

CRITICAL ITEMS LIST (CIL)

SYSTEM: Thermal Protection System  
 SUBSYSTEM: Components  
 REV & DATE: J, 12-19-97  
 OCM & DATE:  
 ANALYSTS: B. Burkes/R. Lauto

FUNCTIONAL CRIT: 1  
 PHASE(S): b  
 HAZARD REF: T.02

FAILURE MODE: Loss of SLA Material

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to overheating causing bolt to penetrate during SRB separation, generating debris.  
 Loss of mission and vehicle/crew due to debris impacting Orbiter in critical areas.

TIME TO EFFECT: Seconds

FAILURE CAUSE(S): A: Material Deficiency  
 B: Process Deficiency

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: This ablative material protects the bolt catchers from ascent thermal environments.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.8.40.1	80971009481	Bolt Catcher Assy, TPS Appl	2	LWT-54 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)  
CONTINUATION SHEET

SYSTEM: Thermal Protection System  
SUBSYSTEM: Components  
FMEA ITEM CODE(S): S.B.40.1

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

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RATIONALE FOR RETENTION

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STP1506 and 1509 are applicable to this FMEA Item Code. See Page 1 for Retention Rationale specified by these STP's. The following additional Retention Rationale is also applicable to this FMEA Item Code:

DESIGN:

No additional Rationale for Retention is applicable.

TEST:

The Bolt Catcher Assembly TPS Application is certified. Reference HCS's MMC-EI-TN08-L-1016 and 1505. Refer to the HCS(s) for effectivity data applicable to specific part numbers and material type.

INSPECTION:

No additional Rationale for Retention is applicable.

FAILURE HISTORY:

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