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SB54F

DETAILED SPECIFICATION

HALE TPM TOTAL PRESSURE MASTER RELIEF VALVE SYSTEM
TOTAL RELIEF VALVE SYSTEM

Relief Valve Protection When Operating From Draft or Positive Incoming Flows

The apparatus pump shall be equipped with a variable relief valve system designed to automatically relieve excessive pump pressure when operating from draft or positive incoming flows. The system shall self-restore to the non-relieving position when pressure is no longer present.

The relief valve system shall be totally mechanical and consist of an internal relief valve to bypass water to the suction side of the pump, an external relief (dump) valve to discharge water to atmosphere, and a single panel mounted control valve to provide complete control of pump pressure to the pump operator.

A single panel mounted control shall permit the pump operator to "set" a desired relief pressure for both internal and external relief valves. The panel control shall have an easy to read and easy to set adjustment with indication of pressure setting.

The total relief valve system shall function by monitoring and controlling pump pressure and relieve excessive pressure by first utilizing the internal relief valve (returning flow to the pump suction). If excessive pressure remains a secondary external relief valve responds by discharging excessive pressure to atmosphere. The staging of the internal and external relief valves to operate in series ensures maximum protection against over pressure and eliminates the indiscriminate discharging of water to the ground.

The external relief (dump) valve shall be mounted on the discharge side of the pump where discharged water flowing through the valve provides a self-cleaning process and virtually eliminates the possibility of the valve remaining in an open position due to contamination.

One amber light shall be provided on the pump operator's panel which shall illuminate when the internal relief valve is open. The same light shall flash intermittently when both the internal and external valves are open.

Both relief valves shall be designed to open into discharge flows which provides the advantage that in a normally closed position both relief valves are maintained in a closed position by virtue of pump discharge pressure.

All functional components of the relief valve system that are in contact with water shall be bronze material.

The total relief valve system must meet all existing NFPA Standards for Pressure Control Devices and Intake Pressure Relief Systems incorporated into one interconnected system.

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