



**CSA
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Z150.3-17

Safety code on articulating boom cranes

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Standards Update Service

Z150.3-17

October 2017

Title: *Safety code on articulating boom cranes*

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Z150.3-17
***Safety code on articulating boom
cranes***



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*Published in October 2017 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3*

*To purchase standards and related publications, visit our Online Store at shop.csa.ca
or call toll-free 1-800-463-6727 or 416-747-4044.*

ISBN 978-1-4883-0936-6

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Preface

This is the second edition of CSA Z150.3, *Safety code on articulating boom cranes*. It supersedes the previous edition published in 2011.

This Standard is designed to

- a) provide requirements 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 articulating boom cranes;
- b) provide direction and guidance to manufacturers and buyers of articulating boom 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 articulating boom 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 articulating boom cranes.

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

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.*
- Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.*
- 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; and*
 - d) *rationale for the change.*

Z150.3-17

Safety code on articulating boom cranes

1 Scope

1.1

This Standard specifies requirements for the design, construction, installation, inspection, testing, maintenance, and operation of articulating boom cranes.

Note: *In this Standard, the terms “articulating boom crane” and “crane” have the same meaning.*

1.2

This Standard applies to the following types of cranes:

- a) commercial truck or trailer mounted cranes (see Figures A.1 to A.4);
- b) stationary cranes; and
- c) mobile cranes.

1.3

This Standard applies to cranes that

- a) are mounted on a fixed or mobile base;
- b) lift, swing, and lower loads at various radii by means of an articulating boom (that can also telescope), and which can be equipped with a load hoist mechanism;
- c) use an engine(s) or motor(s) of sufficient power to
 - i) perform the load handling functions described in Item b); and
 - ii) where applicable, propel a rolling base on a trailer; and
- d) use hooks or load handling devices for hoisting or lifting.

1.4

This Standard does not apply to

- a) mobile cranes covered by CSA Z150;
- b) cranes with booms that do not articulate;
- c) hydraulic and cable-operated excavating equipment such as power shovels and backhoes;
- d) cranes with booms constructed of non-conductive materials and vehicle-mounted aerial devices (see CAN/CSA-C225);
- e) cranes designed primarily for personnel baskets, platforms, ladders, etc., as opposed to material handling;
- f) cranes used in forestry and logging applications;
- g) scrap handlers;
- h) cranes mounted on a ship or boat;
- i) concrete pumper trucks (see CAN/CSA-Z151);
- j) self-propelled elevating work platforms (see CAN/CSA-B354.1, CAN/CSA-B354.2, and CAN/CSA-B354.4); and
- k) lift (forklift) trucks equipped with booms (CSA B335).

1.5

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.6

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below.

CSA Group

B335-15

Safety standard for lift trucks

CAN/CSA-B354.1-04 (R2016)

Portable elevating work platforms

CAN/CSA-B354.2-01 (R2013)

Self-propelled elevating work platforms

CAN/CSA-B354.4-02 (R2013)

Self-propelled boom-supported elevating work platforms

CAN/CSA-C225-10 (R2015)

Vehicle-mounted aerial devices

W59-13

Welded steel construction (metal arc welding)

W178.2-14

Certification of welding inspectors

Z150-16

Safety code on mobile cranes