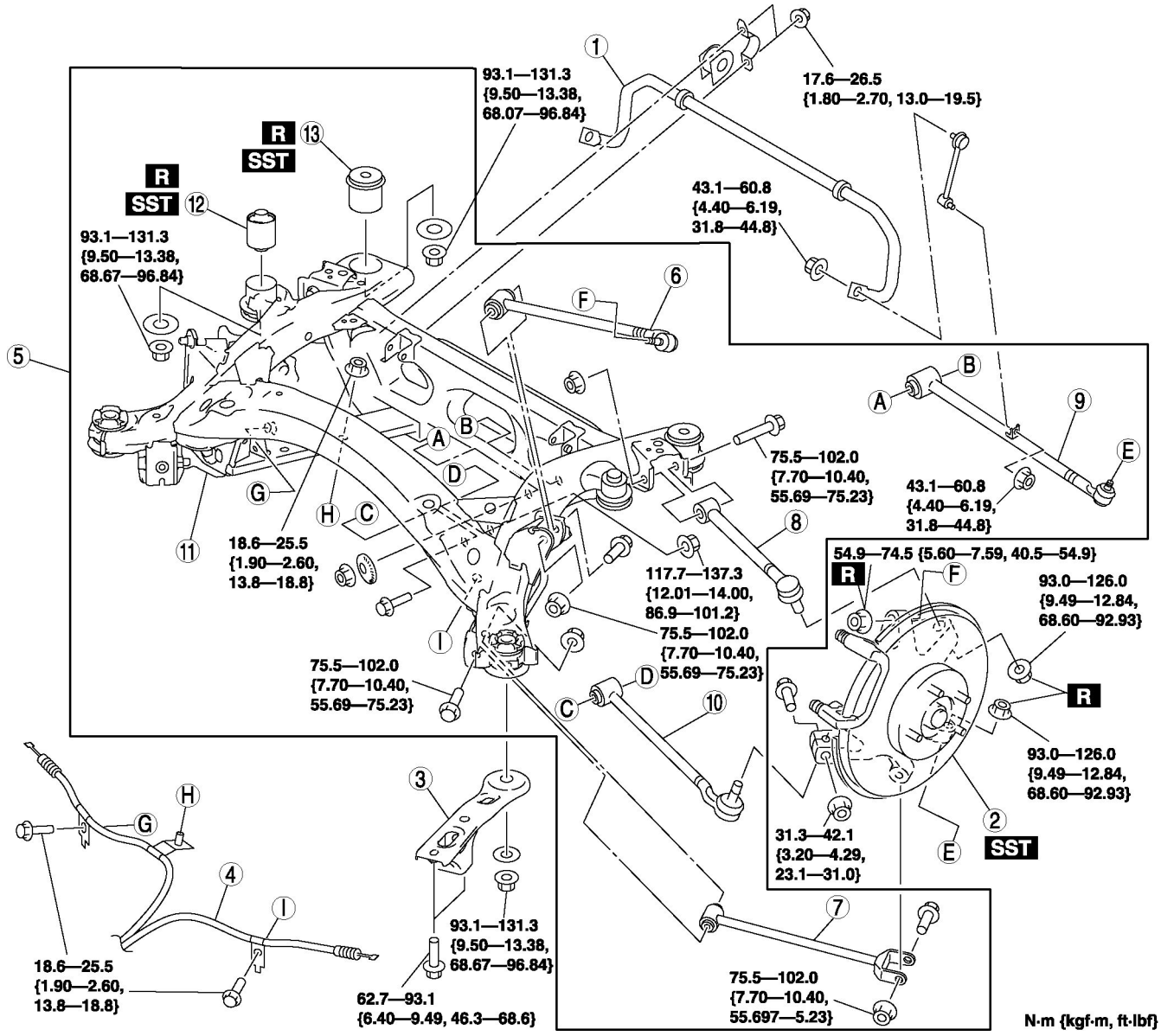
# REAR CROSSMEMBER

## REAR CROSSMEMBER REMOVAL/INSTALLATION

### 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 operations, remove the ABS wheel-speed sensor (axle side) and move the sensor away from the harnesses.

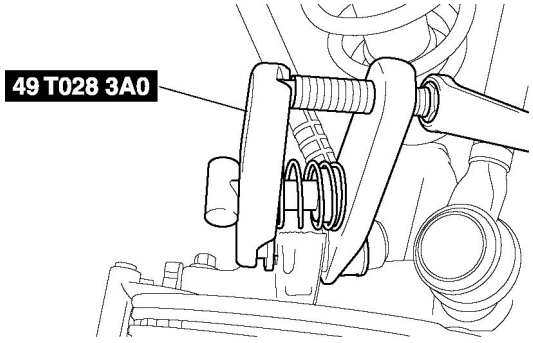
1. Remove the exhaust pipe
2. Remove the propeller shaft.
3. Remove the power plant frame.
4. Remove the rear drive shaft.
5. Remove the rear differential.
6. Remove in the order indicated in the table.
7. Install in the reverse order of removal.
8. Inspect the rear wheel alignment.



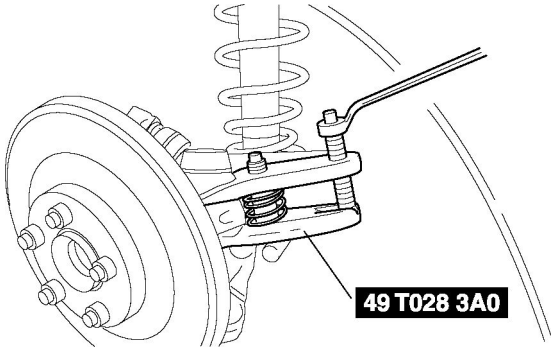

| | |
|---|---|
| 1 | Rear stabilizer |
| 2 | Rear axle component |
| 3 | Stopper plate |
| 4 | Parking brake cable |
| 5 | Rear crossmember component |
| 6 | Rear trailing link (upper) |
| 7 | Rear trailing link (lower) |
| 8 | Rear lateral link (upper) |
| 9 | Rear lateral link (lower) |
| 10 | Toe control link |
| 11 | Rear crossmember |
| 12 | No.2 bushing |
| 13 | No.3 bushing |

### Rear Axle Component Removal Note

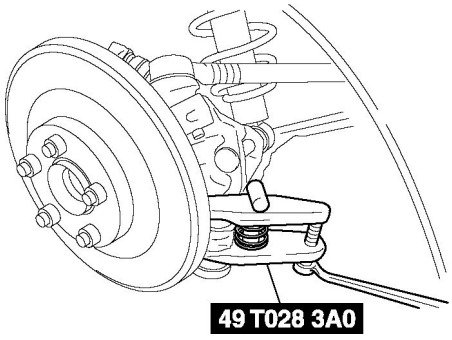
1. Support the knuckle using a jack.
2. Using the **SST** , disconnect the rear trailing link (upper) ball joint.




3. Remove the rear trailing link (lower) outer bolt.
4. Using the **SST** , disconnect the rear lateral link (upper) ball joint.




5. Using the **SST** , disconnect the rear lateral link (lower) ball joint.



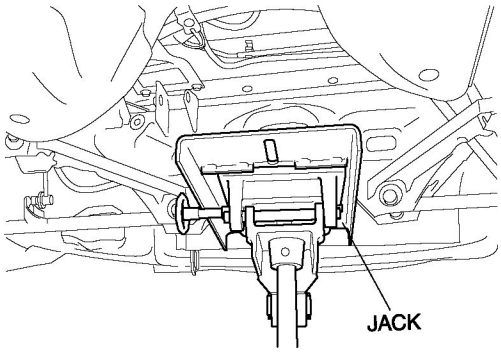

6. Remove the toe control link outer bolt.
7. Remove the shock absorber lower bolt.
8. Remove the rear axle component.

### Rear Crossmember Component Removal Note

**WARNING:**

- Be sure that the crossmember component is securely supported by the jack.If not securely supported, the crossmember component could fall, resulting in serious injury or death, and damage to the vehicle.

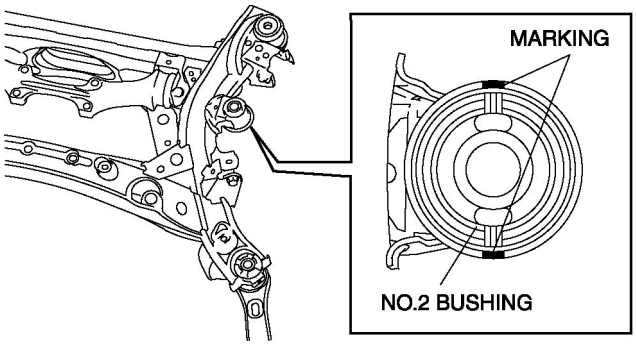
1. Support the rear crossmember with the jack, and remove the bolt.



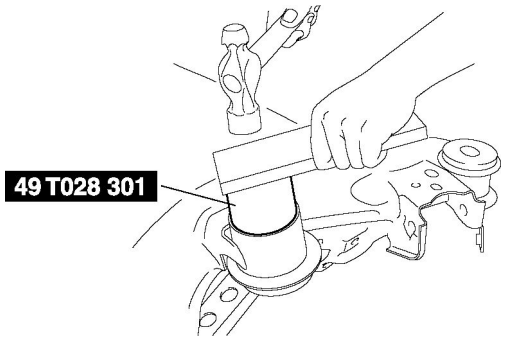

2. Remove the rear crossmember component.

## No.2 Bushing Removal Note

1. Mark the rear crossmember with the bushing hole aligned as shown in the figure.

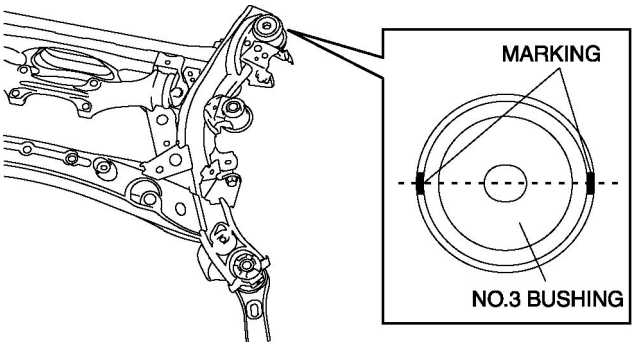



2. Remove the bushing using the **SST** .

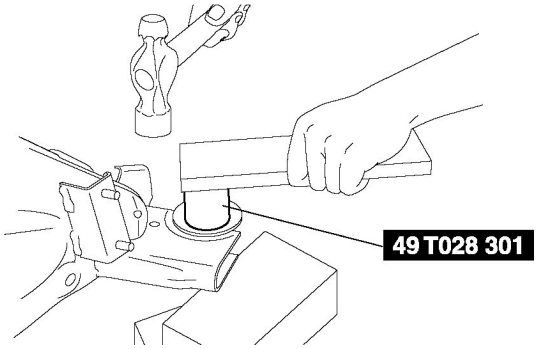



## No.3 Bushing Removal Note

1. Mark the rear crossmember with the bushing hole aligned as shown in the figure.

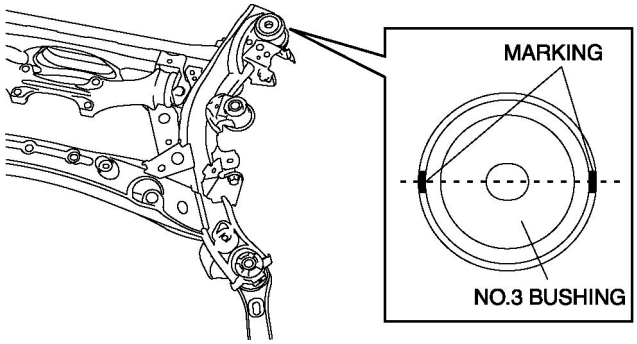



2. Remove the bushing using the **SST** .

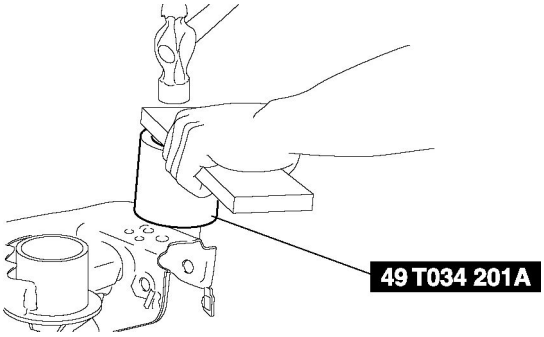



## No.3 Bushing Installation Note

1. Install the new bushing according to the marking made during bushing removal.

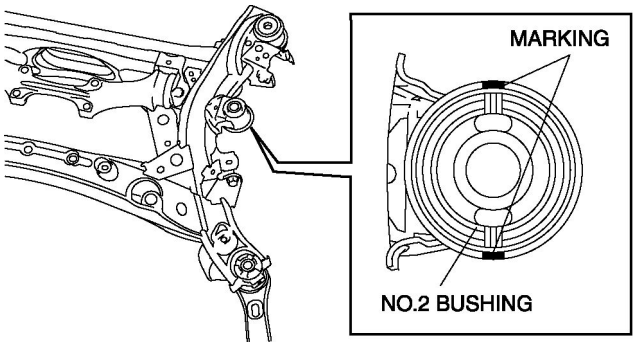



2. Press fit the bushing using the **SST** .

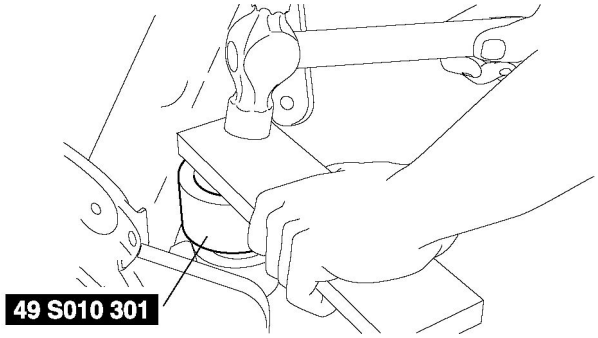



## No.2 Bushing Installation Note

1. Install the new bushing according to the marking made during bushing removal.



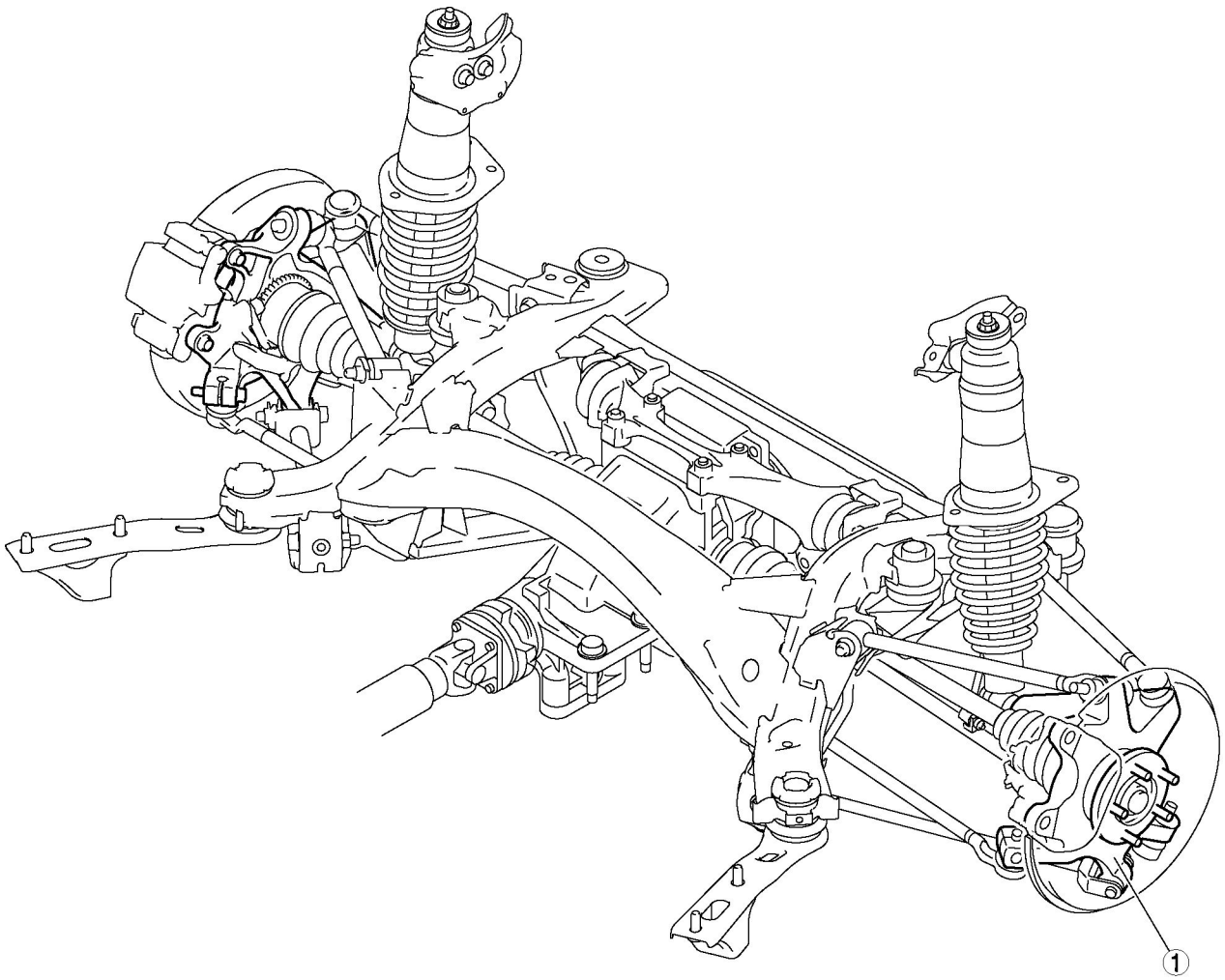

2. Press fit the bushing using the **SST** .




Notes:

# REAR AXLE

## REAR AXLE LOCATION INDEX



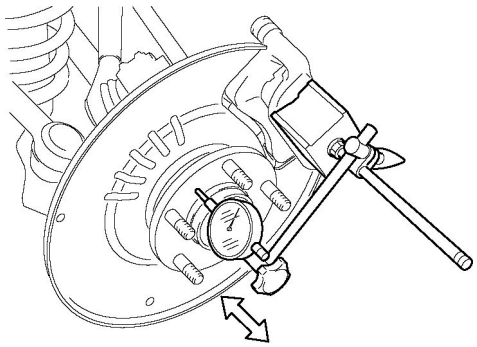

| | |
|---|---|
| 1 | Wheel hub, rear knuckle |

# WHEEL HUB, KNUCKLE

## WHEEL HUB, REAR KNUCKLE INSPECTION

### Wheel Bearing Looseness Inspection

1. Install the magnetic vase and dial gauge as shown in the figure, and inspect the wheel bearing for axial looseness.



- If it exceeds the maximum specification, replace the wheel hub component.

  **Maximum wheel bearing play**

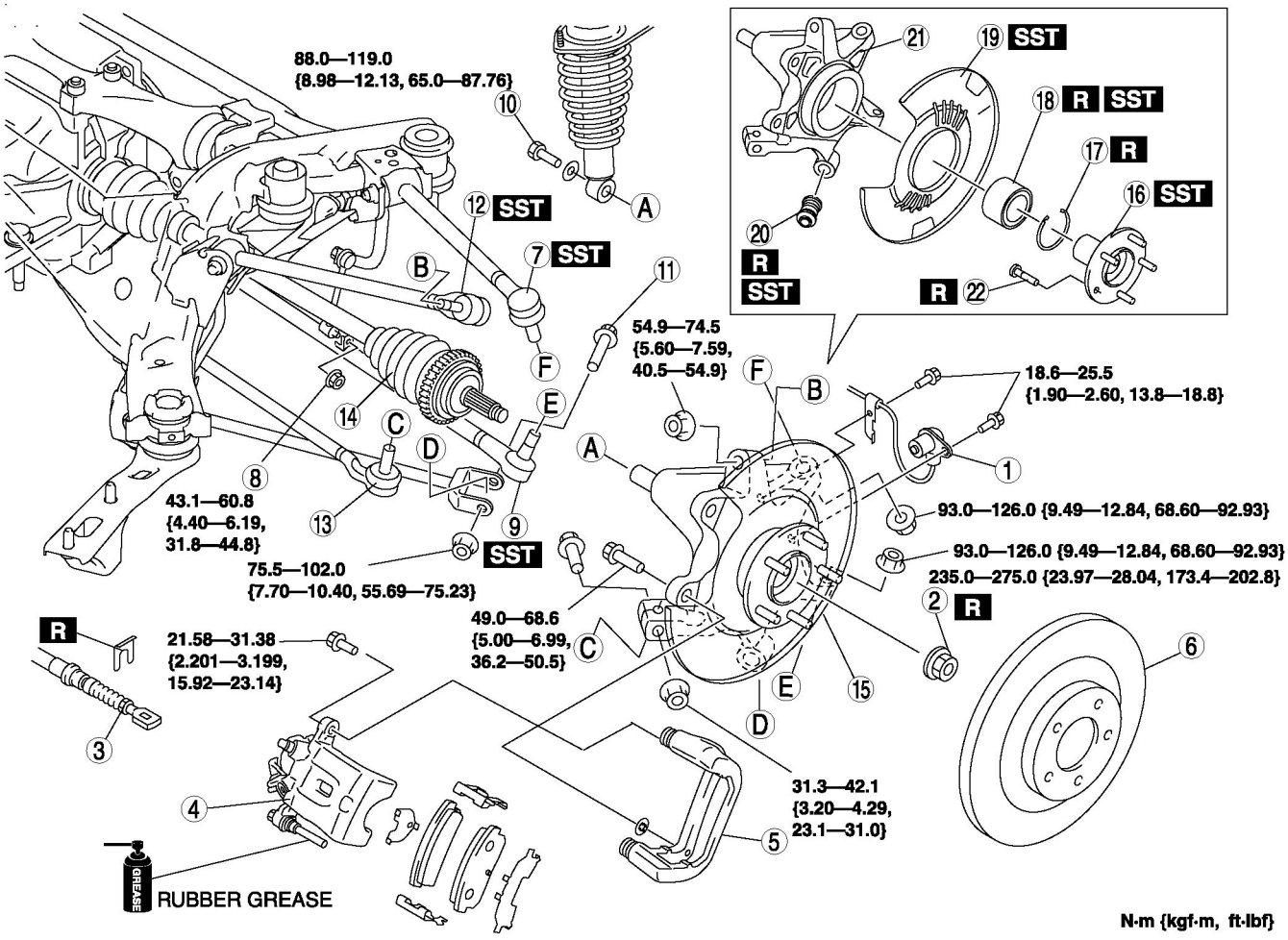
  - 0.05 mm {0.002 in}

## WHEEL HUB, REAR KNUCKLE REMOVAL/INSTALLATION

### 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 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 rear wheel alignment.

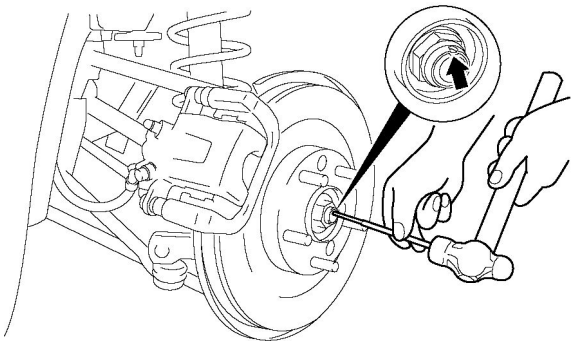



| | |
|---|---|
| 1 | ABS wheel-speed sensor |
| 2 | Locknut |
| 3 | Parking brake cable |
| 4 | Brake caliper component |
| 5 | Mounting support |
| 6 | Disc plate |
| 7 | Rear lateral link (upper) ball joint |
| 8 | Stabilizer control link (lower) |
| 9 | Rear lateral link (lower) ball joint |
| 10 | Shock absorber bolt (lower) |
| 11 | Rear trailing link (lower) outside bolt |
| 12 | Rear trailing link (upper) ball joint |
| 13 | Toe control link outside bolt |
| 14 | Rear drive shaft |
| 15 | Rear knuckle component |
| 16 | Wheel hub component |

| | |
|---|---|
| 17 | Retaining ring |
| 18 | Wheel bearing |
| 19 | Dust cover |
| 20 | Bushing |
| 21 | Rear knuckle |
| 22 | Wheel hub bolt |

### Locknut Removal Note

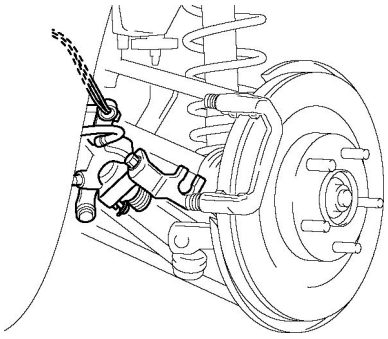
1. Lock the disc plate by applying the brakes.
2. Knock the crimped portion of the locknut outward using a chisel and a hammer.



3. Remove the locknut.

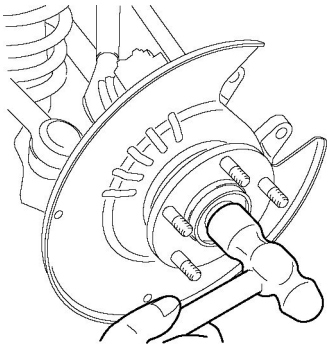
### Brake Caliper Component Removal Note

1. Suspend the brake caliper component using a cable.



### Rear Drive shaft Remvoal Note

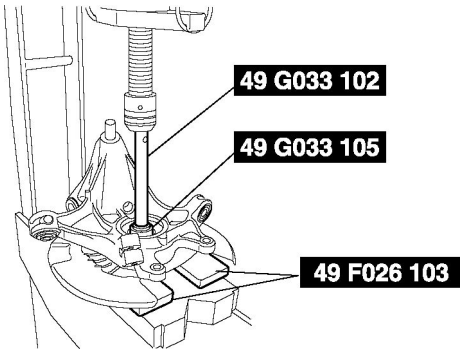
1. Temporarily install a spare nut onto the end of the rear drive shaft.
2. Tap the nut with a copper hammer to loosen the drive shaft from the wheel hub.



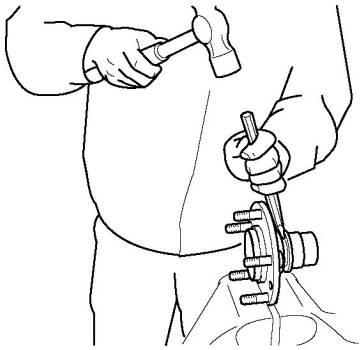
3. Separate the rear drive shaft from the wheel hub.

### Wheel Hub Component Removal Note

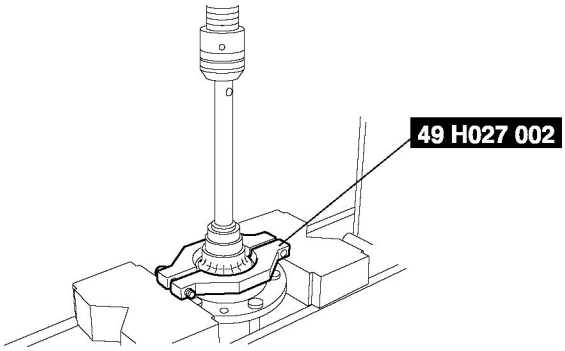
1. Remove the wheel hub component using the **SSTs** .




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.

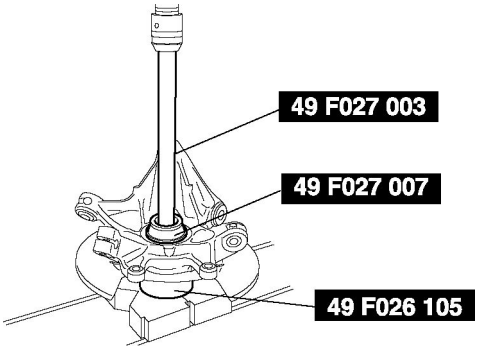


3. Remove the bearing inner race using the **SST** .



### Wheel Bearing Removal Note

1. Remove the wheel bearing from the rear knuckle using the **SSTs** .

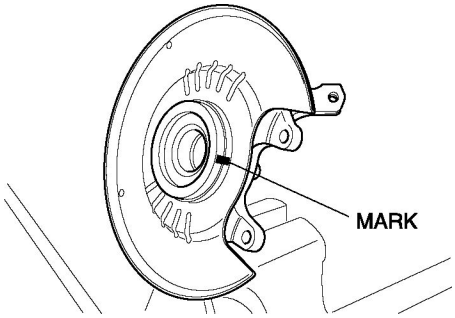



### Dust Cover Removal Note

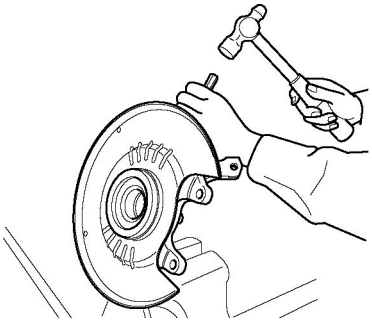
### NOTE:

- Remove the dust cover only if there is an abnormality.

1. Place an alignment mark on the dust cover and rear knuckle for proper installation.

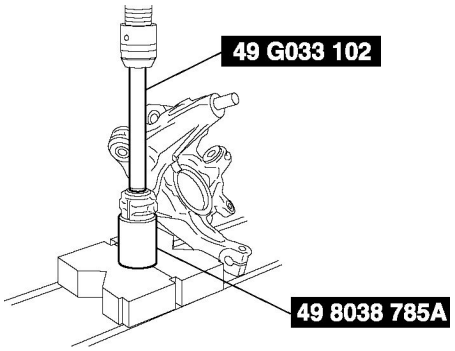



2. Remove the dust cover using a chisel.



### Bushing Removal Note

1. Remove the bushing from the rear knuckle using the **SSTs** .

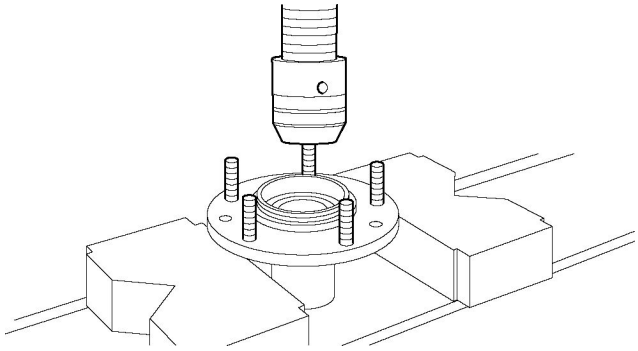



### Wheel Hub Bolt Removal Note

### NOTE:

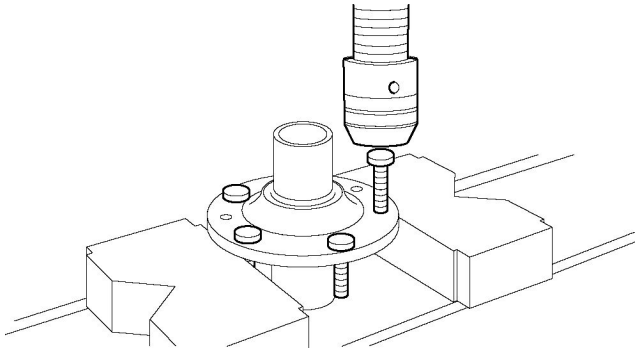
- Remove the dust cover only if there is an abnormality.

1. Remove the wheel hub bolts from the wheel hub using a press.



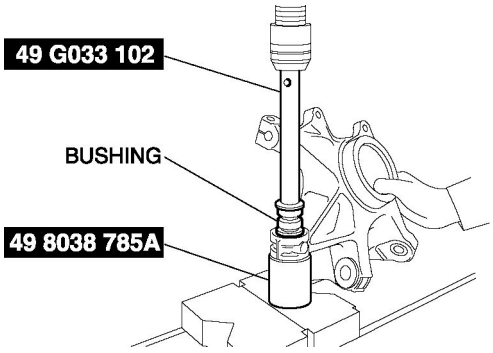
### Wheel Hub Bolt Installation Note

1. Press in new wheel hub bolts into the wheel hub using a press.



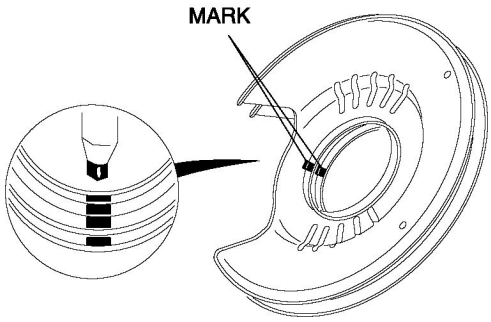
### Bushing Installation Note

1. Press the new bushing into the rear knuckle using the **SSTs** .

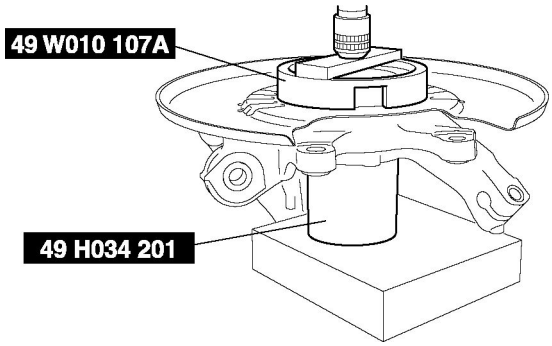



## Dust Cover Installation Note

1. Align the new and old dust covers and place alignment marks on the new dust cover.

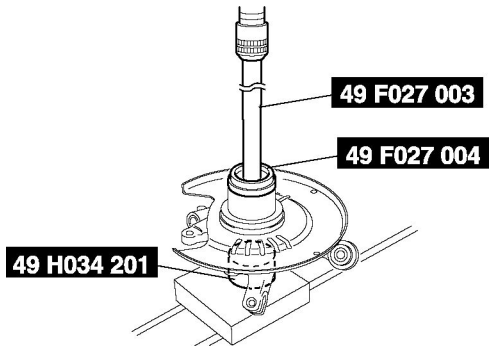



2. Align the marks on the new dust cover and rear knuckle.
3. Press the new dust cover onto the rear knuckle using the **SSTs** .



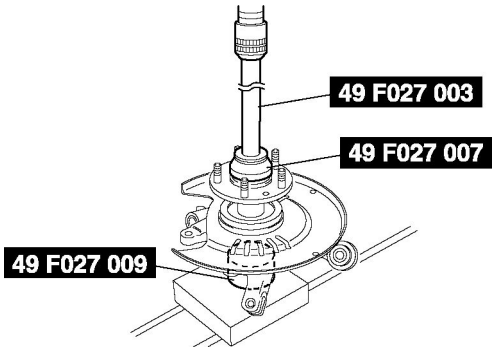

## Wheel Bearing Installation Note

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



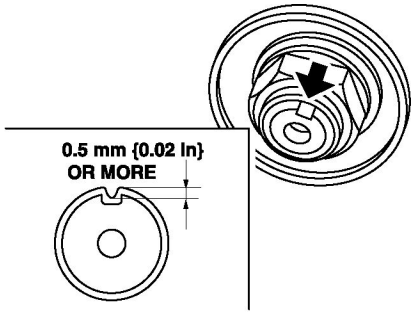
## Wheel Hub Component Installation Note

1. Install the wheel hub component using the **SSTs** .




## Locknut Installation Note

1. Tighten a new locknut.
2. Install a new locknut and indent as shown to crimp the locknut, using a chisel and hammer.



# WHEEL ALIGNMENT

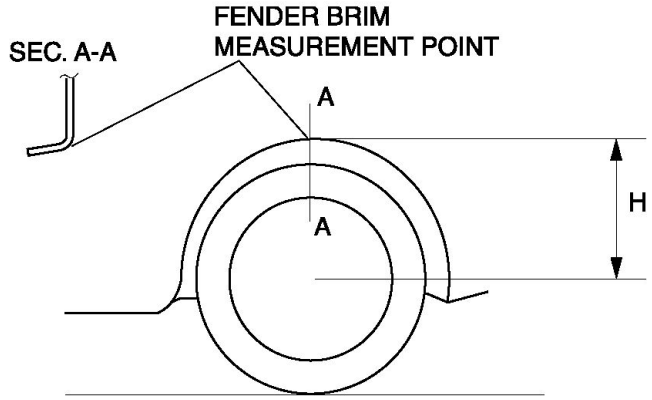
# SUSPENSION

## WHEEL ALIGNMENT PRE-INSPECTION

1. Park the vehicle on a level ground, in an unloaded condition*, and with the wheels straight forward.

   Unloaded vehicle.....Fuel tank is full. Engine coolant and engine oil are at specified level. Jack and tools are in designated position.

2. Inspect the tire pressure.
   - Adjust to the recommended pressure if necessary.
3. Inspect the wheel bearing play.
   - Correct if necessary.
4. Inspect the wheel runout.
   - Correct if necessary.
5. Rock the vehicle, and verify that there is no looseness in the steering wheel joint and suspension ball joint.
6. Rock the vehicle, and verify that the shock absorber operates properly.
7. Measure height H from the center of the wheel to the fender brim.




8. Verify that the difference between the left and right dimension H is within the specification.
   - If it exceeds the specification, repeat the Step 2—7.
   - Standard

     10 mm {0.39 in} or less

# FRONT SUSPENSION

## FRONT WHEEL ALIGNMENT

### Specification (Unloaded Condition)

**Standard suspension**

| Item | | | Specification |
|---|---|---|---|
| Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 2 {0.08} |
| | Rim inner | (mm {in}) | 1.2±2.5 {0.05±0.09} |
| | | degree | 0°11'±21′ |
| Steering angle [Tolerance ±3°] | | Inner | 38°41′ |
| | | Outer | 33°15′ |
| King pin inclination (Reference value) | | | 10°52′ |
| Camber [Tolerance ±1°] | Vehicle height: From the end of the front fender to the center of the wheel (mm {in}) | 367—376 {14.4—14.8} | -0°33′ |
| | | 377—386 {14.9—15.1} | -0°13′ |
| | | 387—396 {15.2—15.5} | 0°04′ |
| | | 397—406 {15.6—15.9} | 0°20′ |
| | | 407—416 {16.0—16.3} | 0°33′ |
| Caster [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 361—370 {14.2—14.5} | 6°31′ |
| | | 371—380 {14.6—14.9} | 6°18′ |
| | | 381—390 {15.0—15.3} | 6°06′ |
| | | 391—400 {15.4—15.7} | 5°53′ |
| | | 401—410 {15.8—16.1} | 5°40′ |

## Sport suspension

| Item | | | Specification |
|---|---|---|---|
| Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 2 {0.08} |
| | Rim inner | (mm {in}) | 1.4±2.8 {0.06±0.11} |
| | | degree | 0°11'±21′ |
| Steering angle [Tolerance ±3°] | | Inner | 38°36′ |
| | | Outer | 33°07′ |
| King pin inclination (Reference value) | | | 11°02′ |
| Camber [Tolerance ±1°] | Vehicle height: From the end of the front fender to the center of the wheel (mm {in}) | 361—370 {14.2—14.5} | -0°45′ |
| | | 371—380 {14.6—14.9} | -0°25′ |
| | | 381—390 {15.0—15.3} | -0°06′ |
| | | 391—400 {15.4—15.7} | 0°11′ |
| | | 401—410 {15.8—16.1} | 0°26′ |
| Caster [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 354—363 {13.9—14.2} | 6°41′ |
| | | 364—373 {14.3—14.6} | 6°28′ |
| | | 374—383 {14.7—15.0} | 6°16′ |
| | | 384—393 {15.1—15.4} | 6°03′ |
| | | 394—403 {15.5—15.8} | 5°50′ |

**NOTE:**

- Unloaded vehicle: Fuel tank is full. Engine coolant and engine oil are at specified level. Jack and tools are in designated position.
- Difference between the left and right dimension for camber and caster is within **1°** .

## Steering Angle Adjustment

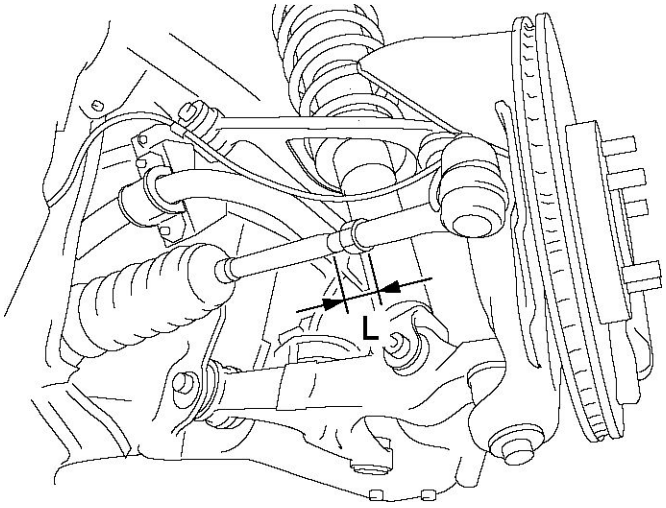
1. Loosen the locknut of the tie-rod end.
2. Remove the rack boot clamp.
3. Rotate the tie rod and adjust the steering angle.

   **Standard steering angle**

   - Standard suspension
     - Inner: 38°41′±3°
     - Outer: 33°15′±3°
   - Sport suspension
     - Inner: 38°36′±3°
     - Outer: 33°07′±3°

   **NOTE:**

   - Rotate and adjust the tie rod. The difference between right and left dimension L shown in the figure should be within the specification.




   - Standard

     3 mm {0.12 in} or less

4. Tighten the locknut of the tie-rod end.

   **Tightening torque**

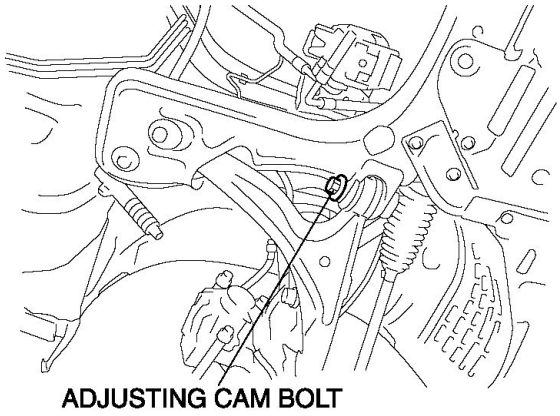
   - **37.0—49.0 N·m {3.78—4.99 kgf·m, 27.3—36.1 ft·lbf}**
5. Correct the rack boot deformation.
6. Install and fix the rack boot clamp.
7. After adjusting the steering angle, always inspect and adjust the toe angle.

## Camber Adjustment

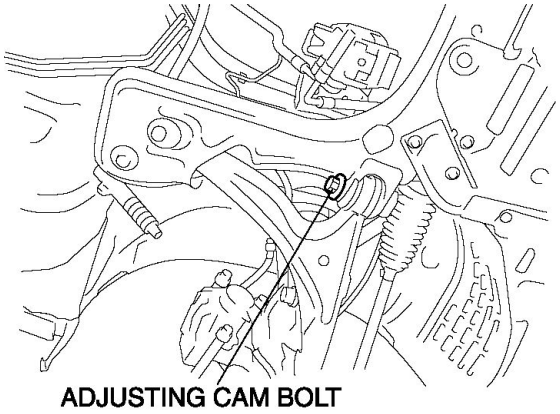
**CAUTION:**

- Adjust the camber before adjusting the caster.

1. Loosen the fixing nut of the adjusting cam bolt (front lower arm front side).




2. Rotate the adjusting cam bolt in either direction to adjust the camber.




**Standard suspension**

| Vehicle height* | Camber |
|---|---|
| 367—376 {14.4—14.8} | -0°33′±1° |
| 377—386 {14.9—15.1} | -0°13′±1° |
| 387—396 {15.2—15.5} | 0°04′±1° |
| 397—406 {15.6—15.9} | 0°20′±1° |
| 407—416 {16.0—16.3} | 0°33′±1° |

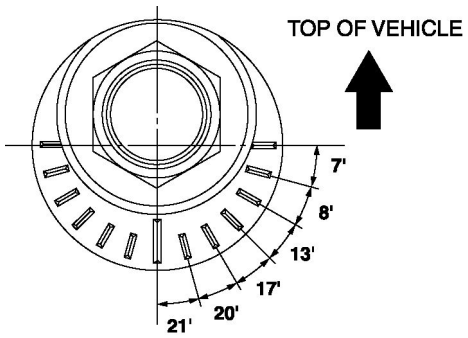
**Sport suspension**

| Vehicle height* | Camber |
|---|---|
| 361—370 {14.2—14.5} | -0°45′±1° |
| 371—380 {14.6—14.9} | -0°25′±1° |
| 381—390 {15.0—15.3} | -0°06′±1° |
| 391—400 {15.4—15.7} | 0°11′±1° |
| 401—410 {15.8—16.1} | 0°26′±1° |

| | Left wheel | Right wheel |
|---|---|---|
| Positive direction | Counterclockwise | Clockwise |
| Negative direction | Clockwise | Counterclockwise |

**NOTE:**

- Refer to the figure for the adjusting angle per one graduation.




3. Tighten the nut.

**Tightening torque**

- **117.7—137.3 N·m {12.1—14.0 kgf·m, 86.9—101.2 ft·lbf}**

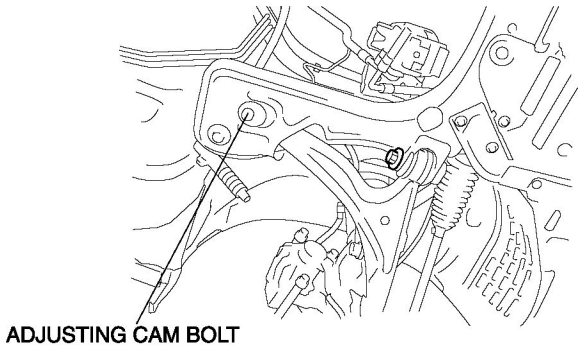
4. Adjust the toe-in.

## Caster Adjustment

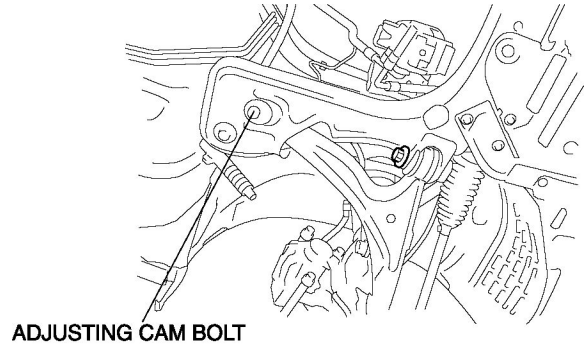
**CAUTION:**

- Adjust the caster after adjusting the camber.

1. Loosen the installation nut of the adjusting cam bolt (front lower arm rear side).




2. Rotate the adjusting cam bolt in either direction to adjust the caster.



**Standard suspension**

| Vehicle height* | Caster |
|---|---|
| 361—370 {14.2—14.5} | 6°31′ |
| 371—380 {14.6—14.9} | 6°18′ |
| 381—390 {15.0—15.3} | 6°06′ |
| 391—400 {15.4—15.7} | 5°53′ |
| 401—410 {15.8—16.1} | 5°40′ |

**Sport suspension**

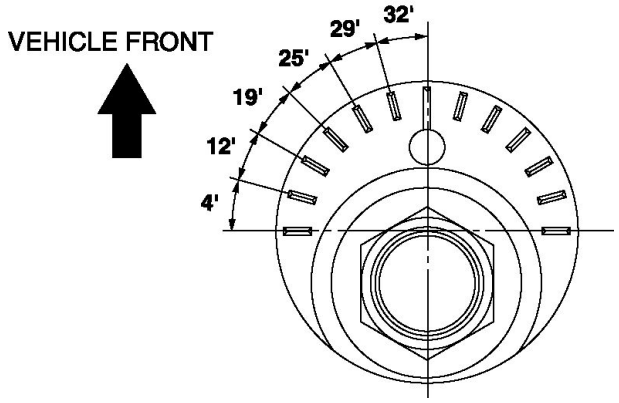
| Vehicle height* | Caster |
|---|---|
| 354—363 {13.9—14.2} | 6°41′ |
| 364—373 {14.3—14.6} | 6°28′ |
| 374—383 {14.7—15.0} | 6°16′ |
| 384—393 {15.1—15.4} | 6°03′ |
| 394—403 {15.5—15.8} | 5°50′ |

*
From the end of the rear fender to the center of the wheel (mm {in})

| | Left wheel | Right wheel |
|---|---|---|
| Increase | Counterclockwise | Clockwise |
| Decrease | Clockwise | Counterclockwise |

**NOTE:**

- Refer to the following figure for the adjusting amount per one graduation.




3. Tighten the nut.

**Tightening torque**

- **117.7—137.3 N·m {12.1—14.0 kgf·m, 86.9—101.2 ft·lbf}**

4. Adjust the camber and total toe-in.

## Total Toe-in Adjustment

1. Loosen the locknut of the tie-rod end.
2. Remove the rack boot clamp.
3. Adjust the total toe-in by rotating each tie rod (left and right) in the opposite directions by the same amount respectively.

   **Total Toe-in Standard**

   - 2±4 mm {0.08±0.15 in} (0°11′±21′)

   **NOTE:**

   - Toe angle changes by **approx. 5 mm {0.2 in}** per one rotation of the tie rod for one wheel.
   - Each tie rod has a left-hand thread. When increasing the toe-in angle, rotate the right tie rod toward the rear of the vehicle, and rotate the left tie rod toward the front of the vehicle by the same amount.
4. Tighten the locknut of the tie-rod end.

   **Tightening torque**

   - **37.0—49.0 N·m {3.78—4.99 kgf·m, 27.3—36.1 ft·lbf}**
5. Verify that the rack boot does not have any twisting, and install the rack boot clamp.

# REAR SUSPENSION

## REAR WHEEL ALIGNMENT

### Specification (Unloaded Vehicle)

**Standard suspension**

| Item | | | Specification |
|---|---|---|---|
| Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 3 {0.12} |
| | Rim inner | (mm {in}) | 1.9±2.5 {0.075±0.098} |
| | | degree | 0°16′±20′ |
| Camber [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 361—370 {14.2—14.5} | -1°30′ |
| | | 371—380 {14.6—14.9} | -1°12′ |
| | | 381—390 {15.0—15.3} | -0°56′ |
| | | 391—400 {15.4—15.7} | -0°43′ |
| | | 401—410 {15.8—16.1} | -0°33′ |

**Sport suspension**

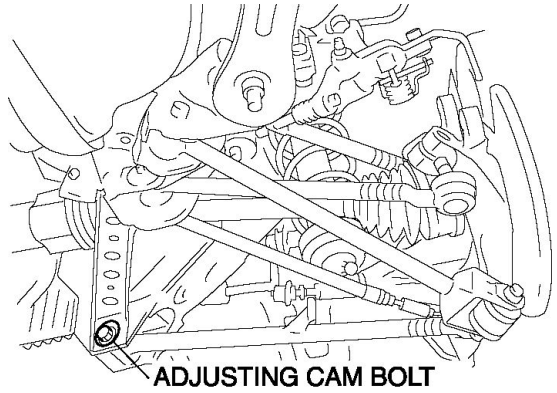
| Item | | | Specification |
|---|---|---|---|
| Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 3 {0.12} |
| | Rim inner | (mm {in}) | 2.1±2.8 {0.083±0.110} |
| | | degree | 0°16′±20′ |
| Camber [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 354—363 {13.9—14.2} | -1°44′ |
| | | 364—373 {14.3—14.6} | -1°24′ |
| | | 374—383 {14.7—15.0} | -1°07′ |
| | | 384—393 {15.1—15.4} | -0°52′ |
| | | 394—403 {15.5—15.8} | -0°40′ |

**NOTE:**

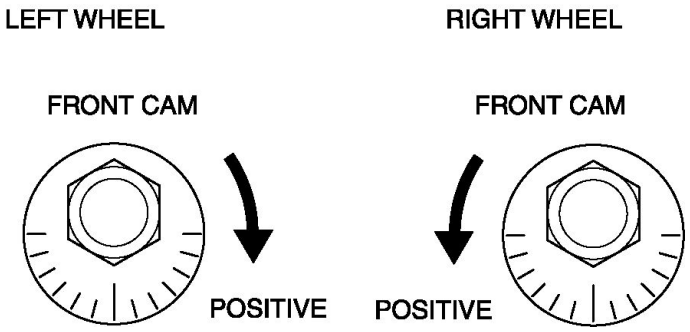
- Unloaded vehicle: Fuel tank is full. Engine coolant and engine oil are at specified level. Jack and tools are in designated position.
- Difference between the left and right camber angle is within **1°** .

## Camber Adjustment

1. Loosen the fixing nut of the adjusting cam bolt (rear lateral link (lower)).




2. Rotate the adjusting cam bolt in either direction to adjust the camber.




**Standard suspension**

| Vehicle height* | Camber |
|---|---|
| 361—370 {14.2—14.5} | -1°30′±1° |
| 371—380 {14.6—14.9} | -1°12′±1° |
| 381—390 {15.0—15.3} | -0°56′±1° |
| 391—400 {15.4—15.7} | -0°43′±1° |
| 401—410 {15.8—16.1} | -0°33′±1° |

**Sport suspension**

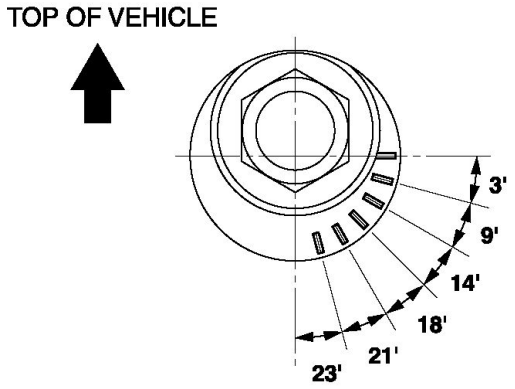
| Vehicle height* | Camber |
|---|---|
| 354—363 {13.9—14.2} | -1°44′±1° |
| 364—373 {14.3—14.6} | -1°24′±1° |
| 374—383 {14.7—15.0} | -1°07′±1° |
| 384—393 {15.1—15.4} | -0°52′±1° |
| 394—403 {15.5—15.8} | -0°40′±1° |

* : From the end of the rear fender to the center of the wheel (mm {in})

| | Left wheel | Right wheel |
|---|---|---|
| Positive direction | Counterclockwise | Clockwise |
| Negative direction | Clockwise | Counterclockwise |

**NOTE:**

- Refer to the figure for the adjusting angle per one graduation.



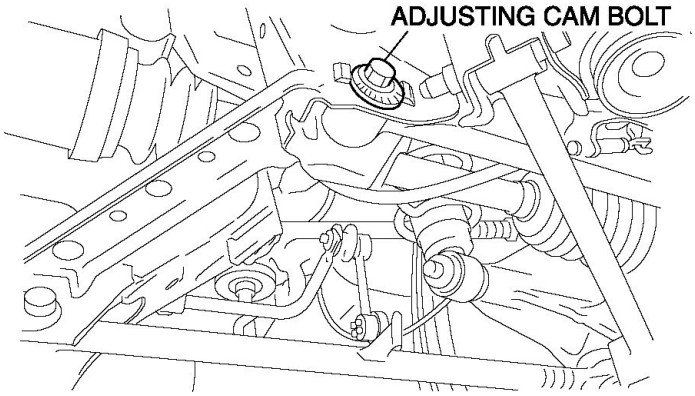

3. Tighten the nut.

   **Tightening torque**

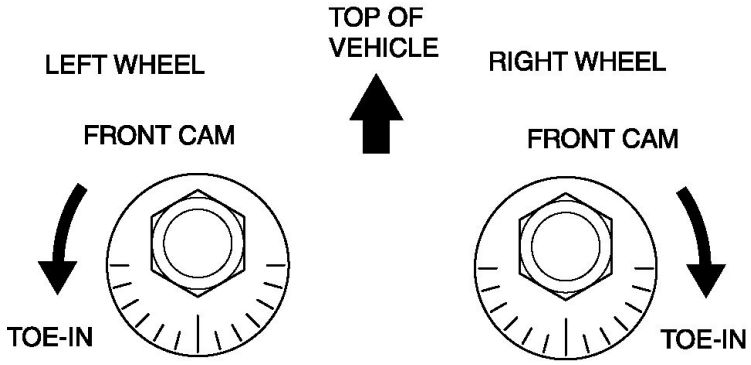
   - **117.7—137.3 N·m {12.1—14.0 kgf·m, 86.9—101.2 ft·lbf}**

## Total Toe-in Adjustment

1. Loosen the installation nut of the adjusting cam bolt.




2. Rotate the adjusting cam bolt in either direction to adjust the toe-in.

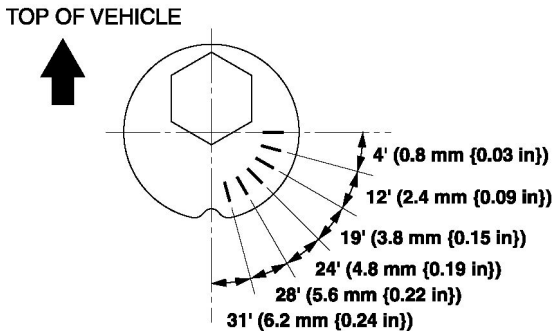


**Standard**

- 2±4 mm {0.08±0.15 in} (0°16′±20′)

**NOTE:**

- Refer to the following figure for the adjusting angle per one graduation of the toe-in gauge.




3. Tighten the nut.

**Tightening torque**

- **70—95 N·m {7.2—9.6 kgf·m, 52—70 ft·lbf}**

# TECHNICAL DATA

## SUSPENSION

Standard suspension

| Item | | | | Specification |
|---|---|---|---|---|
| Front wheel alignment (Unloaded)*1 | Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 2 {0.08} |
| | | Rim inner | (mm {in}) | 1.2±2.5 {0.05±0.09} |
| | | | degree | 0°11'±21′ |
| | Steering angle [Tolerance ±3°] | | Inner | 38°41′ |
| | | | Outer | 33°15′ |
| | Steering axis inclination (reference value) | | | 10°52′ |
| | Camber*2 [Tolerance ±1°] | Vehicle height: From the end of the front fender to the center of the wheel (mm {in}) | 367—376 {14.4—14.8} | -0°33′ |
| | | | 377—386 {14.9—15.1} | -0°13′ |
| | | | 387—396 {15.2—15.5} | 0°04′ |
| | | | 397—406 {15.6—15.9} | 0°20′ |
| | | | 407—416 {16.0—16.3} | 0°33′ |
| | Caster*2 [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 361—370 {14.2—14.5} | 6°31′ |
| | | | 371—380 {14.6—14.9} | 6°18′ |
| | | | 381—390 {15.0—15.3} | 6°06′ |
| | | | 391—400 {15.4—15.7} | 5°53′ |
| | | | 401—410 {15.8—16.1} | 5°40′ |
| Rear wheel alignment (Unloaded)*1 | Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 3 {0.12} |
| | | Rim inner | (mm {in}) | 1.9±2.5 {0.075±0.098} |
| | | | degree | 0°16′±20′ |
| | Camber*2 | Vehicle height: From the end of the rear fender to the center of the wheel | 361—370 {14.2—14.5} | -1°30′ |

| | | | | |
|---|---|---|---|---|
| | [Tolerance ±1°] | (mm {in}) | 371—380 {14.6—14.9} | -1°12′ |
| | | | 381—390 {15.0—15.3} | -0°56′ |
| | | | 391—400 {15.4—15.7} | -0°43′ |
| | | | 401—410 {15.8—16.1} | -0°33′ |

*1

Engine coolant and engine oil are at specified level. Jack, and tools are in designated position. Adjust to the median when carrying out wheel alignment.

*2

Difference between left and right must not exceed **1°** .

Sport suspension

| Item | | | | Specification |
|---|---|---|---|---|
| Front wheel alignment (Unloaded)*1 | Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 2 {0.08} |
| | | Rim inner | (mm {in}) | 1.4±2.8 {0.06±0.11} |
| | | | degree | 0°11'±21′ |
| | Steering angle [Tolerance ±3°] | | Inner | 38°36′ |
| | | | Outer | 33°07′ |
| | Steering axis inclination (reference value) | | | 11°02′ |
| | Camber*2 [Tolerance ±1°] | Vehicle height: From the end of the front fender to the center of the wheel (mm {in}) | 361—370 {14.2—14.5} | -0°45′ |
| | | | 371—380 {14.6—14.9} | -0°25′ |
| | | | 381—390 {15.0—15.3} | -0°06′ |
| | | | 391—400 {15.4—15.7} | 0°11′ |
| | | | 401—410 {15.8—16.1} | 0°26′ |
| | Caster*2 [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 354—363 {13.9—14.2} | 6°41′ |
| | | | 364—373 {14.3—14.6} | 6°28′ |
| | | | 374—383 {14.7—15.0} | 6°16′ |
| | | | 384—393 {15.1—15.4} | 6°03′ |
| | | | 394—403 {15.5—15.8} | 5°50′ |

| | | | | |
|---|---|---|---|---|
| Rear wheel alignment (Unloaded)*1 | Total toe-in | Tire [Tolerance ±4 mm {0.15 in}] | (mm {in}) | 3 {0.12} |
| | | Rim inner | (mm {in}) | 2.1±2.8 {0.083±0.110} |
| | | | degree | 0°16′±20′ |
| | Camber*2 [Tolerance ±1°] | Vehicle height: From the end of the rear fender to the center of the wheel (mm {in}) | 354—363 {13.9—14.2} | -1°44′ |
| | | | 364—373 {14.3—14.6} | -1°24′ |
| | | | 374—383 {14.7—15.0} | -1°07′ |
| | | | 384—393 {15.1—15.4} | -0°52′ |
| | | | 394—403 {15.5—15.8} | -0°40′ |

*1 Engine coolant and engine oil are at specified level. Jack, and tools are in designated position. Adjust to the median when carrying out wheel alignment.

*2 Difference between left and right must not exceed **1°** .

Wheel and tires

| Item | | | Specification | |
|---|---|---|---|---|
| Wheel | Size | | 16 x 7 1/2JJ | 18 x 8JJ |
| | Offset | (mm {in}) | 50 {2.0} | |
| | Pitch circle diameter | (mm {in}) | 114.3 {4.50} | |
| | Material | | Aluminum alloy | |
| Tire | Size | | 225/55R16 94V | 225/45R18 91W |
| | Air pressure | (kPa {kgf/cm$^2$ , psi}) | 220 {2.2, 32} | |
| | Remaining tread | (mm {in}) | 1.6 {0.063} min. | |
| Wheel and tire | Lug nut tightening torque | (N·m {kgf·m, ft·lbf}) | 89—117 {9.0—12.0, 65.0—87.0} | |
| | Wheel and tire runout | Radial direction | 1.5 {0.059} max. | |
| | (mm {in}) | Lateral direction | 2.0 {0.078} max. | |
| | Wheel imbalance | (g {oz}) | Adhesive-type*1 : 13 {0.46} max. Knock-type*2 : 8 {0.28} max. | Adhesive-type*1 : 10 {0.35} max. Knock-type*2 : 6 {0.21} max. |

*1 Total weight exceeds **160 g {5.65 oz}** .

*2 One balance weight: **60 g {2.12 oz}** max. If the total weight exceeds **100 g {3.53 oz}** on one side, rebalance after moving the tire around on the rim. Do not use three or more balance weights.

Ball joint rotational torque

| Item | | Specification |
|---|---|---|
| Front upper arm ball joint | (N·m {kgf·cm, in·lbf}) | 0.3—2.2 {4—22, 3—19} |
| Front lower arm ball joint | | 0.4—2.9 {5—29, 4—25} |
| Front stabilizer control link | | 0.2—2.0 {3—20, 2—17} |
| Rear trailing link (upper) | | 0.4—3.3 {5—33, 4—29} |
| Rear lateral link (upper) | | 0.4—2.8 {5—28, 4—24} |
| Rear lateral link (lower) | | 0.4—2.8 {5—28, 4—24} |
| Toe control link | | 0.3—2.2 {4—22, 3—19}<br><br>[Pull scale reading: 3—22 N {0.3—2.2 kgf, 0.7—4.9 lbf}] |
| Rear stabilizer control link | | 0.23—0.47 {2.35—4.79, 2.04—4.15} |

Notes: