

CRITICAL ITEMS LIST (CIL)

SYSTEM: ASI
 SUBSYSTEM: Intertank
 REV & DATE: J, 12-19-97
 DCN & DATE:
 ANALYSTS: H. Keefe/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 L02 feedline structural failure or debris source to orbiter.
 TIME TO EFFECT: Immediate
 FAILURE CAUSE(S): Improper Manufacture
 REDUNDANCY SCREENS: Not Applicable
 FUNCTIONAL DESCRIPTION: Provides aerodynamic protection to forward L02 feedline elbow.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.2.9.1	80911001345-009 -010	Fairing Assy, L02 Feedline	1 1	LWT-54 thru 84, 89, 90 LWT-85 thru 88, 91 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

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RATIONALE FOR RETENTION

DESIGN:

The LO2 feedline fairing is a built up aluminum construction. Materials selected are in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties. The LO2 feedline fairing and attachment hardware are designed to the required ultimate safety factor of 1.4 (ET Stress Report 826-2188).

TEST:

The Fairing Assy, LO2 Feedline is certified. Reference HCS MMC-ET-TM08-L-S011 (LWT-54 thru 88) and HCS MMC-ET-TM08-L-S513 (LWT-89 & Up).

INSPECTION:

Vendor Inspection - Lockheed Martin Surveillance:

Verify materials selection and verification controls (MMC-ET-SE16 and drawing 80911001344).

Inspect dimensional conformance (drawing 80911001344).

MAF Quality Inspection:

Verify installation and witness torque (drawing 80911001349).

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.