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Title: Gasoline Engine Bus Fuel System Issues

Applies To: PSI Gasoline Bus

Change Log

Please refer to the change log text box below for recent changes to this article:

10/19/2018 - Revised Evaporative System Test PDF file
10/17/2018 - Added Evaporative System Test step, added note for over stretching fuel fill line in Repair Steps, added note for clocking fuel receiver tie strap in the PDF document
10/11/2018 - Added clean dates for repairs, and note about orientation of flapper valve
09/24/2018 - Added new fill receiver bracket section
09/13/2018 - Added unacceptable fuel fill hose droop picture & made several repair step corrections

Description

This article identifies known fueling issues on the PSI 8.8 Gasoline Engine for Bus.

Symptoms

Diagnostic Trouble Codes & Dashboard Indicator Lights:

DTC/Light	Description
No Faults or Warning Lights	

Customer Observations or Concerns:

- Hard to fuel/Does not take fuel in
- Incorrect fuel level reading

Special Tools / Software

Tool Description	Tool Number	Comments	Instructions
Not Applicable			

Service Parts Information

Kit Description	Part Number	Quantity Required	Notes
Valve, Check, Fuel Fill Inlet (flapper/spit back valve)	4109247C1	1	

Diagnostic Steps

Fueling issues diagnostic steps

If a unit has a complaint of not taking fuel in, please take pictures of any issues found before repairs are made and submit it to technical support case file

Step	Action	Decision
1	**DIAGNOSTIC:** Difficulties fueling the Bus **YES/NO QUESTION?** Is the bus hard to fuel/not taking fuel in?	**Yes:** Go to Step 2 **No:** Go to step 6

Step	Action	Decision
2	**DIAGNOSTIC:** Verify fuel fill and vent orientation as per Figure 1 **YES/NO QUESTION?** Is the filler tube and vent line in the correct orientation?	**Yes:** Go to Step 3 **No:** Go to Repair steps for Filler Neck Alignment

Step	Action	Decision
3	**DIAGNOSTIC:** Inspect the fuel fill hose for excessive droop. Acceptable droop Figure 4 Unacceptable droop Figure 5 **YES/NO QUESTION?** Is the fuel fill hose withing acceptable droop range?	**Yes:** Go to Step 4 **No:** Go to Repair steps for Fuel Fill Hose Excessive Droop

Step	Action	Decision
4	**DIAGNOSTIC:** Check the gap between the fuel fill receiver bracket and the sill Acceptable - Figure 6 Unacceptable - Figure 7 **YES/NO QUESTION?** Is there excessive gap noticed?	**Yes:** Go to Repair Steps for Fill Receiver Bracket Repair **No:** Go to Step 5

Step	Action	Decision
5	**DIAGNOSTIC:** Check for sticking flapper valve/spit back valve. Check for any residue on the valve as per Figure 2	**Yes:** Go to Repair Steps for Valve replacement **No:** Go to Step 6

	YES/NO QUESTION? Is the valve sticking, or any residue seen on the valve? or Is valve orientated correctly with hinge (flat edge) side on top, see figure 2?	

Step	Action	Decision
6	**DIAGNOSTIC:** In Repair Steps, follow the procedure under Evaporative System Test to check for restrictions within Evap lines and canisters **YES/NO QUESTION?** Are the Evap lines and canisters free of any blockage and restrictions?	**Yes:** Go to Step 7 **No:** Repair as Needed. Verify the Repair Resolved the Complaint

Step	Action	Decision
7	**DIAGNOSTIC:** Checking for accurate fuel level **YES/NO QUESTION?** Is fuel level reading accurately?	**Yes:** End of Diagnostics **No:** Go to Step 8

Step	Action	Decision
8	**DIAGNOSTIC:** Checking fuel tank baffle locations as per Figure 3 **YES/NO QUESTION?** Are the fuel baffles in the correct locations?	**Yes:** End of Diagnostics **No:** Go to Repair Steps for Fuel Tank Replacement

Figure 1

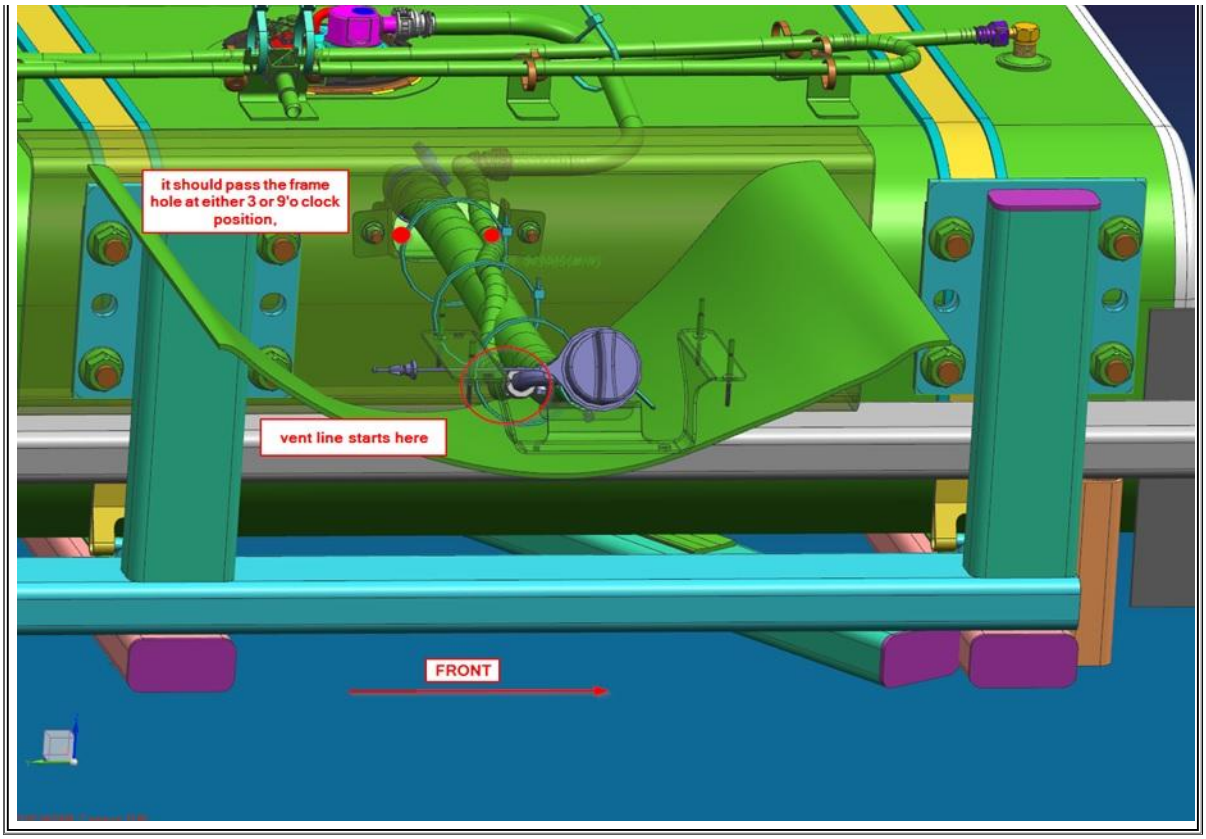

it should pass the frame hole at either 3 or 9'o clock position,
vent line starts here
FRONT

Figure 2

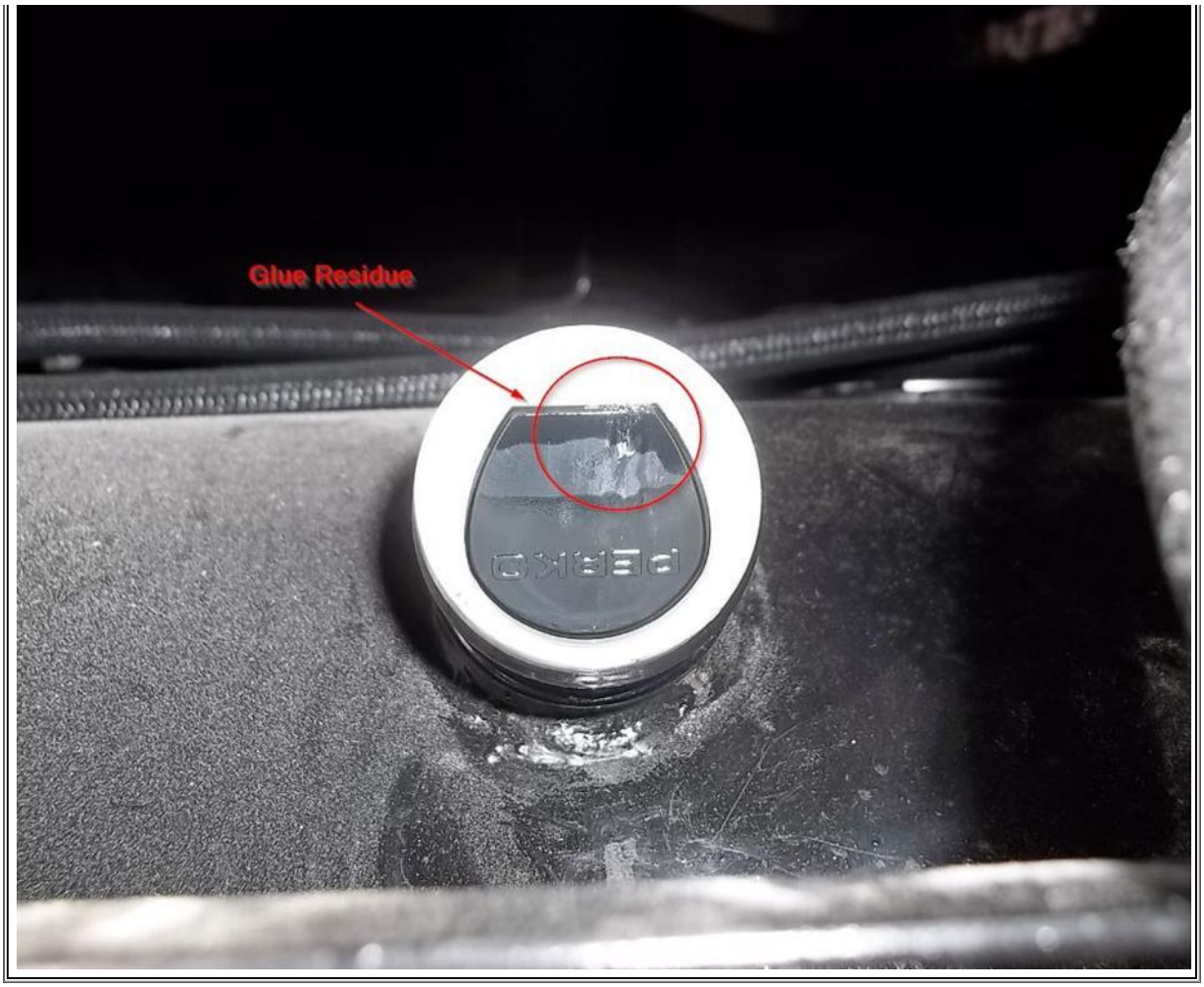


Figure 3

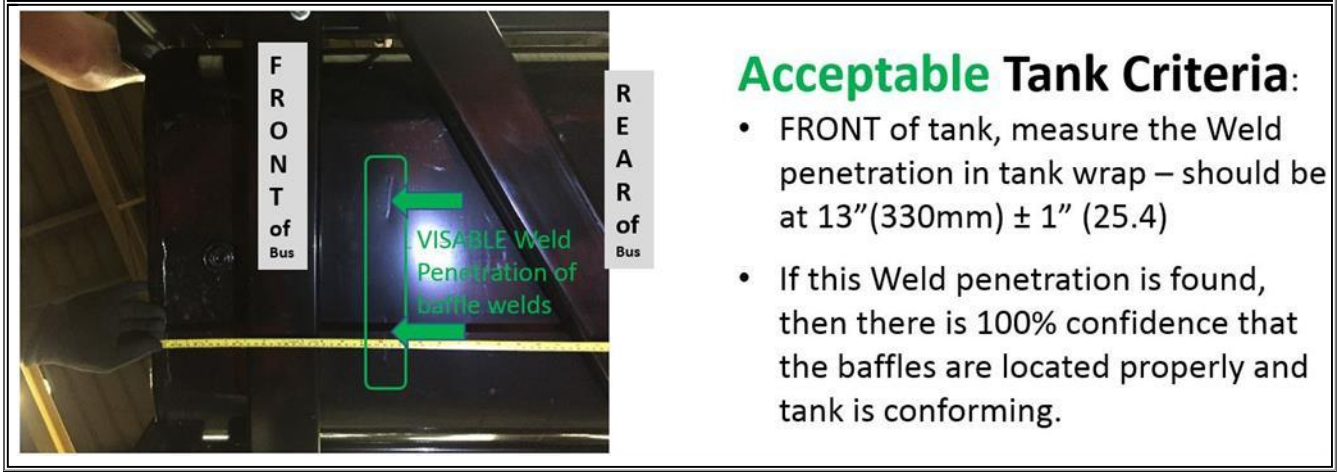
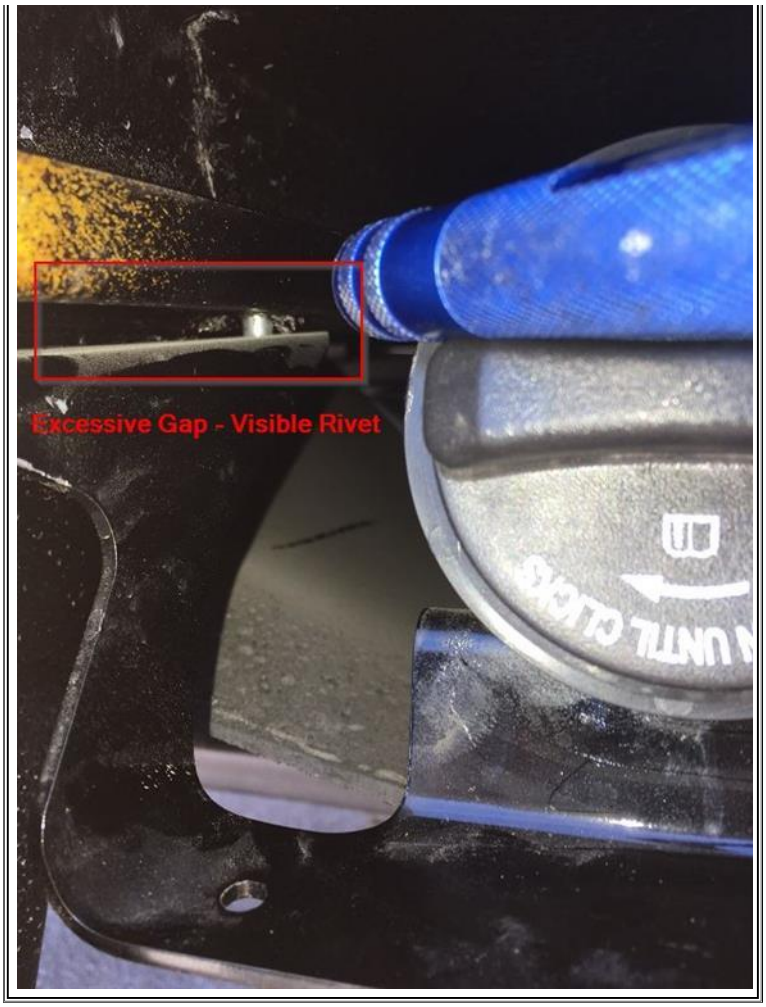


Figure 4 - Acceptable Fuel Fill Hose Droop

Figure 5 - Unacceptable Fuel Fill Hose Droop

Figure 6 - Acceptable Fill Receiver Bracket Gap

Figure 7 - Unacceptable Fill Receiver Bracket Gap



Repair Step(s)

Fuel Neck Alignment (Plant clean date 6/15/2018)

1. Step 1: Follow the procedure in the link on Step 2
2. Step 2: Fuel Neck Alignment Repair
3. Step 3: Verify that the fuel receiver tie strap is clocked in the correct position as per drawing in the procedure above

Flapper/Spit Back Valve Replacement (Clean date 7/2018)

1. Step 1: Remove the filler hose/line
2. Step 2: Pry off the old valve, clean surface of any debris on the fill neck
3. Step 3: On a new valve apply one drop of Loctite on the bottom of the valve to secure the valve to the fill neck
4. Step 4: Install the valve in the same orientation as it was removed, flapper part facing down and hinge (flat edge) on top (or as shown in Figure 2)
5. Step 5: Reinstall the filler hose/line, torque fill neck clamp to 38-42 in-lb

Fuel Tank Replacement (Clean date 6/11/2018)

1. Step 1: Follow the procedure in the link on Step 2
2. Step 2: Fuel Tank Removal and Installation Procedure

Fuel Fill Hose Excessive Droop (Clean date 9/10/2018)

1. Step 1: Disconnect the fuel fill hose from the filler neck
2. Step 2: Trim the fuel fill hose as needed
3. Step 3: Reattach the hose as per "Fuel Neck Alignment" steps above
4. Step 4: Make sure to torque fill neck clamp to 38-42 in-lb

5. Step 5: Verify the fuel fill hose is within an acceptable droop range
6. ***Note*** Do not over stretch the fuel fill line to the point it is effecting the angle of the fuel fill receiver

Fill Receiver Bracket Repair (Clean date 9/25/2018)

1. Step 1: Remove the fill hose protecting diaper
2. Step 2: Remove the fill receiver from the support bracket by cutting the zip ties
3. Step 3: Drill out the improperly installed rivets
4. Step 4: Mount the bracket flush to the sill with new rivets
5. Step 5: Reinstall the fuel fill receiver as per "Fuel Neck Alignment Repair" above
6. Step 6: Verify the gap is no longer visible

Evaporative System Test

1. Step 1: Follow the procedure in the link on Step 2
2. Step 2: Evaporative System Test

Warranty Information

Warranty Claim Coding:

Refer to the Warranty Coding Manual for Group and Noun Codes.

Standard Repair Time(s):

Refer to the SRT Manual for Repair Times

Other Resources

Master Service Information Site

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