PH PUMP

OCS owned PH pumps are skid mounted Air driven high pressure pumping unit, which is used for hydro static testing of pipelines. This pump is a normally used for hydrostatic testing of pipelines with high pressure requirements. OCS's owns 5 no's of PH pumps. Out of five of this PH pumps, two pumps are of 5L-SS-45 series and two pumps are of 5L-SS-60 series and one pump is of 5L-SS-115 series.

These pumps consist of 3 basic sections, each with their specific functions. i.e.;

1. Drive Section: Provides reciprocating force to the pump section
2. Pump Section: Provides the pumping action for high pressure output.
3. Cycling Section: Consists of the directional control air valves built into the drive enabling the drive to reciprocate continuously whenever air is applied to the drive input.

The specifications of these high pressure air driven liquid pumps are as below:

Description	5L-SS-45	5L-SS-60	5L-SS-115
Maximum Outlet Pressure - psi (bar)	6750 (465)	9000 (620)	9000 (620)
Litres per min	0.91 @ 45 cycles/min 1.22 @ 60 cycles/min 2.44 @ 120 cycles/min	0.65 @ 45 cycles/min 0.86 @ 60 cycles/min 1.75 @ 120 cycles/min	0.35 @ 45 cycles/min 0.47 @ 60 cycles/min 0.94 @ 120 cycles/min
No of units	2	2	1

It is important to regularly review the list of critical spare parts of the equipment before each project. Common problems occur in these units during the operation include the leakage through seals. These pumps incorporate a spool type directional control valve that is the heart of the cycling system for the drive. This valve depends on dynamic O-rings which should be wiped clean and regreased for reliable operation. The frequency will be determined by variables such as air moisture content, contamination, cycle rates and overall duty cycle of individual applications. The typical symptom indicating need for regreasing the O-ring is slow, errating cycling. It is suggested that a note be made of the frequency of this slowdown, so that it can be predicted, and then the O-rings cleaned and regreased at a convenient shutdown to insure uninterrupted operation.

Where failures occur during operations Equipment bulletins will be issued to document the problem and the remediation solutions applied. The equipment bulletin will be circulated to all field engineers to be informed about the possible failure that can occur during the operation and thereby avoid future failure.

This equipment file remains a live document and will be constantly updated by the equipment department.