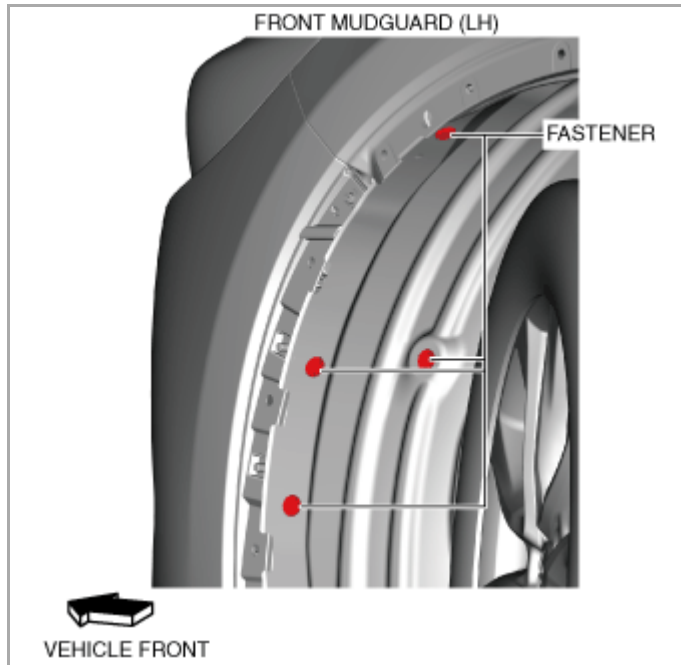


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FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2007 MAZDA CX-9 OEM Service and Repair Workshop Manual

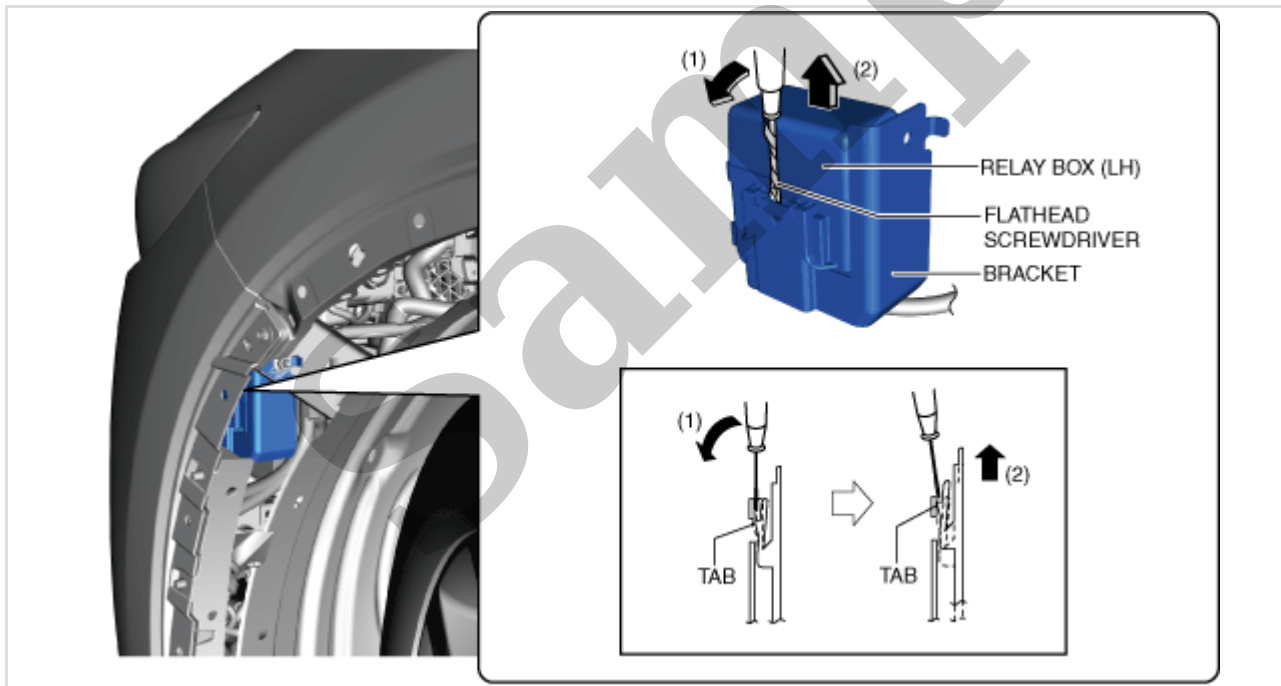
[Go to manual page](#)



ac5uuw00006969

7. Partially peel back the front mud guard (LH) to a position allowing removal of the relay box (LH).

8. Insert a tape-wrapped flathead screwdriver into the position shown in the figure.



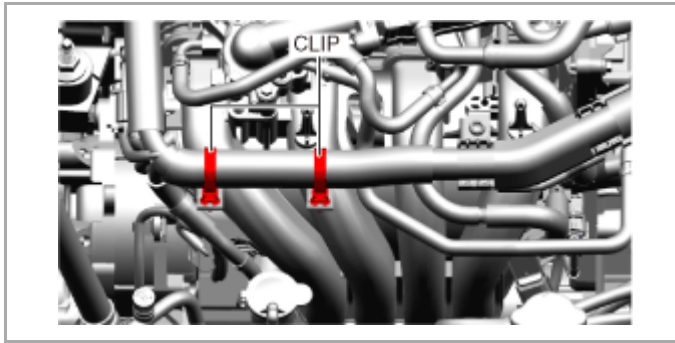
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9. Move the tape-wrapped flathead screwdriver in the direction of arrow (1) shown in the figure and lift the relay box (LH) in the direction of arrow (2) to detach the tab of the relay box (LH) from the bracket.

10. Remove the fuel pump relay.

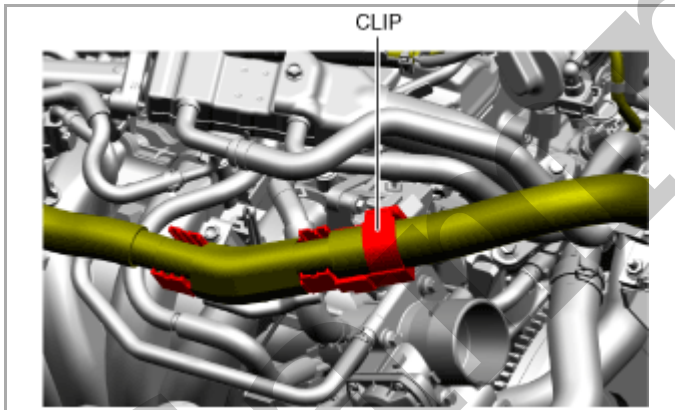
- Air hose
- Air cleaner cover
- Air cleaner element
- Air cleaner case
- Fresh-air duct

6.Remove the clips shown in the figure.



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7.Remove the clips shown in the figure.

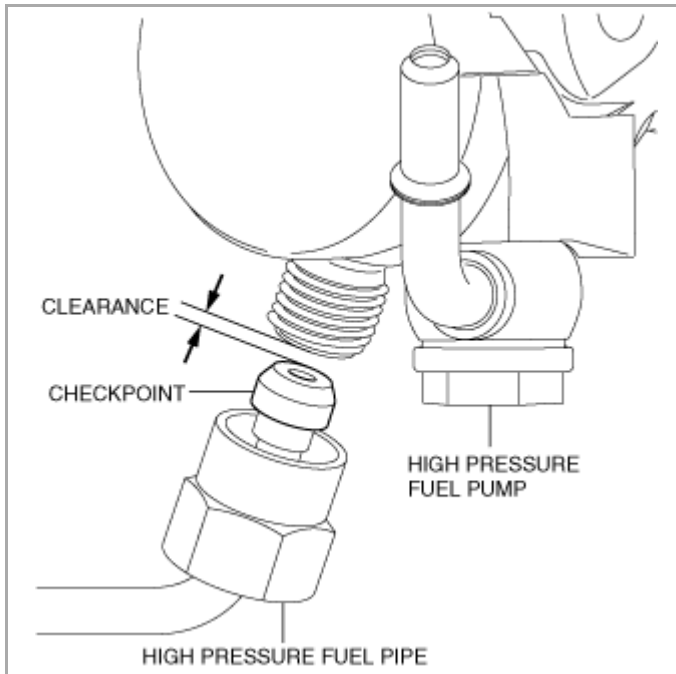


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8.Set the wiring harness protector aside so that it does not interfere with the removal work. (See [BATTERY REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

9.Remove the EGR cooler. (See [EGR COOLER REMOVAL/INSTALLATION \[SKYACTIV-G \(WITH EGR COOLER\)\]](#).)

10.Remove the bolt shown in the figure. (See [COOLING FAN MOTOR REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)



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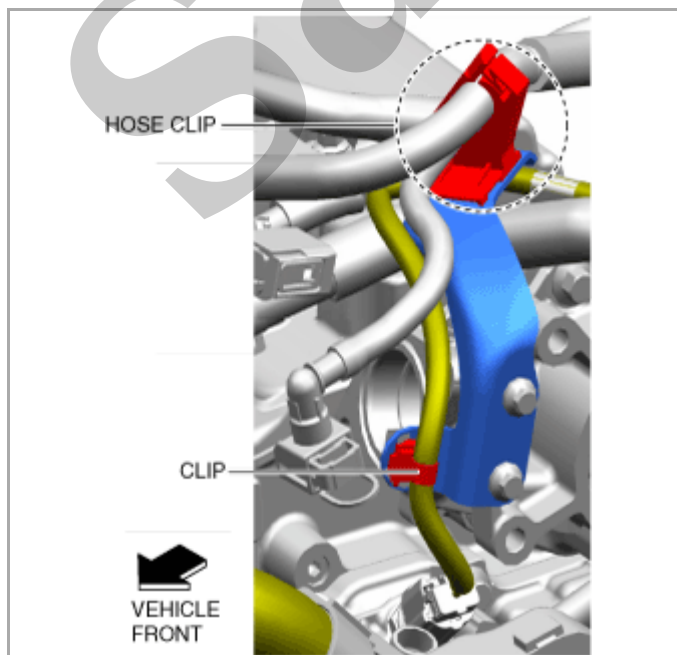
• If the high pressure fuel pump is removed with the high pressure fuel pipe installed, the high pressure fuel pipe and fuel distributor may be damaged because of the excessive force caused by the spring force of the high pressure fuel pump. The high pressure fuel pipe and fuel distributor must be replaced if they are damaged. Always remove the high pressure fuel pipe before removing the high pressure fuel pump.

1.Remove the high pressure fuel pipe.

Rear Housing Removal Note

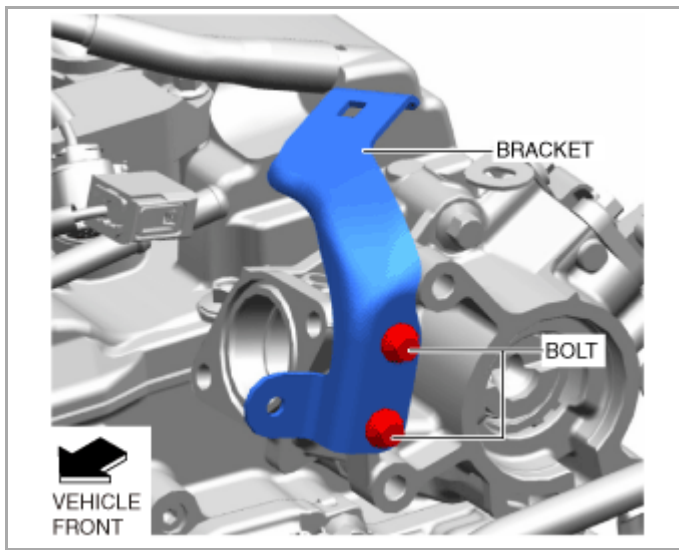
1.Remove the vacuum pump. (See [VACUUM PUMP REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

2.Remove the clips shown in the figure.



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3.Remove the bracket shown in the figure.

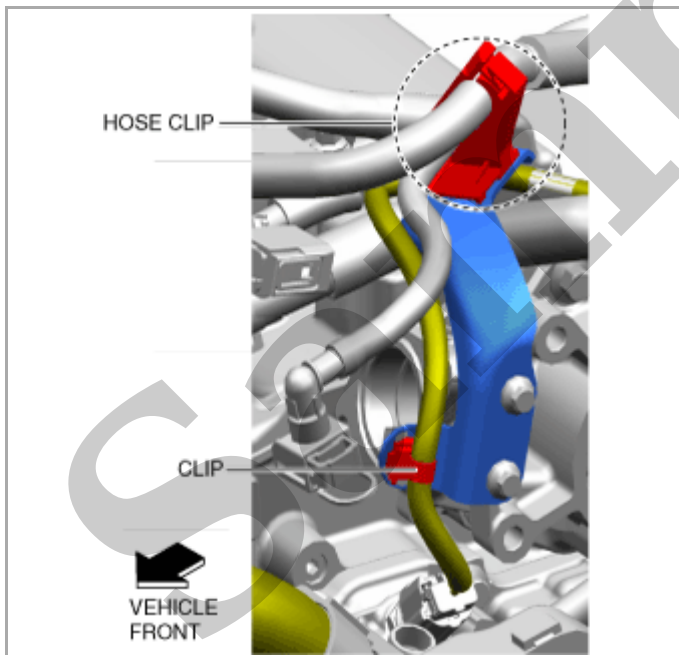


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Tightening torque

8–10 N·m {82–101 kgf·cm, 71–88 in·lbf}

6. Connect the hose clips shown in the figure.



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7. Install the vacuum pump. (See [VACUUM PUMP REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

High Pressure Fuel Pump Installation Note

1. Rotate the crankshaft approx. 30 degrees from TDC of cylinder No.1.

HIGH PRESSURE FUEL PUMP INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

SM2897463

id0114q780150

Note

- The following vacuum values are indicated by relative pressure from the fuel pressure sensor.

1. Verify that the fuel pressure sensor is normal. (without EGR cooler) (See [FUEL PRESSURE SENSOR INSPECTION \[SKYACTIV-G \(WITHOUT EGR COOLER\)\]](#).)

2. Verify that the high fuel pressure sensor is normal. (with EGR cooler) (See [HIGH FUEL PRESSURE SENSOR INSPECTION \[SKYACTIV-G \(WITH EGR COOLER\)\]](#).)

3. Connect the M-MDS to the DLC-2.

4. Switch the ignition ON (engine on).

5. Display PID FUEL_PRES using the M-MDS.

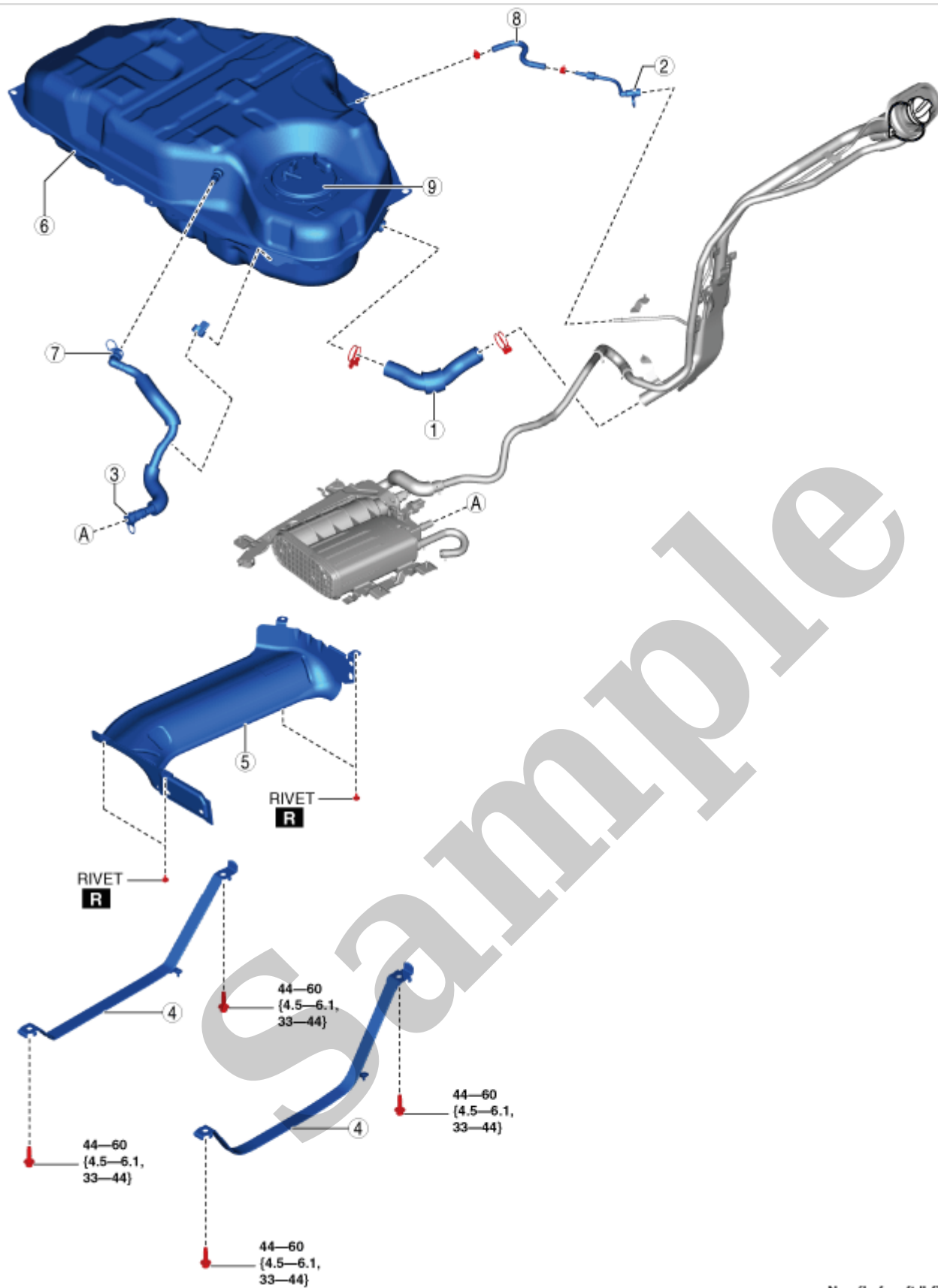
6. Verify that PID FUEL_PRES is approx. 10 MPa {102 kgf/cm², 1450 psi} during idling.

— If it cannot be verified, perform the following inspections.

1. Perform the fuel line pressure inspection, verify that the fuel pressure value on the low pressure side is normal, then go to the next step. (See [FUEL LINE PRESSURE INSPECTION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

— If the fuel pressure value is not normal, repair the malfunctioning location using the fuel line pressure inspection, and perform Step 5 again.

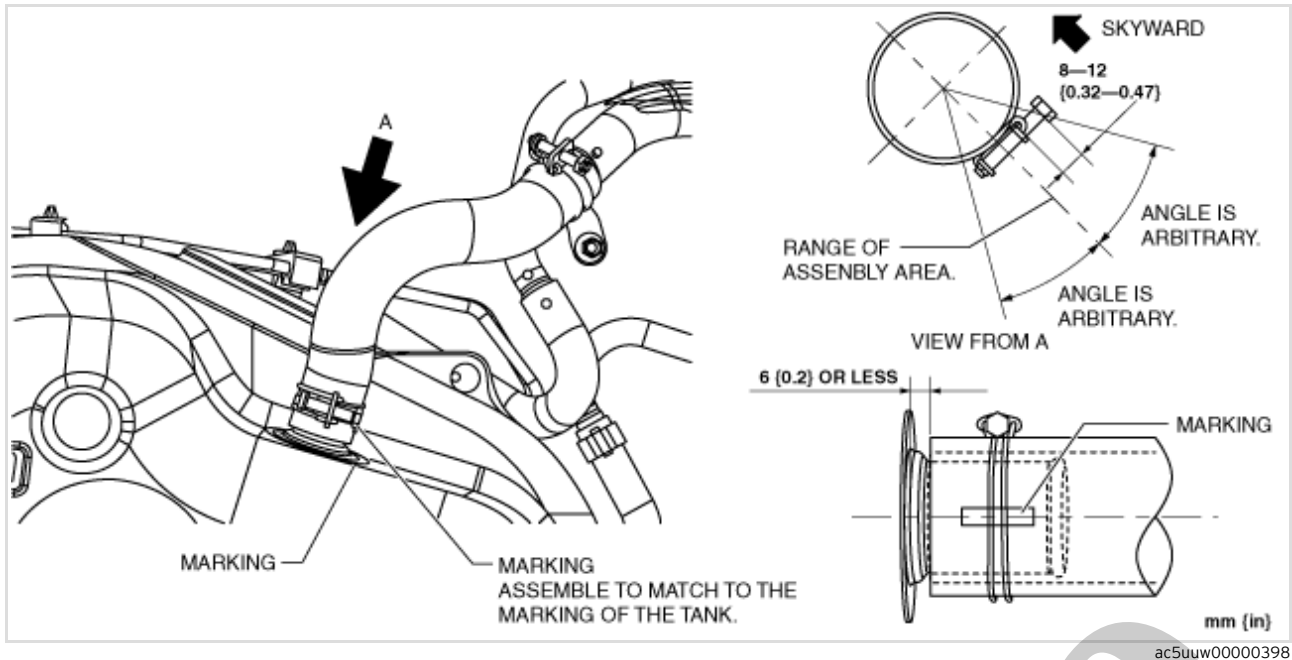
2. Replace the high pressure fuel pump. (See [HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION \[SKYACTIV-G \(WITHOUT EGR COOLER\)\]](#).) (See [HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION \[SKYACTIV-G \(WITH EGR COOLER\)\]](#).)



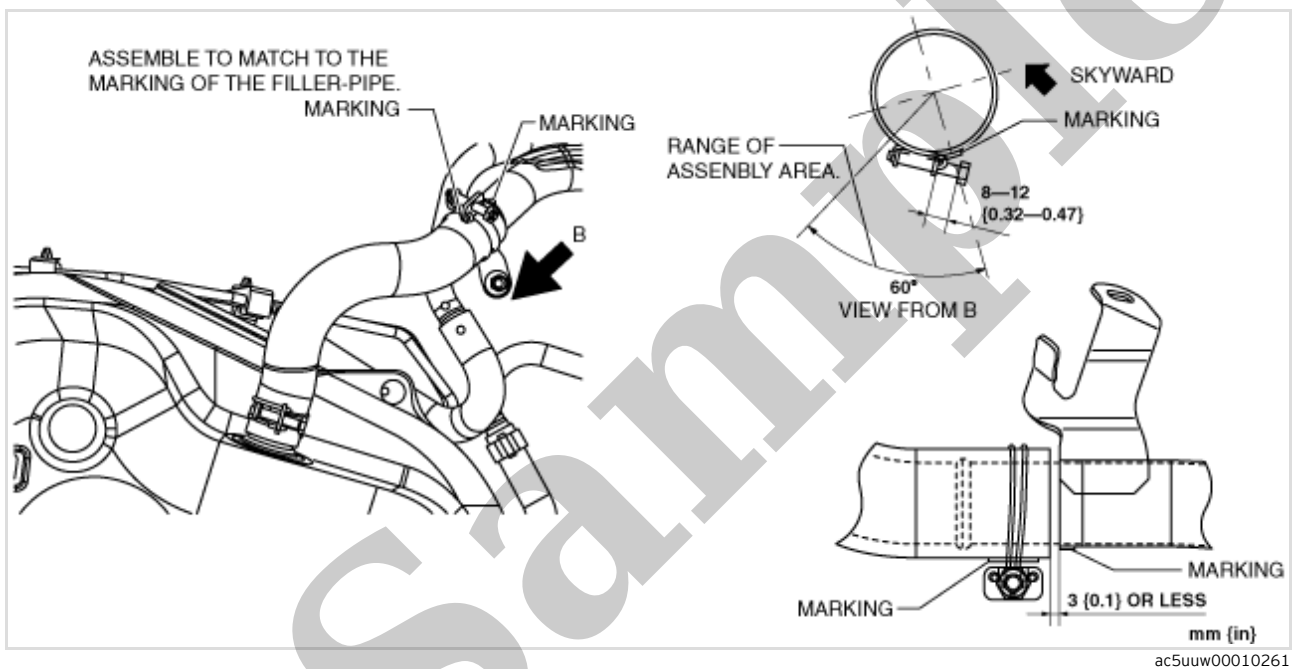
N·m {kgf-m, ft-lbf}

ac5uuw00010812

1	Joint hose (See Joint hose installation note.)
2	Breather pipe (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)].)
3	Evaporative hose (charcoal canister side) (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)].)
4	Fuel tank strap

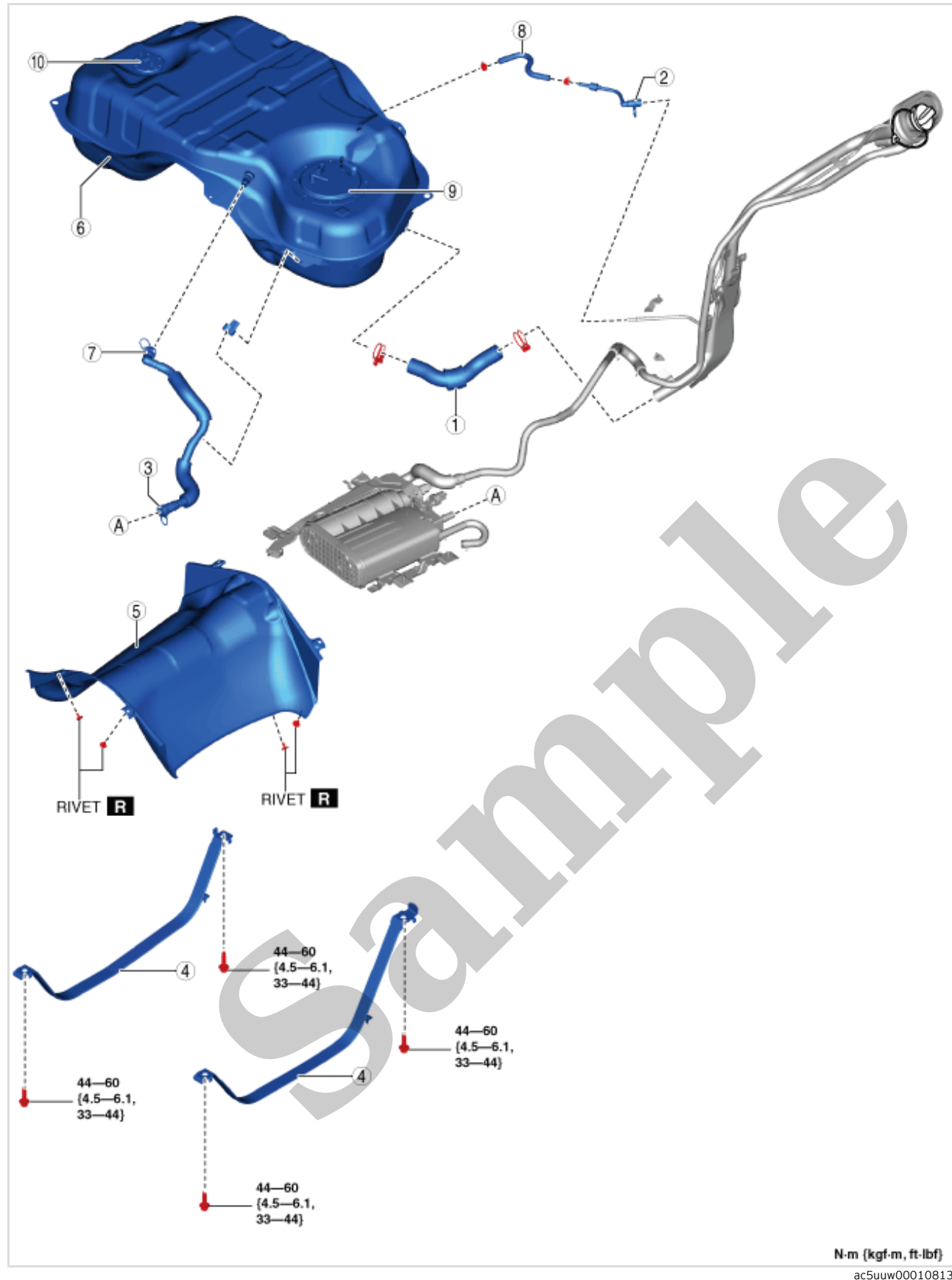


Fuel-filler pipe side

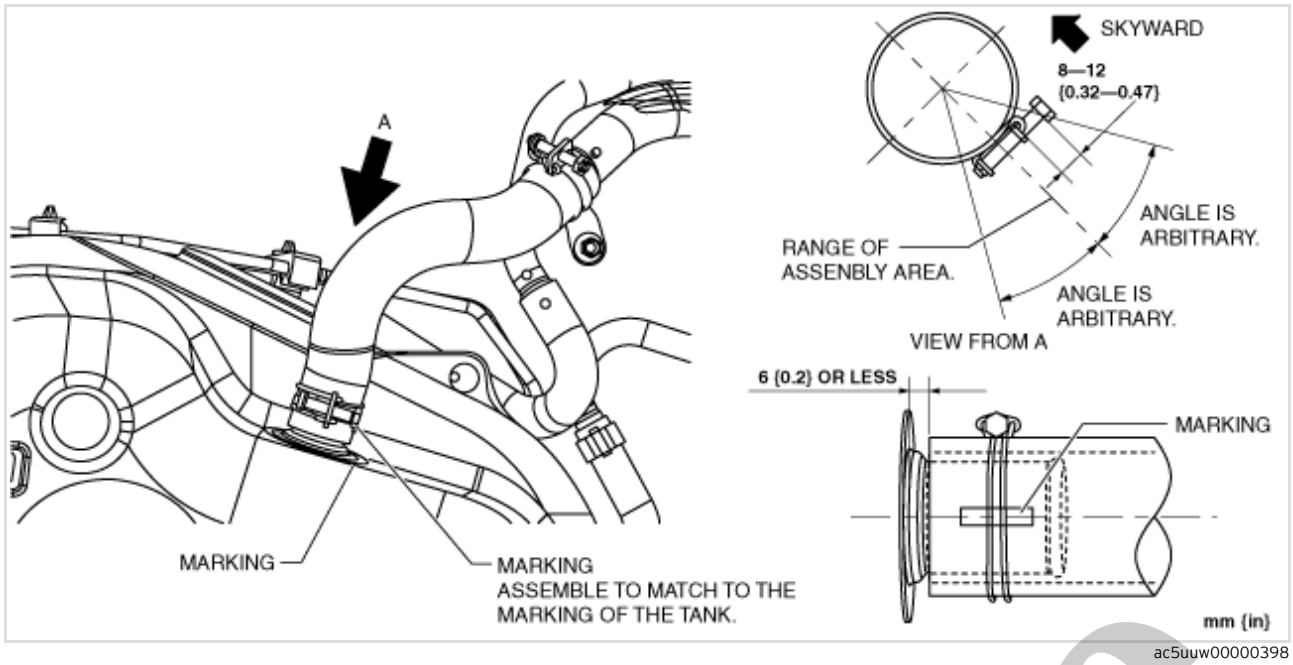


AWD

1. Level the vehicle.
2. Complete the "BEFORE SERVICE PRECAUTION". (See [BEFORE SERVICE PRECAUTION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)
3. Drain the fuel. (See [FUEL DRAINING PROCEDURE \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)
4. Remove the rear seat cushion. (See [REAR SEAT CUSHION REMOVAL/INSTALLATION](#).)



1	Joint hose (See Joint hose installation note.)
2	Breather pipe (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
3	Evaporative hose (charcoal canister side) (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
4	Fuel tank strap



Fuel-filler pipe side

