

SAA09SY03B-001  
REV. C

B/L: 7.00  
SYS: PAD B WATER,  
MLP-1, -2

JUL 31 1992

Critical Item: Ball Valve, Pneumatic Operated  
(2 Items, 1 Per MLP)

Find Number: A88280 (V-18)

Criticality Category: 1S

SAA No: 09SY03B-001, Rev. C

System/Area: Pad Water/Pad B, MLP-1,  
MLP-2

NASA  
Part No: N/A

PMN/  
Name: K60-0046-01/MLP-1 Firex Water  
K60-0046-02/MLP-2 Firex Water

Mfg/  
Part No: Jamesbury/  
6D300F-36D

Drawing/  
Sheet No: 79K40019/ 1

Function: To control Firex water flow to Cryo skid (side 1) area spray nozzles.

Critical Failure Mode/Failure Mode No: Fail closed/09SY03B-001.018, 09SY03B-001.088

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

Failure Effect: Loss of Firex spray, Cryo skid (side 1) area. Possible loss of life or vehicle during a hazardous condition. Time to effect: immediate.

### ACCEPTANCE RATIONALE

Design:

	<u>Rated</u>	<u>Actual</u>
Working pressure	720 psig	125 psig

- Body material: 316 Stainless Steel
- Seat material: TFE

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**Test:**

- System pre-mission validation (OMI M208Z) requires cycling of MLP water valves to verify proper operation.
- OMRSD, File VI requires verification of the operational function of the water valve in all modes of operation with each shuttle processing flow and at replacement.
- Manufacturer hydrostatic test 1100 psig

**Inspection:**

- Preventative Maintenance of the MLPs' Firex Distribution System (OMI M6110) requires inspection and lubrication of this valve quarterly.

**Failure History:**

- The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange system was researched and no failure data was found on this component in the critical failure mode.

**Operational Use:**

- An operating failure can be detected by monitoring function designators FWDXZG05E and FWDXZG07E originating from the valve position switch associated water valve position switch function designators.
- Correcting Action:  
There is no action which can be taken to mitigate the failure effect.
- Timeframe:  
Since no correcting action is available, timeframe does not apply.