

FIG. 1 Pressure Relief Valve

THE GAS SPACE above the oil in the URS Tap Changer is vented to the outside air by a unidirectional relief device; its general construction is shown in Fig. 1. When the pressure exceeds one pound per square inch, the gas space is vented to the outside air to reduce the pressure to this limiting value. As the pressure diminishes, the relief valve closes to prevent in-breathing; oxygen and moisture are thus kept out of the tap changer compartment. The tap changer is designed to withstand the resulting negative pressures. A screen is provided for both the inlet and exhaust ports of the relief valve to keep foreign material and insects out.

The relief value is set at the factory and its adjusting knob sealed with solder. The out-breathing pressure is stenciled on the adjusting knob.

Adjustment. The adjustment of the pressure relief valve should not be changed unless absolutely necessary, in which case the following procedure is to be observed:

1. Remove the solder seal by scraping away the solder. Do not attempt to remove the solder

by *melting* as excessive heat may damage the diaphragm.

2. Unscrew (counter-clockwise) the adjusting screw from the pressure relief device.

3. Scrape the solder from the threads. This is absolutely necessary to prevent the soldercoated threads from galling when the plug is screwed back into the relief device.

4. Screw plug into the relief device until the proper out-breathing pressure is obtained. Screwing the plug in, to the right, increases the outbreathing pressure. Before resealing the relief valve setting, its operation should be checked several times to permit the spring and diaphragm to adjust themselves to the new setting.

5. Seal the relief valve setting with a drop or two of solder, being careful to avoid overheating of the diaphragm.

Caution: Remove valve before painting equipment to prevent clogging vents with paint. Be sure vents are open at all times.

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