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PRINT DATE: 08/09/89

SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-202000-05-000-X

SUBSYSTEM NAME:

REVISION : 1 89/08/09

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
■ SRU :	STATUS MONITOR WIRE BUNDLE	G073-770280

- EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
WIRE BUNDLE COMPRISING INTERNAL CONNECTIONS FOR THE STATUS MONOTOR ASSEMBLY.
- QUANTITY OF LIKE ITEMS: 1
ONE BUNDLE
- FUNCTION:
WIRE BUNDLE PROVIDES THE NECESSARY ELECTRICAL/ELECTRONIC INTERNAL CONNECTIONS FOR THE GALILEO RPM TANK MONITOR STATUS MONITOR ASSEMBLY BOX

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SHUTTLE CRITICAL ITEMS LIST - ORBITER

NUMBER: GO-AA-202000-05-000-02

SUBSYSTEM: GALLILEO RPM TANK MONITOR

REVISION# 1 89/08/25

ITEM NAME: STATUS MONITOR WIRE BUNDLE

CRITICALITY OF THIS
FAILURE MODE: 1S

- FAILURE MODE:
ONE OR MORE OF THE WIRES IN THE BUNDLE SHORT TO ONE OR MORE OTHER WIRES
IN THE BUNDLE.

MISSION PHASE:
LS LANDING SAFING

- VEHICLE/PAYLOAD/KIT EFFECTIVITY: 104 ATLANTIS STS-34
- CAUSE:
STRUCTURAL FAILURE, CONTAMINATION, VIBRATION, MECHANICAL SHOCK, THERMAL
STRESS PROCESSING ANOMALY
- CRITICALITY 1/1 DURING INTACT ABORT ONLY? N

- REDUNDANCY SCREEN A) Y/A
■ B) N/A
■ C) N/A

PASS/FAIL RATIONALE:

- A)
■ B)
■ C)

- FAILURE EFFECTS -

- (A) SUBSYSTEM:
LOSS OF ONE OR MORE SYSTEM FUNCTIONS, POSSIBLE UNDETECTED RUNAWAY TANK
OVERPRESSURE.
- (B) INTERFACING SUBSYSTEM(S):
POSSIBLE TANK RUPTURE, FIRE/EXPLOSION.
- (C) MISSION:
POSSIBLE LOSS OF THE GALILEO/IUS PAYLOAD

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- (D) CREW, VEHICLE, AND ELEMENT(S):
POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE
- (E) FUNCTIONAL CRITICALITY EFFECTS:
POSSIBLE UNDETECTED RUNAWAY TANK OVERPRESSURE, TANK RUPTURE, POSSIBLE FIRE/EXPLOSION, POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE.

 (A) DESIGN - DISPOSITION RATIONALE -
 WIRE BUNDLE IS FABRICATED USING WIRE PER M22759/1620-9. CONNECTOR IS
 NR7216-26SNT3; WIRED PER ML0303-046.

(B) TEST
 THE WIRE HARNESSSES ARE CHECKED FOR CONTINUITY PER WIRE LIST.

(C) INSPECTION
 THE WIRE HARNESSSES ARE INSPECTED FOR WEIGHT, WORKMANSHIP, FINISH, DIMENSIONS, CONSTRUCTION, CLEANINESS, IDENTIFICATION MARKING AND CERTIFIED MATERIALS AND PROCESSES. ACCEPTANCE TEST SPECIFICATION ARE APPROVED BY QUALITY ASSURANCE AND PROVIDES ISOLATION, CONTINUITY AND FUNCTIONAL TESTING OF THE ASSEMBLY.

(D) FAILURE HISTORY
 NO GENERIC FAILURES

(E) OPERATIONAL USE
 CONTINGENCY ONLY. THE WIRE HARNESS INTERCONNECTS COMPONENTS IN THE STATUS MONITOR ASSEMBLY WHICH CONTAINS THE BATTERIES AND DISPLAYS FOR VOLTAGES AND PRESSURES, AS WELL AS THE ON/OFF AND SELECT SWITCHES. A SPARE ASSEMBLY WILL BE AVAILABLE AT THE ABORT SITE. USAGE IS ONE TIME ONLY IF MISSION IS ABORTED WITH GALILEO ON BOARD.

- APPROVALS -

RELIABILITY ENGINEERING: W. R. MARLOWE
 DESIGN ENGINEERING : L. COLEMAN
 QUALITY ENGINEERING : C. ROLLINS
 NASA RELIABILITY :
 NASA SUBSYSTEM MANAGER :
 NASA QUALITY ASSURANCE :

: W. R. Marlowe
 : L. Coleman
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