

CRITICAL ITEMS LIST (CIL)

SYSTEM:	ASI	FUNCTIONAL CRIT:	1
SUBSYSTEM:	ET Interface Hardware	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	S.11
DCN & DATE:			
ANALYSTS:	C. Rush/E. Howell		

FAILURE MODE: Structural Failure

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to premature separation caused by bolt failure.

TIME TO EFFECT: Immediate

FAILURE CAUSE(S): Improper Manufacture

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: Interface and structural load path between Orbiter/ET and attach fittings.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.5.47.1	80911009190-100	Spherical Washer	1	LWT-54 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

SYSTEM: ASI
SUBSYSTEM: ET Interface Hardware
FMEA ITEM CODE(S): 4.5.47.1

REV & DATE: J, 12-19-97
DCN & DATE:

RATIONALE FOR RETENTION

DESIGN:

The spherical washer is machined from AMS-5663 PPT HT inconel bar. Materials are selected in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties. The spherical washer is designed to the required ultimate safety factor of 1.4 (ET Stress Report 826-2188).

TEST:

The Spherical Washer is certified. Reference HCS MMC-ET-TM08-S138 (LWT-54 thru 88) and HCS MMC-ET-TM08-L-S508 (LWT-89 & Up).

INSPECTION:

Vendor Inspection - Lockheed Martin Surveillance:

Verify materials selection and verification controls (MMC-ET-SE16 and drawing 80911009181).

Inspect dimensional conformance (drawings 80911009181).

Verify solid film lube application (drawing 80911009181).

Launch Site:

Inspect attaching hardware and installation (drawing 80911019109).

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.