FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: HOOK ASSEMBLY
ASSY P/N: SEG 68101617-303

SYSTEM: OWDA
SUBSYSTEM: STRUCTURAL

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NAME AND DRAWING	FUNCTION	FAILURE MODE AND CAUSE	MISSION PHASE	FAILURE EFFECT ON			FAILURE DETECTION	CORRECTIVE ACTION	CRIT. H/F	HAZARDS/REMARKS
				END ITEM	MISSION	CREW/VEHICLE	(LIGHT GROUND)			
REFERENCE #1 Hook Assembly [4] SEG 68101617-303	Structural support for the OWDA. There are four hook assemblies holding the OWDA to the Orbiter.	A) Mode: Hook breaks/ outboard off Cause: a Shock b Vibration c Overload d Defective material	Launch/ Landing	OWDA unrestrained by remaining hook assemblies	Mission unless OWDA becomes completely detached and is damaged	Possible crew injury if OWDA becomes completely detached from Orbiter	Flight crew/ after two or more failures Ground V66AG0 180	None	3/3R	Analysis indicates a positive margin of safety exists if two hook assemblies become detached. Additionally, for the OWDA to become completely detached two hook assemblies would have to break. The main factor affecting the stresses on the hook assembly is the preload in the bolt and the loads caused by launch and landing.

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ATTACHMENT 1
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