

MAY 2 1996

**Critical Item:** Joystick  
**Total Quantity:** 6  
**Find Number:** None  
**Criticality Category:** 2

**SAA No:** 00KS01-014

**System/Area:** Tiger Adjustable Height Mobile  
 Access Platform  
 RPSF, VAB

**NASA  
 Part No:** None

**PMN/  
 Name:** A77-1214/Mobile Access Adjust-  
 able Height Stand

**Mfg/  
 Part No:** UP-RIGHT  
 JS1M880

**Drawing/  
 Sheet No:** 5-2, 5-6  
 1

**Function:** Used to control forward/reverse and right/left turn functions with speed control for driving.

**Critical Failure Mode/Failure Mode No:** Erroneous Output (fails forward)/00KS01-014.002

**Failure Cause:** Internal switch fails open (1st or 2nd switch), mechanical failure.

**Failure Effect:** The affected valve, 1st or 2nd valve, will remain closed causing an inadvertent shift from 1st (neutral) to 3rd speed possibly impacting flight hardware causing loss (damage) to a vehicle system. **Detection Method:** Visual. **Time to Effect:** Immediate.

### ACCEPTANCE RATIONALE

#### Design:

- Designed to have a high product life due to proven fatigue and endurance testing resulting in 5 million cycles without failure.
- Contacts are housed in a zinc coated cast enclosure resistant to outside corrosive elements.
- The boot is made of neoprene which is more protective to the outside elements and tears than rubber.
- Spring loaded to return to neutral when released meeting the ANSI A92.6 American National Standard for Self-Propelled Elevating Work Platforms.

#### Test:

- An operational check of all modes, including forward and reverse drive functions, are performed monthly per OMI B6231.
- OMRS File VI requires an operational check of all modes, including forward and reverse drive functions prior to use of the stand within 10 feet of flight hardware.

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**Inspection:**

- No inspection of the joystick is required.

**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:**

Operator may mitigate the failure by releasing the deadman switch (joystick) stopping the pump.

- **Timeframe:**

Seconds.