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PRINT DATE: 09/07/93

FAILURE MODES EFFECTS ANALYSIS (FMEA) - CRITICAL HARDWARE
NUMBER: 02-1B-022-X

SUBSYSTEM NAME: LANDING/DECELERATION - BRAKE/SKID CONTROL SYS
REVISION: 5 08/20/93

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
LRU	: MLG BRAKE SYSTEM	MC621-0055
SRU	: LIMITER, DISPLACEMENT HYDRO-AIRE	33-017502

PART DATA

EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
DISPLACEMENT LIMITER

QUANTITY OF LIKE ITEMS: 8
LEFT SIDE FOUR,
RIGHT SIDE FOUR

FUNCTION:
LIMITS LOSS OF HYDRAULIC FLUID IN THE EVENT OF A BRAKE LINE OR CHAMBER
FAILURE AT BRAKE PORT WITH WHICH IT IS ASSOCIATED.

**FAILURE MODES EFFECTS ANALYSIS (FMEA) -- CRITICAL FAILURE MODE
NUMBER: 02-1B-022-02**

SUBSYSTEM NAME: LANDING/DECELERATION - BRAKE/SKID CONTROL SYS
LRU: MLG BRAKE SYSTEM
ITEM NAME: LIMITER, DISPLACEMENT
REVISION# 6 08/20/93 R
CRITICALITY OF THIS
FAILURE MODE: 1R3

FAILURE MODE:
FAILS CLOSED

MISSION PHASE:
DO DE-ORBIT

VEHICLE/PAYLOAD/KIT EFFECTIVITY: 102 COLUMBIA
103 DISCOVERY
104 ATLANTIS
105 ENDEAVOUR

CAUSE:
BROKEN SPRING, CONTAMINATION

CRITICALITY 1/1 DURING INTACT ABORT ONLY? NO

REDUNDANCY SCREEN A) PASS
B) FAIL
C) PASS

PASS/FAIL RATIONALE:
A)

B)
SCREEN "B" FAILS BECAUSE DISPLACEMENT LIMITER FAILING CLOSED IS NOT
DETECTABLE UNTIL APPLICATION OF BRAKES.

C)

- FAILURE EFFECTS -

(A) SUBSYSTEM:
12.5 % LOSS IN BRAKING CAPABILITY

(B) INTERFACING SUBSYSTEM(S):
FIRST FAILURE - NO EFFECT

(C) MISSION:
FIRST FAILURE - NO EFFECT

(D) CREW, VEHICLE, AND ELEMENT(S):
FIRST FAILURE - NO EFFECT