

14.59 Pneumatically powered hoists

- (1) The air supply for a pneumatically powered hoist or winch must
 - (a) be sufficient to safely operate the hoist, and
 - (b) not exceed the maximum allowable pressure for the operation of the hoist, as specified by the hoist manufacturer.
- (2) Air supply hoses for a pneumatically powered hoist or winch must be secured against inadvertent disconnection.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.60 Electric hoists

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

[Back to Top](#)

14.1 Definitions

In this Part

"chimney hoist" means a temporary hoist used for transporting personnel or materials during the construction of a chimney or similar structure;

"construction material hoist" means a material hoist consisting of a guiding and supporting structure and hoist equipment that is not a permanent part of a building, structure, or other work and that is installed and used during construction, alteration, or demolition to raise and lower materials required for the project;

"critical lift" means

- (a) a lift by a mobile crane or boom truck that exceeds 90% of its rated capacity while it is lifting the load at a load radius of more than 50% of its maximum permitted load radius, taking into account its position and configuration during the lift,
- (b) a tandem lift if the load on any one crane, hoist or other piece of powered lifting equipment exceeds 75% of the rated capacity of that crane, hoist or other piece of powered lifting equipment,
- (c) a tandem lift involving the simultaneous use of more than two cranes, hoists or other pieces of powered lifting equipment,
- (d) a lift of a person in a work platform suspended from or attached to a crane or hoist,
- (e) a lift in which the centre of gravity of the load changes during the lift,
- (f) a lift in which the length of one or more sling legs changes during a lift,
- (g) a lift by a crane, boom truck or hoist, supported on a floating base, that exceeds 90% of rated capacity for the lifting system,
- (h) a lift of a load over or between energized high voltage electrical conductors, or
- (i) a lift of a submerged load;

"duty cycle work" means

- (a) the use of a crane to do dragline work, clamshell work, dynamic compaction work or pile driving work, including pile extraction using a vibratory pile extraction device, or
- (b) the use of a crane with an electromagnet or grapple for the handling of scrap metal and other similar materials;

"load bearing component" means any component that transfers load through a crane or hoist to the surface supporting the crane or hoist;

"sign truck" means a truck that is

- (a) capable of acting as a crane and as an aerial ladder, and
- (b) used as a work platform or used for hoisting loads or accessing a work location;

"tandem lift" means a lift using

- (a) more than one crane or one hoist, or
- (b) a crane or hoist and another piece of powered lifting equipment.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 188/2011, effective February 1, 2012.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

14.1.1 Application

(1) This Part applies to a crane or hoist of a type required to meet a standard specified in section 14.2 and to any other equipment with a different primary design function that is being used in a hoisting or lifting application.

(2) Except as otherwise specifically provided, this Part applies to logging equipment that uses a load line for lifting.

(3) This Part does not apply to a front end loader, an excavator or other earth moving equipment that is being used

(a) in applications consistent with its primary design purpose, or

(b) during a lifting task incidental to its primary design purpose if the manuals and operating instructions of the manufacturer of that equipment provide criteria for that lifting task.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.116 Standard to use

If it is not practicable to provide safe access to a work platform on a chimney or similar structure using stairs or other means acceptable under the *BC Building Code* or this Regulation, a chimney hoist meeting the requirements of WorkSafeBC Standard 14.116 - Chimney Hoists, set out in [Schedule 14-A](#), may be used to provide access for any person.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 188/2011, effective February 1, 2012.]

14.117 Certification

(1) Before a chimney hoist is used, a professional engineer must certify that

(a) the chimney hoist is safe for use, and

(b) the installation of the hoist complies with

(i) the design criteria for that installation,

(ii) the hoist manufacturer's specifications,

(iii) the requirements of WorkSafeBC Standard 14.116 - Chimney Hoists, set out in [Schedule 14-A](#), and

(iv) the requirements of this Regulation.

(2) A copy of the certification required in subsection (1) must be available at the workplace where the chimney hoist is installed.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 188/2011, effective February 1, 2012.]

14.118 Support structures

The structure supporting a chimney hoist, together with all hoisting gear and equipment, must be well constructed, accurately aligned, securely anchored and have the required strength and stability to safely withstand the loads imposed.

14.119 Load rating

The rated capacity of the hoist of a chimney hoist must be conspicuously marked on the hoist and must not be exceeded.

[Enacted by B.C. Reg. 188/2011, effective February 1, 2012.]

14.120 Emergency brakes

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.121 Safety factors

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.122 Drive restrictions

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.123 Brakes

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.124 Limit switches

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.125 Speed governor

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.126 Hoisting speed

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.127 Guardrails and gates

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.128 Raising materials

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.129 Communication

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.130 Fall protection

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.131 Operator qualifications

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.132 Unattended controls

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

[Back to Top](#)

14.34 Operator qualifications

(1) A crane or hoist must only be operated by a qualified person who has been instructed to operate the equipment.

(2) A person must demonstrate competency, including familiarity with the operating instructions for the crane or hoist and the code of signals for hoisting operations authorized by the Board before operating the equipment.

(3) Repealed. [B.C. Reg. 243/2006, effective January 1, 2007.]

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

14.34.1 Operator certification

On and after July 1, 2007, a mobile crane, tower crane or boom truck must be operated only

(a) by a person with a valid operator's certificate issued by a person acceptable to the Board, and

(b) in accordance with any conditions stipulated on the certificate.

[Enacted by B.C. Reg. 243/2006, effective January 1, 2007.]

14.35 Pre-use inspection

(1) Before an operator uses a crane or hoist, the operator must ensure that

- (a) the crane or hoist was inspected for that work shift, and
- (b) the control and safety devices were tested for that work shift.

(1.1) The inspection and testing in subsection (1) must be carried out in the manner specified

- (a) by the manufacturer,
- (b) in the applicable design or safety standards set out in section 14.2, and
- (c) in this Regulation.

(2) Any defects found during inspection or use of a crane or hoist must be recorded in the inspection and maintenance record system and be reported immediately to the supervisor, who must determine the course of action to be taken.

(3) If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.36 Load weight

(1) The weight of each load to be hoisted by a crane or hoist must be determined and communicated to the equipment operator and to any person rigging the load.

(2) If the weight of a load to be lifted cannot be accurately determined, the crane or hoist to be used for the lift must have a load weight indicator or an overload prevention system.

(3) Subsections (1) and (2) do not apply to logging equipment that is being used to lift logs or to lift a log trailer.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.37 Calibration

(1) The following devices or systems on a crane or hoist must be calibrated at the intervals specified by the manufacturer and whenever there is an indication the device or system is not functioning correctly:

- (a) a load weighing device;
- (b) a load moment indicator;
- (c) an overload prevention system.

(2) The dates of calibration under subsection (1) must be recorded in the inspection and maintenance records system for the crane or hoist.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.37.1 Operator's duties

The operator of a crane, hoist or boom truck must have full control of the equipment controls whenever the hoisting equipment is in use, and engage in no other duties while operating the equipment.

[Enacted by B.C. Reg. 258/2008, effective January 1, 2009.]

14.38 Safe lifting

(1) The rated capacity of a crane or hoist must not be exceeded.

(2) The operator of a crane or hoist must not move a load unless the operator is satisfied that the load can be handled safely.

(3) A load must be secured during a lift to ensure that all or any part of the load cannot be dislodged.

- (4) A load line on a crane or hoist must not contact anything other than the load block or hook and the sheaves and hoist drum.
- (5) Tag lines or other effective means must be used when necessary to control hazardous movement of a load or to assist with positioning a load.
- (6) If a crane or hoist is being operated at the same time and in the same location as other work activity, the employer or the prime contractor must organize and control the work of any persons who are not involved in that operation to ensure that the operation can be carried out safely.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.39 Contact with loads and structures

- (1) A load must not contact a structural member of a crane or hoist and a structural member of a crane or hoist must not contact any building, bridge, other crane or any other structure, fixture or improvement.
- (2) If contact as described in subsection (1) occurs, a qualified person must inspect the point of contact, and visible damage such as a cracked weld or a bent or dented member must be assessed, repaired as necessary, and the damaged or repaired area certified by a professional engineer as safe for use.
- (3) Equipment used for handling logs and specifically designed for the logs to contact the boom or other structural member is exempt from the requirements of subsections (1) and (2), provided workers are kept out of the hazard area created by the loads being handled.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.40 Swing and shear hazards

- (1) If a hazard is created by the swing or shearing movement of a load, cab, counterweight or any other part of a crane or hoist, the operator of the crane or hoist must not move the equipment when a person is within range of the swing or shearing movement of the load or equipment.
- (2) If a hazard is created by the swing or shearing movement of a load, cab, counterweight or any other part of a crane or hoist, a person must not enter or remain within the range of the swing or shearing movement of the load or equipment.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.41 Position of equipment

- (1) Equipment must be positioned so that no moving part of the equipment will come within 60 cm (2 ft) of any obstruction in any area accessible to workers.
- (2) If the clearance required by subsection (1) cannot be provided, entry to such areas must be prevented by barriers or other effective means.

14.42 Tandem lift

- (1) If a tandem lift is a critical lift or if the lifted load is to be moved laterally, the tandem lift must be carried out under the direction of a qualified supervisor who
 - (a) is not operating a crane, hoist or other piece of powered lifting equipment, and
 - (b) is responsible for the safe conduct of the operation.
- (2) A written lift plan must be prepared for every tandem lift and must be available at the worksite during the lift.
- (3) The lift plan required in subsection (2) must include the following:
 - (a) rigging details;
 - (b) wind speed limitations;
 - (c) maximum hoist line speed;
 - (d) maximum crane travel speed, if applicable;
 - (e) load distribution;
 - (f) the need for and position of signallers.
- (4) If a tandem lift involves the use of a tower crane, the lift plan required in subsection (2) must be certified by a professional engineer.
- (5) At a pre-job meeting held immediately before commencing hoisting operations for a tandem lift, the lift plan required in subsection (2) must be communicated to all people involved and the supervisor must document the meeting.

(6) The pre-job meeting required under subsection (5) must be repeated whenever there is a change in the people or equipment involved in the tandem lift.

(7) Effective communication must be established and maintained between all people involved in a tandem lift.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.42.1 Critical lift

(1) A written lift plan must be prepared for every critical lift and must be available at the worksite during the lift.

(2) The written lift plan required in subsection (1) must include the following:

(a) rigging details;

(b) wind speed limitations;

(c) maximum hoist line speed;

(d) maximum crane travel speed, if applicable;

(e) load distribution;

(f) the need for and position of signallers.

(3) At a pre-job meeting held immediately before commencing hoisting operations for a critical lift, the lift plan required in subsection (1) must be communicated to all people involved and the supervisor must document the meeting.

(4) The pre-job meeting required under subsection (3) must be repeated whenever there is a change in the people or equipment involved in the critical lift.

(5) Effective communication must be established and maintained between all people involved in a critical lift.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.43 Travelling with a load

(1) When a crane or hoist is travelling with a load, the operator of the crane or hoist must ensure that the load is carried as close to the ground or grade as possible and rigged to control load swing.

(2) When a crane or hoist is travelling with a load, adequate safety measures must be taken to ensure people are not endangered by the movement of the crane, hoist or load.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.44 Loads over work areas

(1) If practicable, work must be arranged to prevent passing a load over any person.

(2) A crane or hoist operator must not pass a load over a person, unless no practicable alternative exists and then only after the person has been warned of the danger by an audible alarm or other effective means.

(3) A person working at a workplace must not stand under or pass beneath a suspended load.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.45 Unattended loads

A load must not be left suspended from or supported by a crane or hoist when an operator is not at the controls.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.46 Vertical load line

The load line above the load hook or the load block of a crane or hoist must be kept vertical when lifting a load in order to prevent side loading of the crane or the load swinging.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.47 Signals

(1) When the operator of a crane or hoist does not have a clear and unobstructed view of the boom, jib, load line, load hook and load throughout the whole range of the hoisting operation, the operator must act only on the directions of a qualified signaller who has a clear view of the things the operator cannot see.

(2) The operator of the crane or hoist must stop the operation of the equipment on receiving a stop signal from any person.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.48 Alternative to hand signals

(1) Two-way radio or other audio or video systems acceptable to the Board must be used if distance, atmospheric conditions or other circumstances make the use of hand signals hazardous or impracticable.

(2) Audio and video communication systems used in a hoisting operation must be designed, installed, operated and maintained according to a standard acceptable to the Board.

14.49 Dedicated radio system

(1) A two-way radio system used for communications between the operator of a tower crane or a self erecting tower crane and the riggers and signallers working with that operator, must operate on a frequency and at a transmitter power assigned and coordinated by the Board or by a person acceptable to the Board.

(2) Multi-channel radios are not permitted for use to direct crane or hoist movement.

(3) Only the operator of the crane and the riggers and signallers working with the operator may have the capability to transmit on the radio frequency assigned under subsection (1).

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.49.1 Communication between equipment operators

If, during the operation of a crane or hoist, another piece of equipment is operating in the vicinity and has the reach to interfere with the movement of the crane or hoist, or the load being handled,

(a) each operator must have effective voice communication with every other operator, and

(b) written procedures must be developed and implemented to ensure coordination of the operation of the equipment to prevent any physical contact.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.50 Unhooking loads

A load on a crane or hoist load hook must be safely landed and supported, before being unhooked.

14.51 Riding hook or load

A worker must not ride on a load, sling, hook or any other rigging equipment.

14.52 Induced voltage

(1) Before a crane or hoist is operated near a source such as a radio transmitter or energized high voltage electrical equipment which may induce an electric charge which could pose a hazard to workers, the following precautions must be implemented:

(a) the crane or hoist must be effectively grounded;

(b) any induced electric charge on the load must be dissipated by applying grounding cables or by other effective means before workers contact the load;

(c) flammable materials must be removed from the immediate work area.

(2) Subsection (1)(a) and (b) does not apply if work is being performed on a power system in accordance with the requirements of [Part 19 \(Electrical Safety\)](#).

14.52.1 Work near high voltage

A crane or hoist must be operated in a manner that prevents any part of the crane or hoist, load line, rigging or load from coming within the minimum distance of energized high voltage electrical conductors or equipment as specified in [Part 19](#).

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.53 High voltage electrical conductors

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

[Back to Top](#)

14.1 [Definitions](#)

14.1.1 [Application](#)

GENERAL REQUIREMENTS

14.2 [Standards](#)

14.3 [Identification](#)

14.4 [Rated capacity](#) [Repealed]

14.5 [Rated capacity indication](#)

14.6 [Load charts](#) [Repealed]

14.7 [Boom angle indicator](#)

14.8 [Boom extension and load radius indicators](#)

14.9 [Logging exemption](#)

14.10 [Reeved-in devices](#)

14.11 [Support structure](#)

14.12 [Manual and instructions](#)

14.13 [Inspection, maintenance and repair](#)

14.14 [Inspection and maintenance records](#)

14.15 [Modifications](#)

14.16 [Certification required](#)

14.16.1 [Certification following misadventure](#)

14.17 [Access and egress](#)

14.18 [Audible warning](#)

14.19 [Drop stops](#)

14.20 [Rail end stops](#)

14.21 [Fenders](#)

14.22 [Securing pins](#)

14.23 [Boom stops](#)

14.24 [Molten metal](#)

14.25 [Two-block prevention](#) [Repealed]

14.26 [Sheave guards](#)

14.27 [Ungrounded supply](#)

14.28 [Controls](#)

14.29 [Operator protection](#)

14.30 [Cab windows](#)

14.31 [Operator's seat](#)

14.32 [Storage](#)

14.33 [Fire extinguisher](#)

EQUIPMENT OPERATION

14.34 [Operator qualifications](#)

14.34.1 [Operator certification](#)

14.35 [Pre-use inspection](#)

14.36 [Load weight](#)

14.37 [Calibration](#)

14.37.1 [Operator's duties](#)

14.38 [Safe lifting](#)

14.39 [Contact with loads and structures](#)

14.40 [Swing and shear hazards](#)

14.41 [Position of equipment](#)

14.42 [Tandem lift](#)

14.42.1 [Critical lift](#)

14.43 [Travelling with a load](#)

- 14.44 [Loads over work areas](#)
- 14.45 [Unattended loads](#)
- 14.46 [Vertical load line](#)
- 14.47 [Signals](#)
- 14.48 [Alternative to hand signals](#)
- 14.49 [Dedicated radio system](#)
- 14.49.1 [Communication between equipment operators](#)
- 14.50 [Unhooking loads](#)
- 14.51 [Riding hook or load](#)
- 14.52 [Induced voltage](#)
- 14.52.1 [Work near high voltage](#)
- 14.53 [High voltage electrical conductors](#) [Repealed]

BRIDGE, GANTRY AND OVERHEAD TRAVELLING CRANES

- 14.54 [Operational and running tests](#)
- 14.54.1 [Detailed inspection](#)
- 14.55 [Up travel limit](#)
- 14.56 [Electrical conductors](#)
- 14.57 [Power shutoff](#)
- 14.58 [Direction markings](#)

PNEUMATICALLY POWERED HOISTS AND WINCHES

- 14.59 [Pneumatically powered hoists](#)
- 14.60 [Electric hoists](#) [Repealed]

MANUALLY POWERED HOISTS

- 14.61 [Brakes](#)
- 14.62 [Crank handles](#)

MOBILE CRANES, BOOM TRUCKS AND SIGN TRUCKS

- 14.63 [Carrier vehicle](#) [Repealed]
- 14.64 [Load weight indicators](#)
- 14.65 [Cranes on floating supports](#) [Repealed]
- 14.66 [Level turntable](#)
- 14.67 [Outriggers and stabilizers](#)
- 14.68 [Tires](#)
- 14.69 [Supporting surface](#)
- 14.70 [Travelling with a load](#)
- 14.71 [Annual inspection](#)
- 14.72 [Boom inspection](#)
- 14.73 [Sign trucks](#)

TOWER CRANES

- 14.73.1 [Definition](#)
- 14.73.2 [Tower crane erection](#)
- 14.74 [Tower crane support](#)
- 14.75 [Before use](#)
- 14.76 [Identification](#)
- 14.77 [Structural inspection](#)
- 14.78 [Structures kept clean](#)
- 14.79 [Manual and records](#)
- 14.80 [Counterweights and ballasts](#)
- 14.81 [Limit devices](#)
- 14.82 [Test blocks](#)
- 14.83 [Operator's cab](#)
- 14.84 [Monitoring jib swing](#)
- 14.84.1 [Overlapping operating zones](#)
- 14.85 [Clearance and freedom to slew](#)
- 14.86 [Freedom to slew](#) [Repealed]

- 14.87 [Communication](#) [Repealed]
- 14.88 [Access](#)
- 14.89 [Jib access](#) [Repealed]
- 14.90 [Unobstructed passage](#) [Repealed]
- 14.91 [Hoisting ropes](#)
- 14.92 [Wind limitations](#)
- 14.93 [Temperature limitations](#)
- 14.94 [Counter jib](#) [Repealed]

MISCELLANEOUS MATERIAL HOISTS

- 14.95 [Standards](#) [Repealed]

CONSTRUCTION MATERIAL HOISTS

- 14.96 [Certifications and instructions](#)
- 14.97 [Rider restriction](#)
- 14.98 [Notices](#)
- 14.99 [Gate interlock systems](#) [Repealed]
- 14.100 [Hoistway entrances](#) [Repealed]
- 14.101 [Hoist platform](#) [Repealed]
- 14.102 [Hoist runway](#) [Repealed]
- 14.103 [Ratchets and pawls](#) [Repealed]
- 14.104 [Electric brakes](#) [Repealed]
- 14.105 [Emergency devices](#) [Repealed]
- 14.106 [Travel and load limit switches](#) [Repealed]
- 14.107 [Erection and maintenance](#) [Repealed]
- 14.108 [Operator qualifications](#) [Repealed]
- 14.109 [Operator responsibilities](#) [Repealed]
- 14.110 [Inspection](#) [Repealed]
- 14.111 [Testing safety and control devices](#) [Repealed]
- 14.112 [Securing the platform](#) [Repealed]
- 14.113 [Signal systems](#) [Repealed]
- 14.114 [Operating signals](#) [Repealed]
- 14.115 [Operating restrictions](#) [Repealed]

CHIMNEY HOISTS

- 14.116 [Standard to use](#)
- 14.117 [Certification](#)
- 14.118 [Support structures](#)
- 14.119 [Load rating](#)
- 14.120 [Emergency brakes](#) [Repealed]
- 14.121 [Safety factors](#) [Repealed]
- 14.122 [Drive restrictions](#) [Repealed]
- 14.123 [Brakes](#) [Repealed]
- 14.124 [Limit switches](#) [Repealed]
- 14.125 [Speed governor](#) [Repealed]
- 14.126 [Hoisting speed](#) [Repealed]
- 14.127 [Guardrails and gates](#) [Repealed]
- 14.128 [Raising materials](#) [Repealed]
- 14.129 [Communication](#) [Repealed]
- 14.130 [Fall protection](#) [Repealed]
- 14.131 [Operator qualifications](#) [Repealed]
- 14.132 [Unattended controls](#) [Repealed]

SCHEDULE 14-A

Schedule 14-A [WorkSafeBC Standard 14.116 — Chimney Hoists](#)

14.61 Brakes

A manually powered hoist must have a ratchet and pawl, load brake, or other mechanism to hold the load at any height.

14.62 Crank handles

The crank handle for a crank operated winch without automatic load brakes must be

- (a) prevented from slipping off the crankshaft while hoisting, and
- (b) removed from the crankshaft before the load is lowered.

[Back to Top](#)

14.54 Operational and running tests

(1) This section applies to

- (a) a bridge crane, gantry crane or overhead travelling crane that was installed after January 1, 1999, and
- (b) a crane referred to in paragraph (a) or its runway that has been reinstalled, modified or rebuilt.

(1.1) The following tests must be performed before the equipment described in subsection (1) is used for the first time after it has been installed, reinstalled, modified or rebuilt, as applicable:

- (a) all crane motions, holding brakes and travel brakes must be tested to meet the manufacturer's specifications and the requirements of the applicable design or safety standard for when the hook is carrying a load at rated capacity;
 - (b) all circuits, controls, interlocks and sequences of operation of the equipment must be tested to ensure they are functioning properly;
 - (c) all crane motions, holding brakes and travel brakes must be tested to prove the crane's ability to safely handle a load of 125% of the crane's rated capacity;
 - (d) all limit switches, brakes and other protective devices must be tested to ensure they function properly when the crane is carrying a load of 100% of the rated capacity;
 - (e) structural deflection must be measured with a load of 100% of the rated capacity and must not exceed the allowable deflection specified by the applicable design standard;
 - (f) the load must be travelled over the full length of the bridge and trolley runways during the load tests at 100% and 125% of rated capacity, and only the parts of runways that have been successfully load tested may be placed into service.
- (2) A record of all load tests must be included in the equipment record system giving details of the tests and verification of the loads used, and be signed by the person conducting the tests.
- (3) A replacement crane or hoist to be installed on an existing runway may be load tested in the manufacturer's facility and installed on the existing runway provided that the rated capacity of the replacement crane or hoist and the loads imposed on the runway by the replacement crane or hoist are equal to or less than the previously tested load rating for the runway.
- (4) In the circumstances set out in subsection (3), the existing runway is not required to be load tested as required in subsection (1.1) unless the runway has been modified since it was previously load tested.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.54.1 Detailed inspection

A bridge crane, gantry crane or overhead crane must be inspected by a qualified person in accordance with

- (a) the inspection criteria specified by the manufacturer of the crane,
- (b) the applicable design or safety standard specified in section [14.2](#), and
- (c) the requirements of this Regulation.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.55 Up travel limit

- (1) A bridge, gantry or other overhead travelling crane must have a device which will prevent hook travel beyond the safe upper limit at all design hoist speeds.
- (2) The device required by subsection (1) must be tested at the beginning of each shift.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.56 Electrical conductors

Electrical conductors for the bridge and trolley must be located or guarded to prevent contact by workers.

14.57 Power shutoff

An electrically powered crane, other than a monorail crane built prior to January 1, 1985, must have a means for the operator to safely interrupt the main electric circuit under any load condition and this means must require a manual reset before power is restored to the crane.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.58 Direction markings

A bridge, gantry, or overhead travelling crane operated by a pendant or remote control must have markings on the crane structure or building, visible to the operator, clearly indicating the direction of hook, bridge and trolley motions compatible with those marked on the controls.

[Back to Top](#)

14.73.1 Definition

In sections 14.73.2 to 14.93, "*tower crane*" means a tower crane that is erected on site from component parts or that is self erecting.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.73.2 Tower crane erection

The erection, climbing and dismantling of a tower crane must be done by qualified persons and in accordance with the instructions of

- (a) the crane manufacturer, or
- (b) a professional engineer, if the installation varies from the crane manufacturer's instructions.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.74 Tower crane support

- (1) The foundation for support of a tower crane must be certified by a professional engineer.
- (2) The design of shoring and bracing to support a tower crane must be certified by a professional engineer, and the shoring and bracing must be constructed as specified by the design.
- (3) If a tower crane is supported partially or fully by, or connected to, a building or structure, the connections to and any bracing or shoring of the building or structure necessary to support the tower crane must be certified by a professional engineer.
- (4) The bearing capacity of the supporting surface for a tower crane must be determined by a professional engineer.
- (5) The loads from a tower crane must be distributed onto its supporting surface to prevent the bearing capacity of the supporting surface being exceeded.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.75 Before use

- (1) Before a tower crane is put in service, the erector of the tower crane must verify that the crane has been erected according to
 - (a) the manufacturer's specifications, or
 - (b) the specifications of a professional engineer, if the engineer has authorized the crane to be erected otherwise.
- (2) If a tower crane is not erected according to the manufacturer's specifications a professional engineer must certify before the crane is put in service that
 - (a) the variations from the manufacturer's specifications meet the requirements of the applicable design or safety standard,
 - (b) the load charts are adjusted as necessary, and
 - (c) the crane is safe for use.

- (3) The erector of a tower crane must adjust the overload prevention system as necessary to meet the load chart for the crane as erected.
- (4) Before a tower crane, other than a self erecting tower crane, is put in service after its mast has been repositioned, a professional engineer must certify that the parts of the crane affected by the repositioning process have been properly installed and any required reshoring for, and bracing to, the supporting structure is in place.
- (5) Before a tower crane is put in service following its erection or the repositioning of its mast, the person responsible for the erection of the crane or the repositioning of its mast must make available at the workplace where the crane is installed a report verifying that
- (a) the certification documents required by section 14.74 and subsections (2) and (4) of this section are available at the workplace, and
 - (b) the overload prevention system of the crane has been adjusted as required in subsection (3), including specifying the load limits set for the various devices.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.76 Identification

The interchangeable structural components of tower cranes must be uniquely identified and that unique identification must be used when referring to structural components in reports for inspection and testing, and certifications for repairs and modifications.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.77 Structural inspection

- (1) Subject to subsection (4), before the erection of a tower crane, the structural components of the crane must be
- (a) inspected to determine their integrity by a qualified person using non-destructive testing (NDT) methods meeting the requirements of the Canadian General Standards Board (CGSB), and
 - (b) certified by a professional engineer as safe for use after the inspection in paragraph (a) and any necessary repairs.
- (2) If a tower crane remains erected at a workplace for more than 12 months,
- (a) its structural components must be inspected to determine their integrity by a qualified person using NDT methods meeting the requirements of the CGSB, and
 - (b) after the inspection required by paragraph (a), the crane, including any necessary repairs, must be certified by a professional engineer as safe for use.
- (3) If a tower crane is scheduled to be dismantled within 15 months of its being erected, subsection (2) does not apply provided that a visual inspection, conducted 12 months after erection of the crane and supervised by a professional engineer, shows no evidence of cracking or other structural weakness.
- (4) A self erecting tower crane must be
- (a) inspected visually by a qualified person each time it is erected, and
 - (b) inspected and certified under subsection (1) at least once every 12 months.
- (5) Subsection (3) does not apply to a self erecting tower crane.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.78 Structures kept clean

Tower crane structures must be kept clean and free of concrete and other debris that can hinder inspection and the base area must be clear of debris and the accumulation of water.

14.79 Manual and records

The following documents respecting operation, inspection, maintenance and repair of a tower crane must be kept at the workplace where and while the crane is erected:

- (a) the portions of the manufacturer's manual or engineer's instructions required by section 14.12 (3);
- (b) all records dated from the date of structural certification under section 14.77, including those specified in section 14.75 (5);

(c) in the case of a self erecting tower crane, all records dated from the date of the last certification of the crane.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.80 Counterweights and ballasts

(1) Counterweights and ballasts used on a tower crane must be as specified by the original equipment manufacturer or by a professional engineer.

(2) Each counterweight and ballast element must be accurately weighed and the weight of the counterweight or element must be clearly and durably marked on it.

(3) The weight of counterweight and any ballast installed on a tower crane must be recorded in the report required by section 14.75 (5).

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.81 Limit devices

(0.1) In this section:

"limit device" means a device on a tower crane that is designed to control the loads or motions of the crane, and includes the switches and devices described in subsections (1) and (5);

"warning device" means a device, such as a visual signal, audio signal or gauge, attached to a limit device that indicates when the limit device malfunctions.

(1) A tower crane must have automatic travel limit switches and automatic overload prevention devices that prevent overloading at any trolley position, the load block from travelling beyond the highest allowable position specified by the manufacturer and the trolley from travelling beyond the allowable limit specified by the manufacturer.

(2) Subject to subsection (4), limit devices on a tower crane must be tested before the crane is first used on each work shift

(a) in accordance with the manufacturer's testing procedures, or

(b) if the manufacturer's testing procedures are not available, in accordance with testing procedures approved by a professional engineer.

(3) Any malfunction of a limit device, warning device or safety device on a tower crane that is discovered after testing or at any other time must be remedied before the crane is used.

(4) If it is not practicable, due to the configuration of the workplace, to position sufficient test weights to test the maximum load limit switch before the crane is first used on each work shift, the maximum load limit switch must

(a) be set to activate at a load of less than 80% of the maximum rated capacity for the crane and tested using test blocks, and

(b) be reset to the maximum load limit for the crane and tested using test blocks before making any lift that is greater than the load limit setting established under paragraph (a).

(5) A tower crane with a luffing boom must have an automatic limit device that prevents the boom being raised beyond the maximum permitted boom angle.

(6) In subsection (5), *"luffing boom"* means a boom that is raised and lowered about a pivot point to change the load radius.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

14.82 Test blocks

(1) Test blocks for testing overload prevention devices on a tower crane must be available at the tower crane site.

(2) The weights of test blocks required by subsection (1) must be as specified by

(a) the crane manufacturer if the crane is erected in accordance with the manufacturer's instructions, or

(b) a professional engineer if the crane has been erected other than in accordance with the manufacturer's instructions.

(2.1) The weight of each test block required by subsection (1) must be accurately determined and durably and legibly marked on that block.

(3) Test blocks, including the lifting point, must be designed by the crane manufacturer or a professional engineer.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.83 Operator's cab

- (1) The design, location and method of attaching a tower crane operator's cab must be approved by the crane manufacturer or by a professional engineer.
- (2) The rated capacity of a tower crane must be adjusted as necessary if using a cab type and location not approved by the crane manufacturer.

14.84 Monitoring jib swing

- (1) The operator of a tower crane must have a clear view of the jib of the crane whenever the jib is being slewed.
- (2) Subsection (1) does not apply if a signaller or a rigger who is able to see the jib of the crane is in communication with the operator of the crane and provides directions to the operator.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.84.1 Overlapping operating zones

- (1) In this section:

"operating zone" means,

- (a) in the case of a tower crane, the complete circular area covered by the swing of the tower crane's jib as it rotates, and
- (b) in the case of any other equipment, the area covered by the swing or movement of the equipment;

"overlapping operating zone" means the area where the operating zone of a tower crane intersects the operating zone of another tower crane or other piece of equipment.

- (2) If practicable, tower cranes must be erected to avoid the overlapping of their operating zones.
- (3) If it is not practicable to comply with subsection (2), the following procedures apply:
 - (a) the cranes must be erected and maintained so that the lowest point of any component of the higher crane is at least 3 m (10 ft.) above the highest component of the lower crane that crosses into the overlapping operating zone;
 - (b) the boundaries of the overlapping operating zone must be marked so the boundaries are visible to the operators of all the affected cranes;
 - (c) any load suspended by the higher crane must be positioned at a location that ensures at least 3 m (10 ft.) lateral clearance between it and an operator's cab on the jib of the lower crane;
 - (d) written operating procedures must be developed and implemented to coordinate lifting tasks in the overlapping operating zone to prevent collision or interference between a component or suspended load of one crane with a component or suspended load of another crane.
- (4) The procedures required in subsection (3) (d) must do the following:
 - (a) minimize the time each crane spends in the overlapping operating zone;
 - (b) establish that the lower crane has priority for working in the overlapping operating zone;
 - (c) establish that the operator of the lower crane must give temporary permission to the operator of the higher crane for each lifting sequence in the overlapping operating zone;
 - (d) establish a means and protocol for communication between the crane operators when a crane operates in the overlapping zone, including a requirement for the operator of the higher crane to contact the operator of the lower crane when the higher crane is required to enter the overlapping operating zone;
 - (e) establish that the lateral clearance of the load of the higher crane will be at least 3 m (10 ft.) from
 - (i) the occupied cab of the lower crane, and
 - (ii) the space above it;
 - (f) establish that when the lower crane is being operated or when a person is on the lower crane, the higher crane will not pass a load over the lower crane unless
 - (i) the activity follows work procedures acceptable to the Board and
 - (ii) either

- (a) the higher crane is being used to erect, service or dismantle the lower crane, or
 - (b) there is a minimum of 18 m (60 ft.) clearance between the underside of the jib of the higher crane and the highest point on the lower crane that is within the tip radius of the higher crane.
- (5) If the operating zone of a tower crane overlaps the operating zone of another piece of equipment with a reach capable of interfering with the movement of the crane or hoist, or the load being lifted
- (a) written operating procedures must be developed and implemented to coordinate lifting tasks in the overlapping operating zone to prevent collision or interference between a component or suspended load of the tower crane with a component or suspended load of the other equipment, and
 - (b) the boundaries of the overlapping operating zone must be marked so the boundaries are visible to the operators of all affected cranes and equipment.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.85 Clearance and freedom to slew

(1) Except as otherwise required by this Regulation, at all times and under all load conditions, a tower crane must have vertical and lateral clearances, between any component of the tower crane jib and counter jib and any obstruction, that are the greater of

- (a) the vertical and lateral clearances specified by the crane manufacturer, and
- (b) a vertical clearance of 1 m (3.3 ft.) and a lateral clearance of 30 cm (1 ft.).

(2) At all times and unless otherwise specified by the crane manufacturer, a tower crane must be able to slew 360 degrees.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.86 Freedom to slew

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

14.87 Communication

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.88 Access

- (1) A tower crane must have a fixed ladder installed in or on the mast to provide access to the jib and crown of the crane.
- (2) The ladder under subsection (1) must meet the following requirements:
 - (a) the ladder must be able to support two 1.1 kN (250 lbs.) point loads between any two consecutive points where the ladder is attached to the crane;
 - (b) there must be a minimum horizontal distance of 15 cm (6 in.) between the rungs and the object to which the ladder is attached;
 - (c) landing platforms must be provided at least every 9 m (30 ft.) on the ladder;
 - (d) each section of the ladder must be offset horizontally from adjacent sections or the landing platforms must have trap doors;
 - (e) if a section of the ladder has a climb exceeding 6 m (20 ft.) in length, that section of ladder must have a ladder safety cage 68 cm to 76 cm (27 in. to 30 in.) in diameter or a ladder safety device must be used.
- (3) Each tower crane jib must have a continuous walkway from the mast to the tip.
- (4) The walkway referred to in subsection (3) must meet the following requirements:
 - (a) the walkway must be at least 30 cm (12 in.) wide and constructed with a non-skid surface;
 - (b) a handline, which is approximately 1 m (39 in.) above the level of the walkway, and a midline must be provided on both sides of the walkway not more than 30 cm (12 in.) out from the edge of the walkway and supported at intervals not exceeding 3 m (10 ft.);
 - (c) the handline and midline referred to in paragraph (b) must be wire rope of at least 1 cm (3/8 in.) diameter;
 - (d) if it is not practicable to provide handlines in accordance with paragraph (b), alternative means of fall protection, such as a horizontal lifeline system, must be provided in accordance with the requirements of [Part 11 \(Fall Protection\)](#) and must be set out in the fall protection plan.

(5) If, due to the design or size of the tower crane, it is not practicable to meet the requirements set out in subsections (1) to (4), alternative safe means of access must be provided.

(6) The climbing space of a tower crane must be clear of protruding objects and must provide a safe and unobstructed passage.

(7) A written fall protection plan, which addresses the requirements of fall protection when a person is operating, inspecting, servicing and maintaining the tower crane, must be developed and implemented.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.89 Jib access

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.90 Unobstructed passage

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.91 Hoisting ropes

(1) A rotation resistant hoisting rope on a tower crane must be shortened by the removal of 3 m (10 ft) of rope at the dead end after every 500 hours of use unless

(a) otherwise specified by the rope manufacturer,

(b) the rope has 14 or more outer strands, or

(c) the rope has a plastic coated inner core.

(2) The hoisting rope on a tower crane must be properly seized before cutting.

(3) The equipment records for a tower crane must contain the following information about the hoisting rope installed on the crane:

(a) the name of the manufacturer or supplier of the rope;

(b) the type of rope installed as described by the rope construction, number of outer strands, type of lay, direction of lay and type of core;

(c) the diameter and the length of the rope;

(d) the nominal or minimum rated breaking strength of the rope;

(e) the rated working load limit for the rope;

(f) the date the rope was installed;

(g) if the rope was not new at the time of installation, the name of the qualified person who inspected the rope before installation on the crane to ensure that the rope was in a suitable condition for use as the hoist line on the crane;

(h) the name of the qualified person who installed the rope.

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.92 Wind limitations

(1) An anemometer must be mounted on the crown, apex or operator's cab of each tower crane.

(2) The readout for the anemometer required by subsection (1) must be readable by the operator while at the crane controls.

(3) Tower crane operations must stop when a load cannot be handled safely because of wind.

(4) In the absence of the manufacturer's specifications for maximum permitted wind speed during crane operation, the maximum allowable wind speed in which a tower crane may be used is 50 km/h (30 mph), or less if a load cannot be handled safely because of wind.

(5) A sign or other item that would increase the surface area of a crane structure exposed to wind must not be installed unless authorized by the crane manufacturer or a professional engineer.

(6) A tower crane must not be erected, operated or dismantled when the wind speed exceeds the upper limit specified by the crane manufacturer.

for erection, operation or dismantling of the crane.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.93 Temperature limitations

Tower crane operations must stop when the ambient temperature drops below -18°C (0°F) or as otherwise specified by the crane manufacturer or a professional engineer.

14.94 Counterjib

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.96 Certifications and instructions

(1) Before a construction material hoist is put into use, a professional engineer must certify that

(a) the hoist is safe for use, and

(b) the installation of the hoist complies with

(i) the design criteria for that installation,

(ii) the hoist manufacturer's specifications,

(iii) the requirements of [*CSA Standard CAN/CSA-Z256-M87, Safety Code for Material Hoists*](#), and

(iv) the requirements of this Regulation.

(2) If, after certification under subsection (1), a modification is made to the structure, mechanical components or control system of a construction material hoist or it is changed through the addition or removal of a support section of the hoist, the hoist must not be used until it is recertified as safe for use by a professional engineer.

(3) Subsections (1) and (2) do not apply to a light duty portable material hoist installed and operated in accordance with the hoist manufacturer's instructions.

(4) A copy of the certifications required in subsections (1) and (2) or the manufacturer's instructions referred to in subsection (3) must be available at the workplace where the hoist is installed.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.97 Rider restriction

A worker must not ride on a construction material hoist unless it is necessary to do so for inspection and maintenance of the hoist.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.98 Notices

(1) The net rated capacity of each construction material hoist must be clearly and durably marked upon the hoist structure in letters or figures at least 5 cm (2 in) high in a location which is visible to persons involved with operation of the hoist.

(2) Each construction material hoist must prominently display a notice stating that no person may ride on the equipment.

14.99 Gate interlock systems

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.100 Hoistway entrances

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.101 Hoist platform

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.102 Hoist runway

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.103 Ratchets and pawls

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.104 Electric brakes

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.105 Emergency devices

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.106 Travel and load limit switches

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.107 Erection and maintenance

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.108 Operator qualifications

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.109 Operator responsibilities

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.110 Inspection

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.111 Testing safety and control devices

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.112 Securing the platform

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.113 Signal systems

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.114 Operating signals

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.115 Operating restrictions

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

[Back to Top](#)

14.63 Carrier vehicle

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

14.64 Load weight indicators

(1) A mobile crane or boom truck with a rated capacity of 10 tonnes (11 tons) or more must have a device that measures and indicates the weight

of the load on the load hook or disengages crane functions whose movement can cause the mobile crane or boom truck to lift beyond the rated capacity.

(2) A load indicating device required by subsection (1) must meet the requirements of *ANSI/SAE Recommended Practice J376-APR85, Load Indicating Devices in Lifting Crane Service*.

(3) A crane being used for duty cycle work is exempt from the requirements of subsection (1) if the load applied to the crane is safely below the rated capacity of the crane and if the possibility of an unexpected overload does not exist.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.65 Cranes on floating supports

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.66 Level turntable

(1) A mobile crane or boom truck must be operated with the crane turntable or boom truck frame level, unless the manufacturer provides that it may be operated otherwise.

(2) Level indicating devices must be provided to permit the operator of a mobile crane or boom truck to determine whether the crane turntable or boom truck frame is level within the limits specified by the manufacturer.

(3) When a mobile crane or boom truck is operating on a floating support, the rated capacity must be determined by a professional engineer or the manufacturer of the crane or boom truck, taking into account the list and trim characteristics of the floating support and the mobile crane or boom truck operating together as a system.

(4) When a mobile crane or boom truck is used on a floating support, a device to measure the list of the floating support must be provided and located so it can be read by the operator from the operator's position for the mobile crane or boom truck.

(5) A mobile crane or boom truck being used on a floating support must be blocked and secured as necessary to prevent it from shifting relative to the bearing surface of the floating support.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.67 Outriggers and stabilizers

(1) Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

(2) Outrigger beams and stabilizers on a crane or boom truck must be marked to indicate when the necessary extension has been achieved.

(3) Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

(4) Floats must be secured to the outrigger jacks of a crane or boom truck when outriggers are used.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.68 Tires

Mobile crane or boom truck tire type, condition and inflation must be as specified by the manufacturer when lifting on rubber.

14.69 Supporting surface

(1) A mobile crane or boom truck must be used only on a surface capable of safely supporting the equipment and any hoisted load.

(2) If a mobile crane or boom truck will be used adjacent to an excavation, slope or backfilled area, a qualified person must determine the location for the equipment for hoisting operations. (3) In subsection (2), "*adjacent to an excavation*" has the same meaning as in section [20.1](#).

(4) Blocking, shoring or cribbing must be sized and used as necessary to ensure the load from a mobile crane or boom truck support does not exceed the bearing capacity of the supporting surface.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.70 Travelling with a load

A mobile crane or boom truck may travel with a suspended load only if

- (a) the crane manufacturer specifies load ratings for this operation, and
- (b) the operation is carried out in accordance with the manufacturer's instructions for this operation.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.71 Annual inspection

(1) A mobile crane or boom truck must be inspected at least once every 12 months in accordance with good engineering practice to ensure it meets

- (a) the crane or boom truck manufacturer's specifications,
- (b) the requirements of the applicable design or safety standard specified in section [14.2](#), and
- (c) the requirements of this Regulation.

(2) A mobile crane or boom truck must not be used after an inspection under subsection (1) unless a professional engineer certifies it is safe for use on the basis of that inspection.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.72 Boom inspection

(1) A crane boom used with a vibratory hammer for driving piles must be inspected at least once every 3 months in accordance with good engineering practice to ensure it meets

- (a) the crane boom manufacturer's specifications,
- (b) the requirements of the applicable design or safety standard specified in section [14.2](#), and
- (c) the requirements of this Regulation,

(2) A crane boom used with a vibratory pile extractor or with a drop hammer or used for dynamic compaction must be inspected at least once a month in accordance with good engineering practice to ensure it meets

- (a) the crane boom manufacturer's specifications,
- (b) the requirements of the applicable design or safety standard specified in section [14.2](#), and
- (c) the requirements of this Regulation

(3) A boom must not be used after an inspection under subsection (1) or (2) unless a professional engineer certifies it is safe for use on the basis of that inspection.

(4) A crane used in any operation described in subsection (1) or (2) must not be returned to lifting service unless a professional engineer inspects the crane and certifies that it is safe for such use.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.73 Sign trucks

(1) A sign truck must be inspected, maintained and operated according to the requirements for mobile cranes, and for elevating work platforms in [Part 13 \(Ladders, Scaffolds and Temporary Work Platforms\)](#).

(2) When a sign truck is being used, the load rating charts for the configuration in use must be available at the workplace.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Back to Top](#)

(sections [14.2\(9\)](#), [14.116](#) and [14.117](#))

WorkSafeBC Standard 14.116 — Chimney Hoists

1 Scope

1 This standard sets out the minimum requirements that are in addition to those set out in sections 14.116 to 14.119 of this Regulation for the design and use of a chimney hoist to transport personnel to a fixed work platform on a chimney or similar structure.

2 Definitions and interpretation

(1) In this standard:

"*cage*" means the fully enclosed platform of a chimney hoist, which platform is used to raise or lower one or more persons to a fixed work platform on a chimney or similar structure;

"*hoist*", in respect of a chimney hoist, means the apparatus that is used to raise or lower the cage;

"*rated capacity*", in respect of a cage or a hoist, means the maximum weight the cage or hoist is rated by its manufacturer to carry.

(2) The definitions set out in ANSI/ASSE Standard A10.22-2007, *Safety Requirements for Rope-Guided and Non-Guided Workers' Hoists*, apply in this standard.

3 General Requirements

(1) A chimney hoist must

(a) be designed, constructed, erected, disassembled, inspected, maintained and operated as specified by the manufacturer or a professional engineer, and

(b) meet the requirements of ANSI/ASSE Standard A10.22-2007, *Safety Requirements for Rope-Guided and Non-Guided Workers' Hoists*, except as otherwise specified in this standard.

(2) A chimney hoist must have a cage.

4 Certification after alteration

(1) Following any alteration to a chimney hoist, other than ordinary adjustments or repairs,

(a) the chimney hoist must be tested by a professional engineer and certified as required under section 14.117 of this Regulation, and

(b) the design documents and operating instructions must be updated by the professional engineer as necessary to ensure the documentation is complete and allows for safe use of the chimney hoist.

(2) A copy of the certification required under subsection (1) must be available at the workplace where the chimney hoist is installed.

5 Emergency stopping devices

A chimney hoist must be outfitted with emergency stopping devices on at least two separate guide wire ropes that will apply automatically to prevent the cage from falling if a wire rope fails

6 Safety factors

Suspension and guide wire ropes, supporting structures, slings and metal fittings used on a chimney hoist must have a safety factor of 10.

7 Drive restrictions

A hoist must have a positive drive and there must not be a clutch between the transmission and the hoist drum.

8 Brakes

A hoist must have two independent braking systems: one that applies automatically when the controls are in the neutral position, and one that applies automatically in the event of loss of power.

9 Terminal stopping devices

A chimney hoist must have upper and lower terminal stopping devices that automatically stop the cage from normal travel speed, within the top and bottom travel limits.

10 Speed governor

A hoist must have a governing device that will effectively prevent the drum speed from exceeding 110% of the design speed.

11 Equipment condition

The hoist, wire ropes and cage of a chimney hoist must be in good working order with all components, controls and functions meeting, and operating in accordance with, the manufacturer's specifications, the professional engineer's design specifications and this Regulation.

12 Cage markings

The cage must be legibly marked to show

- (a) the name of the manufacturer or certifying professional engineer,
- (b) a unique identification number or code that links to the design and certification documentation for the chimney hoist from the certifying professional engineer,
- (c) the weight of the cage, and
- (d) the rated capacity of the cage.

13 Load restrictions

- (1) The rated capacity of the cage must not be exceeded.
- (2) A chimney hoist must not use a hoist with a rated capacity that is less than the rated capacity of its cage.

14 Cage layout and guarding

The cage must be constructed so that

- (a) it does not cause a hazard to the occupants, and
- (b) the occupants cannot reach any hazard created by movement of the cage or the hoisting mechanism.

15 Fall protection at landings

A landing that is 3 m (10 ft) or more above grade must have gates, hinged guardrails, hinged covers or other effective guarding that protects persons who are at or near the landing from the hazard of falling off of or through the landing platform when the cage is not at that landing.

16 Guarding at the lower landing

The lower landing for a chimney hoist must be guarded by perimeter guards or guardrails and a gate.

17 Instructions for use and maintenance

The instructions from the professional engineer who designed the chimney hoist and from the manufacturers of its component parts, relating to safe use and maintenance of the chimney hoist, must be available in the workplace.

18 Chimney hoist must be in good condition

The chimney hoist, including its cage, must be in good condition at the beginning of each shift and during use.

19 Operator training and authorization

- (1) A chimney hoist operator must not operate a chimney hoist unless authorized by the employer.
- (2) A chimney hoist operator must not be authorized under subsection (1) unless the operator has demonstrated
 - (a) competency in operation of the chimney hoist, and
 - (b) familiarity with the operating instructions required under section 17 and the communication systems required under sections 22 and 23.

20 Daily testing

Before the first use on each work shift, the cage of the chimney hoist must be raised to its maximum operating height and lowered back to the ground or base to ensure that

- (a) all functions are operating correctly,

(b) all limit devices are functioning properly, and

(c) there is adequate clearance between the cage and any surrounding object such as a structure, overhead obstruction, storage rack, or scaffold, and any hazard such as energized electrical wires and equipment.

21 Attending the controls

The operator of a chimney hoist must not leave the hoist controls unattended or engage in any other tasks unless the cage is at the lowest landing level, which is usually at ground or grade level, and no persons are in the cage.

22 Communication with the operator

(1) There must be effective voice communication, using single channel two-way radios, among the chimney hoist operator, occupants of the cage and people at each hoist landing.

(2) If there is more than one occupant in a cage, one person in the cage must be designated to be the primary person to signal the chimney hoist operator regarding cage movement requests.

23 Backup communication plan

(1) An effective signalling system must be developed and implemented as an alternative in the event the primary voice communication system becomes ineffective while the chimney hoist is in use.

(2) If the voice communication system becomes ineffective while the chimney hoist is in use, the signalling system required under subsection (1) must be used to bring the cage down to the lowest landing and the hoist must not be used until the voice communication system is effectively restored.

24 Persons or materials

Materials, equipment or supplies must not be raised or lowered by the chimney hoist with a person in the cage.

25 Getting in or out of the cage

The cage must be at a designated landing before a person gets into or out of the cage.

26 Hoisting speed

A cage must not be raised or lowered at a speed greater than 76 m/min (250 fpm).

27 Position of gates

All the gates of a chimney hoist must be kept closed, except at a landing designated for loading and unloading the cage.

28 Emergency evacuation

(1) Before a chimney hoist is used, a plan must be developed for the evacuation of personnel from the cage in the event of loss of power or equipment malfunction.

(2) While a chimney hoist is in use, personnel and equipment must be immediately available to implement the plan required under subsection (1).

[Enacted by B.C. Reg. 188/2011, effective February 1, 2012.]

[Back to Top](#)

14.2 Standards

(1) Except as otherwise required by this Regulation, a crane or hoist must be designed, constructed, erected, disassembled, inspected, maintained and operated as specified by the manufacturer or a professional engineer, and to meet the requirements of the applicable standard listed in subsections (2) to (15).

(2) A bridge, jib, monorail, gantry or overhead travelling crane must meet the design requirements for electrical components and functions of [CSA Standard C22.1-94, Canadian Electrical Code, Part 1, Section 40](#) and [CSA Standard C22.2 No. 33-M1984 \(Reaffirmed 1992\), Construction and Test of Electric Cranes and Hoists](#).

(3) A bridge, jib, monorail, gantry or overhead travelling crane must meet the design requirements of

(a) *ANSI Standard MH27.1-2003, Specifications for Patented Track Underhung Cranes and Monorail Systems*,

(b) *Crane Manufacturers Association of America (CMAA) Specifications for Top Running Bridge & Gantry Type Multiple Girder Electric Overhead Traveling Cranes - No. 70 (2004)*, or

(c) *Crane Manufacturers Association of America (CMAA) Specifications for Top Running and Under Running Single Girder Electric Overhead Cranes Utilizing Under Running Trolley Hoist - No. 74 (2004)*.

(4) A bridge, jib, monorail, gantry or overhead travelling crane must meet the safety requirements of

(a) [CSA Standard B167-96, Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys](#),

(b) *ANSI Standard ANSI/ASME B30.2-2005, Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)*,

(c) *ANSI Standard ANSI/ASME B30.11-2004, Monorails and Underhung Cranes*,

(d) *ANSI Standard ANSI/ASME B30.16-2003, Overhead Hoists (Underhung)*, or

(e) *ANSI Standard ANSI/ASME B30.17-2003, Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)*.

(5) A mobile crane, telescoping or articulating boom truck or sign truck must meet the requirements of

(a) [CSA Standard Z150-1998, Safety Code for Mobile Cranes](#),

(b) *ANSI Standard ANSI/ASME B30.5-2004, Mobile and Locomotive Cranes*, or

(c) *ANSI Standard ANSI/ASME B30.22-2005, Articulating Boom Cranes*.

(6) A tower, hammerhead crane or self erecting tower crane must meet the requirements of [CSA Standard Z248-2004, Code for Tower Cranes](#).

(7) A portal, tower or pillar crane must meet the requirements of *ANSI Standard ASME B30.4-2003, Portal, Tower, and Pillar Cranes*.

(8) A construction material hoist, other than a light duty portable material hoist, must meet the requirements of [CSA Standard CAN/CSA-Z256-M87, Safety Code for Material Hoists](#).

(9) A chimney hoist must meet the requirements of WorkSafeBC Standard 14.116 - Chimney Hoists, set out in [Schedule 14-A](#).

(10) A base mounted drum hoist must meet the requirements of *ANSI Standard ASME B30.7-2001, Base Mounted Drum Hoists*.

(11) A guy, stiffleg, basket, breast, gin pole, Chicago boom, shearleg or A-frame derrick must meet the requirements of *ANSI Standard ASME B30.6-2003, Derricks*.

(12) A side boom tractor used for pipe laying or similar operations must meet the requirements of *ANSI Standard ASME B30.14-2004, Side Boom Tractors*.

(13) A manually lever operated hoist must meet the requirements of *ANSI Standard B30.21-2005, Manually Lever Operated Hoists*.

(14) A patient lift must meet the requirements of [CSA Standard CAN/CSA Z10535-03, Hoists for the Transfer of Disabled Persons- Requirements and Test Methods](#).

(15) A crane or hoist of a type not covered by the standards specified in subsections (2) to (14) must meet good engineering practice and be able to safely perform its function.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 188/2011, effective February 1, 2012.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

14.3 Identification

(1) A crane or hoist must be permanently identified by the legible display of the manufacturer's name, model and serial number on the structure.

(2) Each major interchangeable structural component of a crane or hoist must be uniquely identified and must be legibly marked to enable confirmation that the component is compatible with the crane or hoist.

(3) If a crane or hoist was not commercially manufactured and does not have a model number or serial number, the crane or hoist must not be used unless engineering documentation signed by a professional engineer, including technical specifications and instructions for use, are available at

the workplace where the crane or hoist is being used.

(4) A crane or hoist described in subsection (3) must be identified in a manner that links the engineering documentation referred to in that subsection with that crane or hoist.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.4 Rated capacity

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.5 Rated capacity indication

(1) The rated capacity of a crane or hoist, other than a crane or hoist to which subsection (2) or (3) applies, must be permanently indicated on each of the following:

- (a) the superstructure;
- (b) the hoist;
- (c) the load block.

(2) The rated capacity of a monorail crane must be permanently indicated on each of the following:

- (a) the hoist;
- (b) the load block;
- (c) the monorail beam, at intervals not exceeding 10 m (33 ft).

(3) If the rated capacity of a crane or hoist is affected by

- (a) the vertical or horizontal angle of a boom or jib,
- (b) the length of a boom or jib,
- (c) the position of a load supporting trolley, or
- (d) the use or position of outriggers to increase the stability of the structure,

a load chart must be permanently posted on the crane or hoist or must be issued to the crane or hoist operator who must keep it available at all times when operating the crane or hoist.

(4) A load chart under subsection (3) must indicate the rated capacity for the crane or hoist for the working positions and configurations in use and must be in a legible condition.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

14.6 Load charts

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

14.7 Boom angle indicator

A crane or hoist with a boom movable in the vertical plane must have a device to indicate the boom angle if the rated capacity is affected by the boom angle, and the device must be readable by the operator at the control station.

14.8 Boom extension and load radius indicators

A crane or hoist must have a means or device to indicate the boom extension or load radius if the rated capacity of the equipment is affected by boom extension or load radius.

14.9 Logging exemption

Specialized equipment designed and used only for logging operations is exempt from the requirements of sections 14.5 to 14.8.

14.10 Reeved-in devices

The rated capacity of a crane or hoist with reeved-in lifting devices must be the net capacity of the equipment, except for mobile cranes.

14.11 Support structure

- (1) The rated capacity of a crane or hoist must not exceed the rated capacity of the structure supporting the crane or hoist.
- (2) Selector switches or other effective means must be provided to ensure that the supporting structure is not overloaded by simultaneous use of multiple cranes or hoists installed on the supporting structure.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

14.12 Manual and instructions

- (1) In this section:

"engineer's instructions" mean instructions, approved in writing by a professional engineer, for the assembly, erection, dismantling, maintenance, inspection and operation of the component parts of a crane or hoist and of the assembled crane or hoist.

"manufacturer's manual" means a manual, prepared by the manufacturer of a crane or hoist, that describes the approved methods of assembly, erection, dismantling, maintenance, inspection and operation of the component parts of the crane or hoist and of the assembled crane or hoist.

- (2) A crane or hoist must not be used unless the following is reasonably accessible to the equipment operator and other persons inspecting or maintaining the equipment at the workplace where the crane or hoist is to be used:
 - (a) the manufacturer's manual for the crane or hoist;
 - (b) if the manufacturer's manual is not available, an engineer's instructions for the crane or hoist.
- (3) A crane or hoist must not be used unless the following is readily available at the workplace where the crane or hoist is to be used:
 - (a) the portions of the manufacturer's manual related to the assembly, erection, dismantling, inspection, routine maintenance and safe operation of the crane or hoist;
 - (b) if the portions of the manufacturer's manual referred to in paragraph (a) are not available, the portions of an engineer's instructions related to the assembly, erection, dismantling, inspection, routine maintenance and safe operation of the crane or hoist.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.13 Inspection, maintenance and repair

- (1) Each crane and hoist must be inspected and maintained at a frequency and to the extent required to ensure that every component is capable of carrying out its original design function with an adequate margin of safety.
- (2) A crane or hoist must not be used until any condition that could endanger workers is remedied.
- (3) Any repair to load bearing components of a crane or hoist must be certified by a professional engineer or the original equipment manufacturer as having returned the component to a condition capable of carrying out its original design function with an adequate margin of safety.
- (4) Maintenance or repair of a crane or hoist must be done by or under the direct supervision of a qualified person.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.14 Inspection and maintenance records

Records of inspection and maintenance meeting the requirements of [Part 4 \(General Conditions\)](#) must be kept by the equipment operator and other persons inspecting and maintaining the equipment, for

- (a) a crane or hoist with a rated capacity of 900 kg (2 000 lbs) or more,
- (b) a crane or hoist used to support a worker,
- (c) a tower crane,
- (d) a mobile crane, boom truck or sign truck,

- (e) a side boom tractor or pipe layer,
- (f) a construction material hoist,
- (g) a chimney hoist,
- (g.1) a logging truck trailer reload hoist, and
- (h) any other type of hoisting equipment specified by the Board.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.15 Modifications

(1) Each crane or hoist must be erected, dismantled, operated, adjusted, inspected and maintained as specified by the manufacturer's manual unless otherwise approved by the original equipment manufacturer or a professional engineer.

(2) If a modification that affects the rated capacity or safe operation of a crane or hoist is made to its structure, to one of its mechanical components or to its control system, the crane or hoist must

- (a) be assessed,
- (b) have its rated capacity adjusted as necessary, and
- (c) be certified as safe for use.

(2.1) The assessment, rated capacity adjustment and certification under subsection (2) must be carried out

- (a) in accordance with the applicable design or safety standard specified in section 14.2, and
- (b) by the original equipment manufacturer or a professional engineer.

(3) Modifications to a crane or hoist must be recorded in the inspection and maintenance records system and the equipment operation and maintenance manuals must be revised as necessary to ensure that adequate and appropriate information is available for safe use and maintenance of the equipment.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.16 Certification required

(1) Subsection (2) applies in respect of a crane or hoist if

- (a) the origin or rated capacity of the equipment is not available,
- (b) the continued safe use of the equipment cannot be assured because of its condition, age or history, or
- (c) modifications referred to in section [14.15](#) that affect the rated capacity have been made to the crane or hoist.

(2) A person must not use a crane or hoist described in subsection (1) unless a professional engineer has certified the rated capacity of the crane or hoist in accordance with the applicable design or safety standard specified in section [14.2](#).

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.16.1 Certification following misadventure

(1) In this section, "*misadventure*" means

- (a) a contact with a high voltage electrical source,
- (b) a shock load,
- (c) a loss of a load,
- (d) a brake failure,
- (e) a collision or upset, or
- (f) any other circumstance that may impair the safe operation of the crane or hoist.

(2) If a crane or hoist has been subject to a misadventure, it must be removed from service until a professional engineer has

(a) supervised an inspection of, and supervised any necessary repairs to, the equipment, and

(b) certified the equipment as safe for use at the manufacturer's rated capacity for the equipment or as provided by section 14.16 if the manufacturer's rated capacity is not available.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.17 Access and egress

(1) A crane or hoist must have a safe means of access to and egress from

(a) the operator's position, and

(b) all maintenance and inspection locations on the crane and hoist.

(2) If the normal safe means of egress is not always available to the operator during crane operations, an alternative safe means must be provided for the operator to get from the operating position to a safe area in the event of a power failure or other emergency.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.18 Audible warning

(1) An effective audible warning device must be installed on a crane or hoist, unless the hoisting equipment is operated using a pendant or remote control and the operator walks in a safe position near the load.

(2) The operator of a crane or hoist must sound a warning signal when it is necessary to alert workers to hoisting operations.

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.19 Drop stops

(1) A top-running crane, under-running crane, wheel- or rail-mounted gantry crane, tower crane and monorail hoist must have a means to limit the drop of the crane, trolley and bridge truck frames to 25 mm (1 in) if a tire, wheel or axle fails.

(2) Drop stops must be able to support the trolley, bridge and gantry with the crane or hoist loaded to its rated capacity and must be certified to be able to do so by the original equipment manufacturer or a professional engineer.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.20 Rail end stops

(1) End stops must be provided on crane and hoist tracks and rails to prevent the equipment running off the end of the rail or track.

(2) The stops must contact the truck frame or be of a height of at least 1/2 the diameter of the wheels if the wheels contact the stops.

14.21 Fenders

(1) Fenders must be provided on a crane or hoist which operates on rails if there is a possibility of injury to workers from contact with the equipment wheels moving along the rail.

(2) Fenders required by subsection (1) must effectively deflect any object from the path of the wheel.

14.22 Securing pins

A heel-pin, sheave-pin, shackle-pin or similar device must be secured against inadvertent dislodgment, in the manner specified by the equipment manufacturer or by the professional engineer who designed and certified the equipment.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.23 Boom stops

(1) Positive boom stops must be provided on a crane or hoist with a boom that may fall over backward.

(2) A boom hoist disconnect, shutoff or hydraulic relief must be provided on a crane or hoist to automatically stop the boom hoist when the boom reaches the maximum boom operating angle specified by the manufacturer and before the boom stops are contacted.

(3) A jib on a crane or hoist must be restrained from backward overturning.

14.24 Molten metal

A crane or hoist that handles molten metal must have 2 holding brakes on the hoist mechanism.

14.25 Two-block prevention

Repealed. [B.C. Reg. 19/2006, effective May 17, 2006.]

14.26 Sheave guards

A running line sheave on a crane or hoist must have a device to retain the rope in the sheave groove.

14.27 Ungrounded supply

An electrically powered crane receiving its source of power from an ungrounded supply must have a ground fault indication system that is monitored on a routine basis.

14.28 Controls

- (1) Each control for a crane or hoist must have its function clearly identified and must be maintained in good condition.
- (2) Each control for a crane or hoist that causes load movement must return to neutral when pressure from the operator is released.
- (3) Subsection (2) does not apply to a crane or hoist manufactured before January 1, 2000 for which continuous pressure controls were not previously required.
- (4) Each control for a crane or hoist must be located to allow safe operation of the equipment and if the control is not located in a cab it must be located to provide a safe distance between the operator and the load being handled.
- (5) A pendant control for a crane or hoist must be supported independently from its electrical conductors.
- (6) A remote control panel for a crane or hoist must be designed to safeguard effectively against the unintended activation of the crane or hoist.
- (7) A wireless remote control system for a crane or hoist must incorporate
 - (a) error checking to prevent the controlled equipment from responding to corrupt data, and
 - (b) identification coding methods to prevent a transmitter other than the designated transmitter for that crane or hoist from operating the equipment.
- (8) A remote control system for a crane or hoist must be designed to ensure the following:
 - (a) if the power to the remote control system is removed for any reason, all crane or hoist functions stop;
 - (b) if the control signal for any crane or hoist motion becomes ineffective, the crane or hoist motion stops;
 - (c) the remote control panel has an operator controlled emergency stop feature that
 - (i) permits the operator to stop all crane or hoist movement regardless of a malfunction within the remote control system, and
 - (ii) requires resetting of the emergency stop feature before equipment operation can resume.
- (9) A remote control panel for a crane or hoist must be marked to identify the corresponding base control unit to be used with it.
- (10) The maximum distance between a remote control panel and the crane or hoist being operated by the remote control system must
 - (a) not exceed the limit specified by the control system manufacturer, and
 - (b) be communicated to the operator before the operator uses the crane or hoist.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

14.29 Operator protection

The operator of a crane or hoist must be protected against hazardous conditions such as falling or flying objects and excessive heat or cold that could adversely affect the health or safety of the operator.

14.30 Cab windows

- (1) Cab windows on a mobile crane must be made of safety glazing materials meeting the requirements of *ANSI/SAE Z26.1-1990, American*

(2) Cab windows on a hoist or crane, other than a mobile crane, must be laminated glass, tempered glass, wired glass or clear polycarbonate plastic.

(3) Operator cab windows on a crane or hoist must

(a) be kept clear

(b) provide an unobstructed field of vision toward the load hook, and

(c) have window wipers, if necessary to maintain a clear view through the window.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

14.31 Operator's seat

The operator's seat on a crane or hoist must be of a design that allows the operator to safely operate the equipment and the seat must be kept in good condition.

14.32 Storage

(1) The operator's cab of a crane or hoist must be kept free of unnecessary tools, material or equipment.

(2) Adequate storage facilities must be provided if it is necessary to keep tools or equipment in the operator's cab of a crane or hoist.

14.33 Fire extinguisher

A fire extinguisher having at least a 10 BC rating must be immediately available in the cab of each crane.

14.95 Standards

Repealed. [B.C. Reg. 320/2007, effective February 1, 2008.]

[Back to Top](#)