NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
		115FM10		
SHEAR PLATE ASSEMBLY, ITEM 115 (PIVOTED, PLANAR) --- SV778540-56 (1) OR (ORU) --- SV824133-8 (1)	2/2	Fails to allow 4.3 psig. Jamming of linkage mechanism.	END ITEM: Failure to engage 4.3 psi bellows spring and change primary suit pressure setting from 0.9 psi to 4.3 psi when actuator is in PRESS or EVA position. GFE INTERFACE: Loss of ability to select 4.3 psig pressure regulation. Unable to pressurize suit above 0.9 psig. MISSION: Loss of use of one EMU. CREW/VEHICLE: None. TIME TO EFFECT /ACTIONS: Immediate. TIME AVAILABLE: N/A TIME REQUIRED: N/A REDUNDANCY SCREENS: A-N/A B-N/A C-N/A	A. Design - The actuator carriage material is nitronic 60 which provides good antigalling properties. The ways are lubricated by a solid film lubricant to assure low friction. The cable drives a cam which is coated with nituff to provide a hard low friction surface to prevent wear and provide low actuator loads. The flex cable is lubricated by grease while the teleflex rod translates within a Teflon lined casing for low friction and wear. Bearing drag is minimized by the use of ball bearing rollers. The actuator mechanism is capable of withstanding three times the maximum translating load. B. Test - Component Acceptance Test - None. PDA Test - Performance testing per SEMU-60-010 verifies the ability of the regulator to maintain a vent loop pressure of 4.2 - 4.4 psig. Jamming of the linkage mechanism would be detected here. Certification Test - Certified for a useful life of 20 years from the date of manufacture. Successful refurbishment will extend useful life to 30 years max. (ref EMUM1-0491, EMUM1-0027). C. Inspection - Details are 100% inspected per drawings dimensions and surface finish characterstics. Details are manufactured from material with certified physical and chemical properties. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, V1103 Performance Data and Item 113 Regulator Check. FEMU-R-001 Para 8.2 EMU Preflight KSC Checkout for EET processing. F. Operational Use - Crew Response - Pre/PostEVA: Trouble shoot problem. Use third EMU if available. If no success, terminate EVA. EMU is no go for EVA. Training - Standard training covers this failure mode. Operational Considerations - Flight rules define loss of EMU for loss of pressure regulation. EVA checklist procedures verify hardware integrity and systems operational status prior to EVA.

EXTRAVEHICULAR MOBILITY UNIT

SYSTEMS SAFETY REVIEW PANEL REVIEW

FOR THE

I-115 SHEAR PLATE ASSEMBLY

CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

Prepared by: _____ 3/27/02
HS - Project Engineering

Approved by: _____
[redacted] SSP

_____
HS - Reliability

_____
[redacted] EMU/SSP

_____
HS - Engineering Manager

_____
[redacted] SSP

_____ w/ mods
[redacted] MOD

_____
[redacted] Crew

_____
[redacted] Program Manager