

NAME P/N QTY	CAIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
PRESSURE GAUGE ITEM 492 07721495-1 (1)	7/1	492FM031 External gas leakage. CAUSE: Damaged O-ring; damaged sealing surfaces.	END ITEM: Suit gas leakage to ambient (airlock). GFE INTERFACE: Reduced ability to pressurize suit. More frequent O2 actuator cycles required to maintain P.S.O.0 puls suit pressure. MISUSE: Reduced bond treatment capability. CHRY/VISICLE: Possible loss of crewmn from decompression sickness if leak is severe enough to completely lose pressurization capability.	A. Design - The fit adapter body, machined from 6061-T6 aluminum stock, provides an inside diameter sealing surface coated with Viton. The mating part of the radial Viton O-seal configuration is the pressure fitting from the Item 492 Pressure Gauge. The pressure fitting is made from 303 stainless steel coated with Teflon. Lead in chamfer on both mating parts of this radial type seal minimizes the possibility of damage to either the sealing surface or the elastomeric O-seal. The seal configuration provides seal squeeze under all tolerance conditions. Minimum seal squeeze for this configuration is 0.002 in. B. Test - Component Acceptance Test - The item is tested per vendor test sheets to 15 psid where a maximum leakage of 2 x 10-3 cc/sec in is allowed. PCA Test - The item is external leakage tested per SEMU-60-016, Para. 4.0. 35.0 cc/min O2 maximum is allowed at 7.9-8.04 psi. Certification Test - C. Inspection - Both the O-seal and the Gauge sealing surfaces are 100% inspected for dimensional and surface finish requirements. D. Failure History - None. E. Ground Forward - Tested for External Leakage per SEMU-4-001. F. Operational Use - Crew Response - Positive: For minor leaks, cycle the O2 actuator more frequently to regain treatment conditions. For greater

EMU
EMU CRITICAL ITEMS LIST

08/01/89 SUPERSEDES 86/02/89

ANALYST:

Page: 2
Date: 12/14/89

NAME P/N REV	ERR	FAILURE MODE & CAUSE	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
	(2)	4929003:		locks, consider actual plugging of pressure gauge and animating the pressure achieved. Training - Standard EMU training covers this failure mode. Operational Considerations - No constraints for single failure.