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TECHNICAL BULLETIN ISSUED: 19 July 2009 DOCUMENT: TB 020

TECHNICAL BULLETIN ETI RELIEF VALVES

PREAMBLE

A safety relief valve is required under AS 5062-2006 to protect users of foam storage cylinder from over pressure accidents. The original burst disks will no longer be included as part of normal production. Recently, ETI has released a new spring loaded relief 20 bar valve as part of its product package. For cylinders using the 20mm ETI Dual action valve, this is now mounted in the filler plug. For the LES 12mm Valve it is mounted on the valve itself. Most of this is all detailed in the 5th edition Technical Manual. However this technical bulletin is also being released to give more specific information and also detail changes to the LES valve not shown in the current manual.

BURST DISKS.

Burst disks were originally used on both 20mm and 12mm Dual actuation valves.

PART BURSTDSKIT15 - Burst Disk for 12mm valve.

PART BURSTDSKIT20 - Burst Disk for 20mm valve.

These will be deleted from production as of now and replaced with an alternative relief valve as described later in this document.

Burst disks were found to need a high degree of familiarity for their reliable use. For systems still using these, we recomend the following procedure and torque settings. Ensure the seat and burst disk plug are clean. Lubricate the rubber seats of the burst disk with petroleum jelly. Tighten to the following torques:

PART BURSTDSKIT15 - 12 - 15 Nm.

PART BURSTDSKIT20 - 30 - 35 Nm.

When pressurising the system, standard leak testing should be undertaken. We recomend soapy water applied with a simple paint brush to confirm there are no nitrogen leaks. The new relief valve may be fitted to older systems if preferred. For the 20mm valve, simply replace the filler plug with the new type using the new relief valve and plug off the burst disk port on the valve. For the LES system the new relief valve and cover may be screwed directly into the old burst disk port providing a manual valve actuator is not being used.

NEW RELIEF VALVE SYSTEM

20MM VALVE. For the 20 mm valve, an approved 20 bar spring loaded relief valve is now mounted in the filler plug. This is protected form the environment by a plastic plug which is also signed accordingly.







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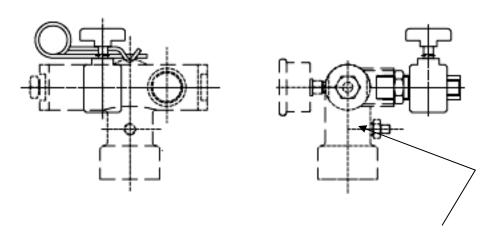
PART CPPLUG32R - Assembly - 1 ¼" BSP plug, relief valve and cover PART CPPLUG38R - Assembly - 1 ½" BSP plug, relief valve and cover

SPARE PARTS

PART CPPLUG32 - Brass filler plug - 1 1/4" bsp brass. PART CPPLUG38 - Brass filler plug - 1 1/2" bsp brass.

PART RELIEF20B - Relief valve - 20 bar.

The original manual valve actuator option operated by puncturing the burst disk, thereby discharging the valve. With the deletion of the burst disk, a new Loss of Pressure manual valve actuator has been designed. As a result, the top port that previously mounted the burst disk will be deleted. The LOP side port will be increased to ½" BSP to give the mechanical strenth required to mount the Loss of Pressure manual valve actuator if that option is used. This modification will be done to both 12 and 20mm valves and this actuator will fit both valve sizes.



LOP Manual Actuator mounted Dual actuation valve.

Part – VALVEMAN20LOP

CHANGES TO 12MM VALVE (LES SYSTEM)

The photo below shows the original LES system using the 12mm valve (part - VALVEDASSY15) mounted on top. Because there is no filler port, as on the 20mm valve cylinders, the valve has slight design changes to accommodate the relief valve as part of the main valve assembly.

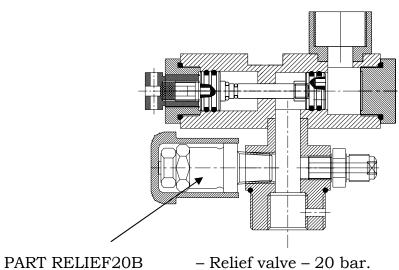




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The Valve will be extended in height slightly and the releif valve will be mounted underneath the valve under the LOP chamber. The relief valve will be the same part number as used in the 20mm valve system. A plastic cap that press fits over the valve is used in this application to protect the valve from dust intrusion. The charge valve will now also be brought down to the forward position of the valve. See diagram below.



PART RELIEF 20B - Relief valve - 20 bar.

- Relief valve cover - plastic.

Please do not hesitate to contact our technical department if further assistance is needed.

Yours Truly

LEIGH WALDON
Technical Director

L D Waldon

PT. ETI Fire Systems