

Cranes, Hoists, and Lifting Devices Program

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1. Purpose

This program has been developed with reference to Parts 3, 6, and 21 of the Alberta Occupational Health and Safety (OH&S) Code to establish guidelines to help eliminate incidents and prevent losses related to the use of cranes, hoists, and lifting devices.

Cranes, hoists, and lifting devices are extraordinarily useful tools which allow for heavy objects and materials to be moved efficiently; however, they can present a significant hazard when operated incorrectly or improperly maintained.

2. Scope

This Cranes, Hoists, and Lifting Devices Program applies to:

- x all operational activities and persons responsible for the operation, use, maintenance, and/or handling of any crane, hoist, and/or lifting device under the auspices of, or on property belonging to, the University of Calgary (University); and
- x lifting devices, including cranes and hoists with a rated load capacity of greater than 2,000

kg (4,409 lb) or greater, or a rated load capacity of 2,000 kg (4,409 lb) or less, and a lifting height of 2.5 m (8.2 ft) or greater.

Workers are responsible for:

- x being familiar with and following this Program;
- x demonstrating competency in equipment operation, knowledge of load charts, and ability to use established signals for hoisting operations;
- x moving loads using a signaler as per Section 191 of the OH&S Code;
- x reviewing all recent entries in the log book before operating any lifting device;
- x never moving

- x understanding and using signals.

5. Hazard Assessment

The HACF should be completed by the supervisor with participation from workers as necessary prior to any operating activities. All workers should review the completed HACF. An assessment of the work area for any potential hazards should be completed by the worker prior to any operating activities.

Some common hazards associated with the use of cranes, hoists, and lifting devices include:

- x exposure to moving parts;
- x travelling with loads;
- x falling or failing loads;
- x swinging loads;
- x critical lifts;
- x environmental hazards; and
- x overhead power lines.

6. Log Books

Log books are an efficient means of communication between all people who operate or perform work on cranes, hoists, and lifting devices. An individual electronic or paper log book must be kept with each crane, hoist, and lifting device at all times and operators must make themselves familiar with the contents of the log book before operating the equipment. Log books are not required for manually operated hoists.

Log books must:

- x be accessible, up-to-date, ready for use, and kept with the device;
- x be signed by or identify the person performing the log book entry;
- x contain a record of the date and time any inspections or work was performed on the device;
- x contain a record of the length of time in lifting service (hours of service) as per manufacturer recommendations;
- x contain a record of all defects or deficiencies and the date they were detected;
- x contain a record of all pre-use inspections, examinations, tests, and checks performed on the device;
- x contain a record of all repairs or modifications performed;
- x contain a record of all accidents, incidents, and shock loading incidents which may affect safe operation of the device;
- x be readily available for inspection by an OH&S officer upon request; and
- x be transferred to the new owner if the device is transferred or sold.

7. Inspections

Inspections provide an efficient and effective way to help control hazards that come from working with cranes, hoists, and lifting devices. Governing legislation and manufacturer recommendations provide an outline as to when inspections must be performed on devices that are in regular use. No device is to be put into initial operation until it has been thoroughly inspected and any defects and hazards

If an inspection uncovers any current or potential

12. Equipment Specific Requirements

Overhead Travelling Crane / Bridge Crane	means a crane consisting of one or more trolleys on parallel elevated runways.
Pillar Crane	means a fixed crane consisting of a vertical member with a revolving boom supported at the outer end by a tension member.
Pillar Jib	means a pillar crane carrying a trolley.
Polar Crane	means a bridge or gantry crane that travels on a circular track.
Tower Crane	means a crane in which a boom, swinging jib, or other structural member is mounted on a vertical mast or tower.
Climber Crane	means a crane erected upon and supported by a building or other structure that may be lowered or raised to different floors or levels of the building or structure.
Free Standing Crane	means a crane with a horizontally swinging boom that may be on a fixed base or mounted on rails.
Derrick	means a simple crane with lifting tackle slung from a boom.

HOISTS

Hoist	means a lifting device designed to lift and lower loads.
Simple Drum Hoist	means a hoist with one or more drums controlled by manual clutches, brakes, or ratchet and pawl; powered by hand or electricity.
Electric Hoist	means an electrically powered, motor-driven hoist, having one or

Construction Material Hoist

means a material hoist consisting of a guiding and supporting

- x CSA Standard C22.2 No. 33-M1984 (R2004), Construction and Test of Electric Cranes and Hoists.
- x CSA Standard CAN/CSA-B167-96 (R2007), Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists and Trolleys.
- x CSA Standard CAN/CSA-Z185 (R2006), Safety Code for Personnel Hoists.
- x CSA Standard Z248-04, Code for Tower Cranes.
- x ANSI Standard ANSI/ALI ALCTV-2006, American National Standard for Automotive Lifts – Safety Requirements for Construction, Testing, and Validation.
- x ANSI Standard ANSI/ALI ALOIM-2000, Automotive Lifts – Safety Requirements for Operation, Inspection, and Maintenance.