

Betts Industries, Inc.

1800 Pennsylvania Ave. West
Warren, PA 16365 U.S.A.

Engineering Bulletin 3-2004

Date: October 13, 2004

Subject: Important Maintenance Procedure Required for Betts 8" Surge Suppression Pressure Relief Valve Models 8276ALTS and 8277ALTS

Pressure Relief Valves (PRVs) are designed to protect the tank from over pressurization. PRVs must be serviced at least one a year* to ensure proper functioning. Sand, grit, or product build-up on the sealing o-ring or in the sealing bore can cause the set pressure of a PRV to increase above safe limits.

* Betts Industries, Inc recommends maintenance to be performed annually. If the cargo tank is being used in a sandy, dusty, or extreme temperature environment, the maintenance may need to be conducted more frequently.



Pressure Relief Valves must be maintained on a regular basis to ensure proper functioning or damage to the tank may result, causing severe personal injury or death.

Per TTMA Technical Bulletin No. 92:

“Inspect pressure relief valves and normal pressure/vacuum valves with sufficient frequency, but no less than once a month, to insure they are operational. Corroded parts must be replaced. Valves that are filled with residue must be cleaned. If venting devices are not operational, do not operate the cargo tank until the venting devices are repaired or replaced. Failure to follow this procedure can result in liquid or vapor leakage and tank damage.”

Maintenance Procedure

1. Release all pressure in the tank prior to servicing the Pressure Relief Valve (PRV).



Failure to relieve tank pressure may result in sudden, unexpected loss of pressure. Severe personal injury or death may result.

2. Remove red *Plastic Plug(1)* by prying from top of 8" *Cover(3)* (See figure 1).
3. Unscrew *Stem Nut(2)* using a 7/8" socket wrench.
 - 3.1. If *Stem(5)* turns with *Stem Nut(2)*, grip *Stem Jam Nut(7)* with a 1" wrench from the bottom side to prevent *Stem(5)* from turning while unscrewing *Stem Nut(2)*.
4. Remove the 8" *Cover(3)* by pushing up from bottom as shown in figure 1 sub-view. Push evenly to prevent the 8" *Cover(3)* from binding in the PRV bore.
5. Thoroughly clean and inspect the *Seat O-ring(6)*. Remove all dirt, grit, or product residue. O-ring should be free of all nicks or scratches. Replace the o-ring if required.
6. Thoroughly clean and inspect the sealing bore. The bore must be smooth to ensure proper operation of the relief vent.

Betts Industries, Inc.

1800 Pennsylvania Ave. West
Warren, PA 16365 U.S.A.

Engineering Bulletin 3-2004 (continued)

- 6.1. The bore must be repaired if it is scratched or the epoxy coating is worn off. Lightly sand the bore by hand with a scotch-bright pad or very fine sandpaper. Clean the bore. Apply a thin, even coat of a high quality enamel spray paint. Allow paint to dry before continuing.
7. Lubricate the o-ring and bore with a light silicone lubricant rated for temperatures from -40°F to 250°F .
8. Replace the 8" Cover(3) and Stem Nut(2). Thoroughly tighten Stem Nut(2).
 - 8.1. If new Seat O-ring was installed, set relief valve upside down on a bench and fill bottom side of relief vent with boiling water. Allow water to cool to room temperature. This will cause the new seat to conform to the bore.

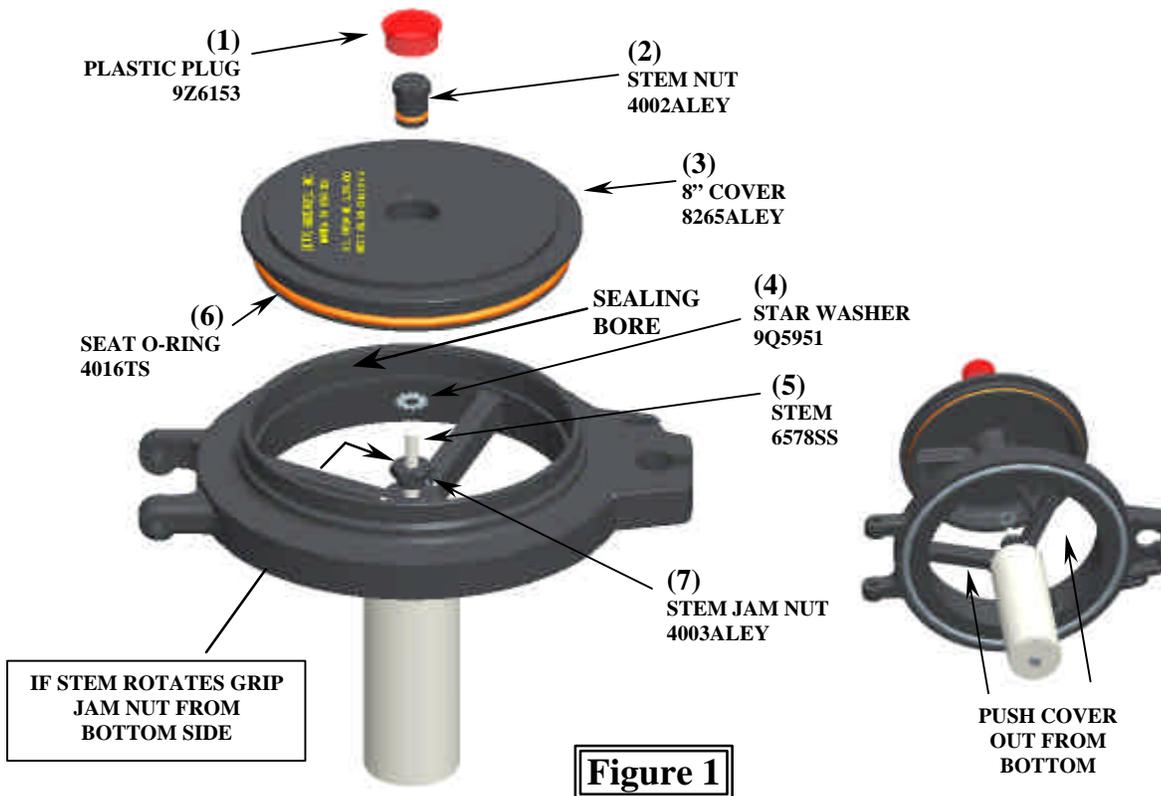


Figure 1

NOTE: If any corrosion or damage to the PRV is observed, it must be repaired and successfully bench tested prior to returning to service. Refer to Maintenance Manual for PRV bench test procedure.