


## Engineering Bulletin 2-2014

Date: January, 2014

Subject: Jack Screw Usage Instructions for Internal Air Emergency Valves

All Betts Internal Air Emergency Valves are equipped with a jack screw for manual opening in times of an air system failure. The instructions below must be followed to manually open a valve properly. Please note: All truck valve and piping configurations are unique and could present situations different from those pictured below.

	Jack screw port is in direct communication with truck piping. Ensure piping is empty and free of pressure, and exercise proper safety procedures during manual opening.
-----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------

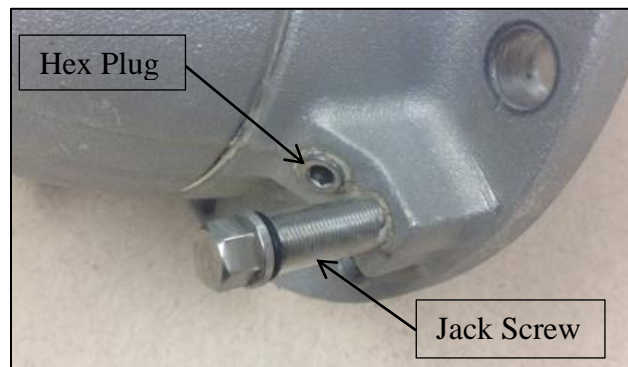


Figure 1: Jack screw and jack screw port

**Step 1:** Understand the jack screw configuration. Under normal operating conditions, the jack screw is stored in a blind hole holding location. A hex plug is installed in the jack screw port (Fig. 1).

**Step 2:** Remove jack screw with 7/16" wrench or socket. Remove clear plastic protector from threads of jack screw and set aside.

**Step 3:** Use hex on end of jack screw (Fig. 2) to carefully remove hex plug from valve body. Have an absorbant towel available as some leakage of residual product in piping may occur. Note: 3/16" allen wrench can also be used to remove hex plug.



Figure 2: Hex head on end of jack screw

## Engineering Bulletin 2-2014 (continued)

---

**Step 4:** If thread lubricant is available, lubricate threads of jack screw. Insert jack screw into jack screw port until o-ring engages with body (Fig. 3). Valve is now open, and product can be unloaded. Note: Manual opening with jack screw does not achieve 'full-open' position of the valve; unloading times will decrease.



Figure 3: Fully installed jack screw

**Step 5:** When product unloading is complete, remove jack screw and reinstall hex plug in jack screw port (if available, apply thread sealant or PTFE tape to hex plug threads). Place plastic thread protector on jack screw, and reinstall until jack screw bottoms out in jack screw holder (Fig.4). Check valve for leakage.



Figure 4: Valve after jack screw usage

Note: After the jack screw has been used to manually open the a valve, overall inspection of the valve is required as soon as practicable. Valve must be tested for pressure tightness and operability.