

SAA09FY091-005
B/L: 380.00
SYS: One Ton Forward
Jib Crane

NOV 20 1995

Critical Item: Hoist Assembly

Find Number: NA

Criticality Category: 2

SAA No: 09FY091-005

System/Area: One Ton Jib Crane, OPF HB2

NASA
Part No: NA

PMN/
Name: H70-1381
One Ton Fwd Jib Crane

Mfg/
Part No: David Round & Son
PZ482-EX

Drawing/
Sheet No: 79K08118
8, 48

Function:

- o The Round & Son One Ton hoist is used to handle (raise or lower) GSE and flight hardware from the platform 1 east Jib Crane.

Critical Failure Mode:

- o Gearbox failure due to the loss of mechanical linkage between gearbox components. (FM No. 09FY091-005.003)
- o Brake failure due to the loss of linkage between brake assembly and gearbox. (FM No. 09FY091-005.004)

Failure Effect:

- o The load will drop damaging flight hardware.

Acceptance Rationale

Design:

- o The hoist has a manufacturer's rating of two tons and has been derated to a one ton which produces a safety factor of 8:1.
- o The Round & Son hoist design is in accordance with Hoist Manufacturers Institute (HMI) standards.

NOV 20 1995

Hoist Assembly (Continued)

Test:

- o OMRS File VI requires the annual performance of a rated load test.

Inspection:

- o PMOMI V6C46 performs hoist inspection (visual and magnetic particle or dye penetrant) following annual load test (100% of rated load).

Failure History:

- o No failure history for this hoist.

Operational Use:

- o The One Ton Forward Jib Crane is used to support operations by lifting GSE and flight hardware.