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Instruction Manual for Models A1325 & A1326 Hydrostat Relief Valves

August 1996

Form FVC 033

KEEP THIS DOCUMENT WITH THE PRODUCT UNTIL IT REACHES THE END USER.

WARNING

A person should NEVER stand directly over or in front of, or look directly into a hydrostatic relief valve. The relief valve could suddenly “pop” open blowing gas, liquid NH₃, dirt, and other debris into the person’s face and eyes.

This equipment must be installed, operated, and maintained in accordance with federal, state, and local codes and manufacturer’s instructions. In addition, in most states the installation must also comply with ANSI K61.1 standards. To insure long term safe operation, the manufacturer recommends that under normal service conditions this product should be inspected at least once every five (5) years and be repaired or replaced as required.

CAUTION: Only personnel trained in the proper procedures, codes, standards, and regulations should install and inspect this equipment. Failure to follow these instructions or to properly install and maintain this equipment could result in property damage and personal injury or death. Proper safety equipment must be worn (i.e. gloves, goggles and protective clothing).

Introduction

SCOPE OF THE MANUAL:

This manual covers instructions for the A1325 hydrostatic relief valves which are used wherever liquid NH₃ is present or may be trapped in a line.

THINGS TO TELL THE CUSTOMER:

- 1: The purpose of a hydrostatic relief valve is to keep the hose or pipe from rupturing from excessive pressure by venting liquid or gas to the atmosphere until the pressure in the line drops. Excessive hose or pipe pressure can be caused by exposure to fire or radiant heat, including hot summer days
- 2: Do not beat, pound, or hit the relief valve with hammers or other tools or attempt to force the valve closed as this will not stop liquid or gas discharge and could damage relief valve parts.
- 3: Call your dealer if the relief valve has discharged and failed to reseal or shut off. Shut down the system.

Specifications

CAUTION: If the valve is to be for service other than anhydrous ammonia or air, contact the factory to determine if the valve materials re-suitable for that particular service. Be sure the valve is rated and stamped to meet the requirements of the state where it will be used.

The start-to-discharge pressure stamped on the valve must be correct for the design pressure of the system. Do not use a valve with a start-to-discharge pressure higher than the design pressure of the system. The start to discharge pressure may vary plus or minus 5% from the pressure stamped on the valve.

Installation

Installed valves must have direct contact with the liquid zone of the system.

Install the valve so that flow is unobstructed.

Coat the male threads of the valve with an Underwriters’ Laboratories listed sealing compound. Do not allow excess compound to drip into the system or flow around the bottom edge of the pipe threads.

Install the valve into the line piping or valve hand tight, and then wrench tighten it for approximately two additional turns. Do not install the valve with extreme torque. This could cause valve distortion and affect the internal working parts.

Raincaps are required on all valves. The raincap should be kept in place; an out-of-place raincap indicates the valve may have opened to relieve overpressure. Raincaps are supplied with each new hydrostat.

(OVER)

Installation (cont'd)

REFER TO FIGURE 1 TO THE RIGHT:

The relief valve is held closed by the spring force seating the rubber valve disc against the orifice.

When the hose or pipe pressure exceeds the spring force, the valve disc lifts off the orifice allowing liquid or gas to discharge through the valve to the atmosphere.

Liquid or gas discharge initially may be small producing only seepage and a light "hissing" sound. As pressure increases and liquid or gas volume discharge continues, a "popping" condition occurs with large volumes of liquid or gas discharge and a loud "hissing or roaring" sound.

When the hose or pipe pressure decreases enough, the spring force closes the valve disc back against the orifice stopping further discharge.

Call your dealer if the relief valve fails to reseat or shut off. Shut down the system.

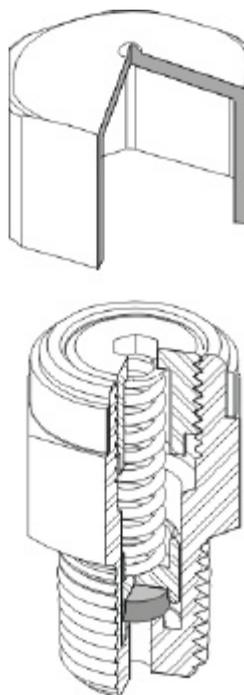


FIG. 1

Maintenance and Replacement

Hydrostatic relief valves are nonrepairable valves and cannot be adjusted in the field.

Any valve that has fully opened "popped" should be tested to see if it is within the allowable start-to-discharge pressure setting. If it is not within the correct range, it must be replaced. Relief valve start-to-discharge and reseat pressures may be lower if the valve has fully opened (popped).

Some relief valve installations require periodic testing or replacement, such as those required by ANSI K61.1 and/or any applicable local codes. It is recommended that all relief valves be regularly inspected for visible damage, dirt, corrosion, missing raincaps, paint inside outlet, tampering, etc. If any of the preceding is evident or questionable, the valve should be replaced immediately.

The discharge side of the relief valve body must be kept free of dirt, water and other foreign matter which can damage the valve seat or jam the poppet to the valve body. Raincap must be in place at all times. This can prevent the valve from opening. Replace valve when this occurs.

Relief valves are precisely set by the manufacturer for the correct start-to-discharge setting, and field repair should never be attempted. Since the disc in a relief valve is subject to normal deterioration, the manufacturer recommends that a relief valve not be used for longer than 5 years from date of manufacture. Earlier replacement may be required due to severe service conditions or code requirements.

Limited One-Year Warranty

Squibb-Taylor warrants the product identified herein to be free from defects in material and workmanship under normal use and service. If, within one year from the date the product is shipped from the factory, any unit fails to meet customer satisfaction, it will be replaced free of charge by Squibb-Taylor, FOB Dallas, Texas.

The owner's responsibility is for normal maintenance and any servicer's travel and labor charges.

This warranty shall not apply if the product has been subjected to unreasonable use, negligence, accident in transit, alteration, improper installation or misapplication.

Squibb-Taylor shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control including without limitation war, government restrictions or restraint, strikes, fire, flood, or a shortage or reduced supply of raw material.

There are no express warranties other than set forth above. All implied warranties including the implied warranties of merchantability and fitness for a particular purpose are limited to the duration of the express warranties set forth above. Liability for consequential damages under this warranty is excluded to the extent exclusion is permitted by law.

This warning gives you certain rights and you may have other rights which vary from state to state.