

## **Manitoba – Elevating Work Platform**

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Workplace Safety and Health Regulation  
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"self-elevating work platform" means a work platform that can be self-elevated, and includes a boom-type elevating work platform and one that rolls or is self-propelled.

"elevated work platform" means

- (a) a self-elevating work platform; and
- (b) a suspended work platform; and includes a work platform that is mounted to an aerial device or a forklift or is suspended from a crane. (« plateforme de travail élevée »)

## **PART 23 CRANES AND HOISTS**

### Application

23.1 This Part applies to every workplace where a crane or hoist is used.

### Safe work procedures

23.2(1) An employer must

- (a) develop and implement safe work procedures respecting the use of cranes and hoists;
- (b) train workers in the safe work procedures; and
- (c) ensure that workers comply with the safe work procedures.

23.2(2) The safe work procedures must deal with the installation, removal or replacement of the mast or boom section of a crane or hoist and all related parts.

### Operator requirements

23.3(1) An employer must ensure that only a person who is authorized to practise the trade of crane and hoist operator under the Trade of Crane and Hoisting Equipment Operator Regulation, Manitoba Regulation 91/2000. is allowed to operate

- (a) a mobile crane with a rated load of 7,300 kg or more;
- (b) a boom truck hoist with a rated load of 7,300 kg or more; or
- (c) a tower crane.

23.3(2) An employer must ensure that the operator of a crane or hoist does not leave the controls of the crane or hoist unattended while a load is being hoisted.

#### Applicable standards

23.4 An employer and a supplier must ensure that

(a) a commercially manufactured crane or hoist is designed, constructed, erected, used, maintained, examined, inspected, operated and repaired in accordance with the manufacturer's specifications and the applicable requirements of the following standards:

(i) CSA Standard W178.1-02, Certification of Welding Inspection Organizations,  
(ii) CSA Standard W178.2-01, Certification of Welding Inspectors,  
(iii) CAN/CSA Standard-B167-96 (R2002), Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys,  
(iv) CSA Standard C22.2 NO. 33-M1984 (R2004), Construction and Test of Electric Cranes and Hoists,

(v) CAN/CSA Standard-Z150-98 (R2004), Safety Code on Mobile Cranes,

(vi) CAN/CSA Standard-Z185-M87 (R2004), Safety Code for Personnel Hoists,

(vii) CAN/CSA Standard-Z248-2004, Code for Tower Cranes,

(viii) CAN/CSA Standard-Z256-M87 (R2006), Safety Code for Material Hoists; or

(b) a crane or hoist that is not commercially manufactured is

(i) designed by a professional engineer in accordance with the applicable requirements of the standards set out in clause (a),

(ii) certified by a professional engineer, and

(iii) constructed, erected, used, maintained, examined, inspected, operated and repaired in accordance with the professional engineer's requirements.

#### Repairs and modifications

23.5 An employer must ensure that structural repairs or modifications to the components of a crane or hoist are

(a) made only under the direction and control of a professional engineer; and

(b) certified by the professional engineer that the workmanship and quality of the materials used has restored the components to not less than their original capacity.

#### Maintenance and inspection schedule

23.6 An employer and a supplier must, while a crane or hoist is in their possession,

(a) develop and implement a maintenance and inspection schedule for a crane or hoist in accordance with the manufacturer's specifications or the specifications of the applicable standard under clause 23.4(a) where no manufacturer's specifications exist; and

(b) maintain the crane or hoist in a safe operating condition.

#### Duty to inspect

23.7(1) An employer must ensure that a crane or hoist is inspected by the operator before the start of each work shift in order to detect any defect, malfunction or hazardous condition.

23.7(2) A supplier must ensure that a crane or hoist is inspected for any defect, malfunction or hazardous condition before the crane or hoist is supplied to any person.

#### Logbook for cranes

- 23.8(1) When a crane with a rated load capacity of one tonne or more is in the possession of an employer or a supplier, the employer or supplier must provide and maintain a logbook for the crane that records the following information:
- (a) the date and time when any work was performed on the crane;
  - (b) the length of time in hoisting service;
  - (c) all defects or deficiencies and when they were detected;
  - (d) all inspections performed on the crane, including examinations, checks and tests;
  - (e) a record of any certification of repairs or modifications under section 23.5;
  - (f) a description of the work performed by the crane each day;
  - (g) in the case of a tower crane,
  - (i) whether or not the weight testing device was lifted for each working day, before the work of lifting loads began, and
  - (ii) a record of certification under section 23.25;
  - (h) any matter or incident that may affect the safe operation of the crane.
- 23.8(2) An employer and supplier must ensure that every entry in the logbook is signed by the person performing the work.
- 23.8(3) When a supplier provides a crane to a person, the supplier must ensure that the most current version of the logbook accompanies the crane.
- 23.8(4) When ownership of a crane is transferred, the person transferring ownership must ensure that all logbooks for the crane are transferred to the new owner.

#### Rated load

- 23.9(1) An employer and a supplier must ensure that a crane or hoist has a plate or weatherproof label permanently secured to it that legibly shows
- (a) in the case of a commercially manufactured crane or hoist,
    - (i) the manufacturer's name,
    - (ii) the model, serial number and the year of manufacture or shipment date, and
    - (iii) the manufacturer's rated load; and
  - (b) in the case of a crane or hoist that is not commercially manufactured, the rated load certified by a professional engineer.
- 23.9(2) An employer and a supplier must ensure that a mobile crane or boom truck is equipped at all times with a load chart showing the rated load at all permitted boom angles and boom radiuses.
- 23.9(3) An employer must ensure that a tower crane has a load chart conspicuously and permanently secured to the cab that shows the manufacturer's rated loads at various radiuses of a single line, a two-part line and a four-part line separately.
- 23.9(4) An employer must ensure that the structural components of an A-frame, gin pole or guyed derrick are designed to withstand at least four times the rated load of the equipment.

#### Weight load information

- 23.10 An employer must ensure that the operator of a crane or hoist is provided with the information necessary to enable the operator to determine readily and accurately the weight of any load that the operator is required or permitted to raise.

#### Warning devices

23.11(1) When the movement of a crane or hoist may create a risk of safety or health of a person, an employer must ensure that the crane or hoist is equipped with an effective warning device that

- (a) is readily accessible to the operator at the operator's working position; and
- (b) is designed to warn a worker of the impending movement of the crane or hoist.

23.11(2) If an employer uses an auditory warning device, the device must have a distinct sound that is distinguishable from all other sounds at the workplace.

#### Boom and jib stops

23.12 When the design or operation of a crane or other hoist may result in the boom or jib falling backwards because of its return movement, an employer and a supplier must ensure that the crane or hoist is equipped with

- (a) a boom stop and a limit device; and
- (b) where a jib is attached, a jib stop and a limit device.

#### Signal person communication

23.13(1) Unless the operator of a crane or hoist has an unobstructed and clear view of its operation, an employer must designate a signal person to give the operator signals to provide for the safe operation of the crane or hoist.

23.13(2) Except for an emergency stop signal, an operator must not follow any signal given by any worker other than the designated signal person.

#### Load movement

23.14 When there is a risk to the safety or health of a person because of the movement of a load by a crane or hoist, an employer must ensure that the movement of the load is controlled by a tag line or clamp device.

#### Outrigger or stabilizer procedures

23.15 When a crane or hoist is equipped with outriggers or stabilizers, an employer must ensure that (a) the outriggers or stabilizers

- (i) are used in accordance with the manufacturer's specifications, and
  - (ii) are set on a solid footing or pad; and
- (b) the area around the outriggers or stabilizers is kept clear of obstructions.

#### Riding prohibited

23.16 An employer must ensure that no person rides on a load, hook, rigging or bucket attached to a crane or hoist.

#### Barricading base

23.17 When there a risk of a worker being trapped or crushed by any moving part of the crane or hoist when it swings, an employer must ensure that a barricade is erected around the base of the crane or hoist.

#### Vehicular and pedestrian traffic safety

23.18 When hoisting takes place adjacent to or in the vicinity of a pedestrian walkway, street, highway or other public thoroughfare, an employer must provide signs,

barricades and properly identified flagpersons or other measures in accordance with Part 20 (Vehicular and Pedestrian Traffic).

#### Temperature and weather conditions

23.19 An employer must ensure that a crane or hoist does not operate

- (a) when the temperature is at or below the temperature for the safe loading conditions recommended in the manufacturer's specifications;
- (b) when the wind velocity exceeds the limit recommended in the manufacturer's specifications for safe operation; and
- (c) when weather conditions or other circumstances are such that the operation of the crane or hoist creates a risk to the safety or health of any person.

#### Plan of procedures for multiple crane lift

23.20 An employer must ensure that

- (a) a plan of procedures for the operator of a lift of one load involving two or more cranes is prepared by a professional engineer; and
- (b) every worker involved in the lift is trained in the plan of procedures.

#### Operator protection

23.21 An employer must ensure that the operator of a crane or hoist is protected from any falling material or equipment.

### **TOWER CRANES**

#### Tower crane requirements

23.22(1) An employer must ensure that the foundation for a tower crane is designed and certified by a professional engineer.

23.22(2) An employer must ensure that a tower crane is equipped with the following devices located at the operator's work position in clear view of the operator:

- (a) a permanent load gauge that indicates the weight of the load being hoisted and immediately displays that weight to the operator;
- (b) a wind velocity gauge to measure the wind velocity at or above the height of the jib.

23.22(3) An employer must ensure that a tower crane is equipped with the following safety devices:

- (a) an overload device consisting of a hoist overload switch that automatically restricts the lift of the load;
- (b) a travel limit device consisting of a movement overload switch that automatically restricts the radius within which the load can travel;
- (c) a height limit switch that automatically prevents the cable from being over wound on the drum;
- (d) a trolley travel limit device consisting of a trolley-in and a trolley-out limit switch that prevents the trolley from running to the end of its track and falling off.

23.22(4) An employer must ensure that the safety devices set out in subsection (3) are adjusted and set in accordance with the manufacturer's specifications and have their limit switches sealed.

#### Means of verbal communication

23.23 An employer must

- (a) provide, install and maintain a direct means of verbal communication between a tower crane operator and each hook-up, rigger or signal person; and
- (b) provide a direct means of verbal communication between the operators of two or more tower cranes with overlapping radiuses.

#### Multiple cranes

23.24 When two or more tower cranes are erected in such a manner that the radiuses of operations overlap, an employer must ensure that the operators operate the cranes so that there are no collisions between the cranes or their loads.

#### Structural testing and examination

23.25(1) An employer must ensure that all structural and rigging components of a tower crane undergo non-destructive testing under the direction and control of a professional engineer in accordance with the manufacturer's specifications as close as reasonably practicable to the construction project site (a) before the crane is used for the first time in Manitoba; and

(b) if the crane is moved from project to project, before it is used after the move.

23.25(2) If a tower crane is in operation on a construction project for more than one year from the date on which the crane starts operating, an employer must ensure its structural components are examined under the direction and control of a professional engineer in accordance with the manufacturer's specifications.

23.25(3) An employer must ensure that the results of the testing or examination required under subsections (1) and (2) are certified by a professional engineer in a report that clearly identifies the crane and the components to which the information relates.

### **OVERHEAD CRANES**

#### Positive lockout system

23.26 An employer must ensure that an overhead electric crane is provided with a positive lockout system so that power is shut off when a worker is maintaining or servicing the crane.

#### Rail stops

23.27 An employer must ensure that a craneway at a workplace is equipped with adequate rail stops to prevent the overhead electric crane from contacting any obstruction or overrunning the end of the rails.

#### Upper limit devices

23.28 An employer must ensure that

- (a) an overhead crane has a hoist equipped with a working upper limit device; and
- (b) the upper-limit switch is not used as a braking device.

#### Safety latch

23.29 An employer must ensure that a hoisting hook is equipped with a safety latch or similar security device.

## **MATERIAL HOISTS**

### Inspection and testing

23.30(1) Subject to subsection (2), an employer must ensure that a material hoist is tested before being used.

23.30(2) A material hoist does not have to be tested if it has been tested within seven days before its last use.

### Barricading base

23.31(1) An employer must provide a fence or other suitable barricade at the base of a material hoist to prevent unauthorized entry of any person.

23.31(2) A worker must not use the base of a material hoist to access an adjacent structure.

## **ROOFER'S HOISTS**

### Employer obligations

23.32(1) An employer must ensure that the following requirements are complied with when a roofer's hoist is used:

- (a) bolts or pins used to interconnect component parts of a roofer's hoist are equipped with safety pins that prevent them from being dislodged;
- (b) drivers, pulleys and belts are effectively guarded;
- (c) a roofer's hoist is only used for vertical lifting;
- (d) a roofer's hoist is in a level position.

23.32(2) An employer must ensure that a roofer's hoist has counterweights that are (a) designed as a component part of the hoist to remain securely attached to the hoist until all hoisting is completed; and

(b) heavy enough to counterbalance four times the maximum weight of the load being lifted.

23.32(3) An employer must ensure that roofing material, bagged material or any other construction material is not used as counterweight on a roofer's hoist.

## **VEHICLE LIFTS**

### Vehicle lift requirements

23.38(1) An employer must ensure that a vehicle lift meets the requirements of the following standards:

(a) ANSI Standard ANSI/ALI ALCTV-1998, Automotive Lifts — Safety Requirements for

Construction, Testing and Validation;

(b) ANSI Standard ANSI/ALI ALOIM-2000, Automotive Lifts — Safety Requirements for

Operation, Inspection and Maintenance;

(c) ANSI Standard ANSI/ALI ALIS-2001, Standard for Automotive Lifts — Safety Requirements for Installation and Service.

23.38(2) An employer must ensure that a pneumatic or hydraulic vehicle lift has controls operated by constant manual pressure.

23.38(3) An employer must ensure that the operator of a vehicle lift

(a) remains at the controls while the vehicle lift is in motion; and

(b) does not block the controls during raising and lowering.

23.38(4) An employer must ensure that no worker is under a suspended load unless the load is supported by

(a) a vehicle lift designed for that purpose; or

(b) rated stands or blocks, other than jacks, that are designed, constructed and maintained to support the load and placed on firm foundations.

## **PART 28 SCAFFOLDS AND OTHER ELEVATED WORK PLATFORMS**

### **GENERAL REQUIREMENTS**

#### **Application**

28.1(1) This Part applies to every workplace where work takes place using a scaffold or elevated work platform.

28.1(2) Except for work of short duration that can be done safely from a ladder, an employer must ensure that a worker engaged in work that cannot be done from the ground or other safe elevation is provided with a scaffold or an elevated work platform.

#### **Safe work procedures**

28.2(1) When a scaffold or an elevated work platform is required to be provided at a workplace, the employer must

(a) develop and implement safe work procedures for using the scaffold or elevated work platform provided;

(b) train workers who work on scaffolds and elevated platforms in those safe work procedures; and

(c) ensure that the workers comply with those safe work procedures.

28.2(2) An employer must ensure that the safe work procedures developed in subsection (1) include emergency response and rescue procedures appropriate to the risks associated with the failure of a scaffold or other elevated work platform.

#### **Commercially manufactured scaffolds and elevated work platforms**

28.3(1) An employer must ensure that a commercially manufactured scaffold or elevated work platform is installed, used, maintained and dismantled in accordance with the manufacturer's specifications. But the employer may alter those specifications if the alteration is certified by a professional engineer.

28.3(2) When a commercially manufactured scaffold or elevated work platform is used at a workplace, the employer must ensure that a copy of the manufacturer's specifications, and any alterations certified by a professional engineer, are readily accessible at that workplace.

### **WHEN CRANE USED TO SUSPEND A PERSONNEL BASKET OR CAGE**

General restriction re use of crane

28.33(1) An employer may only permit a crane to be used to hoist a personnel basket or



cage where it is not reasonably practicable to carry out the required work by use of a scaffold or other type of elevated work platform that does not include the use of a crane. 28.33(2) The prior notification requirements of section 28.22 apply whenever a crane is used to hoist a personnel basket or cage, regardless of the height of the hoisting operation.

#### Basket or cage requirements when crane used

28.34(1) Despite section 28.21, when a crane is used to hoist a personnel basket or cage, an employer must ensure that the personnel basket or cage

- (a) is designed by a professional engineer in accordance with CAN/CSA Z150-98 (R2004), Safety Code on Mobile Cranes, and is constructed in accordance with the design specifications certified by the engineer;
- (b) is equipped with
  - (i) anchor points located above the load hook of the personnel basket or cage for the attachment of a worker's fall arrest system,
  - (ii) a guardrail that meets the requirements of Part 14 (Fall Protection), and
  - (iii) a skid resistant deck;
- (c) has more than one means of suspension or support, and is designed, constructed and maintained so that the failure of one of the means will not cause the collapse of all or part of it;
- (d) is designed and constructed so that it remains horizontal at all times;
- (e) is suspended from, or supported by, a direct attachment to the boom of the crane; and
- (f) has the following legibly and permanently marked in a conspicuous place on it:
  - (i) the maximum number of workers who may occupy the personnel basket or cage,
  - (ii) its weight,
  - (iii) the crane type for which it has been designed,
  - (iv) any other information necessary for safe operation of the personnel basket or cage.

#### Inspection and certification

28.34(2) An employer must ensure that the professional engineer who designed the personnel basket or cage

- (a) inspects it before its first use; and
- (b) certifies that it has been manufactured in accordance with his or her design specifications.

#### Crane requirements and documentation

28.35(1) An employer must ensure that a crane used to hoist a personnel basket or cage

- (a) is equipped with
  - (i) fail-safe mechanisms that prevent the boom and the personnel basket or cage from free falling in the event of a power or system failure or the inadvertent release of any operating controls, and
  - (ii) an automatic limit switch that prevents the personnel basket or cage and load from reaching beyond the highest permissible position specified by the crane manufacturer;
- (b) has, on its hoist line, hooks that are equipped with self-closing safety latches at the

point where the personnel basket or cage is suspended;  
(c) is not used to hoist material when the personnel basket or cage is being used to support a worker;  
(d) is not loaded in excess of 25% of its rated load; and  
(e) has a clearly visible and legible load chart, revised in accordance with clause (d) by a professional engineer, that is affixed in a conspicuous place on the crane.

#### Operating requirements

28.36 When a crane is used to hoist a personnel basket or cage, an employer must ensure that

- (a) emergency rescue procedures are developed and implemented for the hoisting operation;
- (b) the workers involved in the hoisting operation are informed of those emergency rescue procedures;
- (c) there is an adequate means of communication between the worker or workers in the personnel basket or cage and the crane operator; and
- (d) every worker in the personnel basket or cage
  - (i) wears a full body harness that is connected independently to a fixed anchor point located above the crane's load hook, and
  - (ii) uses the harness in accordance with Part 14 (Fall Protection).

## **AERIAL DEVICES AND SELF-ELEVATING WORK PLATFORMS**

### **Standards re self-elevating work platforms and aerial devices**

28.37(1) An employer must ensure that a self-elevating work platform or aerial device used at a workplace is designed, and constructed, installed, maintained, used and dismantled, in accordance with

- (a) CAN/CSA Standard-B354.1-04, Portable Elevating Work Platforms;
- (b) CAN/CSA Standard-B354.2-01 (R2006), Self-propelled Elevating Work Platforms;
- (c) CAN/CSA Standard-B354.4-02, Self-propelled Boom-Supported Elevating Work Platforms; or
- (d) CSA Standard C225-00 (R2005), Vehicle-Mounted Aerial Devices.

28.37(2) An employer must ensure that

- (a) a self-elevating work platform or aerial device constructed at a workplace is designed and certified by a professional engineer; and
- (b) the professional engineer's specifications for its construction, installation, maintenance, use and removal are in accordance with the standards under subsection (1).

28.37(3) Subject to section 28.3, an employer must ensure that the manufacturer's specifications for a commercially manufactured self-elevating work platform or aerial device used at a workplace are in accordance with the standards under subsection (1).

28.37(4) An employer must ensure that structural repairs and modifications to the components of a self-elevating work platform or aerial device are

- (a) made only under the direction and control of a professional engineer; and
- (b) certified by the professional engineer that the workmanship and quality of the materials used has restored the components to not less than their original capacity.

### **Guarding**

28.38 An employer must ensure that each self-elevating work platform and aerial device used at a workplace is equipped with

- (a) suitable guards to prevent a worker from contacting the moving parts and machinery, including protection from shearing hazards created by the movement of the platform; and
- (b) guardrails and toe-boards on all open sides or an enclosure that is at least 900 mm in height.

### **Fall protection**

28.39(1) An employer must ensure that a worker using a self-elevating work platform or aerial device

- (a) uses a fall arrest system that meets the requirements of Part 14 (Fall Protection) when
  - (i) the platform or aerial device is being elevated, lowered or moved, or
  - (ii) the worker steps beyond the guardrail; and
- (b) has the lanyard of the fall arrest system attached in accordance with the specifications of
  - (i) the manufacturer of the work platform or aerial device, or
  - (ii) a professional engineer.

28.39(2) An employer must ensure that a lifeline is of an appropriate length to prevent a worker from being ejected from the self-elevating work platform or aerial device if it collapses.

28.39(3) Despite subsection (1), a fall arrest system is not required for a worker who remains within the confines of the guardrail of a scissor lift while the lift is being raised or lowered.

### **Maintenance, records and manuals**

28.40(1) An employer and a supplier must, while a self-elevating work platform or aerial device is in their possession,

- (a) maintain it so that it is safe for use;
- (b) keep a permanent record of all inspections, tests, repairs, modifications and maintenance performed on it; and
- (c) ensure that its operator's manual is kept with it.

28.40(2) A record under subsection (1)(b) must include the name and signature of

the person who maintains it and the person who performs an inspection, test, repair or modification on it.

### **Signs**

28.41 An employer and a supplier of a self-elevating work platform or aerial device must ensure that the platform or device has signs that are clearly visible and legible to an operator at its controls indicating the following:

- (a) the identity of the supplier;
- (b) the name and number of the standard to which the platform or aerial device was designed;
- (c) its rated load;
- (d) all limiting operating conditions, including the use of outriggers, stabilizers and extendable axles;
- (e) the specific firm level surface conditions required for use of the platform or aerial device in the elevated position;
- (f) any warnings specified by the manufacturer;
- (g) except for a boom-type elevating work platform, the direction of machine movement for each operating control.

### **Climbing prohibited**

28.42 An employer must ensure that no worker climbs on the extension mechanism or the boom of a self-elevating work platform or aerial device.

Use of the self-elevating work platform or aerial device

28.43 An employer must ensure that a self-elevating work platform or aerial device

- (a) is used only in accordance with the specifications of its manufacturer or those of the professional engineer who designed it;
- (b) is not loaded in excess of its rated load, or loaded or used in a manner that affects its stability or endangers a worker;
- (c) is used only on a firm level surface that complies with the conditions required for its use;
- (d) is not moved unless all workers on it are protected from falling; and
- (e) when elevated, is accessed by a worker only if procedures for doing so have been established in accordance with the manufacturer's specifications or those of the professional engineer who designed it, and then only in accordance with those procedures.

### **Inspection**

28.44 An employer must ensure that a competent person inspects a self-elevating work platform or aerial device before it is first used and daily when it is in use.