



COMPRESSED GAS ASSOCIATION, INC.

TECHNICAL BULLETIN

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INSPECTION AND CORRECT INSTALLATION PROCEDURE FOR TUBE TRAILER RELIEF DEVICE ELBOWS

DANGER: Worn threads or incorrect installation of elbow in jumbo tube trailer internal relief device can cause severe property damage, personal injury, and loss of life.

This technical bulletin provides inspection criteria to determine whether elbows that are part of internal relief devices (in-tube devices) can continue to be used safely. It also provides details on the correct installation of replacement elbows.

Inspection of relief devices at time of requalification

At the time of retest of the tube, the relief device should be disassembled and inspected. This inspection should include the visual examination of all relief device components and the gauging of their threads. Contact the manufacturer for thread sizes and classifications. All component threads should be gauged in accordance with Federal Standard H-28, *Screw-Thread Standards For Federal Services* [1]. All gauging of threads should be performed by qualified personnel using properly calibrated gauges to ensure accuracy.

Use only original manufacturer's parts in the repair of devices.

Installation procedure

For internal style, pressure relief device (PRD) assemblies, installation should be in accordance with the manufacturers' recommendations. The manufacturers' recommendations shall override conflicting instructions in this bulletin. The figures that follow show the progression of the installation procedure for tube trailer relief device, lock nut, elbow and vent tube.

Figures 1 and 2 illustrate a typical front internal relief device body (PRD body) that is screwed into the tube. Install this device in accordance with manufacturers' recommendations.

Figure 3 represents the typical installation of the lock nut on the elbow. As noted, the lock nut should be fully installed to the back thread of the elbow.

Figure 4 illustrates the typical installation of the elbow into the PRD body. The elbow is installed to the face of the PRD body, hand tight until the lock nut touches the face.

Figure 5 illustrates the typical alignment procedure for installation of the vent tube assembly. As noted, the elbow should not be unscrewed in excess of one turn for radial alignment to the vent tube. The vent tube should be adjusted at its top securing apparatus if depth alignment is necessary.

Figure 6 illustrates the lock nut being screwed to the face of the PRD body and then torqued. Torque the lock nut to the manufacturers' recommendations.

Field check

It has been reported that a number of trailers and modules containing front internal relief devices (in-tube devices) currently contain elbows that are not properly installed. For this reason it is recommended that a field check be performed. Figure 7 illustrates a gap gauge being used to check for proper elbow engagement. Figure 8 shows an improperly installed elbow. Some manufacturers have manufactured gap gauges as a quick check for field use. Contact the manufacturer for recommendations on checking elbow engagement.

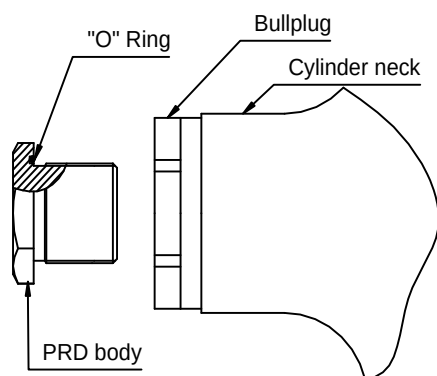


Figure 1—Typical front PRD body

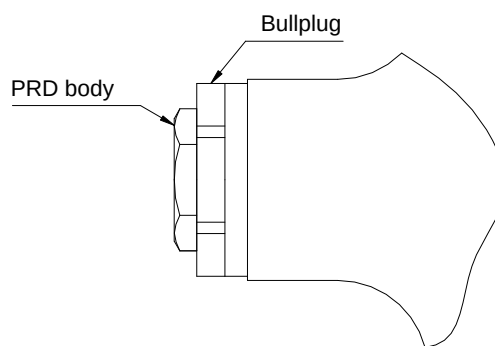


Figure 2—Typical front PRD body installed

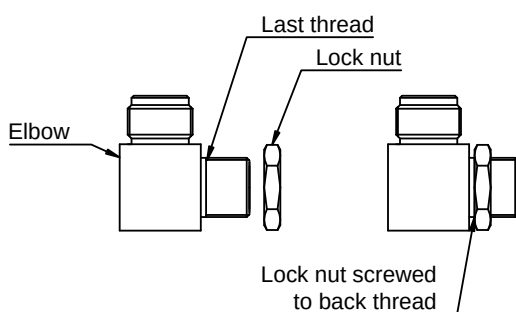


Figure 3—Typical installation of lock nut on elbow

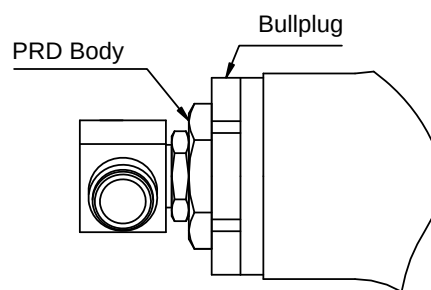


Figure 4—Typical installation of elbow into PRD body

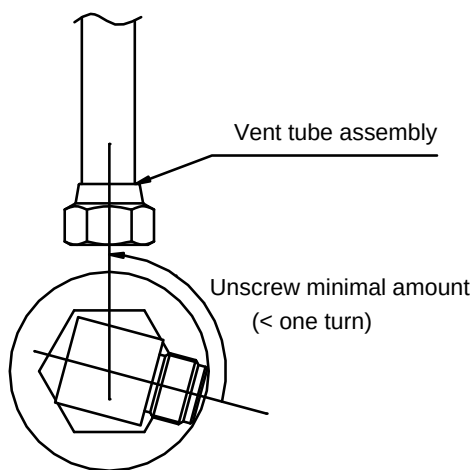


Figure 5—Typical alignment of elbow for installation of vent tube assembly

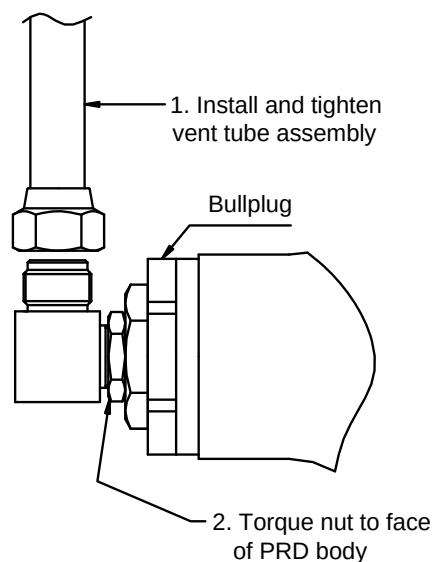


Figure 6—Sequence of vent tube installation and securing of lock nut