

NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
SUIT PRESSURE REGULATOR, ITEM 113D ----- SV778873-15 (1)	2/2	113DFM05 Pressure selector linkage jams (0.9 psi setting). Contamination.	END ITEM: Unable to switch from 0.9 psid to 4.3 psid. GFE INTERFACE: Unable to increase suit pressure from 0.9 psi to 4.3 psi. MISSION: Terminate EVA. 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 lift plate bore is nituff coated for reduced friction. B. Test - Vendor Component Acceptance Test - The manufacturer, CTI, determines the force to change the mode from EV to IV during Acceptance Test to assure that excessive force is not required. Performance Tests would also detect a jammed mechanism because the regulator is required to operate in both EV and IV mode during these tests. PDA Test - The forces required to move the O2 actuator are measured per SEMU-60-010. The force required to push the actuator out of the "OFF" "PRESS", "EVA" or "IV" detents must be 3.0-6.0 lbs. The force required to slide the actuator to any of the above four positions must be 15 lbs maximum. Certification Test - Certified for a useful life of 20 years (Ref. EMUM-0083). C. Inspection - Details are 100% inspected per drawing dimensions and surface finish characteristics. Details are manufactured from materials with certified physical and chemical properties. All details, gases and test facilities are cleaned and inspected to HS3150 EM50A to preclude contamination. The running and final torque of all threaded connections are verified by vendor and DCAS inspection. A trial assembly is run on all details and then they are visually inspected. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R001, 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 - PreEVA: Trouble shoot problem, if no success consider EMU 3 if available. EMU no go for EVA. Training - Standard EMU training covers this mode. Operational Considerations - Flight rules define go/no go criteria related to EMU suit pressure regulation. EVA checklist and FDF procedures verify hardware integrity and operational status prior to EVA.

EXTRAVEHICULAR MOBILITY UNIT
SYSTEMS SAFETY REVIEW PANEL REVIEW
FOR THE
I-113 PRIMARY PRESSURE CONTROL MODULE
CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

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