



## **Vehicle Safety Recall - Technical Service Bulletin**

### **Inspection Procedure**

#### ***PROMPT ACTION REQUIRED***

**Attention:** McNeilus Service Technicians

**Subject:** Pressure Relief Device (PRD) on CNG Tank

**Models Affected:** McNeilus Refuse Rear Loaders, Front Loaders, Side Loaders, and Aftermarket Parts sold for non-McNeilus vehicles fitted with Emcara PRD valves on the CNG tanks

**Date Revised:** November 2019

#### **Purpose:**

McNeilus Truck and Manufacturing, Inc. has been alerted by our supplier that a concern affecting safety exists in some Emcara Pressure Relief Device (PRD) valves on CNG tanks (for your information, Emcara's NHTSA Recall number is 15E059). Some McNeilus Refuse models were shipped with an Emcara CNG PRD which may not vent properly. The purpose of the thermal PRD is to relieve pressure in the CNG system if the CNG tank is reaching an unsafe level of pressure, as might occur with a thermal event that heats up a tank. In the event of a thermal event, the thermal PRD may not vent properly, which increases the likelihood of a CNG tank over-pressurizing and rupturing. A tank rupture creates an increased risk of injury to the truck occupants, firefighters, or bystanders.

#### **Affected Vehicles:**

The affected vehicle population is PRD valves fitted on tanks assembled by McNeilus between 2013 and 2018 and are PRD valves with serial numbers as found in the attached list.

#### **Time Completion:**

Affected units shall be repaired using McNeilus qualified service technicians - at no cost to the owner. The time of accomplishment may vary due to a number of factors; however, the estimated time for completion of the procedure is 1.0 hour under normal circumstances.

#### **Required Action:**

Review and verify the ownership of all affected serial numbers of trucks. If McNeilus records indicate the owner of one or more affected units, a Serial Number List is enclosed. Please be reminded that it is a violation of Federal law for companies to sell or lease the CNG systems or vehicles that use CNG systems covered by this notification until this recall has been performed on these vehicles. Substantial civil penalties apply to violations of this law.

**This work instruction is limited to Internal McNeilus Use Only.**

**Contacts:**

If you have questions or need further information, please contact a National Service Representative at 888-686-7278.

**Enclosures:**

Emcara PRD Valve Inspection Procedure

List of Affected Serial Numbers/Vehicles

**SAFETY NOTICE**

Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

** WARNING**

Wear proper Personal Protective Equipment (PPE) such as hard hats, safety glasses or goggles, sturdy gloves, hearing protection, steel toed boots, and snug fitting sturdy long-sleeve shirt and long pants when operating, fueling, defueling, or maintaining the truck.

Reflective clothing is recommended for drivers and employees.

Serious personal injury or death can result without proper PPE.

** WARNING**

Use proper fall protection equipment and training when inspecting or maintaining the CNG cylinder on the truck.

Failure to use proper fall protection equipment may result in serious personal injury or death.

## PROCEDURE: Emcara PRD Valve Serial Number Inspection

Read the entire procedure before beginning.

### Tools and Equipment Required:

- Bore scope
- Emcara Field Inspection Sheet (obtain from your Branch Manager)
- Socket Set
- Small mirror
- Flashlight
- If you want, use the light from your cell phone and take a picture of the serial number. The number may be backwards in the picture.
- Replacement hardware such as clips, bolts, washers for the CNG tank covers

### Procedure A: Preparation

1. Place unit on a flat surface, block truck tires, and observe all conditions of the Safety Notice concerning Lockout/Tagout posted in this bulletin. Contact McNeilus Truck and Manufacturing, Inc. at 888-686-7278 if you have any questions.

2. Battery Disconnect Switch

If your vehicle is equipped with a BATTERY DISCONNECT switch, it is located near the battery box. Use the battery disconnect switch when performing any maintenance so the vehicle cannot accidentally be started.

1. Turn the battery disconnect switch (Figure A, Item 1) counterclockwise so the hole on the switch aligns with the hole in the bracket (Figure A, Item 2).

2. Install the safety lockout device ring (Figure B, Item 1) through the holes on the battery disconnect switch and the bracket.

3. Install a padlock (Figure B, Item 2) onto the safety lockout device ring, lock it, and put the key in your pocket. If more than one person is working on the vehicle, each person must install his or her own padlock.

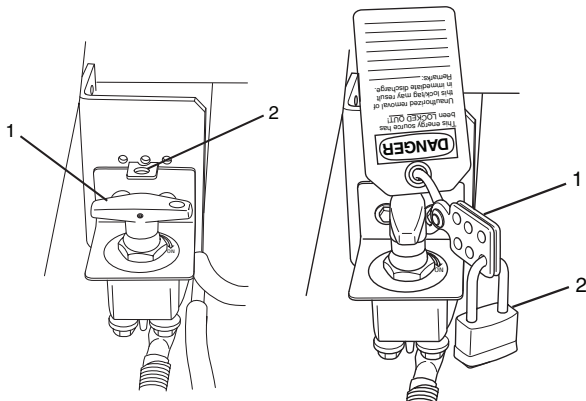


Figure A

Figure B

#### Battery Cable Disconnect - No Switch Application

If your vehicle is not equipped with a battery disconnect switch, disconnect the negative (black) battery cable first, then disconnect the positive (red) cable.

### **⚠ WARNING**

**For trucks without a battery disconnect switch, to prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative cable first) before proceeding.**

**Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury.**

3. You must use the proper fall protection equipment when working on this bulletin. Contact McNeilus Truck and Manufacturing, Inc. at 888-686-7278 if you have any questions.

### **⚠ WARNING**

**Use proper fall protection equipment and training when inspecting or maintaining the CNG cylinder on the truck.**

**Failure to use proper fall protection equipment may result in serious personal injury or death.**

## Procedure B: Inspection of the PRD Serial Number

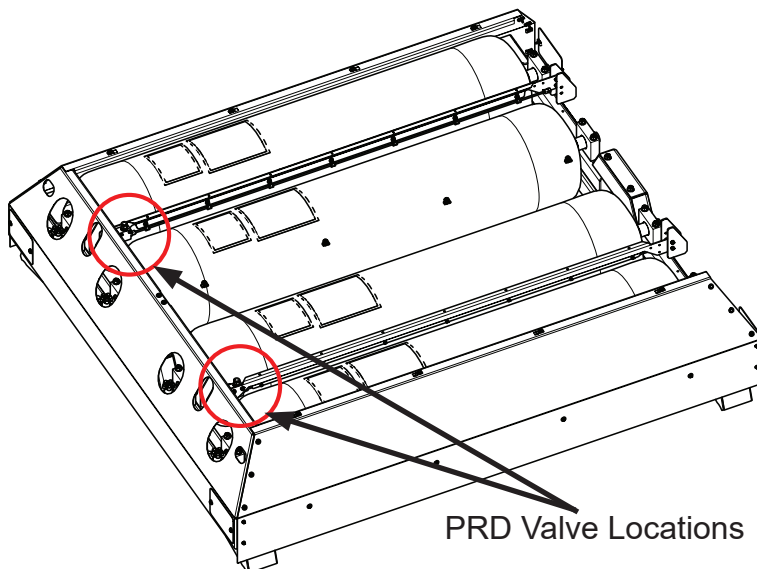
**IMPORTANT:** Read the entire bulletin before starting the procedure so that you can gather all of the necessary equipment.

Because the CNG system covers will remain on the system, use the bore scope to read the serial number on the label of the PRDs. The side access cover or the bottom cover for the 26" Frame Mount System may need to be removed for the inspection.

### Tips for using the bore scope:

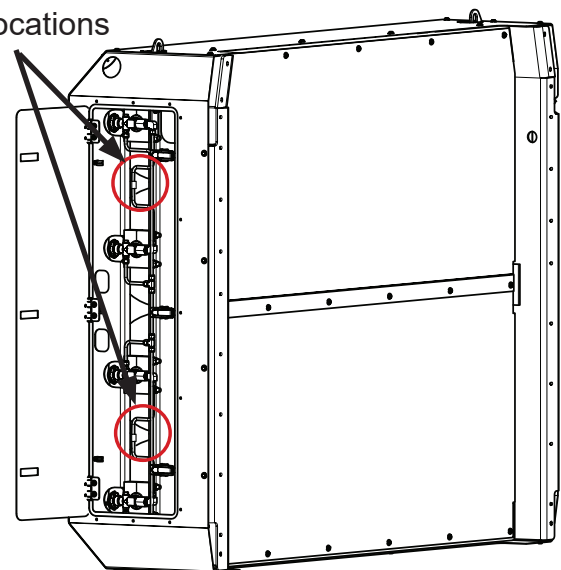
- If you want the bore scope to take a picture, make sure you have purchased and installed a micro SD card in the bore scope.
  - Make sure to bend the bore scope camera to the angle you will need to view the serial number before you insert the bore scope under the CNG cover.
  - Practice using the bore scope before you attempt this bulletin procedure.
1. Locate the PRD valves and the serial numbers. Figure 1 (Roof Mount and Front of Body Mount), Figure 2 (Tailgate Mount and Back of Cab Mount) are illustrative representations of the various CNG system configurations and the location of PRDs on those configurations. Figure 3 (Frame Mount viewing PRD one way) and Figure 4 (Frame Mount viewing PRD second way) are illustrative representations of the various CNG system configurations and the location of PRDs on those configurations. Figure 5 shows two views of the PRD in proximity to the bracket and the location of the serial number label. Use these Figures as your guides to determining the location of the PRDs and where to place the bore scope/mirror to read the PRD serial numbers.

**Figure 1**



*PRD Valve Locations on the **Roof Mount** CNG Tanks. This is a representation of a CNG system with PRD valves with the cover removed for clarity. The covers will remain on during your inspection.*

PRD Valve Locations



*Illustration represents the PRD valve locations on the **Front of Body** CNG Tanks.*

**NOTE:** Accessing the PRDs on the Roof Mount CNG system is tricky with the top cover on. You must find the access hole for the CNG shut off valve and angle the bore scope through the hole and then underneath the PRD to read the label.

**Figure 2** PRD Valve Locations

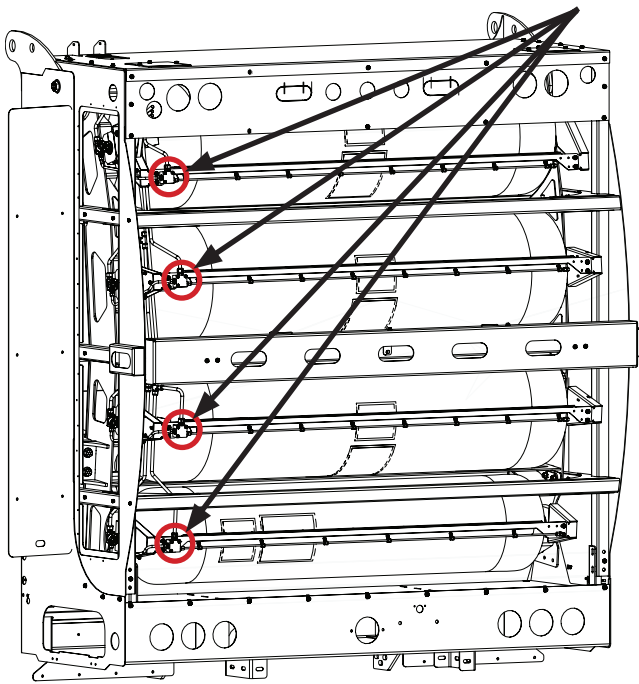


Illustration represents the PRD valve locations on the **Tailgate 60 DGE CNG Tanks** with the covers removed for clarity. You can access the PRDs through the opened side access door without removing the cover. See CNG System Configuration chart the number of PRDs on other tailgate CNG configurations.

PRD Valve Locations

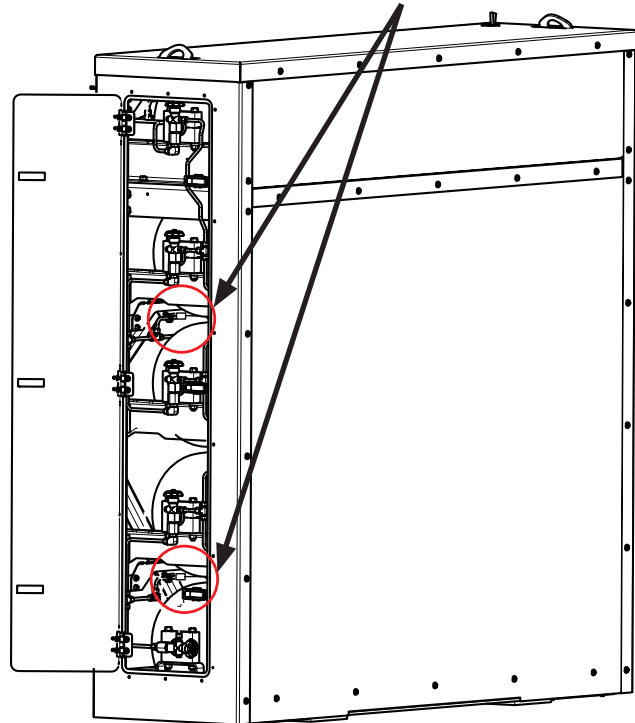


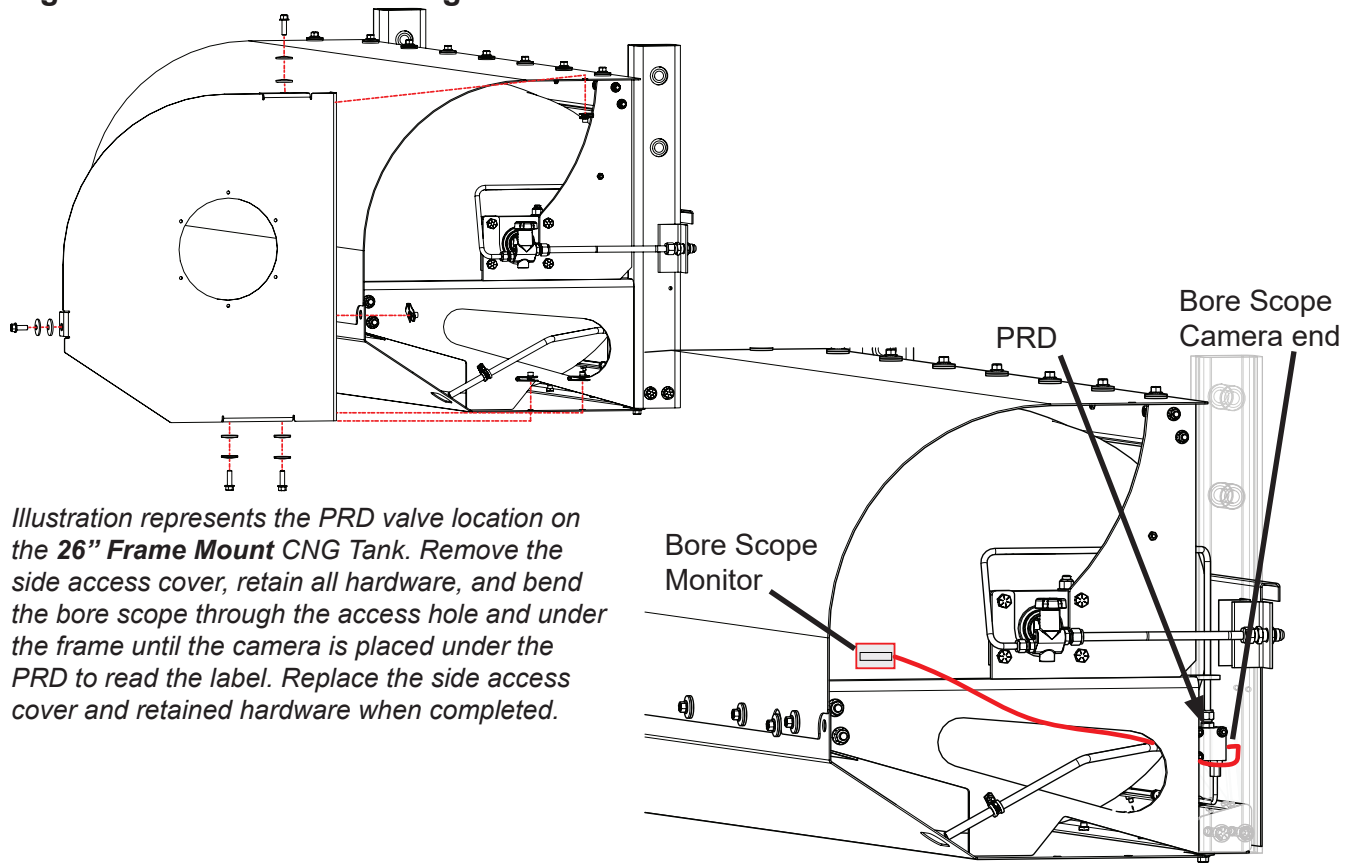
Illustration represents the two PRD valve locations on the **Back of Cab 60 DGE CNG Tanks**. Not pictured: 75 DGE CNG Tanks have three PRD valves.

**For the 26" Frame Mount:** Try determining the serial number by inserting the bore scope through the side access cover opening (follow Figure 3). If you cannot determine the serial number on the PRD using this method, follow the instructions given in Figure 4 to access the PRD from the underside of the system. Figure 5 shows two views of the PRD in proximity to the bracket and the location of the serial number label.

**⚠ WARNING**

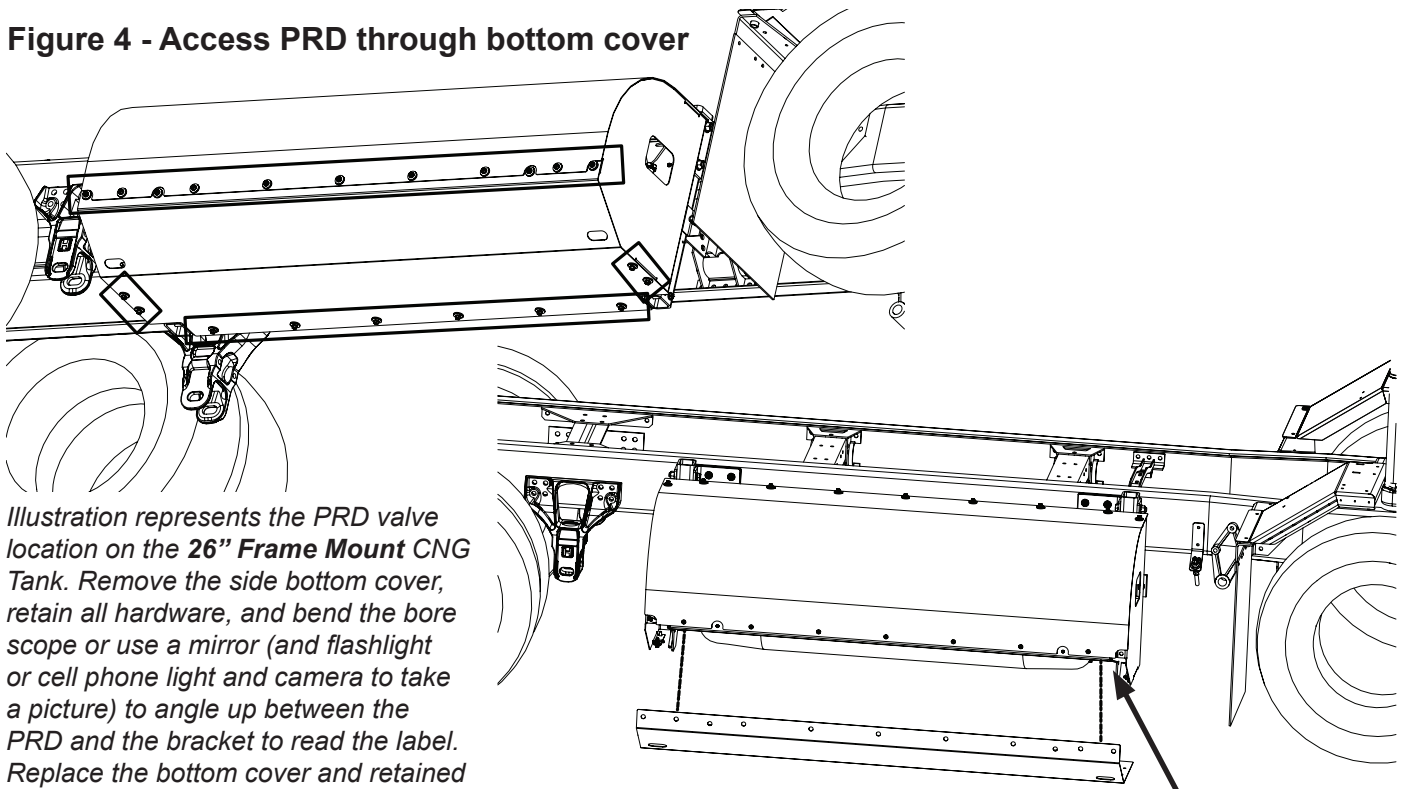
Do not put a wrench on any part of the PRD block, trigger line, or plumbing of the CNG system as parts of the system are under very high pressure. Failure to comply may result in serious personal injury or death.

**Figure 3 - Access PRD through side access cover**



*Illustration represents the PRD valve location on the 26" Frame Mount CNG Tank. Remove the side access cover, retain all hardware, and bend the bore scope through the access hole and under the frame until the camera is placed under the PRD to read the label. Replace the side access cover and retained hardware when completed.*

**Figure 4 - Access PRD through bottom cover**



*Illustration represents the PRD valve location on the 26" Frame Mount CNG Tank. Remove the side bottom cover, retain all hardware, and bend the bore scope or use a mirror (and flashlight or cell phone light and camera to take a picture) to angle up between the PRD and the bracket to read the label. Replace the bottom cover and retained hardware when completed.*

View PRD serial number label between the bracket and the PRD block



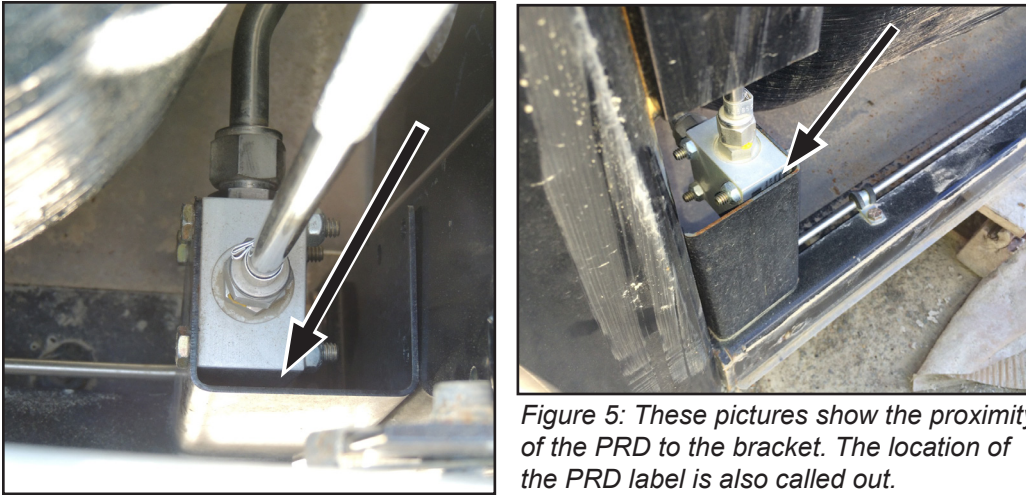


Figure 5: These pictures show the proximity of the PRD to the bracket. The location of the PRD label is also called out.

2. If the PRD was fitted on tanks assembled between (and including) 2013 and 2018 and the serial number on the PRD is as found in the attached list, the PRD valve will need to be replaced (see Figure 6 for location of serial number on the PRD valve).
3. Inspect each PRD valve on each CNG tank in the CNG system.
4. Obtain the Emcara Field Inspection Sheet from your Branch Manager. Fill out the sheet during the inspection.
5. Give the completed Emcara Field Inspection Sheet to your Branch Manager.

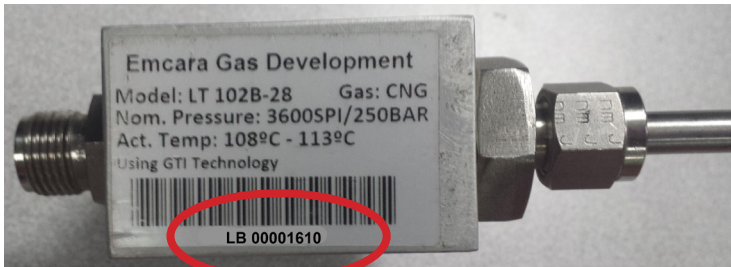


Figure 6: Inspect the serial number on each PRD Valve in the CNG system.

6. The inspection procedure is completed. Remove the conditions of Lockout/Tagout, reconnect the battery, and return truck to service.

If you have questions on the inspection process, contact McNeilus Truck and Manufacturing, Inc. at 888-686-7278.

**This bulletin is limited to Internal McNeilus Use Only. VSR-WI-003-A-Inspection Procedure**

Generally, there is a specific number of PRD valves found on the specific configurations of CNG systems. The chart below details the number of PRD valves per CNG system configuration.

<b>CNG System Configuration</b>	<b>Number of PRD Valves per System Configuration</b>
Front of Body Mount	2
60 DGE Roof Mount	2
75 DGE Roof Mount	2
60 DGE Back of Cab Mount	2
75 DGE Back of Cab Mount	3
Frame Mount	1 per frame tank
Tailgate Mount	1 per tank
60 DGE	2
75 DGE	3
90 DGE	3
105 DGE	4



**(888) 686-7278**



**VSR-TSB-027-A**  
**Emcara PRD Serial Number List of Suspect PRDs**

LB00001346	LB00001757	LB00002718
LB00001347	LB00001758	LB00002719
LB00001348	LB00002121	LB00002733
LB00001350	LB00002122	LB00002735
LB00001354	LB00002123	LB00002737
LB00001355	LB00002124	LB00002746
LB00001356	LB00002125	LB00002749
LB00001357	LB00002128	LB00002751
LB00001358	LB00002129	LB00002754
LB00001364	LB00002130	LB00003075
LB00001365	LB00002132	LB00003080
LB00001366	LB00002138	LB00003081
LB00001367	LB00002139	LB00003084
LB00001368	LB00002140	LB00003090
LB00001369	LB00002142	LB00003175
LB00001600	LB00002143	LB00003176
LB00001601	LB00002145	LB00003180
LB00001602	LB00002148	LB00003181
LB00001604	LB00002149	LB00003183
LB00001606	LB00002151	LB00003185
LB00001607	LB00002152	LB00003187
LB00001609	LB00002154	LB00003190
LB00001611	LB00002157	LB00003192
LB00001612	LB00002158	LB00003195
LB00001613	LB00002159	LB00003198
LB00001614	LB00002160	LB00003543
LB00001615	LB00002161	LB00003544
LB00001616	LB00002163	LB00003545
LB00001619	LB00002164	LB00003548
LB00001620	LB00002180	LB00003551
LB00001621	LB00002542	LB00003552
LB00001622	LB00002545	LB00003562
LB00001624	LB00002547	LB00003563
LB00001626	LB00002555	LB00003564
LB00001628	LB00002556	LB00003565
LB00001629	LB00002557	LB00003705
LB00001730	LB00002559	LB00003707
LB00001731	LB00002560	LB00003735
LB00001733	LB00002571	LB00003745
LB00001734	LB00002695	LB00003748
LB00001735	LB00002696	LB00003752
LB00001739	LB00002697	
LB00001747	LB00002699	
LB00001751	LB00002707	
LB00001754	LB00002710	
LB00001755	LB00002716	
LB00001756	LB00002717	