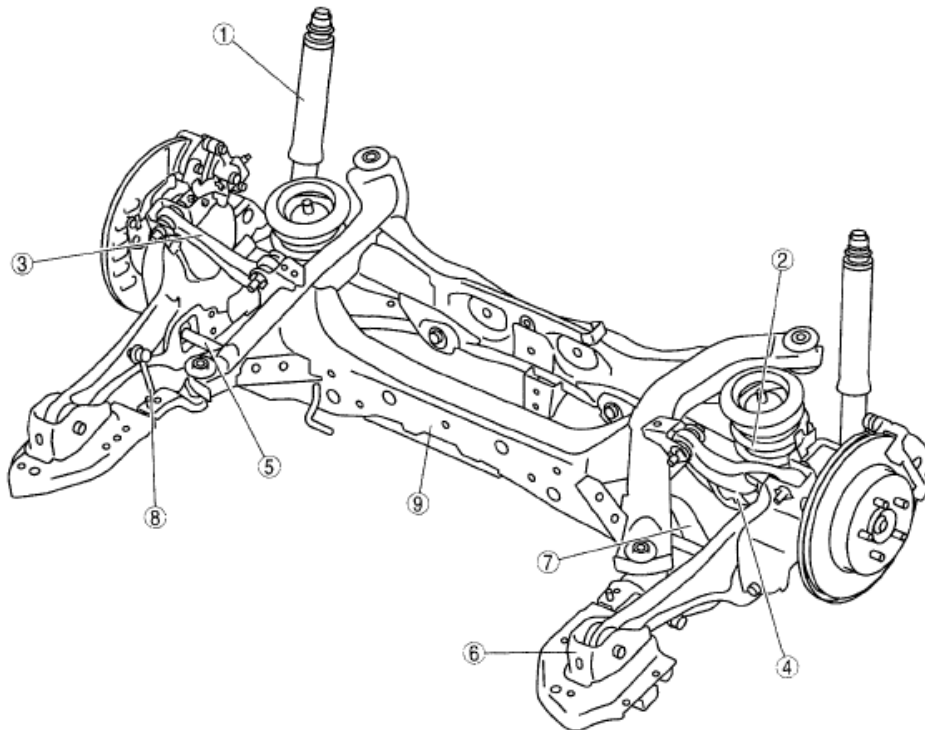


2008 SUSPENSION

Rear Suspension - Mazda CX-9

REAR SUSPENSION LOCATION INDEX [2WD]



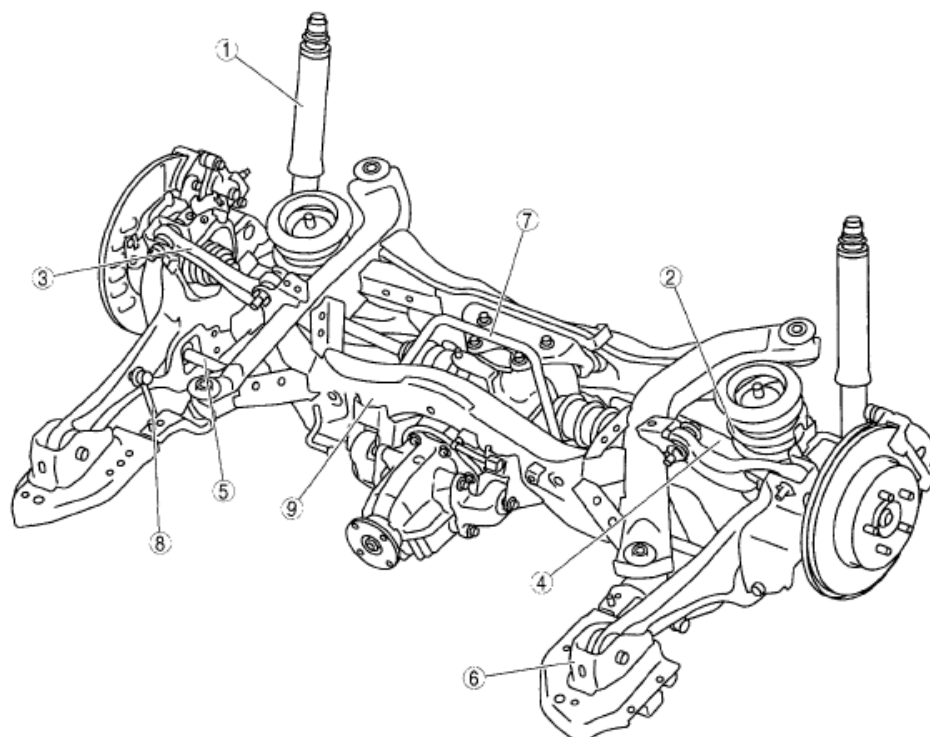
ac9auw0002071

1	Rear shock absorber (See 02-14-4 REAR SHOCK ABSORBER REMOVAL/INSTALLATION.) (See 02-14-4 REAR SHOCK ABSORBER INSPECTION.) (See 02-14-5 REAR SHOCK ABSORBER DISPOSAL.)
2	Rear coil spring (See 02-14-5 REAR COIL SPRING REMOVAL/INSTALLATION.)
3	Rear upper arm (See 02-14-8 REAR UPPER ARM REMOVAL/INSTALLATION [2WD].)
4	Rear lower arm (See 02-14-8 REAR LOWER ARM REMOVAL/INSTALLATION.)

5	Rear lateral link (See 02-14-14 REAR LATERAL LINK REMOVAL/INSTALLATION.)
6	Trailing link (See 02-14-18 REAR TRAILING LINK REMOVAL/INSTALLATION [2WD].)
7	Rear stabilizer (See 02-14-15 REAR STABILIZER REMOVAL/INSTALLATION [2WD].)
8	Stabilizer control link (See 02-14-18 REAR STABILIZER CONTROL LINK INSPECTION.)
9	Rear crossmember (See 02-14-22 REAR CROSSMEMBER REMOVAL/INSTALLATION [2WD].)

**Fig. 1: Identifying Rear Suspension Components Location - 2WD**  
 Courtesy of MAZDA MOTORS CORP.

REAR SUSPENSION LOCATION INDEX [AWD]



ac9uaw0002072

1	Rear shock absorber (See 02-14-4 REAR SHOCK ABSORBER REMOVAL/INSTALLATION.) (See 02-14-4 REAR SHOCK ABSORBER INSPECTION.) (See 02-14-5 REAR SHOCK ABSORBER DISPOSAL.)
2	Rear coil spring (See 02-14-5 REAR COIL SPRING REMOVAL/INSTALLATION.)
3	Rear upper arm (See 02-14-11 REAR UPPER ARM REMOVAL/INSTALLATION [AWD].)
4	Rear lower arm (See 02-14-8 REAR LOWER ARM REMOVAL/INSTALLATION.)

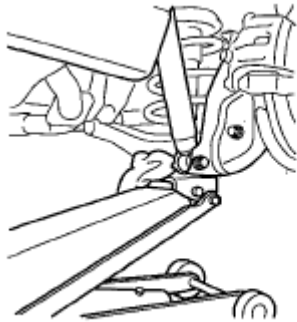
5	Rear lateral link (See 02-14-14 REAR LATERAL LINK REMOVAL/INSTALLATION.)
6	Trailing link (See 02-14-20 REAR TRAILING LINK REMOVAL/INSTALLATION [AWD].)
7	Rear stabilizer (See 02-14-16 REAR STABILIZER REMOVAL/INSTALLATION [AWD].)
8	Stabilizer control link (See 02-14-18 REAR STABILIZER CONTROL LINK INSPECTION.)
9	Rear crossmember (See 02-14-24 REAR CROSSMEMBER REMOVAL/INSTALLATION [AWD].)

**Fig. 2: Identifying Rear Suspension Components Location - AWD**

Courtesy of MAZDA MOTORS CORP.

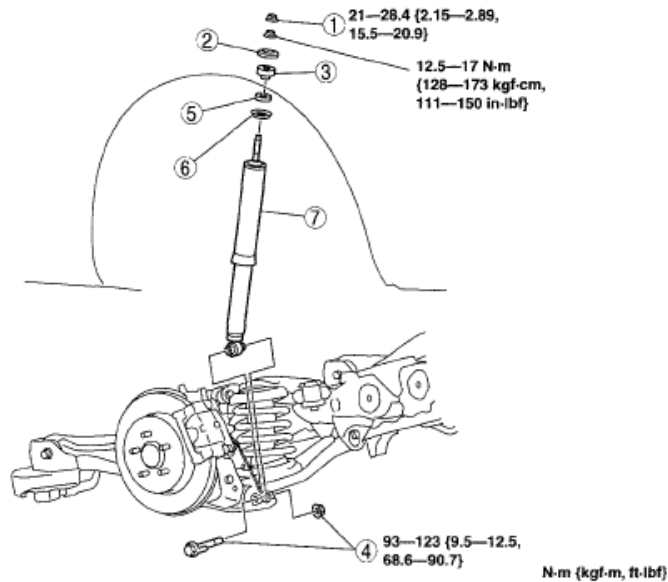
## REAR SHOCK ABSORBER REMOVAL/INSTALLATION

1. Remove the trunk side trim. (See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
2. Support the rear lower arm using a garage jack.
3. Remove in the order indicated in the table.
4. Install in the reverse order of removal.



ampjw0000888

**Fig. 3: Supporting Rear Lower Arm**  
Courtesy of MAZDA MOTORS CORP.



ac9uuw00002796

1	Nut
2	Retainer
3	Upper rubber bushing
4	Bolt and nut (shock absorber lower side)

5	Lower rubber bushing
6	Retainer
7	Rear shock absorber

**Fig. 4: Identifying Rear Shock Absorber Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

## REAR SHOCK ABSORBER INSPECTION

1. Remove the rear shock absorber. (See REAR SHOCK ABSORBER REMOVAL/INSTALLATION.)
2. Inspect for damage and oil leakage.
3. Compress and extend the shock piston at least three times. Verify that the operational force does not change and that there is no unusual noise.
  - If not as specified, replace the rear shock absorber.

## REAR SHOCK ABSORBER DISPOSAL

1. Clamp a shock absorber on a flat surface or with the piston pointing downwards.
2. Drill a **2-3 mm {0.08-0.11 in}** hole at a point **20-30 mm {0.8-1.1 in}** from the bottom of the tube, so that the gas can escape.

**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.



ac9uuw00001795

**Fig. 5: Identifying Rear Shock Absorber Length**  
Courtesy of MAZDA MOTORS CORP.

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 the waste disposal law.

## REAR COIL SPRING REMOVAL/INSTALLATION

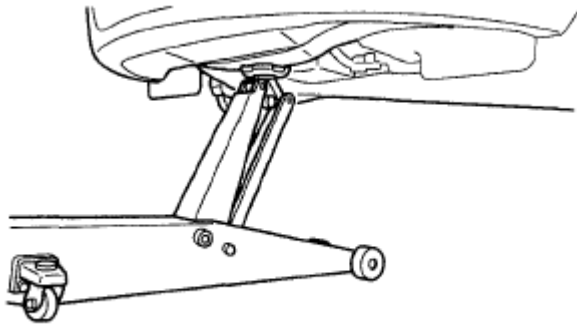
**CAUTION:**

- Perform the work using the garage jack.
- When removing/installing the coil spring, it is necessary to jack up the rear suspension with unload condition. At that time, to prevent bending the front of the vehicle, support the jack up point for the front crossmember using a jack.

1. Remove the rear ABS wheel-speed sensor. (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [2WD]** .) (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [AWD]** .)
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.

## 2008 Mazda CX-9 Grand Touring

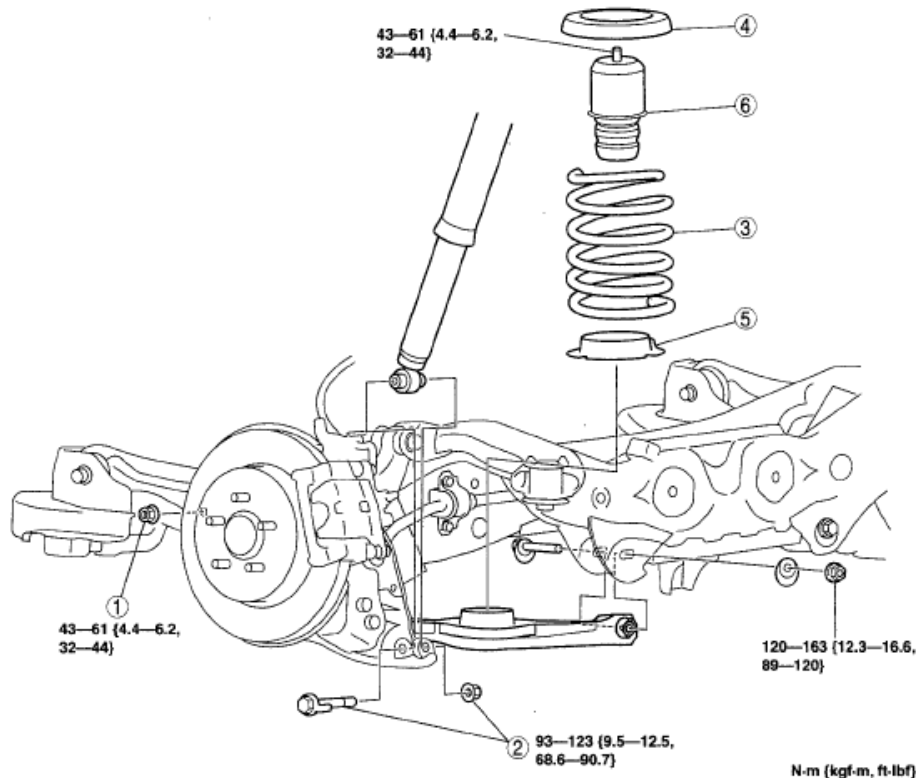
2008 SUSPENSION Rear Suspension - Mazda CX-9



ampjw0000687

**Fig. 6: Supporting Front Crossmember**  
Courtesy of MAZDA MOTORS CORP.

4. Inspect the rear wheel alignment. (See **REAR WHEEL ALIGNMENT [2WD]** .) (See **REAR WHEEL ALIGNMENT [AWD]** .)



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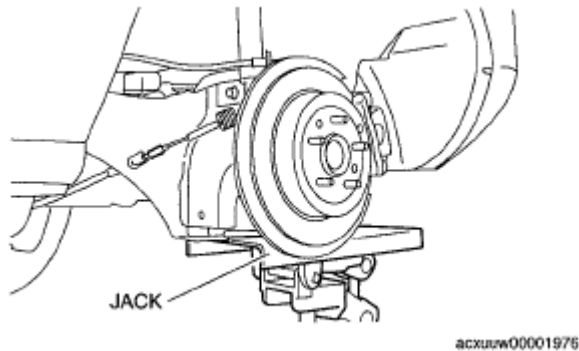
1	Rear stabilizer control link upper side nut
2	Rear shock absorber lower side bolt (See 02-14-6 Rear Shock Absorber Lower Side Bolt Removal Note.)

3	Rear coil spring (See 02-14-7 Rear Coil Spring Removal Note.) (See 02-14-7 Rear Coil Spring Installation Note.)
4	Rear upper spring seat
5	Rear lower spring seat
6	Bump stopper

**Fig. 7: Identifying Suspension Assembly Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

## REAR SHOCK ABSORBER LOWER SIDE BOLT REMOVAL NOTE

1. Raise the rear trailing link to the unloaded condition with a jack.
2. Remove the rear shock absorber lower side bolt.

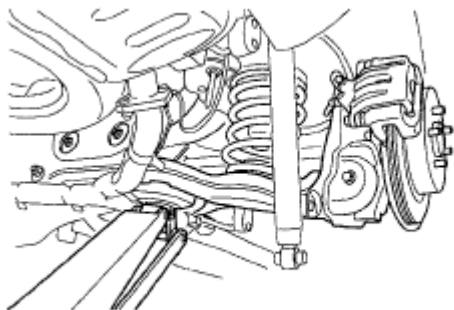


**Fig. 8: Identifying Rear Trailing Link**  
Courtesy of MAZDA MOTORS CORP.

## REAR COIL SPRING REMOVAL NOTE

- WARNING:**
- Removing the coil spring is dangerous. The coil spring could fly off, and cause serious injury or death.

1. Support the rear lower arm inner side using a garage jack.
2. Loosen the rear lower arm outer side bolt.
3. Lower the rear lower arm inner side slowly.
4. Remove the rear coil spring.

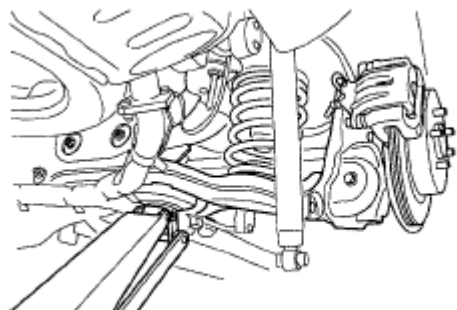


**Fig. 9: Supporting Rear Lower Arm Inner Side**  
Courtesy of MAZDA MOTORS CORP.

## REAR COIL SPRING INSTALLATION NOTE

- WARNING:**
- **Installing the coil spring is dangerous. The coil spring could fly off, and cause serious injury or death.**

1. Install the rear coil spring so that the lower end of the rear coil spring is seated on the step of the rear lower spring seat.
2. Position the jack under the lower arm inner side and compress the rear coil spring slowly.



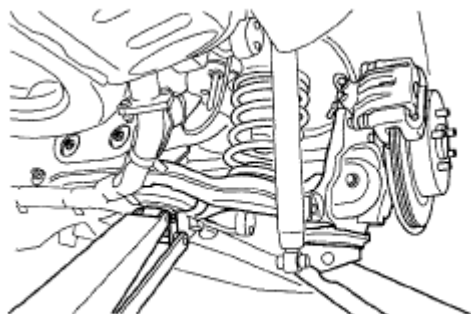
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**Fig. 10: Positioning Jack Under Lower Arm Inner Side**  
Courtesy of MAZDA MOTORS CORP.

3. Support the rear lower arm outer side and raise the rear suspension to the unloaded condition with a separate garage jack.
4. Install the lower arm inner side bolt.

**Tightening torque**

- **120-163 N.m {12.3-16.6 kgf.m, 89-120 ft.lbf}**



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**Fig. 11: Supporting Rear Lower Arm Outer Side**  
Courtesy of MAZDA MOTORS CORP.

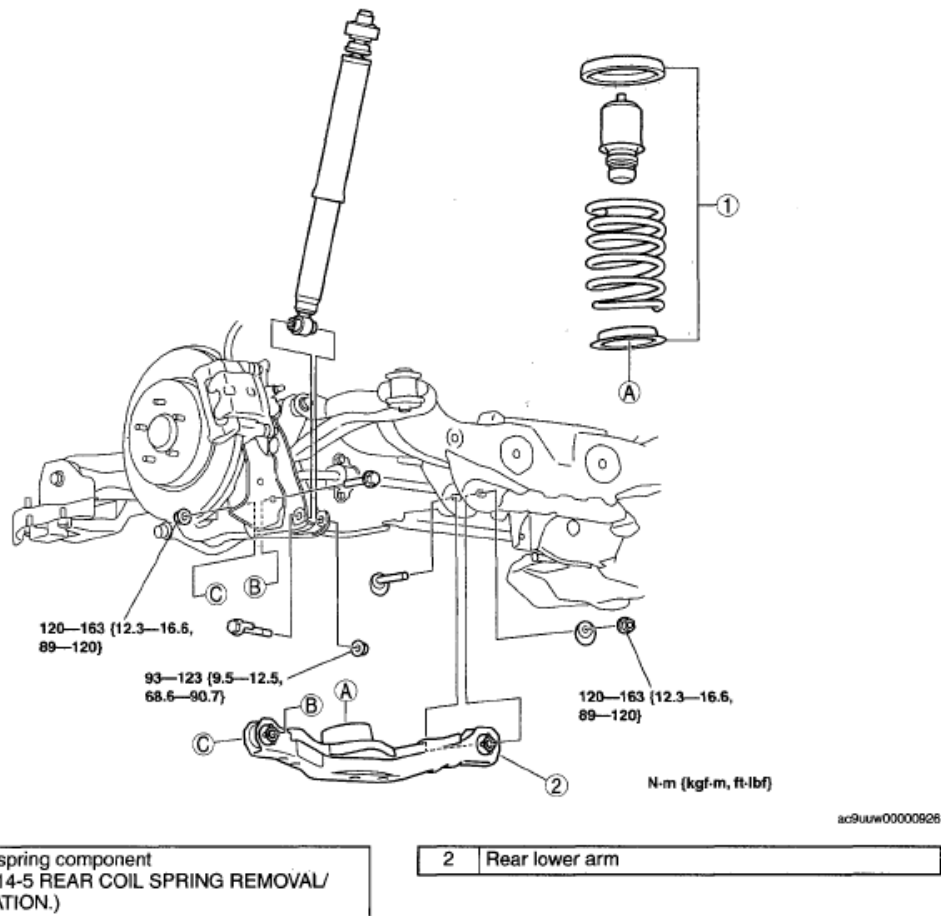
5. Tighten the rear lower arm outer side bolt.

**Tightening torque**

- 120-163 N.m {12.3-16.6 kgf.m, 89-120 ft.lbf}

## REAR LOWER ARM REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. Inspect for rear wheel alignment, and adjust it as necessary. (See REAR WHEEL ALIGNMENT [2WD] .) (See REAR WHEEL ALIGNMENT [AWD] .)



**Fig. 12: Identifying Rear Lower Arm Components & Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

## REAR UPPER ARM REMOVAL/INSTALLATION [2WD]

**CAUTION:**

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the 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.

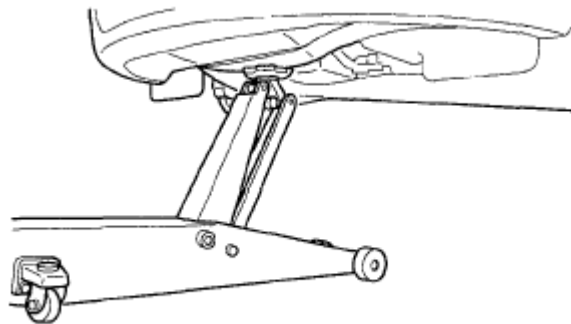
**NOTE:**

- The rear upper arm inner bolt cannot be tightened completely with the rear upper arm installed to the vehicle due to the narrow operation space. Therefore, mark the position before removing the rear upper arm, align the rear crossmember and rear upper arm markings when installing the rear upper arm, and tighten the rear upper arm inner bolt completely before installing the rear crossmember component to the vehicle.

1. Remove the presilencer. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [MZI-3.7] .)
2. Remove the rear ABS wheel-speed sensor. (See REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [2WD] .)
3. Support the jack up point for the front crossmember using a garage jack.

**CAUTION:**

- Perform the work using a garage jack. When jacking up the rear suspension with unloaded condition, to prevent bending the front of the vehicle, support the jack up point for the front crossmember using a garage jack.



**Fig. 13: Supporting Jack Up Point For Front Crossmember**  
Courtesy of MAZDA MOTORS CORP.

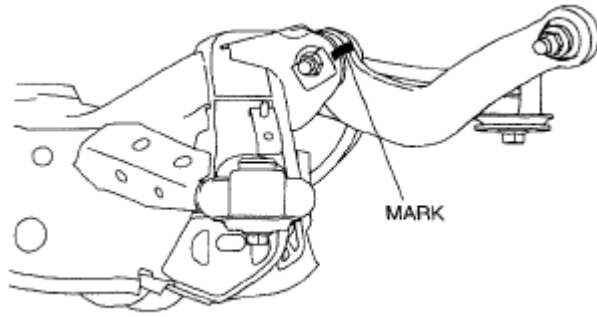
4. Jack up the rear suspension with unloaded condition.

**NOTE:**

- Jacking up the rear suspension with unloaded condition will lighten the force on the bushing and make it easier to perform the procedure.

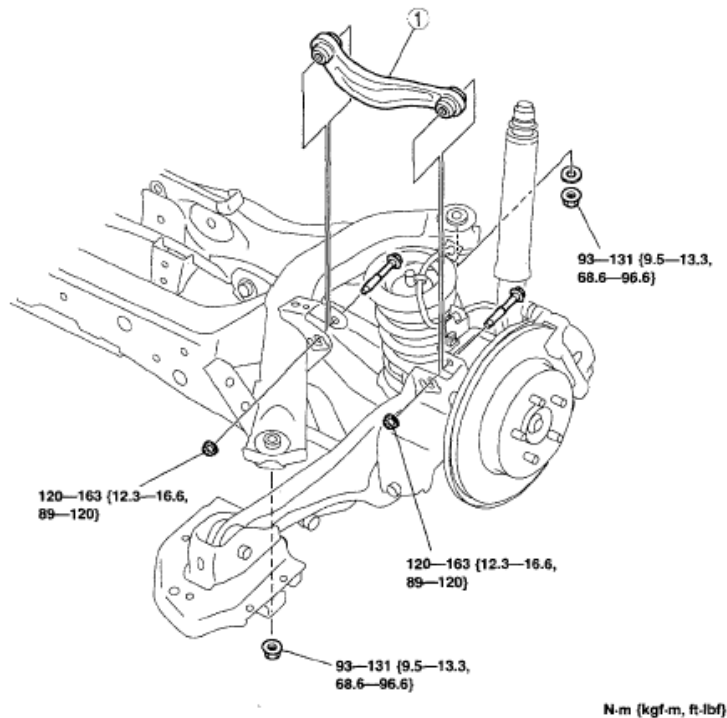
5. Mark the rear upper arm and rear crossmember shown in the figure.
6. Remove the rear coil spring. (See REAR COIL SPRING REMOVAL/INSTALLATION.)
7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.
9. Inspect for rear wheel alignment, and adjust it as necessary. (See REAR WHEEL ALIGNMENT

[2WD] .)



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**Fig. 14: Marking Rear Upper Arm And Rear Crossmember**  
 Courtesy of MAZDA MOTORS CORP.



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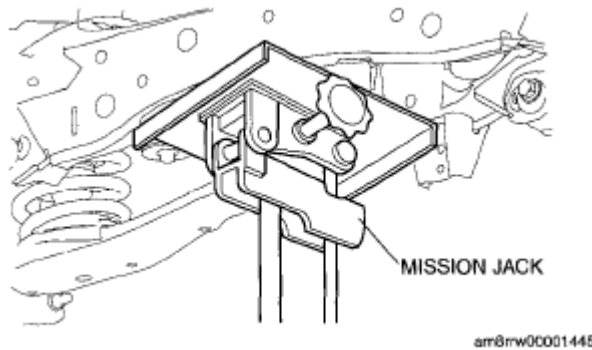
1	Rear upper arm (See 02-14-10 Rear upper arm Removal Note.) (See 02-14-10 Rear upper arm Installation Note.)
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**Fig. 15: Identifying Coil Spring Components & Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

**REAR UPPER ARM REMOVAL NOTE**

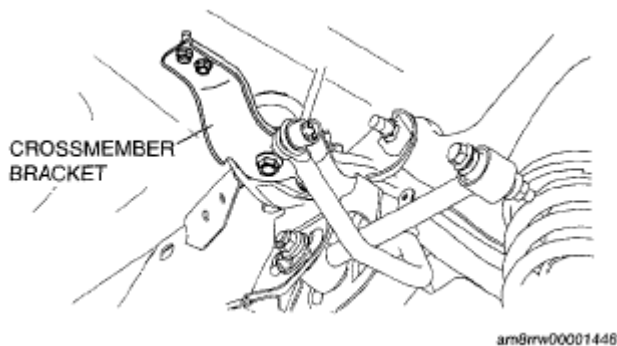
1. Remove the rear lateral link installation bolts.

2. Loosen the rear upper arm installation bolts.
3. Support the rear crossmember component using a mission jack.



**Fig. 16: Supporting Rear Crossmember**  
Courtesy of MAZDA MOTORS CORP.

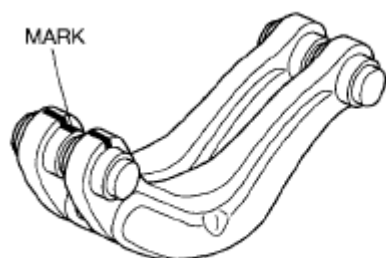
4. Remove the crossmember bracket.
5. Loosen the rear crossmember installation nut, and lower the crossmember **approx. 50 mm {2.0 in}**.
6. Remove the rear upper arm inner side bolt.



**Fig. 17: Identifying Crossmember Bracket Bolt**  
Courtesy of MAZDA MOTORS CORP.

#### REAR UPPER ARM INSTALLATION NOTE

1. Place the new rear upper arm together with the removed rear upper arm and place an alignment mark on the new rear upper arm.



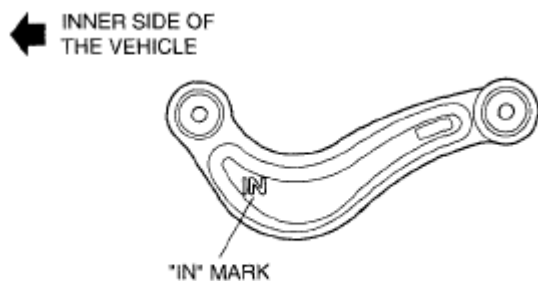
am8rnw00001830

**Fig. 18: Identifying Alignment Mark On Rear Upper Arm**  
 Courtesy of MAZDA MOTORS CORP.

2. Point the 'IN' mark towards the inside of the vehicle, align the rear upper arm and rear crossmember alignment marks, and install the rear upper arm.
3. Tighten the rear upper arm inner side bolt.

**Tightening torque**

**120-163 N.m {12.3-16.6 kgf.m, 89-120 ft-lbf}**



ac9uuw00000932

**Fig. 19: Pointing Of 'IN' Mark**  
 Courtesy of MAZDA MOTORS CORP.

4. Install the rear crossmember component.

**Tightening torque**

**Rear crossmember installation nut: 93-131**

**N.m {9.5-13.3 kgf.m, 68.6-96.6 ft.lbf}**

**Crossmember bracket installation bolt: 18.6-25.5 N.m {1.90-26.0 kgf.m, 13.8-18.8 ft.lbf}**

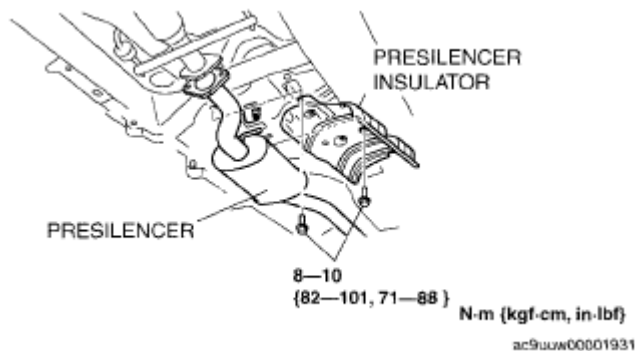
**Crossmember bracket installation nut: 18.6-25.5 N.m {1.90-26.0 kgf.m, 13.8-18.8 ft.lbf}**

**REAR UPPER ARM REMOVAL/INSTALLATION [AWD]**

- CAUTION:**
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the 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.

- NOTE:**
- The rear upper arm inner bolt cannot be tightened completely with the rear upper arm installed to the vehicle due to the narrow operation space. Therefore, mark the position before removing the rear upper arm, align the rear crossmember and rear upper arm markings when installing the rear upper arm, and tighten the rear upper arm inner bolt completely before installing the rear crossmember component to the vehicle.

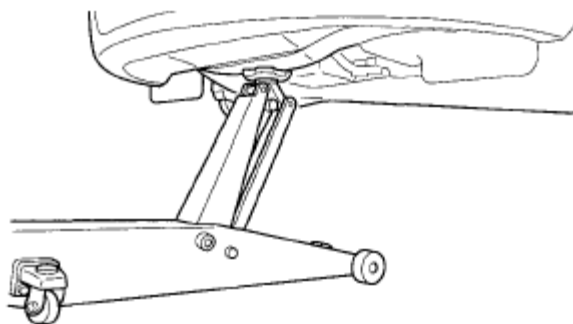
1. Remove the presilencer. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [MZI-3.7] .)
2. Remove the presilencer insulator.
3. Remove the propeller shaft. (See PROPELLER SHAFT REMOVAL/INSTALLATION .)
4. Remove the rear ABS wheel-speed sensor. (See REAR ABS WHEEL-SPEED SENSOR INSPECTION [AWD] .)



**Fig. 20: Identifying Presilencer Insulator, Bolts & Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

5. Support the jack up point for the front crossmember using a garage jack.

- CAUTION:**
- Perform the work using a garage jack. When jacking up the rear suspension with unloaded condition, to prevent bending the front of the vehicle, support the jack up point for the front crossmember using a garage jack.



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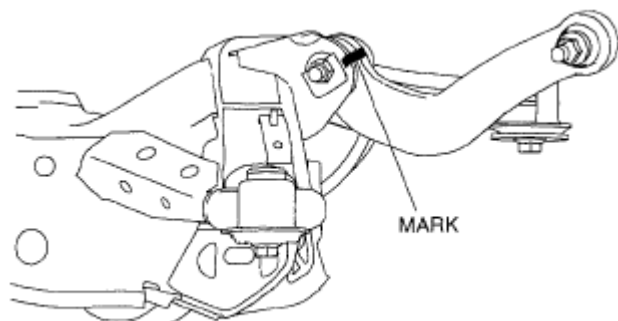
**Fig. 21: Supporting Jack Up Point For Front Crossmember**  
Courtesy of MAZDA MOTORS CORP.

6. Jack up the rear suspension with unloaded condition.

**NOTE:**

- **Jacking up the rear suspension with unloaded condition will lighten the force on the bushing and make it easier to perform the procedure.**

7. Mark the rear upper arm and rear crossmember shown in the figure.
8. Remove the rear coil spring. (See **REAR COIL SPRING REMOVAL/INSTALLATION.**)
9. Remove in the order indicated in the table.
10. Install in the reverse order of removal.



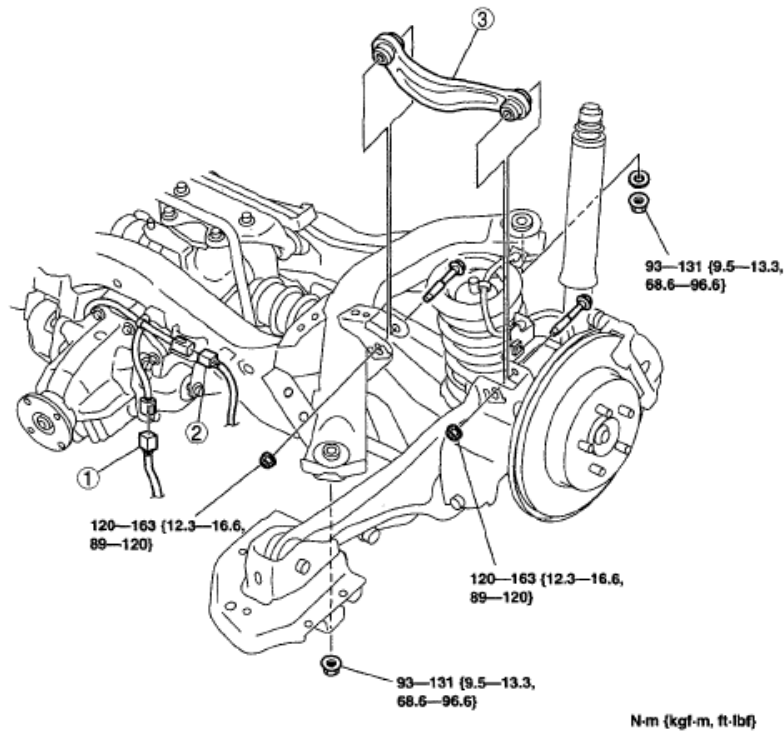
am8rrw00001829

**Fig. 22: Marking Rear Upper Arm And Rear Crossmember**  
Courtesy of MAZDA MOTORS CORP.

11. Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [AWD]** .)

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



ac9uuw00002075

1	Differential oil temperature sensor connector
2	AWD solenoid connector

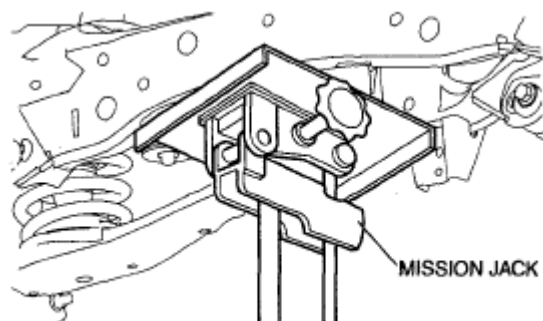
3	Rear upper arm (See 02-14-12 Rear upper arm Removal Note.) (See 02-14-13 Rear upper arm Installation Note.)
---	---

**Fig. 23: Identifying Differential Oil Temperature Sensor Connector, Rear Upper Arm & Torque Specifications**

Courtesy of MAZDA MOTORS CORP.

### REAR UPPER ARM REMOVAL NOTE

1. Remove the rear lateral link installation bolts.
2. Loosen the rear upper arm installation bolts.
3. Support the rear crossmember and differential component using a mission jack.

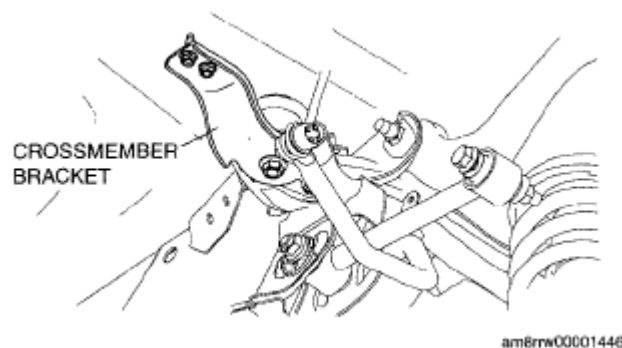


am8rrw00001445

**Fig. 24: Supporting Rear Crossmember And Differential**

Courtesy of MAZDA MOTORS CORP.

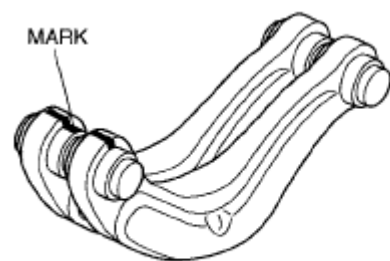
4. Remove the crossmember bracket.
5. Loosen the rear crossmember installation nut, and lower the crossmember **approx. 50 mm {2.0 in}**.
6. Remove the rear upper arm.



**Fig. 25: Identifying Crossmember Bracket Nut**  
Courtesy of MAZDA MOTORS CORP.

#### REAR UPPER ARM INSTALLATION NOTE

1. Place the new rear upper arm together with the removed rear upper arm and place an alignment mark on the new rear upper arm.



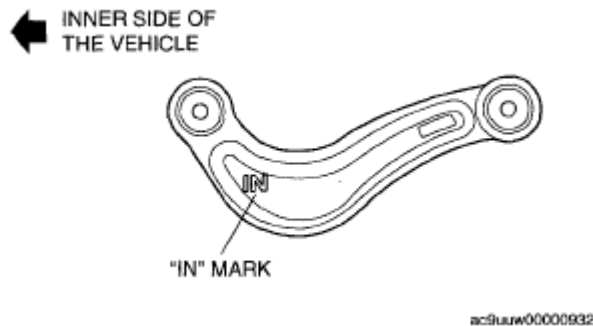
**Fig. 26: Identifying Alignment Mark On Rear Upper Arm**  
Courtesy of MAZDA MOTORS CORP.

2. Point the 'IN' mark towards the inside of the vehicle, align the rear upper arm and rear crossmember alignment marks, and install the rear upper arm.
3. Tighten the rear upper arm inner side bolt.

**Tightening torque**

**120-163 N.m {12.3-16.6 kgf.m, 89-120 ft.lbf}**





**Fig. 27: Pointing Of 'IN' Mark**  
Courtesy of MAZDA MOTORS CORP.

4. Install the rear crossmember component.

#### **Tightening torque**

**Rear crossmember installation nut: 93-131**

**N.m {9.5-13.3 kgf.m, 68.6-96.6 ft.lbf}**

**Crossmember bracket installation bolt: 18.6-25.5 N.m {1.90-26.0 kgf.m, 13.8-18.8 ft.lbf}**

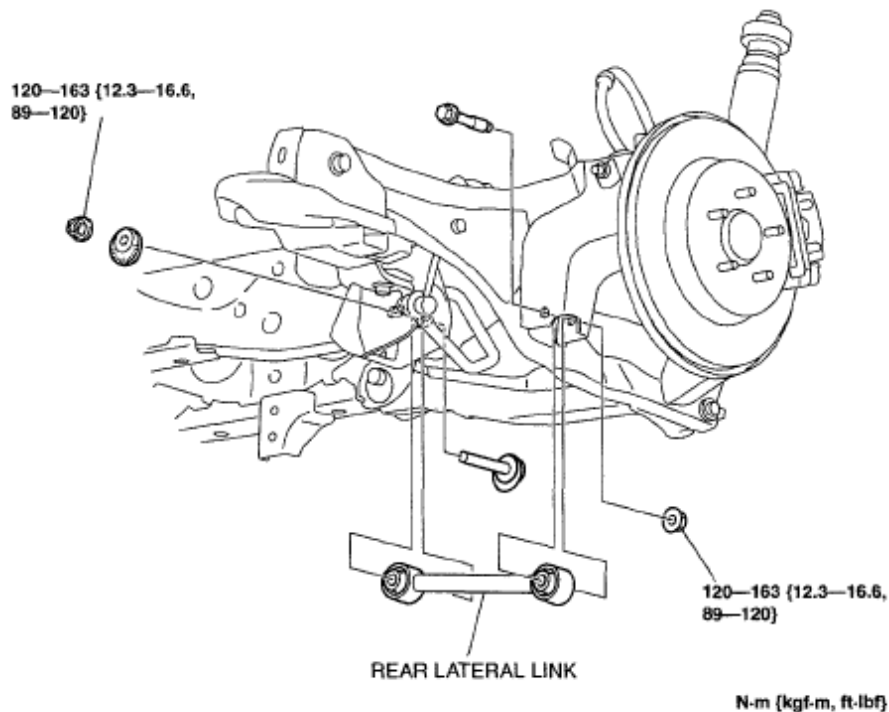
**Crossmember bracket installation nut: 18.6-25.5 N.m {1.90-26.0 kgf.m, 13.8-18.8 ft.lbf}**

## **REAR LATERAL LINK REMOVAL/INSTALLATION**

1. Mark the adjusting cam bolt and cam plate of the rear lateral link.
2. Jack up the rear suspension with unloaded condition.
3. Remove the rear lateral link.

## 2008 Mazda CX-9 Grand Touring

### 2008 SUSPENSION Rear Suspension - Mazda CX-9



**Fig. 28: Identifying Rear Lateral Link Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

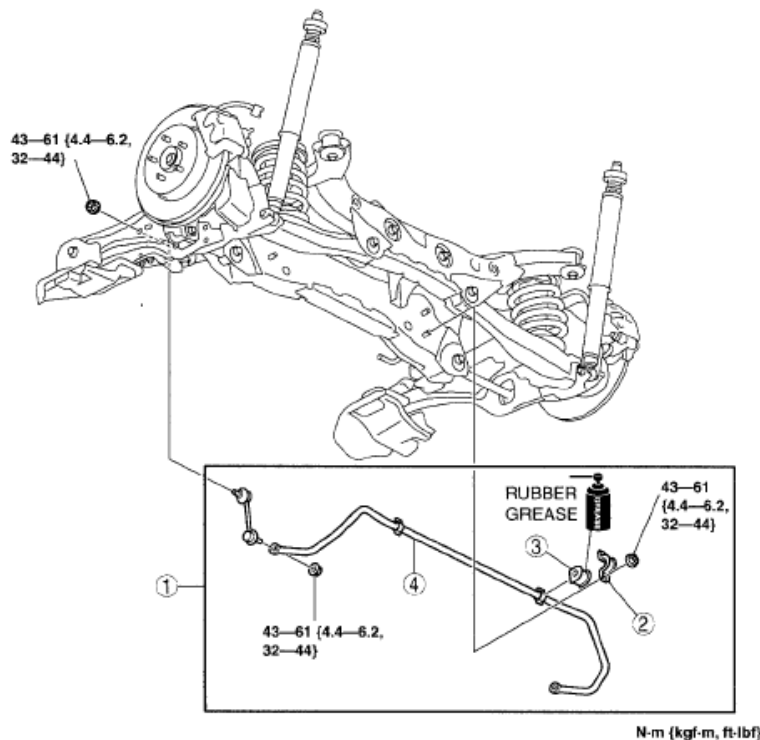
4. Install the rear lateral link by aligning it with the mark placed during removal.
5. Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [2WD]** .) (See **REAR WHEEL ALIGNMENT [AWD]** .)

## **REAR STABILIZER REMOVAL/INSTALLATION [2WD]**

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

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



N-m (kgf-m, ft-lbf)

ac9tuw00000664

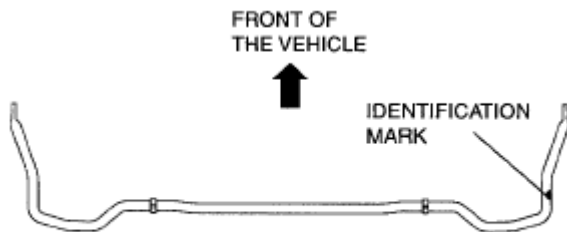
1	Rear stabilizer component
2	Stabilizer bracket

3	Bushing
4	Rear stabilizer (See 02-14-15 Rear Stabilizer Installation Note.)

**Fig. 29: Identifying Rear Stabilizer Components & Torque Specifications - 2WD**  
Courtesy of MAZDA MOTORS CORP.

### REAR STABILIZER INSTALLATION NOTE

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

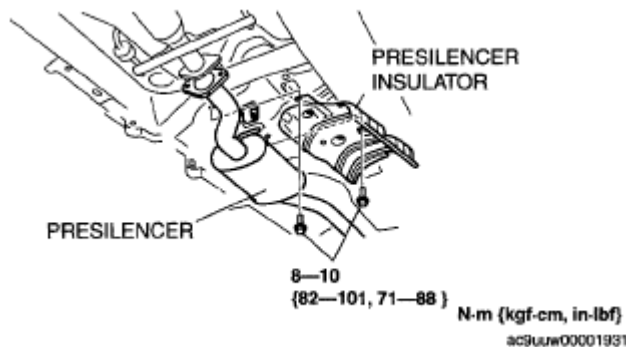


am8rw00001449

**Fig. 30: Identifying Rear Stabilizer Identification Mark**  
Courtesy of MAZDA MOTORS CORP.

### REAR STABILIZER REMOVAL/INSTALLATION [AWD]

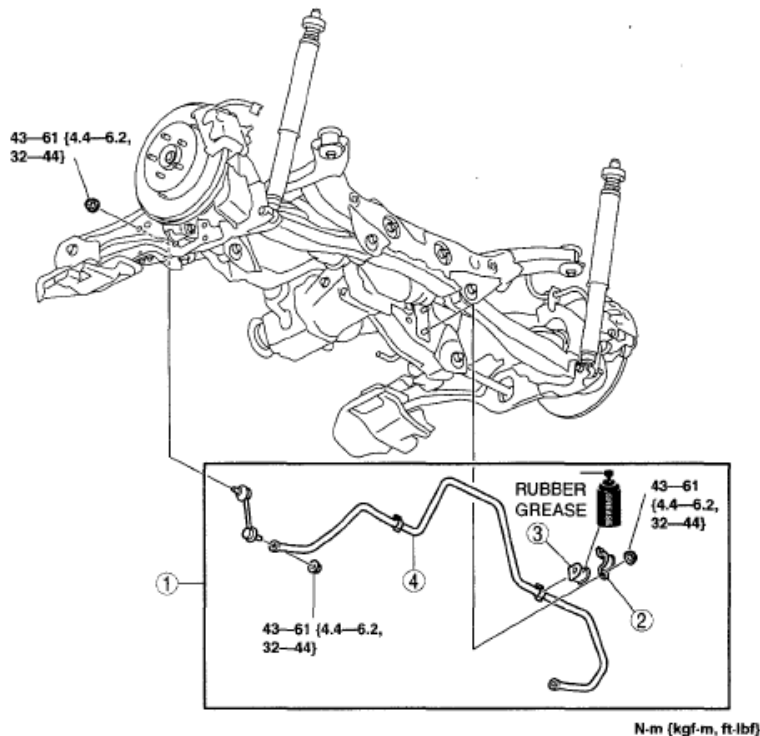
1. Remove the presilencer. (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Remove the presilencer insulator.
3. Remove the propeller shaft. (See **PROPELLER SHAFT REMOVAL/INSTALLATION** .)
4. Remove the rear ABS wheel-speed sensor. (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [AWD]** .)
5. Remove the rear coil spring. (See **REAR COIL SPRING REMOVAL/INSTALLATION.**)
6. Remove in the order indicated in the table.
7. Install in the reverse order of removal.



**Fig. 31: Identifying Presilencer Insulator, Presilencer & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



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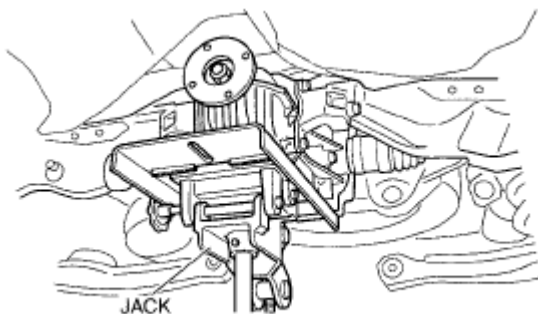
1	Rear stabilizer component (See 02-14-17 Rear Stabilizer Component Removal Note.)
2	Stabilizer bracket

3	Bushing
4	Rear stabilizer (See 02-14-17 Rear Stabilizer Installation Note.)

**Fig. 32: Identifying Rear Stabilizer Components & Torque Specifications - AWD**  
Courtesy of MAZDA MOTORS CORP.

### REAR STABILIZER COMPONENT REMOVAL NOTE

1. Support the rear differential using a jack.

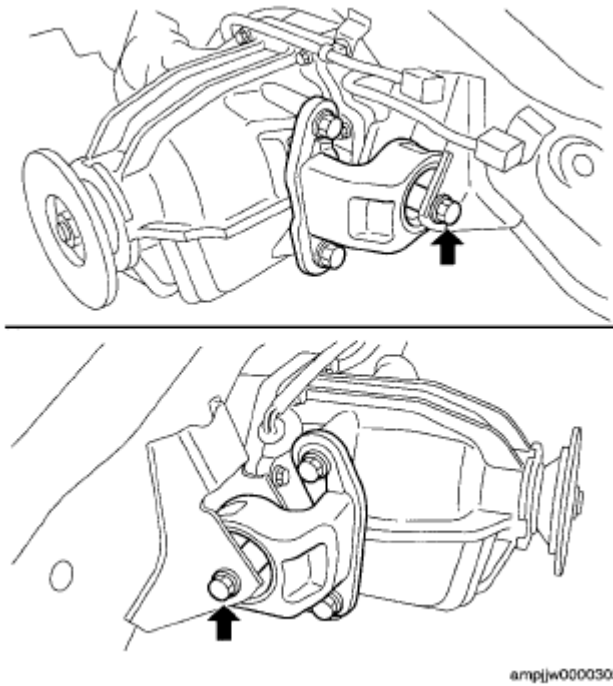


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**Fig. 33: Supporting Rear Differential**  
Courtesy of MAZDA MOTORS CORP.

2. Remove the rear differential mounting bracket (front) installation bolts.

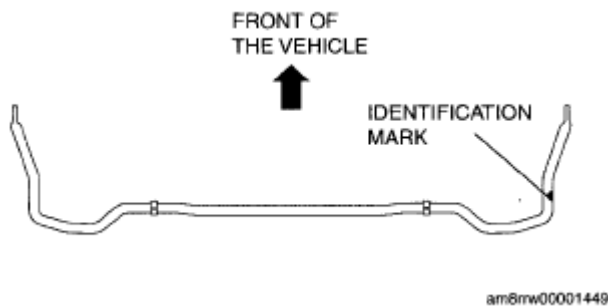
3. Tilt the rear differential towards the front.
4. Remove the rear stabilizer from through the gap between the rear differential and rear crossmember.



**Fig. 34: Identifying Rear Differential Mounting Bracket Bolts**  
Courtesy of MAZDA MOTORS CORP.

#### REAR STABILIZER INSTALLATION NOTE

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



**Fig. 35: Identifying Rear Stabilizer Identification Mark**  
Courtesy of MAZDA MOTORS CORP.

#### REAR STABILIZER CONTROL LINK INSPECTION

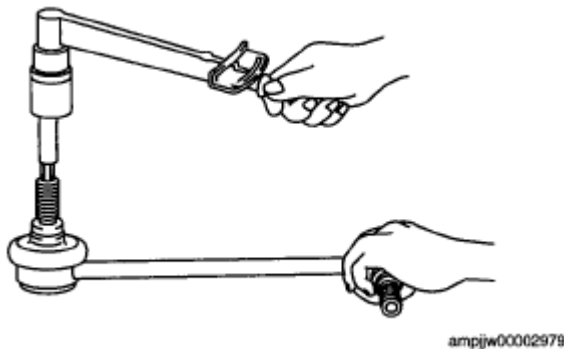
1. Remove the stabilizer control link from the vehicle. (See **REAR STABILIZER REMOVAL/INSTALLATION [2WD].**) (See **REAR STABILIZER REMOVAL/INSTALLATION**

[AWD].)

2. Inspect for bending and damage.
3. Measure the ball joint starting torque.
  1. Rock the ball joint stud side to side 10 times.
  2. Rotate the ball joint stud 10 times.
  3. Measure the starting torque using a suitable Allen socket and a torque wrench.

**Rear stabilizer control link ball joint starting torque 0.2-2.0 N.m {3-20 kgf.cm, 2-17 in.lbf}**

- If not as specified, replace the rear stabilizer control link.



**Fig. 36: Measuring Ball Joint Starting Torque**  
 Courtesy of MAZDA MOTORS CORP.

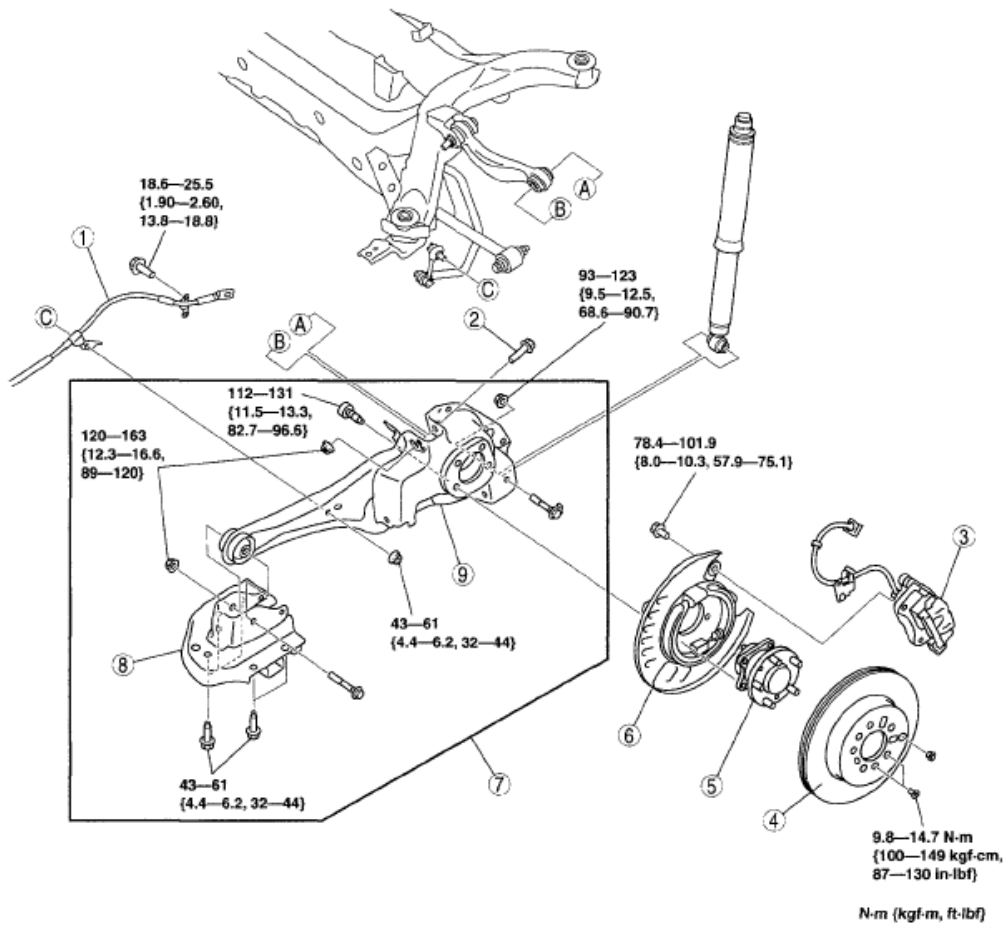
## REAR TRAILING LINK REMOVAL/INSTALLATION [2WD]

- CAUTION:**
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the 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 the rear ABS wheel-speed sensor. (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [2WD]** .)
2. Remove the rear lateral link. (See **REAR LATERAL LINK REMOVAL/INSTALLATION.**)
3. Remove the rear coil spring. (See **REAR COIL SPRING REMOVAL/INSTALLATION.**)
4. Remove the rear lower arm. (See **REAR LOWER ARM REMOVAL/INSTALLATION.**)
5. Remove in the order indicated in the table.
6. Install in the reverse order of removal.
7. Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [2WD]** .)

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



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1	Rear parking brake cable
2	Rear upper arm outer side bolt
3	Caliper component (See 02-14-19 Caliper Component Removal Note.)
4	Disc plate (See 04-11-24 REAR BRAKE (DISC) REMOVAL/INSTALLATION.)
5	Rear wheel hub component

6	Parking brake component
7	Rear trailing link component (See 02-14-20 Rear Trailing Link Component Removal Note.)
8	Bracket (See 02-14-20 Bracket Installation Note.)
9	Rear trailing link

**Fig. 37: Identifying Rear Trailing Link Components & Torque Specifications - 2WD**  
 Courtesy of MAZDA MOTORS CORP.

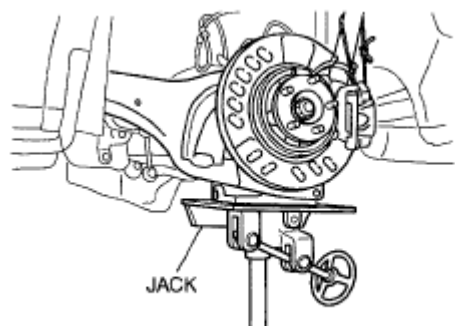
### CALIPER COMPONENT REMOVAL NOTE

1. Remove the caliper component and suspend it with a cable in a location out of the way.

### REAR TRAILING LINK COMPONENT REMOVAL NOTE

1. Support the rear trailing link using a jack.
2. Remove the rear trailing link.



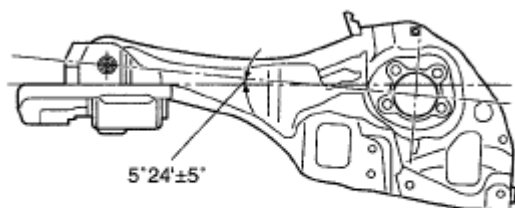


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**Fig. 38: Supporting Rear Trailing Link**  
Courtesy of MAZDA MOTORS CORP.

### BRACKET INSTALLATION NOTE

1. Install the bracket so that its angle as opposed to the rear trailing link is as shown in the figure.



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**Fig. 39: Identifying Bracket Angle**  
Courtesy of MAZDA MOTORS CORP.

### REAR TRAILING LINK REMOVAL/INSTALLATION [AWD]

**CAUTION:**

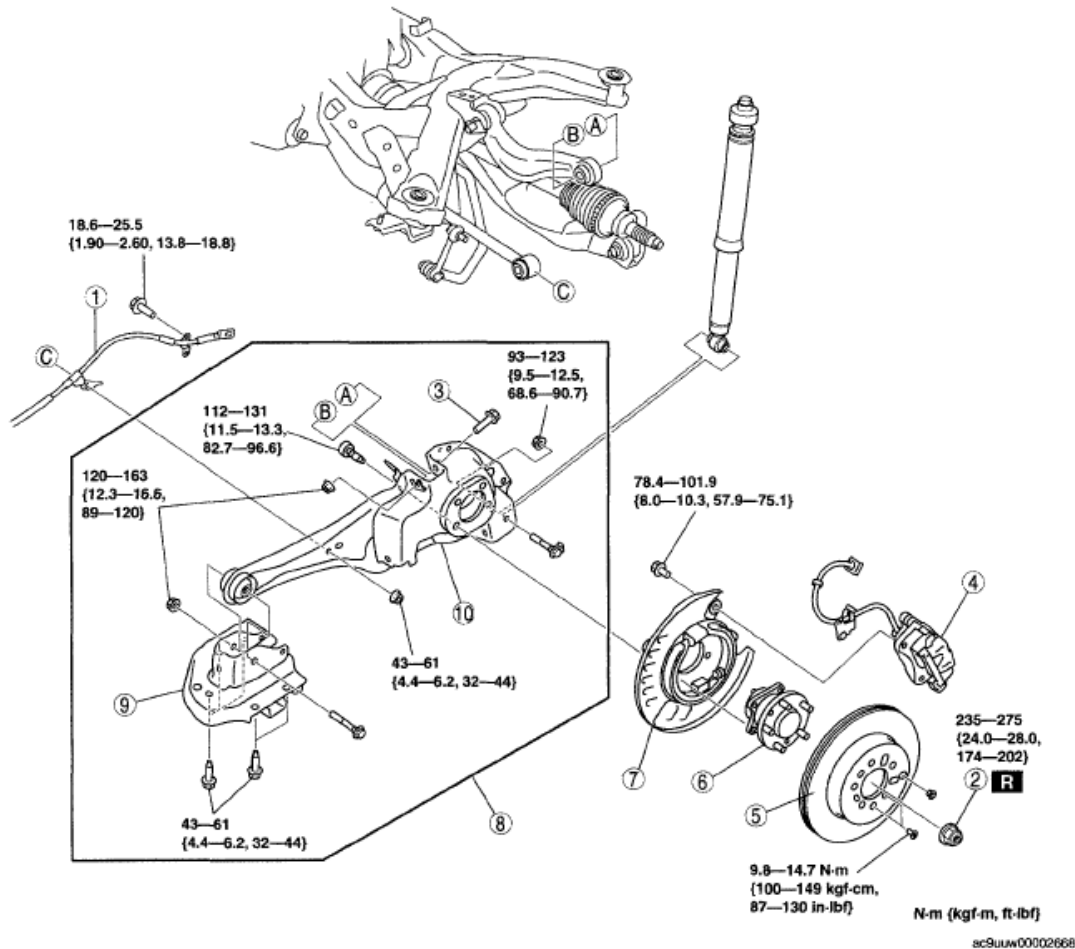
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the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

1. Remove the rear ABS wheel-speed sensor. (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [AWD]** .)
2. Remove the rear lateral link. (See **REAR LATERAL LINK REMOVAL/INSTALLATION.**)
3. Remove the rear coil spring. (See **REAR COIL SPRING REMOVAL/INSTALLATION.**)
4. Remove the rear lower arm. (See **REAR LOWER ARM REMOVAL/INSTALLATION.**)
5. Remove in the order indicated in the table.

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9

- Install in the reverse order of removal.
- Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [AWD]** .)



1	Rear parking brake cable
2	Locknut (See 03-12-3 WHEEL HUB COMPONENT REMOVAL/INSTALLATION [AWD].)
3	Rear upper arm outer side bolt
4	Caliper component (See 02-14-21 Caliper Component Removal Note.)
5	Disc plate (See 04-11-24 REAR BRAKE (DISC) REMOVAL/INSTALLATION.)

6	Rear wheel hub component
7	Parking brake component
8	Rear trailing link component (See 02-14-22 Rear Trailing Link Component Removal Note.)
9	Bracket (See 02-14-22 Bracket Installation Note.)
10	Rear trailing link

**Fig. 40: Identifying Rear Trailing Link Components & Torque Specifications - AWD**  
Courtesy of MAZDA MOTORS CORP.

### CALIPER COMPONENT REMOVAL NOTE

- Remove the caliper component and suspend it with a cable in a location out of the way.

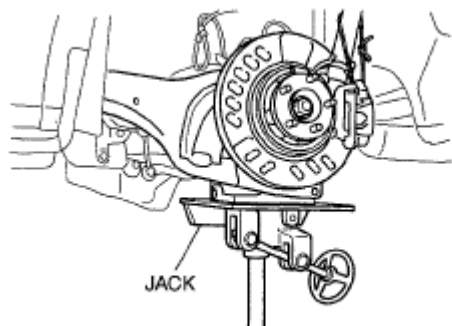
### REAR TRAILING LINK COMPONENT REMOVAL NOTE

1. Support the rear trailing link using a jack.

**CAUTION:**

- Removing the trailing link is dangerous. The trailing link could fall and cause serious injury or death. Verify that the jack securely supports the trailing link.

2. Separate the rear drive shaft (rear axle side) from the wheel hub.
3. Remove the rear trailing link.

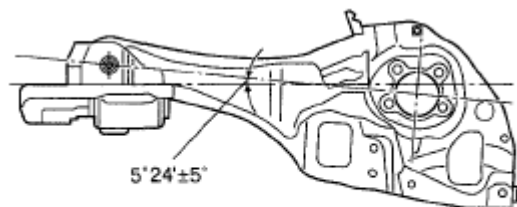


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**Fig. 41: Supporting Rear Trailing Link**  
Courtesy of MAZDA MOTORS CORP.

**BRACKET INSTALLATION NOTE**

1. Install the bracket so that its angle as opposed to the rear trailing link is as shown in the figure.



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**Fig. 42: Identifying Bracket Angle**  
Courtesy of MAZDA MOTORS CORP.

**REAR CROSSMEMBER REMOVAL/INSTALLATION [2WD]**

**CAUTION:**

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the 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.

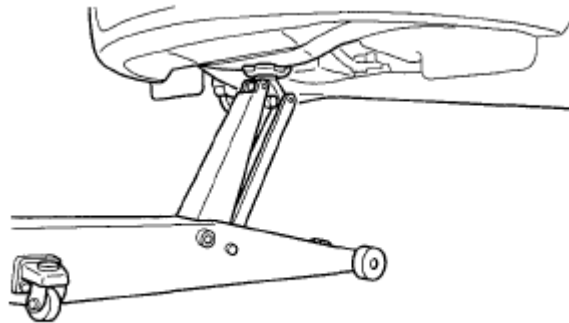
**NOTE:**

- The rear upper arm inner bolt cannot be tightened completely with the rear upper arm installed to the vehicle due to the narrow operation space. Therefore, mark the position before removing the rear upper arm, align the rear crossmember and rear upper arm markings when installing the rear upper arm, and tighten the rear upper arm inner bolt completely before installing the rear crossmember component to the vehicle.

1. Support the jack up point for the front crossmember using a garage jack.

**CAUTION:**

- Perform the work using a garage jack. When jacking up the rear suspension with unloaded condition, to prevent bending the front of the vehicle, support the jack up point for the front crossmember using a garage jack.



**Fig. 43: Supporting Jack Up Point For Front Crossmember**  
Courtesy of MAZDA MOTORS CORP.

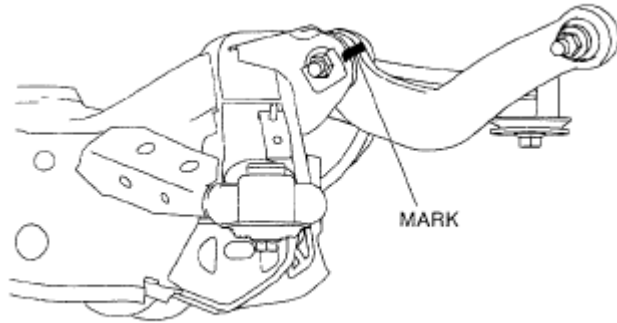
2. Jack up the rear suspension with unloaded condition.

**NOTE:**

- Jacking up the rear suspension with unloaded condition will lighten the force on the bushing and make it easier to perform the procedure.

3. Mark the rear upper arm and rear crossmember shown in the figure.
4. Remove the presilencer. (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [MZI-3.7]** .)
5. Remove the rear ABS wheel-speed sensor. (See **REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [2WD]** .)
6. Remove the rear coil spring. (See **REAR COIL SPRING REMOVAL/INSTALLATION.**)
7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.

9. Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [2WD]** .)

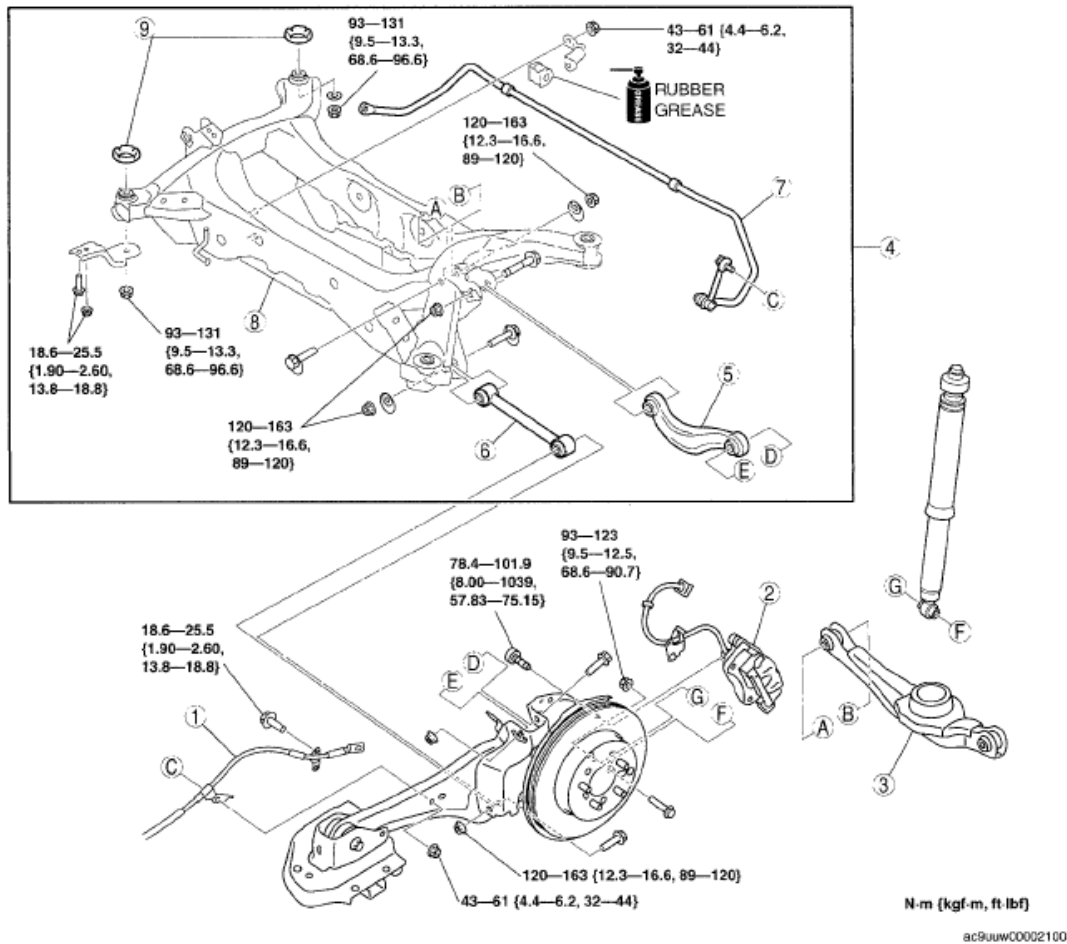


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**Fig. 44: Marking Rear Upper Arm And Rear Crossmember**  
Courtesy of MAZDA MOTORS CORP.

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



1	Rear parking brake cable (See 04-12-3 PARKING BRAKE REMOVAL/ INSTALLATION [2WD].)
2	Caliper component (See 02-14-24 Caliper Component Removal Note.)
3	Rear lower arm (See 02-14-8 REAR LOWER ARM REMOVAL/ INSTALLATION.)
4	Rear crossmember component (See 02-14-24 Rear Crossmember Component Removal Note.)
5	Rear upper arm (See 02-14-8 REAR UPPER ARM REMOVAL/ INSTALLATION [2WD].)
6	Rear lateral link (See 02-14-14 REAR LATERAL LINK REMOVAL/ INSTALLATION.)

7	Rear stabilizer component (See 02-14-15 REAR STABILIZER REMOVAL/ INSTALLATION [2WD].)
8	Rear crossmember
9	Stopper rubber

**Fig. 45: Identifying Rear Wheel Alignment Components & Torque Specifications - 2WD**  
Courtesy of MAZDA MOTORS CORP.

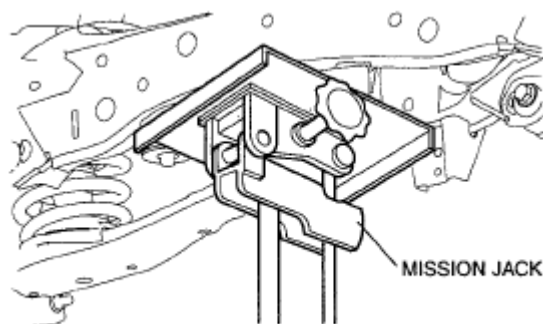
### CALIPER COMPONENT REMOVAL NOTE

1. Remove the rear brake caliper component, and suspend it with a cable in a location out of the way.

### REAR CROSSMEMBER COMPONENT REMOVAL NOTE

- WARNING:**
- Removing the crossmember is dangerous. The crossmember component could fall and cause serious injury or death. Verify that the mission jack securely supports the crossmember component.

1. Support the crossmember component using a mission jack and remove the installation nuts.
2. Remove the rear crossmember component.



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**Fig. 46: Supporting Crossmember**  
Courtesy of MAZDA MOTORS CORP.

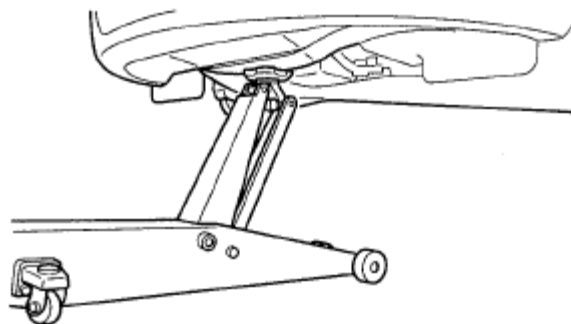
## REAR CROSSMEMBER REMOVAL/INSTALLATION [AWD]

- CAUTION:**
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the 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.

- NOTE:**
- The rear upper arm inner bolt cannot be tightened completely with the rear upper arm installed to the vehicle due to the narrow operation space. Therefore, mark the position before removing the rear upper arm, align the rear crossmember and rear upper arm markings when installing the rear upper arm, and tighten the rear upper arm inner bolt completely before installing the rear crossmember component to the vehicle.

1. Support the jack up point for the front crossmember using a garage jack.

- CAUTION:**
- Perform the work using a garage jack. When jacking up the rear suspension with unloaded condition, to prevent bending the front of the vehicle, support the jack up point for the front crossmember using a garage jack.



ampjw0000687

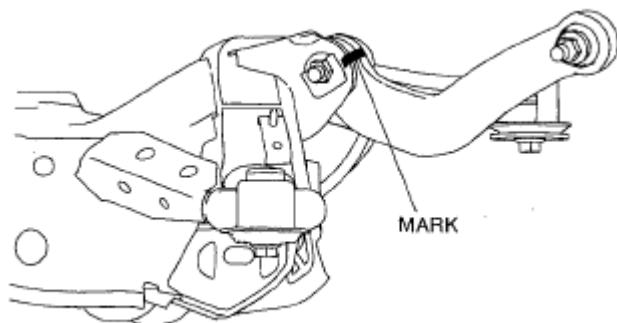
**Fig. 47: Supporting Jack Up Point For Front Crossmember**  
Courtesy of MAZDA MOTORS CORP.

2. Jack up the rear suspension with unloaded condition.

**NOTE:**

- Jacking up the rear suspension with unloaded condition will lighten the force on the bushing and make it easier to perform the procedure.

3. Mark the rear upper arm and rear crossmember shown in the figure.
4. Remove the presilencer. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [MZI-3.7] .)

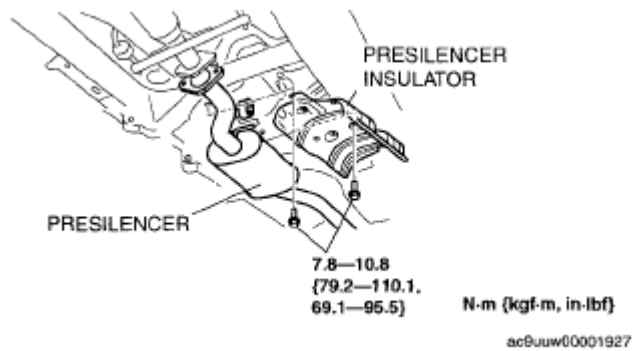


am8rw0001829

**Fig. 48: Marking Rear Upper Arm And Rear Crossmember**  
Courtesy of MAZDA MOTORS CORP.

5. Remove the presilencer insulator.
6. Remove the propeller shaft. (See PROPELLER SHAFT REMOVAL/INSTALLATION .)
7. Remove the rear ABS wheel-speed sensor. (See REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [AWD] .)
8. Remove the rear coil spring. (See REAR COIL SPRING REMOVAL/INSTALLATION.)
9. Remove in the order indicated in the table.
10. Install in the reverse order of removal.



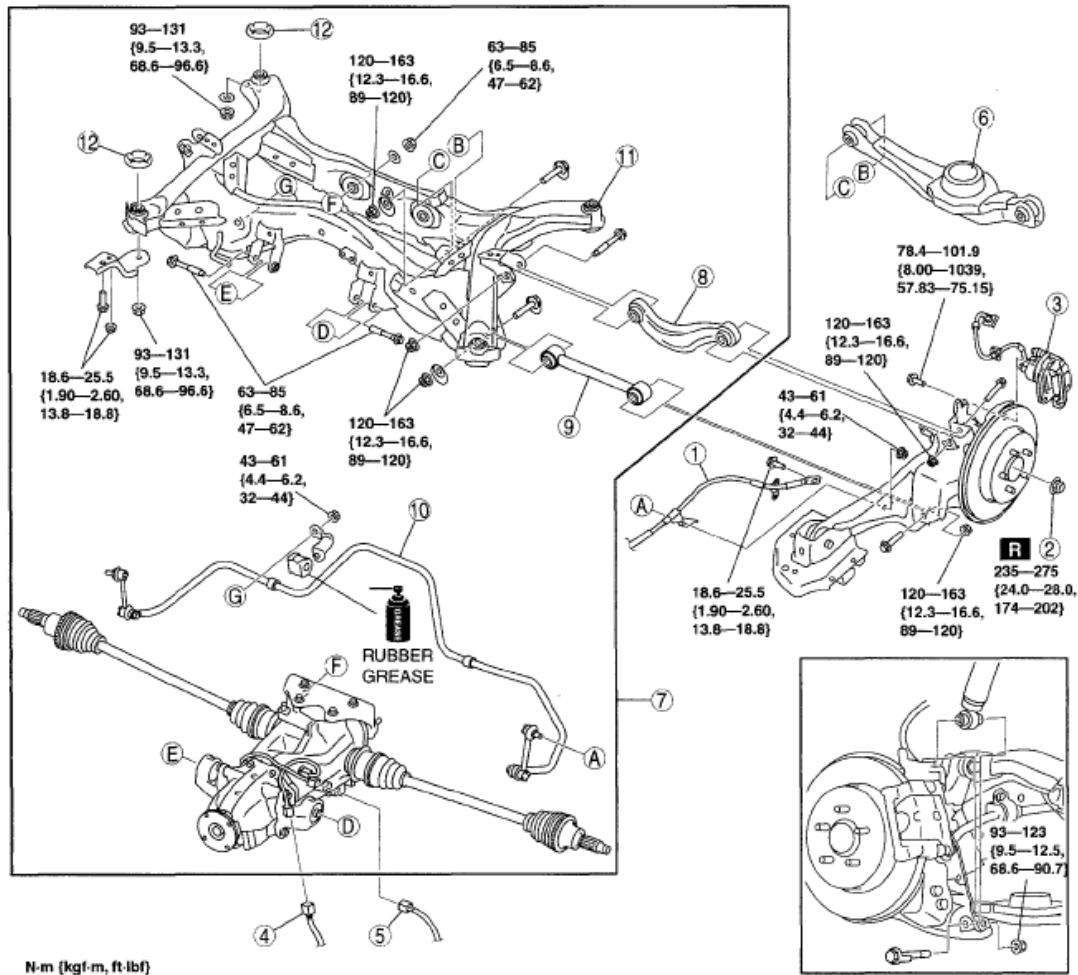


**Fig. 49: Identifying Presilencer Insulator And Presilencer**  
Courtesy of MAZDA MOTORS CORP.

11. Inspect for rear wheel alignment, and adjust it as necessary. (See **REAR WHEEL ALIGNMENT [AWD]** .)

# 2008 Mazda CX-9 Grand Touring

## 2008 SUSPENSION Rear Suspension - Mazda CX-9



N-m (kgf-m, ft-lbf)

1	Rear parking brake cable (See 04-12-9 PARKING BRAKE REMOVAL/ INSTALLATION [AWD].)
2	Locknut (See 03-12-3 WHEEL HUB COMPONENT REMOVAL/INSTALLATION [AWD].)
3	Caliper component (See 02-14-27 Caliper Component Removal Note.)
4	Differential oil temperature sensor connector
5	AWD solenoid connector
6	Rear lower arm (See 02-14-8 REAR LOWER ARM REMOVAL/ INSTALLATION.)

7	Rear differential and rear crossmember component (See 02-14-27 Rear Differential And Rear Crossmember Component Removal Note.)
8	Rear upper arm (See 02-14-11 REAR UPPER ARM REMOVAL/ INSTALLATION [AWD].)
9	Rear lateral link (See 02-14-14 REAR LATERAL LINK REMOVAL/ INSTALLATION.)
10	Rear stabilizer component (See 02-14-16 REAR STABILIZER REMOVAL/ INSTALLATION [AWD].)
11	Rear crossmember
12	Stopper rubber

**Fig. 50: Identifying Rear Wheel Alignment Components & Torque Specifications - AWD**  
Courtesy of MAZDA MOTORS CORP.

### CALIPER COMPONENT REMOVAL NOTE

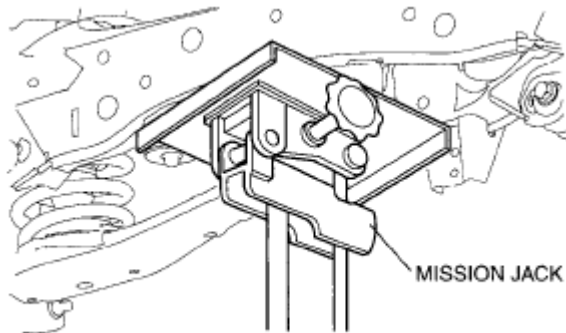
1. Remove the rear brake caliper component, and suspend it with a cable in a location out of the way.

### REAR DIFFERENTIAL AND REAR CROSSMEMBER COMPONENT REMOVAL NOTE

**WARNING:**

- **Removing the crossmember is dangerous. The crossmember component could fall and cause serious injury or death. Verify that the mission jack securely supports the crossmember component.**

1. Support the crossmember component using a mission jack and remove the installation nuts.
2. Remove the rear crossmember component.



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**Fig. 51: Supporting Crossmember Component**  
Courtesy of MAZDA MOTORS CORP.