

Cranes, Hoisting and Rigging

Purpose

This section establishes safety practices and sets standards which apply to crane operation and rigging. Carroll Community College owns one fixed, single girder monorail crane with underhung trolley and manual chain hoist in the form of a stationary unit located in the Theatre Shop. Rigging tasks are performed by College personnel employed in the Theatre Arts Program related to set construction and lighting. Rigging requires a high level of experience, training, and/or certification.

Crane operations involving crane types other than the fixed, single girder monorail crane owned by the College require third party contractors' services. The requirement for licensure of crane operators, signalmen, and riggers shall be included as criteria for vendor selection. The Experience Modification Rating of the firm under consideration will be requested, documented and archived. The vendor will be required to provide a Certificate of Insurance demonstrating compliance with requirements defined by the College's Office of Risk Management. In short, an investigation of a prospective contractor's qualifications to perform certain work and their safety record should be undertaken to obtain and evaluate information on the contractor's safety performance and programs.

The third-party contractor shall assure that each of its employees is trained in the work practices necessary to safely perform their job.

Definitions

1. Bridge – that part of a crane consisting of girders, trucks, end ties, foot walks, and the drive mechanism that carry trolley or trolleys.
2. Hoist – a mechanical device for lifting and lowering loads by winding a line onto, or off, a drum.
3. Load – the total superimposed weight on the load block or hook.
4. Overhead Crane – a crane with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.
5. Trolley – the unit that travels on the rail and carries the hoisting mechanism.

References

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Section 5(a)(1)	General Duty Clause
29 CFR 1910.184	Slings
ANSI B 30.9	Rigging Equipment
ANSI B 30.11	Monorails and Underhung Cranes
ANSI 30.16	Overhead Hoists (Underhung)

Procedures

Crane, Hoisting and Rigging Safety:

1. Ensure all third-party crane operators, signalmen, and riggers performing work on College premises are trained and licensed by a recognized certification agency such as the National Commission for the Certification of Crane Operators (NCCCO).
2. Ensure the crane and associated equipment are operated in a manner which minimizes risk to all campus occupants, especially regarding passageways, walkways, and vehicular traffic.
3. Document all crane maintenance and inspections in accordance with the manufacturer's recommendations. Documentation must be maintained in Asset Essentials.
4. Attachments used with cranes must not exceed the capacity, rating, or scope recommended by the manufacturer.
5. Counterweight must meet or exceed the manufacturer's specifications.
6. Ensure the installation of warning signs/placards are posted in the immediate area of operation.
7. Guard all rotating and moving parts. An outside firm shall perform and certify the annual inspection/certification and shall conduct a load test prior to initial use of all new and altered cranes.
8. Inspect all equipment prior to each use.
9. Periodically inspect the work area to ensure ongoing compliance with safe work practices.
10. Employees must keep clear of all lifted and suspended loads.
11. Repair any equipment showing evidence of damage and/or excessive wear.

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12. The rated load of the crane must be plainly marked on each side of the crane.
 13. Securely fasten guards.
 14. Stops that limit travel of the trolley should be provided.
 15. Only equipment designed and fitted for commercial rigging shall be used per manufacturer's specifications.
 16. Prior to each use, an experienced, trained, and/or certified employee shall inspect the sling and/or rigging and the fastenings and attachments for damage or defects per manufacturer's recommendations.
 17. Immediately remove damaged or defective equipment from service.
 18. Do not use makeshift fasteners formed from bolts, rods, or other such attachments. Safe working loads of various sizes of hooks shall be determined through the manufacturer's recommendations for specific and identifiable hooks.

Training

Carroll Community College will train employees in the use and inspection of crane operations and rigging applicable to their job duties. This training shall be completed before an employee performs related tasks and shall be conducted by a person competent in the subject matter. The training will be refreshed at intervals stipulated by the current and applicable OSHA standard.

All third-party contractors are responsible to ensure their employees are trained, certified, and/or licensed as required by the industry standards and all applicable OSHA standards related to the scope of work.

Record Keeping and Certifications

1. Safety Training records for Carroll Community College employees shall include the following:
 - a. Names of training attendees.
 - b. The dates of the training sessions.
 - c. The contents or a summary of the training sessions.
 - d. The name(s) and title(s) of person(s) conducting the training sessions.

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2. Safety Training records shall be maintained for a length of time in accordance with industry and OSHA standards.
3. All third-party contractors are responsible to maintain safety training records for their employees in accordance with industry and OSHA standards.
4. Inspection records for all cranes and rigging equipment owned by Carroll Community College will be maintained in the Office of the Senior Manager of Facilities Safety, Compliance, and Training via Asset Essentials.
5. Inspection records for cranes and rigging equipment will be kept for the length of ownership by Carroll Community College.
6. All third-party contractors will provide proof of current licensing and/or certifications if requested by Carroll Community College.

Revision Notes:

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