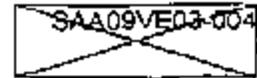


5050234KA
Attachment 2
Sheet 4 of 6
FEB 9 1999

EO 2-SAA09VE03-004
SHEET 14 OF 16



USA Ground Operations CIL Sheet

Critical Item: Magnetic Disk Brake
NASA Part No: 75M13513
Mfg/Part No: Dings Co. / R82050-4
System: Orbiter Engine Service Platform

Criticality Category: 2
Total Quantity: 12

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
None	4	MLP-1	A70-0663	302.00	75M13513 / All
None	4	MLP-2	A70-0663	302.00	75M13513 / All
None	4	MLP-3	A70-0663	302.00	75M13513 / All

Function:

Applies braking force to winch drum when motor is not energized.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09VE03-004.002 Brake does not engage	Mechanical failure Load suspended from winch will drop. Possible damage to SSME.	Visual Immediate	2

ACCEPTANCE RATIONALE

Design:

- The torque rating of the brake is 50 ft. - lbs. The full load motor torque plus the torque required to counterbalance the maximum rope load is 39.58 ft. - lbs.

Thus, the torque rating of the brake is greater than 125% of the maximum rated line pull at the point where the brake is applied and, therefore, meets the requirement of ANSI B30.7-1988, paragraph 7-1.2.3(a), for base mounted drum hoists.

Test:

- OMRSD, File VI requires annual performance of an operational test at rated load to verify system integrity.
- An annual load test and operational check of each winch is performed in accordance with OMI V6C44.

Inspection:

- Preventative maintenance for each brake assembly is performed annually per OMI V6C44.
- The brake magnet air gap is checked for adjustment annually per OMI V6C44.

Failure History:

- The PRACA database was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

Correcting Action	Timeframe
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.