

Failure Modes and Effects Analysis/Critical Items List

FMEA No:	OSS-ST575-06	Originator:	G. Hall	Project:	STS-76 DTO 671
Part Name:	Hook, Large	ORU Part #	SED39128378-301	Quantity:	4
Part #:	SED39128378-301	ORU Part Name:	Common Safety Tether Assy	System:	EVA
Drawing:	SED39128378	Subsystem:	N/A	Effectivity:	STS-76

Criticality:

Critical Item?	Yes	No	<u>X</u>
Criticality Category	<u>1R/3</u>		

Redundancy Screens:

- A - Pass
- B - Pass
- C - Pass

Function: Provides adjustable safety tether interface between the EVA crewmember waist tether and EVA slidewire assy.

Failure Mode: Hook inadvertently opens during EVA

Cause: Hook latch fails unlatched

Remaining Paths: 1. Second spring fails Effect/Mission Phase: EVA while docked
 2. Third spring fails
 3. Fourth spring fails
 4. Paddle depressed and lever actuated
 5. Use Safer to return to Orbiter. When undocked, pickup by Orbiter becomes additional path
 Note: The two lock springs and tool lever springs must fail and the paddles depressed and lever actuated to cause inadvertent opening of hook

Corrective Action: None

-Failure Effects-

End Item: Loss of safety restraint for EVA crewmember

Interface: N/A

Mission: N/A

Crew/Vehicle: Possible loss of crewmember due to separation from Orbiter

Hazard Information:

Hazard:	Yes	No	<u>X</u>
Hazard Organization Code:	N/A		
Hazard Number:	N/A		

Document No: 18901-70131B
 Release Date: 10/30/95
 Revision Date: 02/26/96
 Page A-13

Failure Modes and Effects Analysis/Critical Items List

FMEA No:	QSS-ST575-06	Originator:	G. Hall/OSS	Project:	STS-76 DTO 671
Part Name:	Hook, Large	ORU Part #	S ED39128394-301	Quantity:	4
Part #:	SED39128378-301	ORU Part Name:	Common Safety Tether Assy	System:	EVA
Drawing:	SED39128378	Subsystem:	N/A	Effectivity:	STS-76
Time to Effect:	N/A				
Time to Detect:	N/A				
Time to Correct:	N/A				
Failure Detection/Flight:	N/A				

Remarks:

-Retention Rationale-

(A) Design:	N/A
(B) Test:	N/A
(C) Inspection:	N/A
(D) Failure History:	N/A
(E) Operational Use:	N/A

Prepared By:	G. Hall/OSS	Revision:	B	Date:	02/26/96
--------------	-------------	-----------	---	-------	----------