

SAA09FT01-016

SEP 11 1995

B/L: 306.03

SYS: Adjustable

Height Mobile

Access Stand

Critical Item: Drive Valve (1 Item Total)

Find Number: V4

Criticality Category: 2

SAA No: 09FT01-016

System/Area: Up-Right XL-19C Adjustable
Height Mobile Access Stand/
VAB and RPSFNASA
Part No: NonePMN/
Name: A77-1214-02
Up-Right XL-19C Adjustable
Height Mobile Access StandMfg/ Double A/
Part No: QF-3-FF-10D1-SP2-DC24Drawing/
Sheet No: 61799-000-00
Figure 6.2

Function: Provides directional control of drive functions.

Critical Failure Mode/Failure Mode No: Fails Shifted(Forward)/09FT01-016.001

Failure Cause: Corrosion, Contamination, Internal Structural Failure

Failure Effect: Drive remains directed in forward mode. No reverse drive control. Machine may go forward when reverse drive is selected. If failure occurs in close proximity to flight hardware, contact may occur resulting in loss (damage) of a vehicle system. Detection method is visual. Time to effect is immediate.

ACCEPTANCE RATIONALE

Design:

- A high level of sustained machine productivity due to proven fatigue and endurance testing. Tested over 20 million cycles by the manufacturer.
- Solenoid and spring forces provide for high reliability of switching in extreme conditions.
- Maximum working pressure for this system is 2300 psi. This valve is rated for 5075 psi, which yields an operational safety factor of 2.2:1.
- Return filter and supply screen in the hydraulic system reduce the possibility of contamination.
- In accordance with ANSI A92.6 American National Standard for Self Propelled Elevating Work Platforms.
- ISO 4400 coil with a plug fitted spade connector to protect against corrosion and contamination.

Attachment

S050234E4

-1- 11-11-95

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Test:

- File VI requires 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 per 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