

SAA09FT01-016

SEP 11 1995

B/L: 306.03

SYS: Up-Right

XL-19C Adjust-
able HeightMobile Access
Stand

Critical Item: Drive/Lift Switch (1 Item Total)

Find Number: S3

Criticality Category: 2

SAA No: 09FT01-016

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

NASA None

PMN/ A77-1214-02

Part No:

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

Mfg/ Microswitch

Drawing/ 2TK1 Series

Part No: 2TK1-3

Sheet No: Chart 1

Function: Switch used to change control to either lifting/lowering or drive motion.

Critical Failure Mode/Failure Mode No: Fails Closed (Fwd/Rev)/09FT01-016.005

Failure Cause: Short, Corrosion, Contamination

Failure Effect: Linked switches remain fixed in the affected drive mode. Commanding up/down will result in fwd/rev motion respectively. Possible contact with flight hardware may cause loss (damage) of a vehicle system. Detection method is visual. Time to effect is immediate.

ACCEPTANCE RATIONALE

Design:

- Toggle switch is recognized by Underwriters Lab per code L191 under file E12252. Rated for 15 Amps at 277 VAC and electrical system for stand operates at 24 VDC and 1.5 Amps
- The top of the switch has a sealed design to prevent entrance of liquids or dust or other contamination.
- Electrical system has a 15 Amp fuse to protect against overcurrent.
- In accordance with ANSI A92.6, American National Standard for Self Propelled Elevating Work Platforms.
- Switch is capable of withstanding a temperature of 160 degrees Fahrenheit at full rated load.

Attachment

050284EG

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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 mobile access stand for damage or corrosion is performed monthly per OMI B6231.
- Visual inspection for defects such as damaged cables and connections is performed prior to operational 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