

SAA09SY03-001 JAN 24 1992
REV. D
B/L: 7
SYS: PAD A WATER,
MLP-3

Critical Item: Ball Valve, Pneumatic Operated (1 Item)

Find Number: A88280 (V-18)

Criticality Category: 1S

SAA No: 09SY03-001, Rev. D

System/Area: Pad A Water, MLP-3

NASA Part No: None

PMN/ Name: K60-0046/
Firex Water, MLP-3

Mfg/ Part No: Jamesbury/
6D300F-36D with pneumatic
piston actuator and
position limit switch

Drawing/ Sheet No: 79K06011/1

Function: To control Firex water flow to Cryo sled MLP-3 side 1 area spray nozzles.

Critical Failure Mode/Failure Mode No: Fail closed/09SY03-001.010

Failure Causes: Caused by corrosion, contamination or structural failure of internal piece part.

Failure Effect: Loss of Firex spray, Cryo sled MLP-3 side 1 area. Possible loss of life or vehicle during a hazardous condition. Time to effect: Immediate.

Acceptance Rationale

Design:

- o 316 Stainless steel body - Teflon ball seats
- o Component Specification

	<u>Rated</u>	<u>Actual</u>
Working Pressure	720 psig	240 psig

Test:

- o Manufacturer hydrostatic test 1100 psig
- o System pre-mission validation (OMI M2075) requires cycling of water valves to verify proper operation.

Ball Valve, 6-Inch Pneumatic Operated (1) A88280 (V-18) (Continued)

Inspection:

- o OMRSD, File VI will require verification of the operational function of the water valve in all modes of operation semiannually and at replacement.

Failure History:

- o The PRACA database was queried and no failure data was retrieved against this component in the critical failure mode.
- o The GIDEP failure data interchange system has been researched and no failures of this component were found in the critical failure mode.

Operational Use:

- o An operational failure can be detected by monitoring associated water valve position switch function designators.
- o Correcting Action:
There is no action which can be taken to mitigate the failure effect.
- o Timeframe:
Since no correcting action is available, timeframe does not apply.