

SAA09SY33P-001
REV. A
B/L: 400.12
SYS: FWSS

SEP 12 1988

Critical Item: Valve, Check (1)

Find Number: None

Criticality Category: IS

<u>SAA No:</u> 09SY33P-001	<u>System/Area:</u> Firex Water and Sprinkler System RPSF
<u>NASA</u> -	<u>PMW/</u> K80-0560
<u>Part No:</u> None	<u>Name:</u> Firex Sprinklers, SRB P&S
<u>Mfg/ Part No:</u> Kennedy Valve Div. ITT 126A-6"	<u>Drawing/ Sheet No:</u> 79K25965

Function: To prevent backflow into water supply.

Critical Failure Mode: Fail closed FM No. 09SY33P-001-001

Failure Cause: Structural failure

Failure Effect: Loss of flow to Firex System. Unable to combat fire with possible loss of life/damage to vehicle system.

Acceptance Rationale

Design:

- o Valve is a NFPA rated valve for firex water system applications and is used extensively in commercial and industrial sprinkler systems.
- o The valve body and cover are made of ASTM A126 Class B gray cast iron. Other components are made of bronze and stainless steel. The rubber seal is Neoprene.
- o Operating pressure is 125 psig. Maximum design working pressure is 175 psi. Valve is hydrostatically tested to 350 psi.
- o Valve is listed by Underwriters' Laboratories and approved by Factory Mutual Fire Insurance Companies.
- o The check valve would normally be in the closed mode (rubber valve seal in contact with sealing surface.) If water flow is needed to combat a fire or for test, the seal will lift and water will flow. At the conclusion of the use, the seal and its flapper will return to the sealing position.

000801swM3-076

SAAD95Y33P-001

REV. A

B/L: 400.12

SYS: FWSS

SEP 02 1988

Valve, Check (Continued)

Test:

- o The OMRSD, File VI will require the valve to be tested annually, at system test.

Inspection:

- o There is no inspection means available that would not destroy the integrity of the water system.

Failure History:

- o The GIDEP failure data interchange system has been researched and no failures of this component were found.
- o The PRACA data base was queried and no failure data was retrieved against this component.
- o Vendor contact (Kennedy) did not disclose any valve failures or problem areas.

Operational Use:

- o There is nothing that can be done immediately to mitigate the effect of the failure.

980801swM3-876