



Bulletin: M12-03-02

Reference:

Date: 10/12

PRODUCT RECALL BULLETIN

Subject: SAFETY RECALL CAMPAIGN VPG R1201 PRESSURE RELIEF DEVICE (PRD)

Models Affected: CERTAIN 2011 AND 2012 MODEL YEAR COMPRESSED NATURAL GAS (CNG) MV-1 VEHICLES WITH A VEHICLE IDENTIFICATION NUMBER (VIN) AS LISTED

SERVICE INFORMATION

Certain 2011 and 2012 model year CNG MV-1 vehicles within the following VIN List, were built with incorrectly manufactured CNG fuel tank valve assemblies. Refer to the specific VINs listed in this bulletin.

An incorrectly machined assembly can result in unintended venting to the atmosphere of a CNG tank. If this were to occur, and in the presence of an ignition source, a fire could result.

For involved vehicles, a kit containing three supplemental PRDs, a replacement rear vent tube, hardware and instructions, will be installed on the three CNG tank pressure relief vent tubes. The three supplemental PRDs (one for each CNG tank) will stop the CNG from venting straight to atmosphere if unintended venting of a tank were to occur.

OWNER NOTIFICATION

Owners with affected MV-1 vehicles will be contacted and requested to make arrangements with a local dealer for campaign service. Campaign service will be performed at no cost to the owner. A copy of the Owner's Notification Letter is included with this bulletin.

Important: Some involved vehicles may be in Dealer Inventory (new or used), or in use as demonstrator models. If so, these vehicles must have the campaign service completed before retail delivery.

WARRANTY

The provisions of the normal warranty policy apply.

TIME

The time required to install three PRDs and related hardware is 1.1 hour. Labor operation M120302, warranty type J, complaint code R1201, malfunction code 86.

PARTS

Kit PN SP001680 can be obtained through the Dealer Communication System (DCS). Order one kit per vehicle.

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VIN LIST

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KIT PN SP001680 CONTAINS THE FOLLOWING:

ITEM	DESCRIPTION	PART NUMBER	QTY
1	Instructions	SPD000008	1
2	Vent Tube, Rear Tank	SP001682	1
3	O-Ring Fitting, Straight	SP001674	2
4	Compression Fitting, Straight	SP001675	2
5	O-Ring Fitting, 90 Degree	SP001676	1
6	Compression Fitting, 90 Degree	SP001677	1
7	Gap Gauge Tool	SP001678	1
8	PRD Valve	SP001679	3

PROCEDURE

1. Remove the left rear wheel/tire assembly and the wheel liner (See Figure 1).

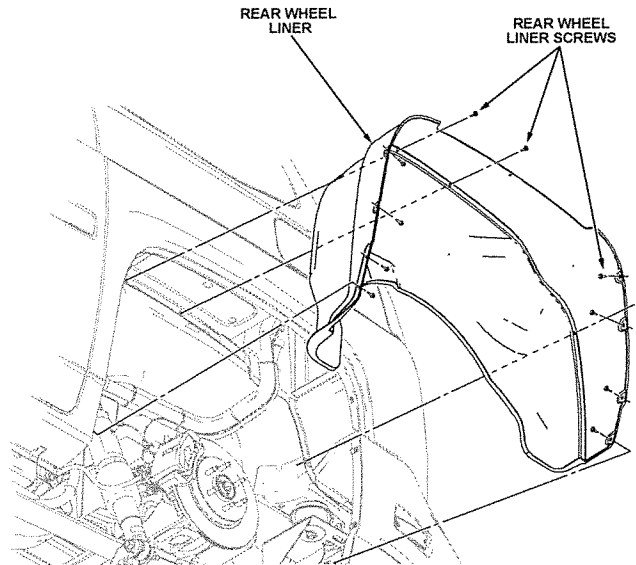


Figure 1: Wheel Liner

2. Disconnect the tank valve electrical connections, remove the bolts securing the connector brackets and move the connectors to the side.
3. Remove pressure relief lines from all three fuel tank valves and the frame rail. Remove the p-clips from the rear tank line for later use and discard the rear tank line (See Figure 2).

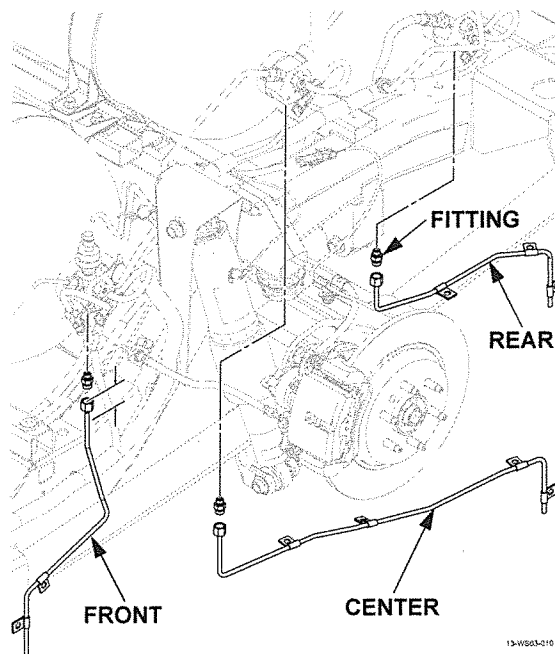
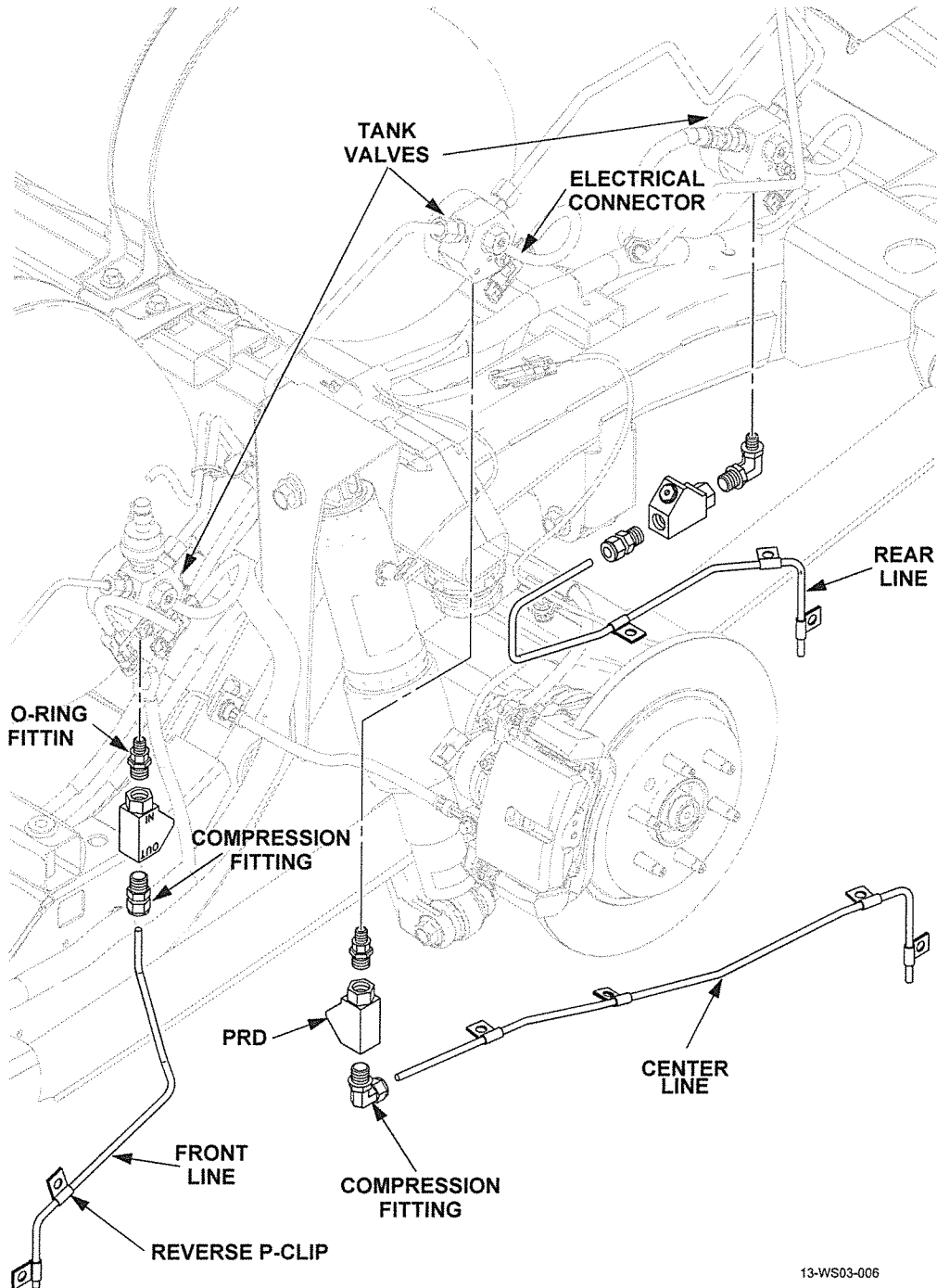


Figure 2: Pressure Relief Lines

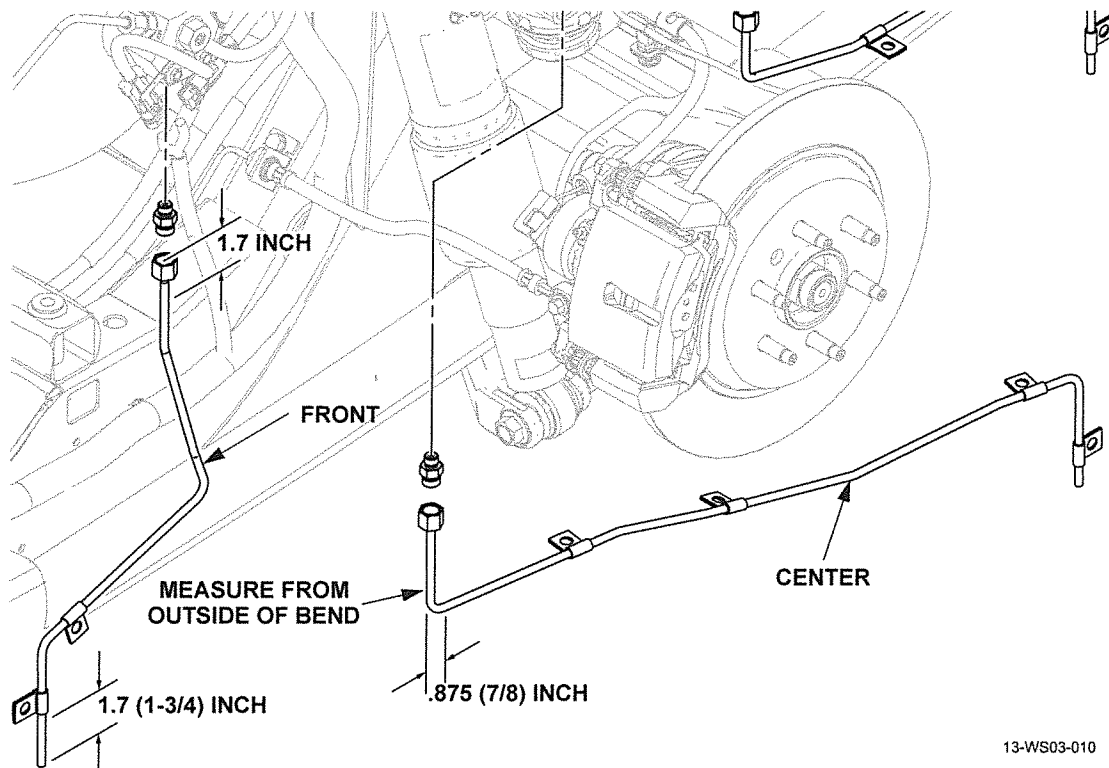
4. Remove the relief line fittings from all three tank valves and discard.
5. On the workbench, install a straight o-ring fitting in the inlet side (indicated on the PRD) of the front tank PRD and a straight compression fitting on the outlet side. Torque both to 33-35 Nm (24-26 lb-ft) (See Figure 3).



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Figure 3: Location and Orientation of New Fittings

6. On the workbench, install a straight o-ring fitting in the inlet side and a 90 degree compression fitting in the outlet side of the center tank PRD. Torque the straight fitting to 33-35 Nm (24-26 lb-ft) and do not tighten the 90 degree fitting at this time.
7. On the workbench, install a a straight compression fitting in the outlet side of the rear tank PRD and no fitting in the inlet side at this time. Torque the compression fitting to 33-35 Nm (24-26 lb-ft).
8. Thread the front and center PRDs into the tank valves until the fitting nuts contact the tank valves. Do not tighten at this time.
9. Thread the 90 degree o-ring fitting into the rear tank valve then the rear tank PRD onto the 90 degree fitting. Do not tighten at this time.
10. Using a tubing cutter, cut the front tank pressure relief line 1.7 (just under 1-3/4) inches from the upper end and the same from the lower end of the line (See Figure 4).
11. Cut the center tank line 0.875 (7/8) inch below the upper bend in the line, measured from the outside of the bend.



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Figure 4: Front and Center Line Cutting

Note: Pressure relief lines must be fully inserted into the compression fittings prior to fitting tightening.

12. Install the removed original rear line p-clips onto the new rear line and install the line fully into the PRD fitting and install and tighten the p-clip bolts. Do not tighten the compression fitting at

this time.

13. Install the center line fully into the PRD compression fitting and install and tighten the p-clip bolts. Do not tighten the compression fitting at this time.
14. Reverse the front line upper p-clip so the line will be installed under the p-clip bolt. Fully install the line into the PRD compression fitting and tighten the p-clip bolts.
15. Using the 1/4 inch-6 millimeter leg of the supplied compression fitting go-no-go gauge, tighten all three compression fittings to the prescribed gap (See Figure 6).

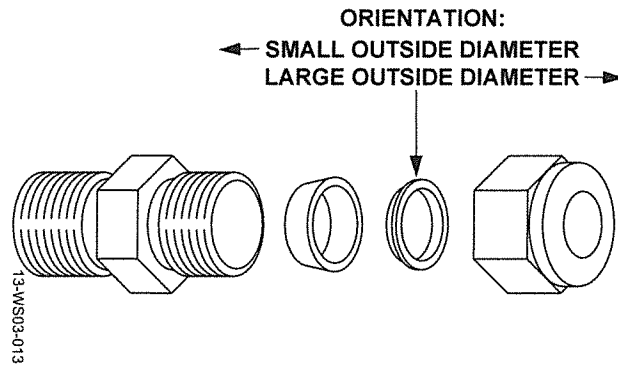


Figure 5: Compression Fitting Configuration

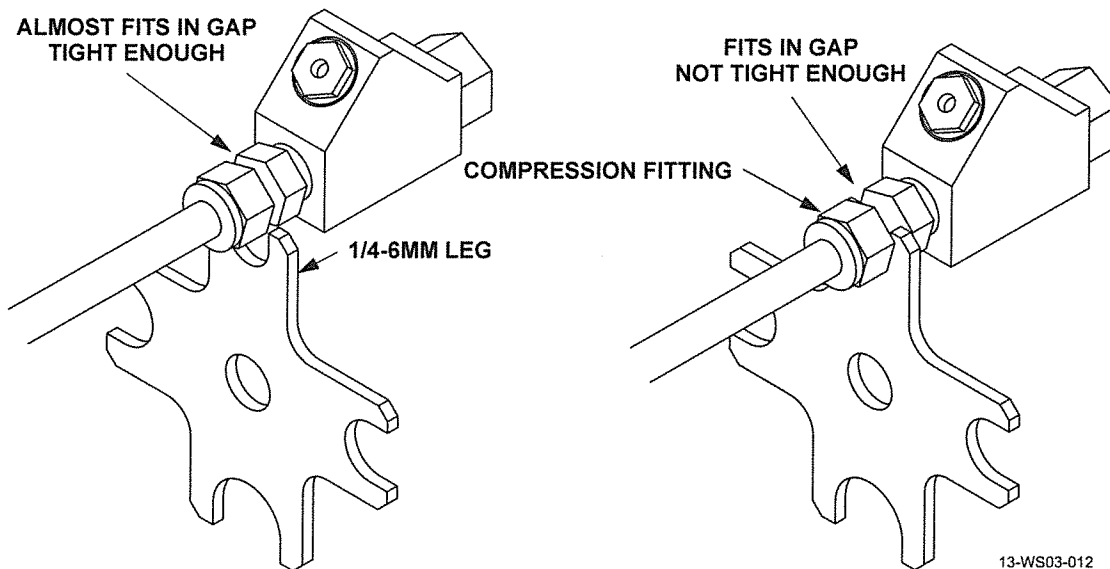


Figure 6: Compression Fitting Gauging

- 16. Using a crows foot wrench on a torque wrench, torque the nuts on tank valve to PRD fittings to 20-22 Nm (14-16 lb-ft) (See Figure 8). The following formula and drawing (See Figure 7) indicates the corrected torque values for use of a crows foot on a torque wrench.

Formula

- a. Determine the effective length of the torque wrench (A) by measuring the distance from the center of the square drive to the center of the area covered by the operator's hand.
- b. The length of the torque adapter (B) (crows foot) may be 1 inches.
- c. When used in the straight or 180 degree position, the following formula must be used:

$$\frac{\text{Specified Torque} \times \text{Wrench Length (A)}}{\text{Wrench Length (A) + Adapter Length (B)}}$$

Example: $15 \times 14 = 210 \div \text{by } (14 + 1 = 15) = 14 \text{ lb-ft.}$

- d. When the adapter is used at 90 degrees to the torque wrench the specified torque will be the same as the wrench setting.
- e. Using the adapter at any other angle to the torque wrench requires the above formula with the adjusted or effective length of the adapter (B), which will be a value between 0 and 4 inches.

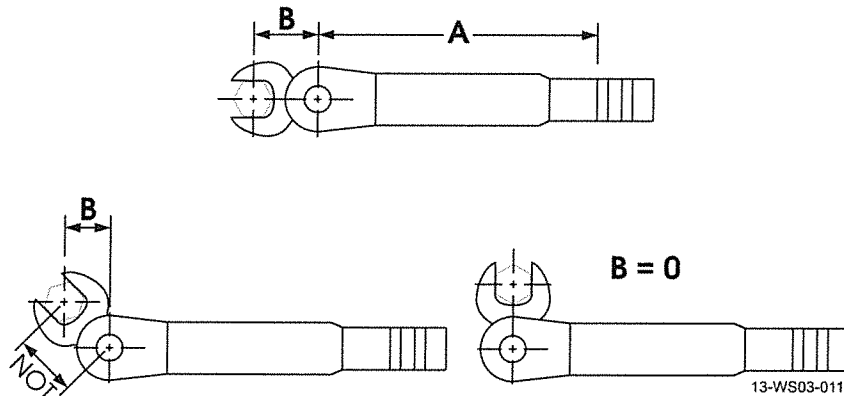


Figure 7: Crows Foot Torque Value Correction

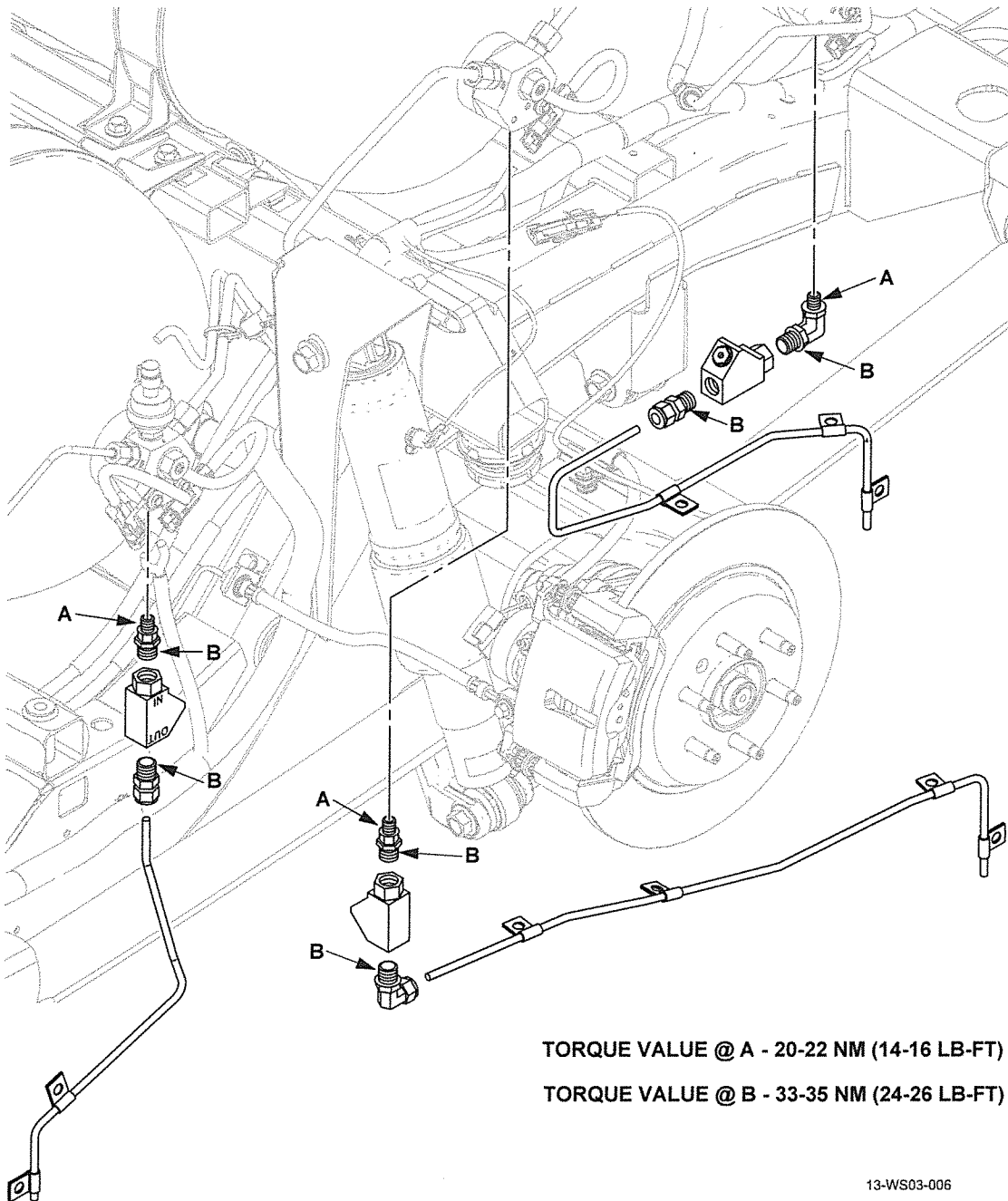


Figure 8: Torque Value Locator

17. Using a crows foot wrench on a torque wrench, torque the two 90 degree fittings to the center and rear tank PRDs to 33-35 Nm (24-26 lb-ft) (See Figure 8).
18. Connect the tank valve electrical connections and secure the connector brackets to the tank valves.
19. Install the wheel liner and the tire/wheel assembly. Torque the lug nuts to 130 Nm (96 lb-ft).