

SAA09FT08-022

REV. A

APR 18 1995

B/L: 315.55

SYS: SRM TRANSPORTER

Critical Item: Cylinder Valve

Find Number: None

Criticality Category: 1S

SAA No: 09FT08-022 Rev. A

System/Area: Dry Chemical Fire
Protection/SRM Trans-
porter

NASA

Part No: None

PMN/

Name: P77-0828-01

Mfg/

Part No: Walter Kidde 897619

Drawing/ Walter Kidde Catalog
Sheet No: 2.1

Function: Controls flow of dry chemical. Valve is normally closed.

Critical Failure Mode: Fails closed. FM No. 09FT08-022.001

Failure Cause: Frozen by contamination.

Failure Effect: Unable to release dry chemical fire extinguishing agent in response to fire alarm in the engine compartment of the SRM Transporter. An uncontrolled engine fire could result in loss of life and the SRM segment.

Acceptance Rationale

Design:

o Component Specification:

Operating Temperature -65°F to 200°F

o Materials:

'O' Rings:	Synthetic Rubber
Valve Body:	Brass
Stem Spring:	Steel
Piston:	Aluminum
Seat:	Synthetic Rubber

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Cylinder Valve (Continued)

Design: (Continued)

- o Meets requirements of NFPA-17 "Standard for Dry Chemical Extinguishing Systems".

Test:

- o Validated by Acceptance Test
- o NFPA-17 requires Hydrostatic Test every 12 years.

Inspection: OMI M3164 will specify the following inspection requirements:

- o Verify cylinder pressure prior to SRM movement.
- o Monthly: Check all parts of system for physical damage, rust, corrosion, e.g. piping, nozzles, cylinders, elbows, auxiliary equipment in accordance with NFPA-17 standard.
- o Semi-annual: Check flexible piping or hose for obstructions. Remove cylinder and valve. Blow piping out with clean dry air or nitrogen in accordance with NFPA-17 standard.

Failure History:

- o No KSC PRACA history of failure in the critical failure mode.
- o No GIDEP alerts were reported.

Operational Use:

- o Observers are assigned on both sides of the transporter to monitor safety requirements.
- o Fire department is notified to standby when moving SRM segments.
- o Portable extinguishers are available in each cab and in convoy vehicles.
- o A power kill switch is activated to turn off all power to the transporter systems.

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Cylinder Valve (Continued)

Operational Use: (Continued)

- o The engine compartment and the SRM segment are approximately 12 feet apart along the surface of the structural steel deck of the transporter.