CSA GROUP™

CSA Z150:20
National Standard of Canada

Safety code on mobile cranes

Standards Council of Canada
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Cette Norme Nationale du Canada est disponible en versions française et anglaise.

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 to judge its suitability for their particular purpose.

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CSA Z150:20
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Contents

Preface

This is the fifth edition of CSA Z150, *Safety code on mobile cranes*. It supersedes the previous editions published in 2016, 2011, 1998, and 1974.

This Standard is designed to

- 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;
- provide direction and guidance to manufacturers and buyers of mobile cranes regarding the minimum standards expected of such machines in Canada;
- 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
- 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 edition includes the following changes:

- revised requirements on
  - wire rope and synthetic rope;
  - annual inspection;
  - assembly/disassembly;
  - cranes not in regular use;
  - boom disassembly; and
  - personnel lifting (wind speed); and
- changes for clarity.

This Standard was developed by CSA Group with funding support provided by the Canadian Association of Administrators of Labour Law — Occupational Safety and Health (CAALL-OSH), including Provincial and Territorial Governments, as well as the Government of Canada. CSA Group is solely responsible for the content of this Standard, and CSA Group and the funding bodies disclaim any liability in connection with the use of the information contained therein.

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.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*

c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

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5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change;*
   d) *rationale for the change.*

CSA Z150:20
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, boom trucks, wheel-carrier-mounted cranes, railway cranes, locomotive-mounted cranes, and rail-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.