



TECHNICAL BULLETIN
ETI FIRE SYSTEM
LOP DETECTION BYPASS

Some customers have queried a property of ETI Loss Of Pressure (LOP) systems in service, and subsequently the intent of this bulletin is to clarify how the ETI system is designed to work with the ETI dual valve.

When an LOP detection or manual actuation arrangement is connected to the ETI system, the system may be charged at the valve or the manual LOP actuator if fitted. The valve allows equalisation of pressure between the cylinder and the actuation system pipework.

The valve is designed such that if a small leak occurs, the cylinder will keep equalising the detection circuit. This is designed to prevent false alarm actuations, when the system only has a small leak, a problem that is prevalent on other LOP systems. This also means that if a leak occurs, it is normal that foam solution will track into the action circuit to the leak. Foam solution in the actuation circuit is not a cause for concern as it will not prevent the system from actuating and nor does it provide a corrosion issue.

With a leak in the actuation circuit, the operator may notice a small amount of foam being released and subsequently report the fault. If the leak continues for a long enough period, the low pressure alarm system should notify the operator accordingly. If a leak is discovered, the technician may have check and re-charge the cylinder, if it has been determined that a significant amount of foam has been lost. If the low pressure alarm has already sounded, it is likely that a significant amount of solution has already been lost.

When LOP fire detection tube is used; a rupture due to fire will result in some foam being delivered to the point of rupture during the discharge. This is normal and has no adverse effect on discharge as the small amount of foam discharged here is actually released at the point the fire was detected. If a test is done on the system, there will subsequently be foam discharge at this point during the test.

If however, an all LOP system is built, using LOP manual actuators, it will be undesirable to have foam bypass to the manual actuator during discharge. For this reason, backflow seals are to be fitted **ONLY** when LOP manual actuators are fitted. See fig 1 and technical manual for correct part numbers. During discharge, these seals seal off the gland to the actuation chamber, and prevent foam bypass to the manual actuator. These seals however will not prevent normal by pass if a leak occurs as described above.

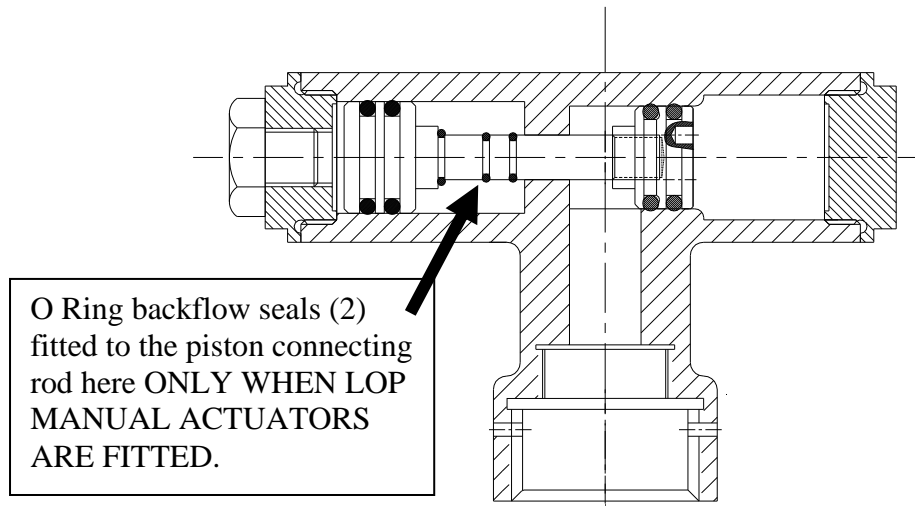


FIG -1

WARNING O ring backflow seals are not to be fitted when any ROP devices are connected. This is because the seals can cause a pressure lock in the actuator chamber and prevent the valve from effectively opening, resulting in slowed discharge.

Yours sincerely

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