

CRITICAL ITEMS LIST (CIL)

SYSTEM: ASI  
 SUBSYSTEM: ET Interface Hardware  
 REV & DATE: J, 12-19-97  
 DCN & DATE:  
 ANALYSTS: C. Rush/E. Howell

FUNCTIONAL CRIT: 1  
 PHASE(S): b  
 HAZARD REF: S.11

FAILURE MODE: Structural Failure  
 FAILURE EFFECT: b) Loss of mission and vehicle/crew due to fire/explosion.  
 TIME TO EFFECT: Immediate  
 FAILURE CAUSE(S):  
 A: Improper Manufacture  
 B: Failure of Support Attaching Hardware  
 C: Failure of LO2 Line Attaching Hardware  
 REDUNDANCY SCREENS: Not Applicable  
 FUNCTIONAL DESCRIPTION: LO2 feedline/umbilical support bracket.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.5.13.1	80911071781-005	Support, LO2 Feedline Crossbeam	1	LWT-54 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)  
CONTINUATION SHEET

SYSTEM: ASI  
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RATIONALE FOR RETENTION

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DESIGN:

- A-C: The support is formed from 304 ANN #2D corrosion resistant steel sheet stock. Materials selected for this part number are in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties. The support and attachment hardware are designed to the required ultimate safety factor of 1.4 (ET Stress Report 826-2188).
- B, C: Attaching hardware is selected from the Approved Standard Parts List (ASPL 826-3500), installed per STP2014 and torqued using values specified on Engineering drawings. Tensile installation loads are sufficient to provide screening for major flaws in individual fasteners.

TEST:

The Support, LO2 Feedline Crossbeam is certified. Reference HCS MMC-ET-TM08-L-S111 (LWT-54 thru 88) and HCS MMC-ET-TM08-L-S516 (LWT-89 & Up).

Vendor:

- B: Attaching fasteners are procured and tested to standard drawings 26L2, 26L10 and 33L2.

INSPECTION:

Vendor Inspection - Lockheed Martin Surveillance:

- A-C: Verify materials selection and verification controls (MMC-ET-SE16, drawing 80911071781 and standard drawings 26L10, 26L2, 33L2).
- A: Inspect dimensional conformance (drawing 80911071781).

MAF Quality Inspection:

- B, C: Inspect that attaching hardware is free from damage (drawings 80911031780, 80921011009 and STP2014).
- A-C: Verify fastener installation and witness torque (drawings 80911031780 and 80921011009).

FAILURE HISTORY:

Current data on test failures, unexplained anomalies and other failures experienced during ground processing activity can be found in the PRACA data base.