Jefferson Lab
Thomas Jefferson National Accelerator Facility

Material Handling Device Engineering Note

(See ES&H Manual Chapter 6141 Appendix T6 Below-the-Hook Lifting Devices)

1. Material Handling Device

Device Drawing Number:	RM-LST-1.0
Device Name or Description:	RICH Module Lifting & Stiffening Tool
Device Custodian:	George Jacobs
JLab Storage Location	EEL 124
Property Tag No.	

ASME B30.20 Group: (Check One)

- [■] Group I – Structural and Mechanical Lifting Device
- [ ] Group II – Vacuum Lifting Device
- [ ] Group III – Magnets, Close Proximity Operated
- [ ] Group IV – Magnets, Remote Operated
- [ ] Other Design Standard

2. Production

Device was: (Check All the Apply)

- [ ] Purchased from a Commercial Lifting Device Manufacturer (Name) _____
- [ ] Designed and Built at JLab _____
- [ ] Provided by User or Other Laboratory _____
- [■] Other –Describe: Designed by INFN/ Manufactured by GandR Metals, Hampton VA.

3. Lifting Device Data

Capacity	1100 Kg	**Fixture Weight**	290Kg	**Inspection Frequency**	annually

Service Rating: (Refer to B30.20 for Definitions) [■] Normal [ ] Heavy [ ] Severe

4. Rated Load Test (See Load Test Certification Sheet for more information)

- [√] Jefferson Lab Tested: **Date** 10/9/17 **Test Load:** 3000LBS
- [ ] Vendor Tested: Attach Certificate

Distribution:

Original: Material Handling Managers File
Copy to: Device Custodian

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Form Revision Summary

Revision 0.3 – 02/09/17 – Periodic Review; formerly titled Below-The-Hook Lifting Device Engineering Note
Revision 0.2 – 06/01/12 – Added a section for test certification notes
Revision 0.1 – 03/22/12 – Update to weblinks
Revision 0.0 – 10/21/11 – This is new content

ISSUING AUTHORITY	TECHNICAL POINT-OF-CONTACT	APPROVAL DATE	REVIEW DATE	REV.
ESH&Q Division	Bob Sperlazza	02/09/17	02/09/20	0.3

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Load Test For RICH Detector Lifting Device

INSPECTOR: Mark Loewus INSPECTION DATE: 10/19/17

NOTE: 1. Proof test to 125% of rated capacity. The test load shall be accurate to within -5%, + 0% of stipulated values.

2. Qualified Inspector shall witness all steps below.

Examination

Lifting bars and spreaders shall be checked for signs of incipient failure in bending and shall be replaced if permanently bent more than 1/2 in. in 10ft. or twisted more than 5 degrees out of the original plane. Hook attachment welds shall be examined for cracks and signs of failure in tension.

Qualified Examiner shall perform test by visual examination, liquid examination, or mag. particle examination.

Acceptance: No cracks, linear indication, laps, or seams.

STATIC TEST: Hold weight for 10 minutes and visually inspect for deformation.

Type

Rated Capacity (SWL //00 KG - OR 2425 LBS
Rated Capacity (SWL)
Serial Number _
Serial Number _

Qualified Inspector Verify (Load Test) Mark D. Loewus 10-19-17

Remarks ____There was no sign of deflection and all welds were inspected. TEST 1 LOAD APPLIED = 3000 LBS HORIZONTAL
TEST 2 LOAD APPLIED = 3000 LBS ~65° ANGLE
