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2011 MAZDA 2 / Demio - sedan OEM Service and Repair Workshop Manual

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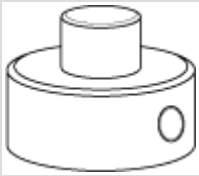
FRONT LOWER ARM INSPECTION

SM2897955

id02130080070

Special Service Tool (SST)

49 FT01 389 Preload adapter	

1.Remove the wheel and tire. (See WHEEL AND TIRE REMOVAL/INSTALLATION.)

2.Remove the front under cover No.2. (See FRONT UNDER COVER No.2 REMOVAL/INSTALLATION.)

3.Remove the front lower arm. (See FRONT LOWER ARM REMOVAL/INSTALLATION.)

4.Inspect the front lower arm for bending or damage.

- If there is any malfunction, replace the front lower arm. (See FRONT LOWER ARM REMOVAL/INSTALLATION.)

5.Inspect the front lower arm ball joint for excessive play and the dust boot of the front lower arm ball joint for damage.

- If there is any malfunction, replace the front lower arm. (See FRONT LOWER ARM REMOVAL/INSTALLATION.)

6.Replace the SST securing bolt with a bolt of a suitable length.

7.Rotate and shake the front lower arm ball joint stud 5 times.

8.Install the SST to the front lower arm ball joint stud, and measure the front lower arm ball joint stud starting torque and rotational torque using a torque wrench.

REAR TRAILING LINK REMOVAL/INSTALLATION

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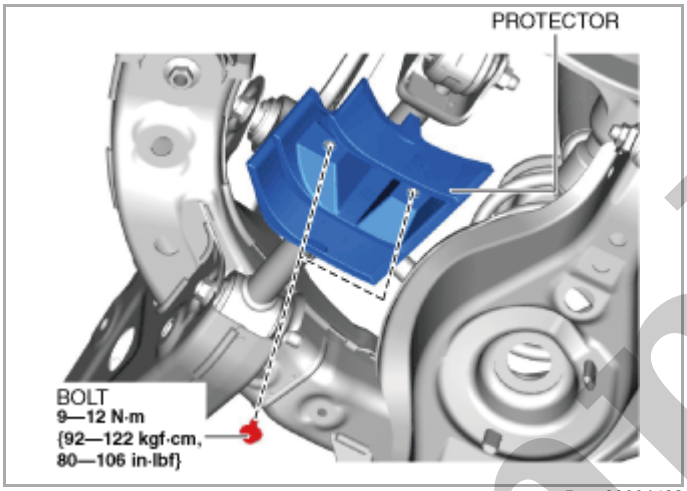
id02140080010

1.Remove the wheel and tire. (See WHEEL AND TIRE REMOVAL/INSTALLATION.)

2.Remove the protector. (With protector)



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3.Remove the floor under cover No.2. (See FLOOR UNDER COVER REMOVAL/INSTALLATION.)

4.Remove in the order indicated in the table.

5.Install in the reverse order of removal. (See Suspension Link Installation Note.)

6.When replacing the rear trailing link, inspect the wheel alignment and adjust it if necessary. (See REAR WHEEL ALIGNMENT.)

REAR STABILIZER CONTROL LINK INSPECTION

SM2897960

id02140080030

1.Remove the wheels and tires. (See WHEEL AND TIRE REMOVAL/INSTALLATION.)

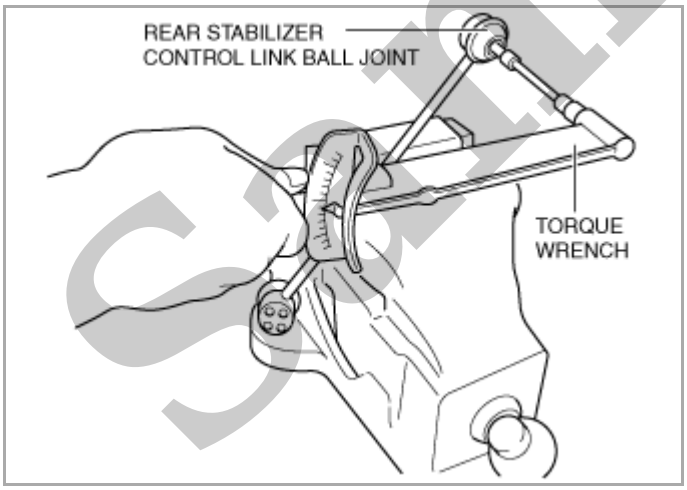
2.Remove the rear stabilizer control link. (See REAR STABILIZER REMOVAL/INSTALLATION [2WD].) (See REAR STABILIZER REMOVAL/INSTALLATION [AWD].)

3.Inspect the rear stabilizer control link for bends or damage.

- If there is any malfunction, replace the rear stabilizer control link. (See REAR STABILIZER REMOVAL/INSTALLATION [2WD].) (See REAR STABILIZER REMOVAL/INSTALLATION [AWD].)

4.Rotate the rear stabilizer control link ball joint stud 10 times and shake it side to side 10 times.

5.Install a hexagonal wrench to the rear stabilizer control link ball joint stud, and measure the starting torque of the rear stabilizer control link ball joint using a torque wrench.



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Rear stabilizer control link ball joint starting torque

0.8−3.5 N·m {8.2−35 kgf·cm, 7.1−30 in·lbf}

- If not within the specification, replace the rear stabilizer control link. (See REAR STABILIZER REMOVAL/INSTALLATION [2WD].) (See REAR STABILIZER REMOVAL/INSTALLATION [AWD].)
- Even when within the specification, if there is excessive play in the rear stabilizer control link ball joint, replace the rear stabilizer control link. (See REAR STABILIZER REMOVAL/INSTALLATION [2WD].) (See REAR STABILIZER REMOVAL/INSTALLATION [AWD].)

REAR STABILIZER REMOVAL/INSTALLATION [2WD]

SM2897962

id0214008005a

Caution

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

1.Switch the ignition ON (engine off).

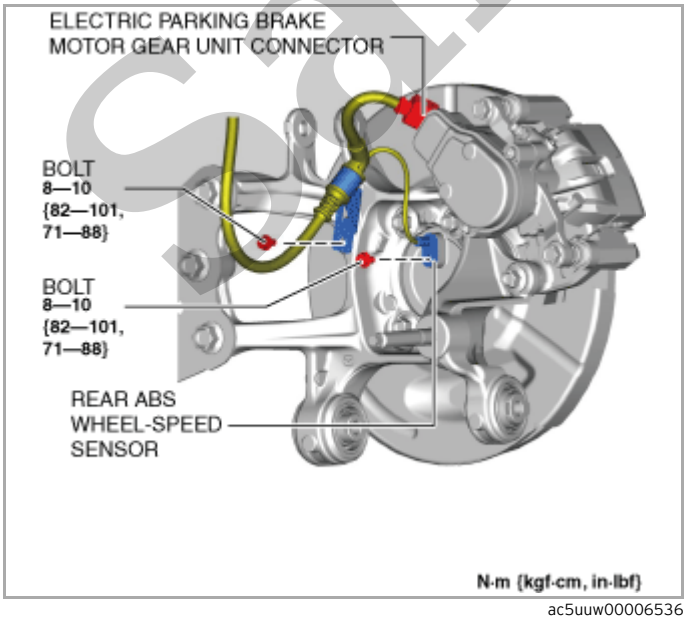
2.Release the electric parking brake.

3.Switch the ignition off.

4.Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)

5.Remove the wheels and tires. (See WHEEL AND TIRE REMOVAL/INSTALLATION.)

6.Disconnect the rear ABS wheel-speed sensor wiring harness and the electric parking brake motor gear unit connector and set it aside so that it does not interfere with the servicing. (See REAR ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION [2WD].)



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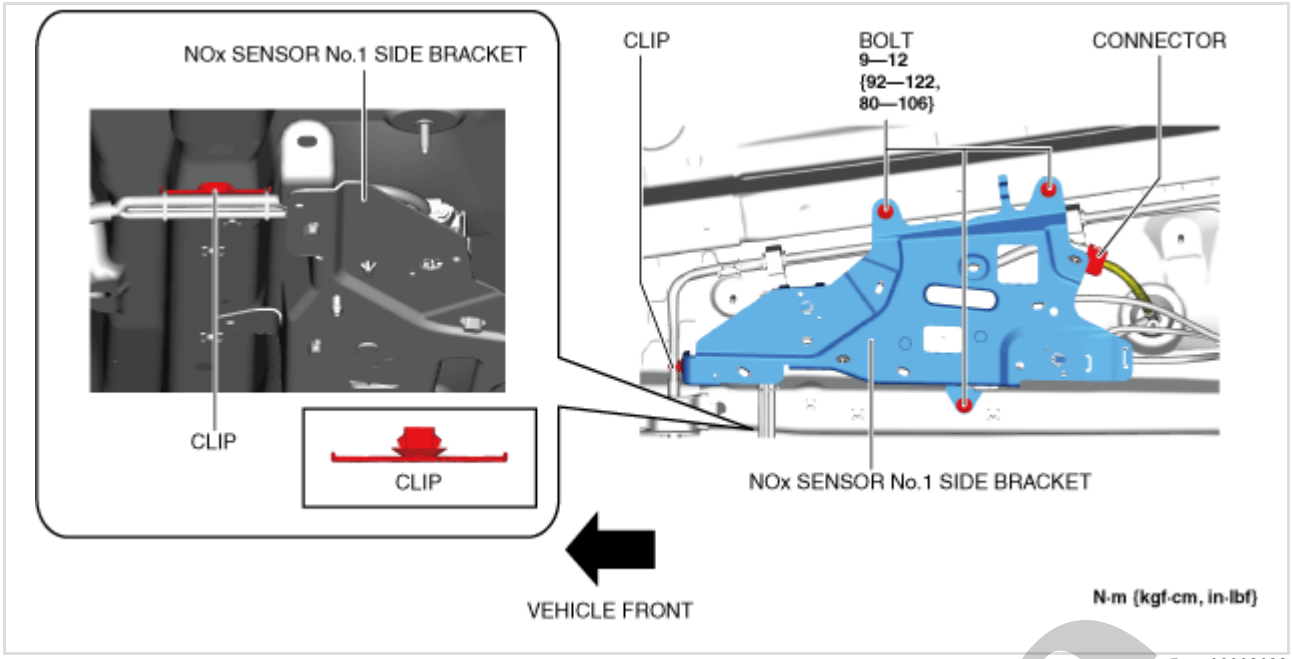
7.Remove the following parts. (See FLOOR UNDER COVER REMOVAL/INSTALLATION.)

(1)Floor under cover No.2

(2)Floor under cover No.1



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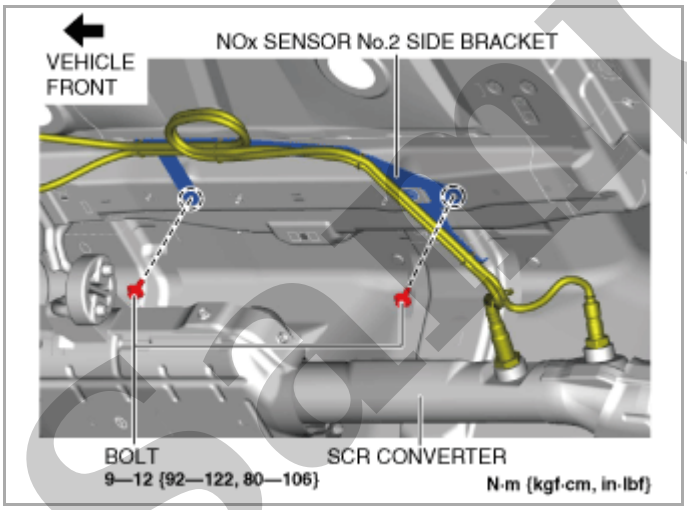
(3)Remove the bolts.

(4)Disconnect the connector.

(5)Set the NOx sensor No.1 side bracket aside.

(6)Remove the bolts.



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(7)Set the NOx sensor No.2 side bracket aside.

(8)Remove the following parts as a single unit.

- NOx sensor No.1 side bracket
- NOx sensor No.2 side bracket
- SCR converter (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)

12.Remove the rear coil spring. (See REAR COIL SPRING REMOVAL/INSTALLATION.)

13.Remove in the order indicated in the table.

14.Install in the reverse order of removal. (See Suspension Links Installation Note.)

Suspension Links Installation Note

1.When installing the joint sections with rubber bushings, perform the following procedures.

(1)Temporarily tighten the bolts with the vehicle lifted up.

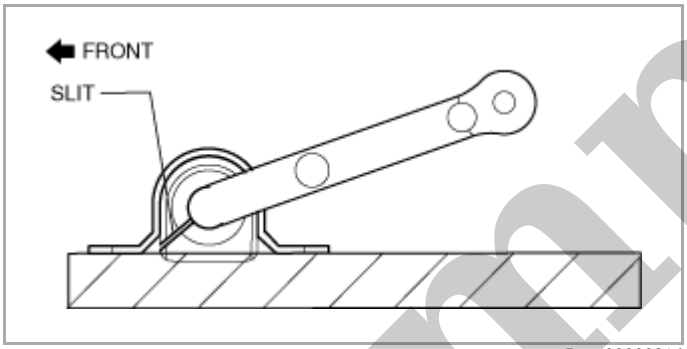
(2)Lower the vehicle to the ground and tighten the bolts to the specified torque.

Rear Stabilizer Bushing, Rear Stabilizer Bracket Installation Note

Caution

• Do not apply grease to the contact surface of the stabilizer bushing and the stabilizer bar. Otherwise, the stabilizer function may deteriorate.
• Verify that there is no dirt or oil on the stabilizer bushing and the stabilizer bar. Wipe off any dirt or oil on the stabilizer bushing and the stabilizer bar.

1.Install the rear stabilizer bushing with the slit pointing toward the front of the vehicle.



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2.Install the rear stabilizer bracket to the front stabilizer bushing by hand using the following procedure.

3.If the rear stabilizer bracket cannot be installed by hand, install it using a vise.

Caution

• If the rear stabilizer bracket is installed using a vise, it could be deformed.
• Set a cylindrically-shaped object as shown in the figure so that pressure is applied to the rear stabilizer bracket flange, and install the rare stabilizer bracket to the rare stabilizer bushing.

3.Tighten nut B.

Tightening torque

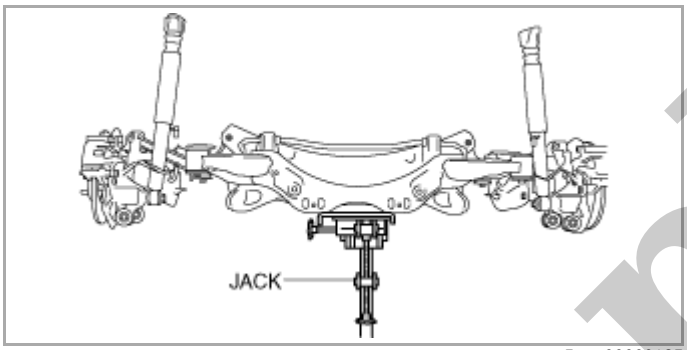
21–26 N·m {2.2–2.6 kgf·m, 16–19 ft·lbf}

4.Tighten nut A.

Tightening torque

21–26 N·m {2.2–2.6 kgf·m, 16–19 ft·lbf}

5.Lift up the rear crossmember component using a jack and install the rear crossmember installation nuts.



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Tightening torque

91–111 N·m {9.3–11 kgf·m, 68–81 ft·lbf}

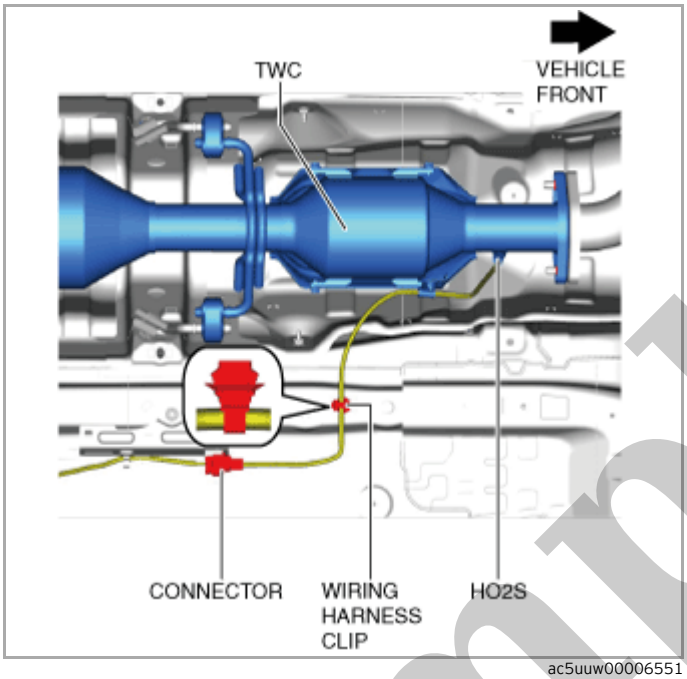
(1)Insulator

(2)Brace bar

(3)Tunnel member

11.For SKYACTIV-G 2.5 (Without cylinder deactivation) or SKYACTIV-G 2.5T vehicles, perform the following procedure.

(1)Disconnect the HO2S connector and the wiring harness clip.



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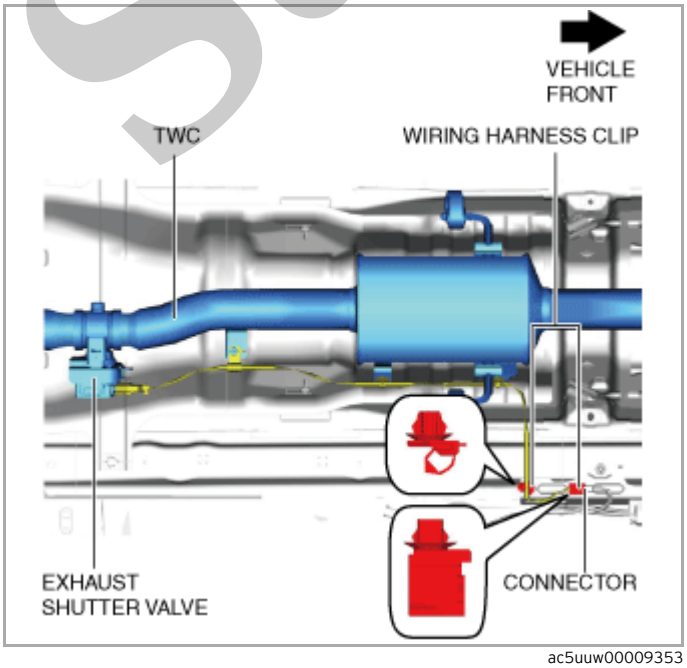
(2)Remove the TWC. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)].) (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].)

12.For SKYACTIV-G 2.5 (With cylinder deactivation) vehicles, perform the following procedure.

(1)Disconnect the exhaust shutter valve connector.



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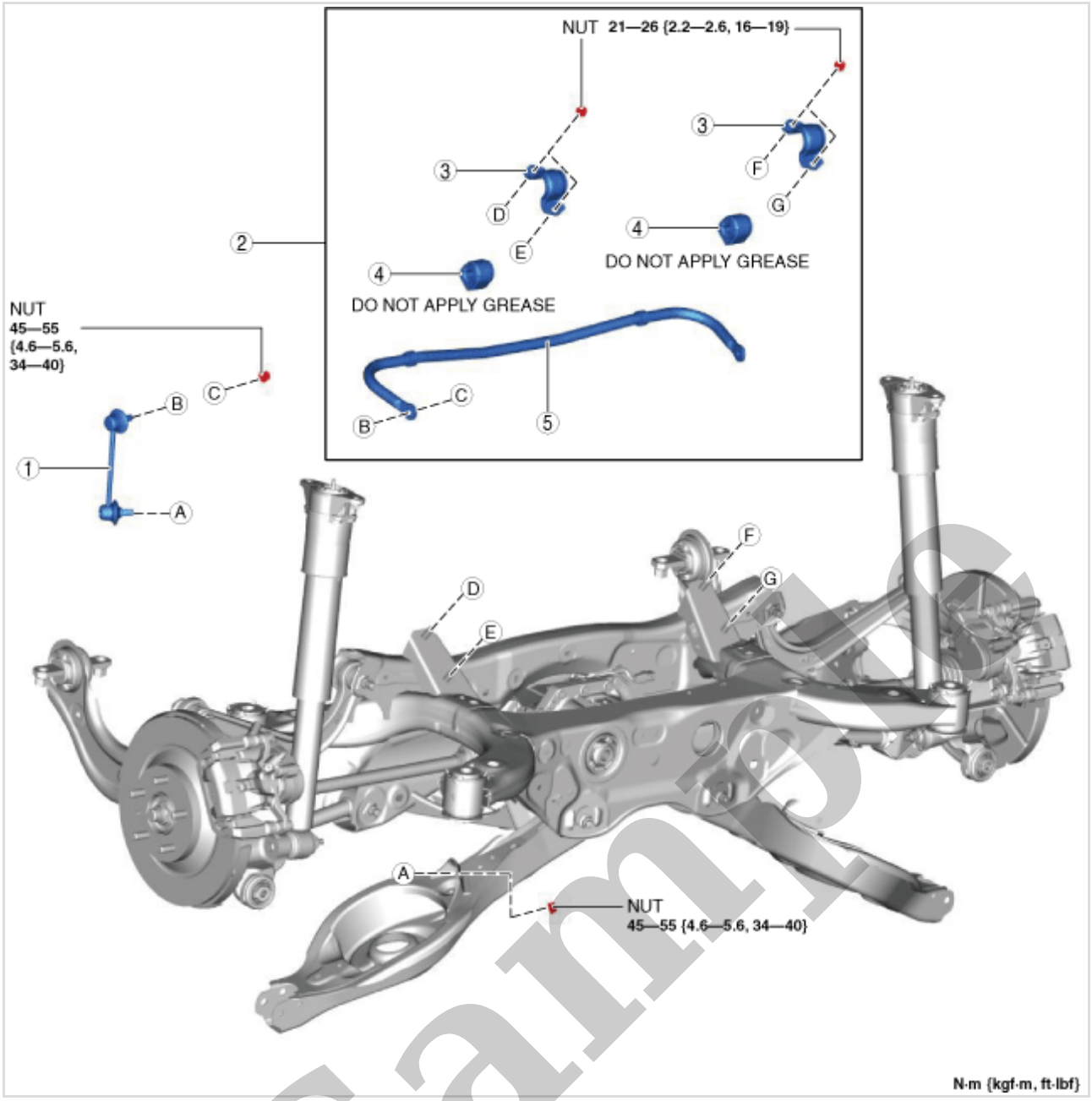
(2)Disconnect the wiring harness clips.



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1	Rear stabilizer control link
2	Rear stabilizer component (See Rear Stabilizer Component Removal Note.) (See Rear Stabilizer Component Installation Note.)
3	Rear stabilizer bracket (See Rear Stabilizer Bracket Removal Note.) (See Rear Stabilizer Bushing, Rear Stabilizer Bracket Installation Note.)
4	Rear stabilizer bushing (See Rear Stabilizer Bushing, Rear Stabilizer Bracket Installation Note.)
5	Rear stabilizer

Rear Stabilizer Component Removal Note

1.Support the rear crossmember component with a jack and remove the rear crossmember installation nuts.