

Hoisting and Rigging



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PURPOSE

The purpose of this section is to outline policy regarding the use and maintenance of cranes and hoists, lift trucks, rigging and similar equipment for material handling.

SCOPE

This section applies to all employees and sub-consultants of BRL.

DEFINITIONS

Boom – Is the projecting part of a crane or similar lifting device from which a load is supported;

Hoist and Rigging – Electric powered equipment used to raise or lower material or objects and includes hardware, hooks, ropes, slings, rails and other components.

Lifting Devices – Is a device that is used to raise or lower any material or object and includes its rails and other supports but does not include a device to which the Elevating Devices Act applies;

Competent Person – Is a person who is qualified because of knowledge, training and experience to organize the work and its performance, is familiar with the Act and the Regulations that apply to the work and has knowledge of any potential or actual danger to health or safety in the workplace.

Competent Worker – In relation to specific work, means a worker who, is qualified because of knowledge, training and experience to perform the work, is familiar with the Act and with the provisions of the Regulations that apply to the work and has knowledge of all potential or actual danger to health and safety in the work.

LEGISLATION

CRANES AND SIMILAR HOISTING DEVICES

Section 150 – 154 of the Regulation for Construction Projects states that:

- No worker shall operate a crane or similar hoisting device unless the worker holds a certificate of qualification issued under the Ontario College of Trades and Apprenticeship Act that is not suspended.
- No worker shall operate a crane or similar hoisting device unless the worker has written proof of training indicating that he/she is trained in the safe operation of the crane or hoisting device. The worker must carry this proof at all times
- No crane or similar hoisting device shall be subjected to a load greater than its rated load-carrying capacity.

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- Each crane or similar hoisting device shall have a load rating plate affixed. The operator must be able to read the load rating plate while at the controls. The plate must have enough information for the operator to determine the load that can be lifted for each configuration of the crane.
- The owner of a crane or similar hoisting device shall keep a permanent record of all inspections of, tests of, repairs to, modifications to and maintenance of the crane or similar hoisting device.
- The owner of a crane or similar hoisting device shall prepare a log book for use at a project that shall include records covering a period that is the greater of the preceding twelve months or the time that the crane is on the project.
- The owner of a crane or similar hoisting device shall make available, upon request, copies of all logbooks.
- A crane or similar hoisting device shall be set up, assembled, extended and dismantled by a competent worker only. The competent worker must perform his/her tasks in accordance with the written instructions of the manufacturer and in such a manner as not to endanger any person or property.

RIGGING

Sections 173, 176 of the Regulations for Construction Projects state that:

- Every hoisting hook shall be equipped with a safety catch
- A hoisting hook shall have its load rating legibly cast or stamped on it in a location where the person using the hook can readily see it
- A hoisting hook shall not be used if it is cracked, has a throat opening that is greater than as manufactured or is twisted from the plane of the unbent hook.
- Only an alloy steel chain or a chain manufactured for the purpose shall be used for hoisting
- No alloy chain shall be annealed or welded

RESPONSIBILITIES

Manager/Supervisors are responsible for:

- Ensuring that employees under their supervision are properly trained and are certified and licensed to operate the cranes and hoists in their areas.
- This training must be conducted by a qualified, designated instructor who is a licensed crane and hoist operator.
- Ensuring that hoisting equipment is inspected and tested monthly by a responsible individual and that rigging equipment is inspected annually.
- The employer shall ensure that every worker involved with the hoisting operation receives adequate instructions about the requirements, restrictions and hazards associated with the hoisting operation
- Adequate instruction would include understanding what hoisting and rigging is, how to determine hazards, weights, inspections etc.

Crane and Hoist Operators are responsible for:

- Operating hoisting equipment safely.
- Conducting functional tests prior to using the equipment.
- Selecting and using rigging equipment appropriately.

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- Having a valid operator's license on their person while operating cranes or hoists.
- Participating in the medical certification program, as required.

PROCEDURE

CRANE SAFETY GUIDELINES

- Annual and pre-use inspection shall be completed on all cranes and similar hoisting equipment. All cranes and rigging shall be inspected by a qualified person. A permanent record of each inspection shall be kept by the supervisor in a place readily accessible to the workers.
- Managers and Supervisors shall ensure that all operators are trained and qualified to operate a crane or similar hoisting device.

HAND SIGNALS

Signals to the operator shall be in accordance with the standard hand signals. It is vital to use hand signals when the operator's view is obstructed. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator, and shall not be in conflict with the standard signals. No response should be made to unclear signals. New or altered signs that are agreed upon and fully understood by the operator and signal person shall be documented, reviewed by the crane operator and signal person, and signed and dated by the crane operator and signal person prior to start of work

RIGGING SAFETY REQUIREMENTS

Only rigging equipment that is certified CSA and in good condition without defect shall be used. All rigging equipment shall be inspected on a daily and weekly basis; defective equipment is to be removed from service and destroyed to prevent further use. The load capacity limits shall be stamped or affixed to all rigging components and these limits must never be exceeded.

When inspecting rigging, look for the following defects:

Nylon slings with:

- Abnormal wear.
- Torn stitching.
- Broken or cut fibers.
- Discoloration or deterioration.
- Chemicals such as oils

Wire-rope slings with:

- Kinking, crushing, bird-caging, or other distortions.
- Evidence of heat damage.

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- Cracks, deformation, or worn end attachments.
- Six randomly broken wires in a single rope lay.
- Three broken wires in one strand of rope.
- Hooks opened more than 15% at the throat.
- Hooks twisted sideways more than 10 degrees. from the plane of the unbent hook.

Alloy steel chain slings with:

- Cracked, bent, or elongated links or components.
- Cracked hooks.

Defective rigging equipment shall be tagged and taken out of service and removed from site and disposed of immediately. Notify Supervisor prior to disposing.

Approval & Acknowledgement:

A handwritten signature in blue ink, consisting of a large, stylized 'R' followed by a horizontal line extending to the right.

Rhéaume Rochefort

Feb 1st, 2018

Date:

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