

Section 2

Description of Installed Services

2.01 FIRE HOSE REEL SERVICE

From the mains cold water service a 54mm valved connects to the basement 1300 litre sectional GRP water break tank feeding the fire hose reel service. This tank is manufactured by DEWEY WATERS and is fed via a ball valve. The 65mm tank overflow discharges onto the plantroom floor. The tank provides the feed water to the fire hose reel system via a valved connection.

The fire hose reel booster pump set is manufactured by HOLFELD (PUMPS) LTD thier type HCR8/100/2.

The unit comprises duty and standby pump set isolation valves, non-return valves, 200 litre accumulator, control switches and pressure switches.

On detection of a motor overload the control panel will initiate a changeover from duty to standby pump. It is, however, the intention to incorporate a pressure gauge or switch to dictate the operation via the control panel, to give automatic changeover from duty to standby pump, should the duty pump fail. The whole unit is assembled and tested on a common framework, complete with gate valves, test cocks and non-return valves. The pressure switch is set to operate under prevalling site conditions. All pumps and associated controls comply with London Fire Brigade Regulations.

When the system is at rest it is pressurised to the maximum head produced by the pump. This is retained by the non-return valve and small diaphragm vessel. When a hose reel is opened, the pressure in the pipeline will fall quickly and when this reaches a set point at the highest reel the pressure switch will start the selected pump. This will then increase the pressure at the top reel, but if for any reason the selected pump does not raise the pressure in the pipeline after the call in from the pressure switch, then after a timed period of ten seconds the standby pump will be started. After having been started, a time-switch wired to the starters provides a minimum run of three minutes, to overcome any 'hunting' of the pressure switch. The pump will continue to provide the necessary pressure whilst any reel remains in use, and finally stop when all reels are closed and the timing period has expired.