

## **Safety code on mobile cranes**



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# Preface

This is the third edition of CSA Z150, *Safety code on mobile cranes*. It supersedes the previous editions published in 1998 and 1974.

This Standard is designed to

- (a) guard against and minimize injury to workers, and otherwise provide for the protection of life, limb, health, and property, by specifying minimum safety requirements for mobile cranes;
- (b) provide direction and guidance to manufacturers and buyers of mobile cranes regarding the minimum standards expected of such machines in Canada;
- (c) provide direction and guidance to owners, employers, supervisors, workers, users, and others concerned with, responsible for, or involved in the application and use of mobile cranes; and
- (d) guide Canadian federal, provincial/territorial, and other regulatory bodies in the development and promulgation of appropriate health and safety legislation and directives concerning mobile cranes.

This Standard was prepared by the Technical Committee on Mobile Cranes, under the jurisdiction of the Strategic Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee.

November 2011

## Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- (2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
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  - (c) wording of the proposed change; and
  - (d) rationale for the change.

# Z150-11

## *Safety code on mobile cranes*

### 1 Scope

#### 1.1

This Standard describes the design, construction, load rating, installation, erection, inspection, maintenance, repair, modification, test, and operation of lattice and telescopic boom mobile cranes.

**Note:** See [Annex A](#) for illustrations of mobile cranes and [Annex B](#) for illustrations of parts of a mobile crane.

#### 1.2

This Standard applies only to machines that have all of the following fundamental characteristics:

- (a) the crane comprises, or is mounted on, a non- or self-propelled, crawler- or wheel-mounted mobile base;
- (b) the crane is designed and manufactured for the primary purpose of hoisting and lowering loads by means of tackle suspended from a boom;
- (c) the boom is lattice or telescopic and capable of being elevated and lowered in the vertical plane and of being rotated (swung) from side to side in the horizontal plane;
- (d) the tackle is suspended from the boom and is capable of being increased and diminished in length; and
- (e) the crane utilizes an engine(s) or motor(s) of sufficient power to
  - (i) elevate and lower the boom in the vertical plane with the load suspended from the tackle;
  - (ii) rotate (swing) the boom in the horizontal plane with the load suspended from the tackle;
  - (iii) increase and diminish the length of the tackle with the load suspended from the tackle; and
  - (iv) in the case of a self-propelled crane, propel the vehicle, carrier, or base on which or to which the boom and hoist mechanism is attached.

#### 1.3

This Standard applies to crawler-mounted cranes, commercial truck-mounted cranes, and boom trucks and wheel-carrier-mounted cranes, as well as any variations thereof that retain the fundamental characteristics of these cranes.

#### 1.4

This Standard is applicable only to machines when they are used for lifting (hoisting).

**Note:** Some basic machine types within this scope are used alternatively for hoisting service and for applications not considered to be hoisting service. All of the requirements of this Standard are applicable to such machines when used for hoisting service. [Clause 4.14](#) contains requirements for machines when used in other than hoisting service.

#### 1.5

Machines within the scope of [Clause 1.3](#), and equipped with hooks, magnets, grapples, clam shell buckets, orange peel buckets, and other devices intended to connect or attach the tackle to the load for the purpose of hoisting or lowering a freely suspended load, are considered to be in lifting (hoisting) service.

#### 1.6

This Standard does not apply to

- (a) machines within the scope that have been converted or adapted for uses not considered to be lifting (hoisting) services. These conversions and applications include power shovels, excavators, draglines, concrete pumps (see CAN/CSA-Z151), conveyors, augers, drills, and amusement rides (e.g., bungee jumping);