

SAA09FT01-016

SEP 11 1995

B/L: 306.03

SYS: Up-Right

XL-19C Adjust-
able HeightMobile Access
Stand

Critical Item: Proportional Control Valve (1 Item Total)

Find Number: V8

Criticality Category: 2

SAA No: 09FT01-016

System/Area: Up-Right XL-19C Adjustable
Height Mobile Access Stand/
VAB and RPSF

NASA

PMN/ A77-1214-02

Part No: None

Name: Up-Right XL-19C Adjustable
Height Mobile Access Stand

Mfg/ Waterman/

Drawing/ 63550

Part No: 12C241SP-11-A18H

Sheet No: 3 of 7

Function: To provide variable bypass flow to tank for drive and lift speed control.

Critical Failure Mode/Failure Mode No: Fails Closed/09FT01-016.002

Failure Cause: Corrosion, Contamination, Internal Structural Failure

Failure Effect: Faster Drive or Lifting Motion than commanded will occur. If failure occurs in close proximity to flight hardware, inadvertent contact may result, causing loss (damage) of a vehicle system. Detection method is visual. Time to effect is immediate.

ACCEPTANCE RATIONALE

Design:

- In accordance with ANSI A92.6 American National Standard for Self Propelled Elevating Work Platforms.
- Direct-acting design that is contamination tolerant
- One piece encapsulated coil and a oil-immersed armature solenoid.
- Maximum working pressure for this system is 2300 psi. This valve is rated at 3000 psi and has a burst pressure of 9000 psi which yields an operational safety factor of 1.3:1.
- All working parts hardened ground or honed.
- A return filter and supply screen in the hydraulic system reduce the possibility of contamination.

PS0301 - 7/05/95

IV 105

Attachment
S05023466
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- Recognized by Underwriters Lab file AU1976 for coils.

Test:

- File VI requires that an operational check of all modes, including forward and reverse drive functions, prior to operational use in close proximity to flight hardware.
- An operational check of all modes, including forward and reverse drive functions are performed monthly in OMI B6231.

Inspection:

- Visual inspection of the hydraulic system for leaks, wear, and missing or loose hardware is performed semiannually per OMI B6231.
- Visual inspection of the mobile access stand for damage or corrosion is performed monthly per OMI B6231.
- Visual inspection for defects such as cracked welds, damaged cable, or hydraulic leaks is performed prior to use per OMI T5002

Failure History:

- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

- Correcting Action:
Joystick to Neutral, Deadman Switch, or E-Stop
- Timeframe:
Seconds

Attachment
3050234 EG
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