



VT-0019

003

BBK

**RECOGNIZING SOFT VEHICLE TANK VACUUMS**

This procedure addresses recognizing soft vacuum in vehicle tanks manufactured by Chart or NexGen Fueling. Use this procedure to identify if vacuum maintenance in LNG vehicle fuel tanks is needed.

- 1) Inspect the vehicle tank for the following events before it is sent into service for the shift:
  - a. Observe exterior of tank for sweating.
  - b. Touch the metallic shroud surface of the tank with one hand. Then with the same hand touch the metallic outer shell. Is there a noticeable difference in temperature between the tank shell and shroud? Is there a noticeable difference between the tank being inspected and tanks on other vehicles in the fleet?
  - c. Read pressure on the vehicle tank pressure gauge. Is the tank pressure higher than that of the rest of the fleet?
  - d. Check if tank is venting through vehicle tank relief valves.

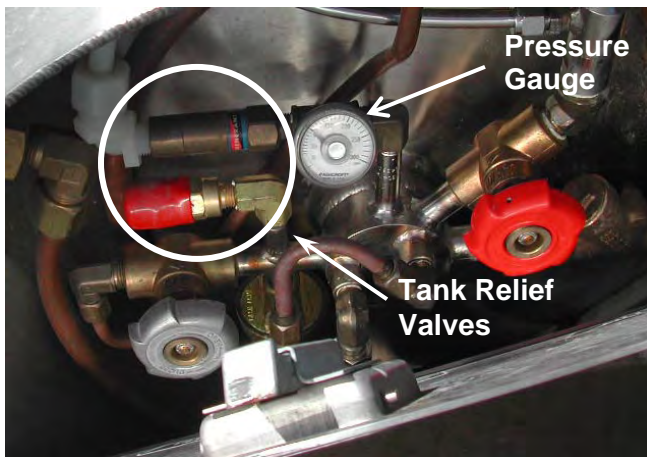


Figure 1

- 2) Test the tank pressure rise. Refer to Operations Manual for proper tank testing procedures. Check tank for the following items before conducting test.
  - a. Ensure vehicle tank is between 1/2 to 3/4 full.
  - b. Drive vehicle for 10 minutes to stabilize the tank pressure and temperature.
  - c. Ensure vehicle tank is at normal operating pressure. (economizer set point)
- 3) Allow vehicle to sit motionless for 15 minutes to stabilize the system.
- 4) Record tank pressure and time at which pressure was taken.
- 5) Allow tank to set for at least 8 hours.
- 6) Record vehicle tank pressure and time at which pressure was taken.

Rate of Pressure Rise	Recommended Service Action
Rise/8hrs = less than 10 psi	Tank is normal
Rise/8hrs = greater than 11psi, less than 29psi	Monitor tank and include vacuum maintenance at next periodic service for vehicle
Rise/8hrs = greater than 30 psi	Perform vacuum maintenance as soon as possible

**This procedure is for use by trained mechanics experienced with using Liquefied Natural Gas systems and vacuum technology. Review all pertinent safety documents before starting this procedure.**