BROOKHAVEN NATIONAL LABORATORY

HOIST LOAD TEST REPORT

MANUFACTURER: _____ **SN.** _____

BLDG. # _____ **EQUIPMENT #** _____ **CAPACITY:** _____

Notes:
1. Load test prior to initial use, at 125% of rated capacity, all new hoists or hoists in which load-sustaining parts have been modified, repaired, or replaced. Test weights must be accurate to within –5%, +0% of stipulated values. Load test at 100% of rated capacity hoists with overload devices. Test the function of the overload device.
2. Qualified inspector must verify all steps as listed below.

_____ 1. **Perform the periodic inspection. Check unit for proper operation**.

_____2. **HAND-CHAIN-OPERATED HOISTS ONLY**. Check brake mechanism for work glazed, or contaminated disks, worn pawls, cams, or ratchets. Check for broken, corroded, or stretched pawl springs. Repair as needed.

_____3. **ELECTRIC-AND AIR-POWERED HOISTS. Check**:

a. All functional operating mechanisms for maladjustment interfering with proper operation
b. Limit switches or devices for proper operation
c. External evidence of damage or excessive wear of load sprockets, idler sprockets, and drums or sheaves
d. External evidence of wear on motor or load brake
e. Electrical apparatus for signs of pitting or any deterioration of visible controller contacts
f. All anchorage or hoist suspensions.

_____ 4. Set hoist up for load test and inspection. Where applicable, ensure that the load chart is legible.

_____ 5. Perform load test using the required test weights (See Note 1) and appropriate slings.

_____ 6.Measure a length of the load chain under tension; measure a length of 15 links. If wire rope is used, then measure the diameter.

IF HOIST IS EQUIPPED WITH A TROLLEY:

_____1. Mount hoist on a monorail.

_____2. Rig test weight to load hook

_____3. Perform load test raise and hold load for 10 minutes check brakes during hoisting and lowering, moving weight along monorail. Observe hoist and trolley. Observe performance of all load-bearing components.

_____4. Lower test weight to floor. Note performance of hoist during lowering operation. Remove rigging.

At the completion of the load test, inspect the following items:

1. Visually inspect and remeasure the load chain and/or hoist rope after the load test. Check for deformed or broken links, stretch, etc. No more than a 10% permanent stretch in load chain is acceptable, and a wire rope decrease of 1/64 up to 5/16", 1/32 up to 1/2 ", 3/64 up to 3/4 " 1/16 up to 1 1/8" and 3/32 up to 1 ½".

2. Inspect load hook and suspension hook for bending or twisting.

LOAD HOOK:	**PREVIOUS**	**PRESENT**
Qualified Inspector Verify _____ Throat Opening	_____	_____
Qualified Inspector Verify _____ Hook Twist	_____	_____

SUSPENSION HOOK:

Qualified Inspector Verify _____ Throat Opening	_____	_____
Qualified Inspector Verify _____ Hook Twist	_____	_____

Qualified inspector must perform nondestructive tests on hook by visual examination, liquid penetrant examination, or magnetic particle examination.
Acceptance: No cracks, linear indications, laps, or seams.

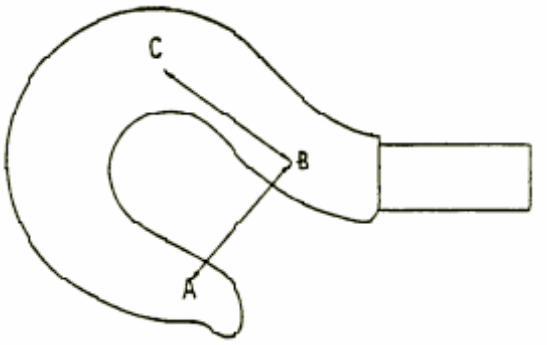
Hooks with any distortion causing an increase in the throat opening of 5% not to exceed ¼" of original throat opening, hooks with any visible bend or twist from the original plane of the hook, and hooks having any wear exceeding 10% of original must be replaced.
Lubricate hook bearing and latch pin, as applicable.

Establish three marks, A, B, and C, with a center punch. For ease in measuring, set distances on a whole number of inches. A to B measurement should equal B to C measurement.

BEFORE LOAD TEST
Length AB _____ in
Length BC _____ in

AFTER LOAD TEST
Length AB _____ in
Length BC _____ in

Check for:
1. Wear and deformation
2. Cracks
3. Signs of opening between Point A and Poin (use the B to C marks as a reference)



Qualified Inspector: _____ **Equipment Operator**: _____

Actual Load Test: _____ **Percentage of Rated Capacity:** _____

Load Test Inspection Date: _____ **BNL Inspection Tag #** _____

Remarks:

_____

_____

_____