

SAA09EL18-003
REV. C

B/L: 131.80
SYS: Ball/Bar Lights
- SLF

JUL 31 1992

Critical Item: Adjustable Autotransformer (6 Items Total)
Find Number: AT7, AT8, AT9 (1 ea/Runway)
Criticality Category: 1 (Night Landing Only)

SAA No: 09EL18-003	System/Area: Ball/Bar Lights - SLF
NASA Part No: None	PMN/ Name: U72-1336 Ball/Bar Lights
Mfg/ Part No: Technipower WBL	Drawing/ Sheet No: 80K51820 8

Function: Each transformer provides controlled voltage to one (1) of the Ball Lights.

Critical Failure Mode/Failure Mode No: Fail Short to Ground/09EL18-003.019, 09EL18-003.038

Failure Cause: Structural Failure/Contamination/Corrosion

Failure Effect: Loss of power to all of the Ball Lights due to fused safety switch opening. Loss of ability to acquire and maintain the proper inner guideslope during Orbiter landing operations. Possible loss of life/vehicle.

ACCEPTANCE RATIONALE

Design:

<u>Rated</u>	<u>Estimated Operating</u>
Voltage = 0 to 120 volts	56.3 volts output
Current = 10 amps/13 amps max.	6.6 amps output

Autotransformer is mounted in a NEMA 12 Hoffman Enclosure which is located inside an air conditioned structure.

Test:

- Meets requirements of MIL-S-202, "Test Methods for Electronic and Electrical Components." Tested for vibration, shock, dielectric and operational in accordance with MIL-S-202.
- OMI 13134 requires verification of proper operation and equipment setup prior to each Shuttle launch and landing flow.

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Inspection:

- Visual inspections for corrosion, contamination and/or physical damage are accomplished annually during performance of OMI 13134 system verification.

Failure History:

- The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange system was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

• **Correcting Action:**

There is no action which can be taken to mitigate the failure effect.

• **Timeframe:**

Since no correcting action is available, timeframe does not apply.

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