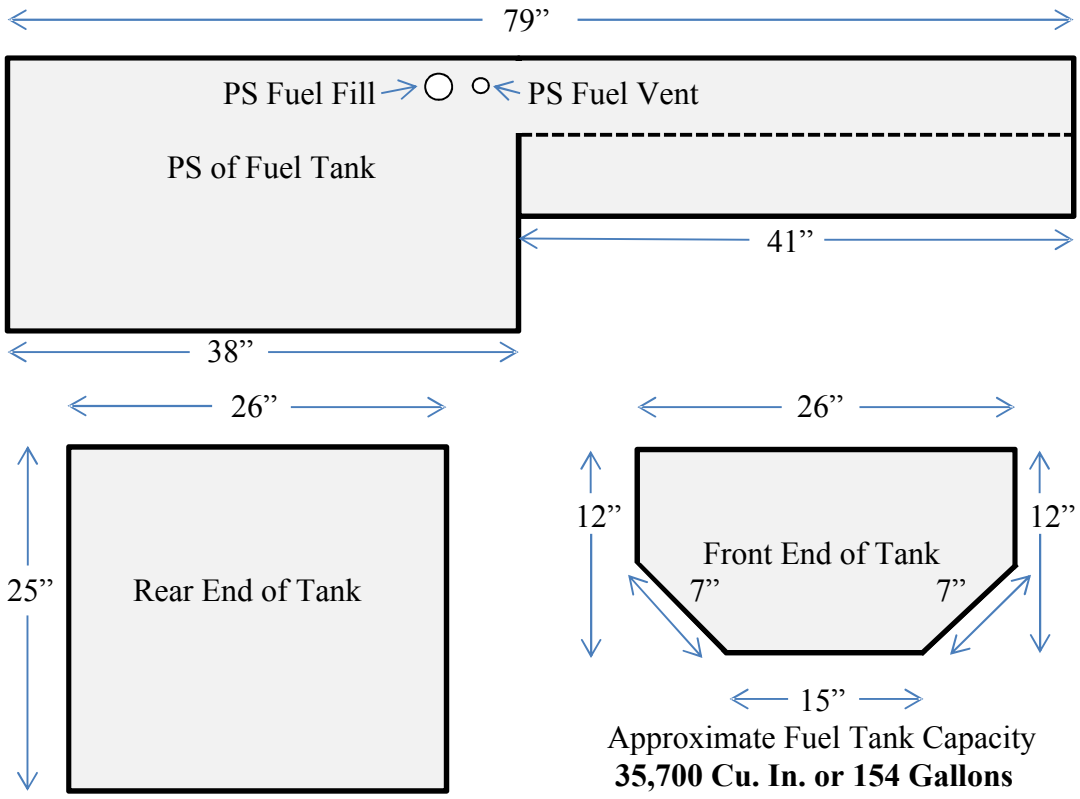
2010 43QGP Allegro Bus

10/20/2014

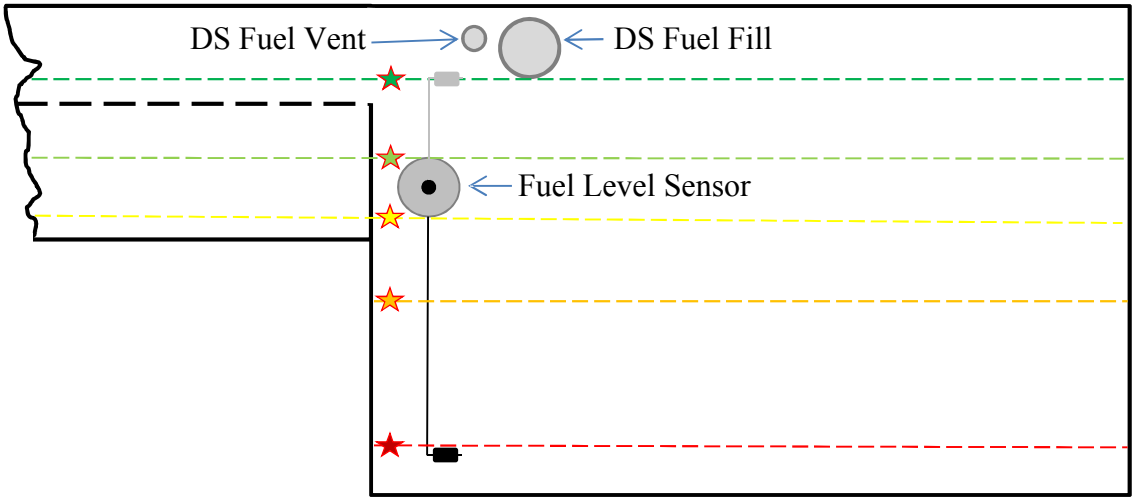
115 - FYI – ALLEGRO BUS POWERGLIDE FUEL LEVEL TANK SENSOR.

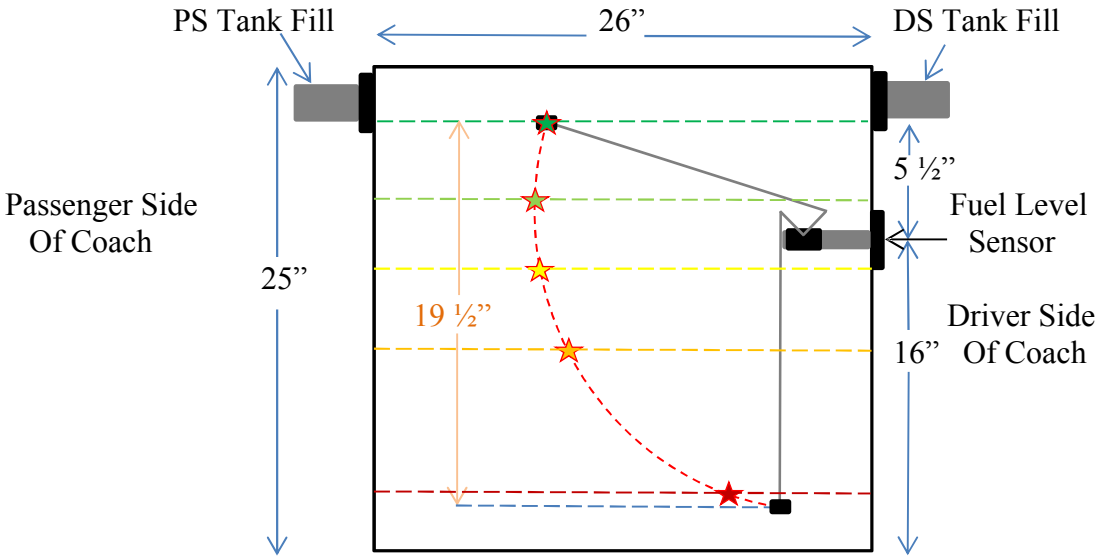
Two damaged side by side 150 gallon Allegro Bus Powerglide chassis fuel tanks.



Approximate Fuel Tank Capacity
35,700 Cu. In. or 154 Gallons

NO Scale on this page





RED dashed line is the ARC of the Fuel Sensor Float

Actual Fuel Gauge Display			
			Approximately **154** gallons of tank capacity
Full	= 32 Ohms	= ★	Approximately **128** gallons of fuel in the tank
¾ Full	= 55 Ohms	= ★	Approximately **97** gallons of fuel in the tank
½ Full	= 75 Ohms	= ★	Approximately **64** gallons of fuel in the tank
¼ Full	= 110 Ohms	= ★	Approximately **43** gallons of fuel in the tank
Empty	= 200 Ohms	= ★	Approximately **12** gallons of fuel in the tank

Scale on this page is 10” = 1”

After several days of testing the coach dash fuel gauge, fuel tank capacity and fuel sensor. I arrived at the above information.
I tested the resistance on three different 150 gallon tank fuel sensors arriving at the same conclusions, when the tank is FULL the tank sensors resistance is +/- 32 ohms. When the dash gauge is displaying empty the sensors resistance is reading 200 ohms at that point the next resistance reading is infinity.
After measuring the fuel tank on our coach those measurements are shown on page one of this document. As noted in RED the first page has NO scale while the second page is scaled at 10" = 1", for instance 26 inches of tank width is displayed on page two as 2.6 inches.
To determine the fuel sensors resistance when the tank fuel level was Full, ¾ Full, ½ Full, ¼ Full and Empty as displayed on the dash fuel level gauge on our coach various resistance values were inserted in place of the tanks fuel level sensor until the dash gauge displayed the fill level I was looking for, that information is found on the bottom of page two.

As seen in this photo of the dash fuel tank gauge, it is showing the fuel level is FULL the measured resistance of the fuel tank sensor is approximately +/- 32 ohms.

During testing various resistance values were inserted in place of the fuel tanks fuel sensor until the resistance in the circuit forced the gauge to display the following values Full, ¾ Full, ½ Full, ¼ Full and Empty.
After determining those resistance values a backup fuel sensor was bench tested by swinging the sensor float thru its arc, by doing this the float distance from the bottom of the tank for each tank level, Full, ¾ Full, ½ Full, ¼ Full and Empty was attained. Using the float to bottom of tank distance measurements, the fuel level was scaled and displayed on the two tanks located on page two, using five different colored stars ☆ and matching color dashed ------ lines.
Hopefully the time and effort used in researching testing and confirming the above information will benefit other Allegro Bus Powerglide owners as it has benefited me.