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Portable ladders

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Portable ladders



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Technical Committee on Portable Ladders

B.A. Latimer	Werner Co., Greenville, Pennsylvania, USA <i>Category: Producer Interest</i>	<i>Chair</i>
S. Patton	Little Giant Ladder Systems Div of Wing Enterprises Inc., Springville, Utah, USA <i>Category: Producer Interest</i>	<i>Vice-Chair</i>
D. Bachand	MDB Consulting Services, Surrey, British Columbia <i>Category: User Interest</i>	
P. Beland	Metaltech-Omega inc., Laval, Québec	<i>Associate</i>
R. Cushing	The Safety Guy, Oakville, Ontario <i>Category: User Interest</i>	
G. Drewes	International Brotherhood of Electrical Workers Local 402, Thunder Bay, Ontario <i>Category: User Interest</i>	
C. Duval	AECOM, Sherwood Park, Alberta <i>Category: General Interest</i>	
P. Hagens	Cogeco Connexion, Burlington, Ontario <i>Category: User Interest</i>	
F.X. Hardy	Electrical Safety Authority, Mississauga, Ontario <i>Category: General Interest</i>	
J. Houston	Dept of Labour and Advanced Education, New Glasgow, Nova Scotia <i>Category: Regulatory Authority</i>	
H. Ji	WorkSafe BC, Vancouver, British Columbia <i>Category: Regulatory Authority</i>	

M.I. Kieffer	Core Distribution, Inc., Minneapolis, Minnesota, USA <i>Category: Producer Interest</i>	
E. Nassif	Ontario Ministry of Labour, Toronto, Ontario <i>Category: Regulatory Authority</i>	
J. Norris	Allright Ladder Co. of Canada Ltd., Vancouver, British Columbia <i>Category: Producer Interest</i>	
J. Pitman	Truckladders Inc., London, Ontario <i>Category: General Interest</i>	
K.S. Rajput	Louisville Ladder Corp, Aurora, Ontario	<i>Associate</i>
T. Schmitt	Louisville Ladder Inc., Louisville, Kentucky, USA <i>Category: Producer Interest</i>	
S. Sonier	WorkSafeNB / Travail sécuritaire NB, Saint John, New Brunswick <i>Category: Regulatory Authority</i>	
D. Vallée	CNESST, Québec, Québec <i>Category: Regulatory Authority</i>	
P. Vi	Infrastructure Health and Safety Association, Mississauga, Ontario <i>Category: General Interest</i>	
D. Shanahan	CSA Group, Toronto, Ontario	<i>Project Manager</i>

Preface

This is the fifth edition of CSA Z11, *Portable ladders*. This Standard supersedes the previous editions published in 2012, 1981, 1969, and 1967.

This Standard covers design, performance, test, and marking requirements for portable ladders.

Changes to this edition include the

- a) removal of the term “maximum working length”; reference is now only to “maximum extended length”;
- b) addition of provisions for tripod ladders, articulated ladders, articulated extendable ladders, and telescoping ladders;
- c) technical harmonization with new editions of ANSI/ASC A14.2 and ANSI/ASC A14.5;
- d) elimination of projected use criteria based on ladder Grade (Clause 4);
- e) clarification of requirements for step clear width and flare (Clause 6.2.3);
- f) updating of requirements for step spacing (Clause 6.2.10);
- g) establishment of new side-rail cantilever drop test (Clause 8.2.9);
- h) establishment of new foot slip tests (Clauses 8.2.10 and 8.3.10);
- i) establishment of new front and rear rail drop test (Clause 8.3.11);
- j) provisions for a number of new and updated safe use markings (Clause 9); and
- k) additional guidance on safe use of ladders (Clause 10).

CSA Group gratefully acknowledges that the development of this Standard was made possible, in part, by the financial support of the Canadian Association of Administrators of Labour Legislation for Occupational Safety and Health.

CSA Group gratefully acknowledges the technical support received from the American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, administered by the American Ladder Institute, in the development of this Standard. With their permission, a number of the newly-introduced test procedures and related apparatus set-up figures were based on material appearing in the ANSI/ASC A14 series standards.

This Standard was prepared by the Technical Committee on Portable Ladders, under the jurisdiction of 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.*
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 - 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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 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

Z11-18

Portable ladders

1 Scope

1.1

This Standard applies to common types of portable ladders and includes design and performance-related requirements and tests.

1.2

Ladders covered by this Standard are intended for use by only one person at a time under normal conditions of usage, with the exception of trestle ladders, which are designed for use by two persons at the same time.

1.3

This Standard does not specify details on the construction of portable ladders. The requirements listed in this Standard are intended to specify certain minimum characteristics of strength and stability deemed necessary for the safe use of portable ladders.

1.4

This Standard covers single-section ladders, multiple-section ladders, trestle ladders, step ladders, step stools, tri-pod ladders, combination ladders, platform ladders, articulated ladders, and telescoping ladders, but does not cover ladder accessories (e.g., ladder levellers, ladder stabilizers or stand-off devices, ladder jacks, or ladder straps or hooks) that can be installed on, or used in conjunction, with ladders.

Note: *Although ladder accessories themselves are not covered by this Standard, a ladder containing accessories can be certified if it meets the requirements of this Standard (see ANSI/ASC A14.8 for specific requirements for ladder accessories).*

1.5

In addition, this Standard stipulates requirements for selection, care, and use of portable ladders.

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.

1.7

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.

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

C22.2 No. 0.15-15

Adhesive labels

Z259.17-16

Selection and use of active fall-protection equipment and systems

ALI (American Ladder Institute)

ANSI/ASC A14.2-2017

Ladders — Portable Metal — Safety Requirements

ANSI/ASC A14.5-2017

Ladders — Portable Reinforced Plastic — Safety Requirements

ANSI/ASC A14.8-2013

Ladders — Safety Requirements for Ladder Accessories

ASTM International

B117-16

Standard Practice for Operating Salt Spray (Fog) Apparatus

B201-80 (2014)

Standard Practice for Testing Chromate Coatings on Zinc and Cadmium Surfaces

B633-15

Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel

3 Definitions

The following definitions shall apply in this Standard:

Accessory — a device that can be factory installed by a ladder manufacturer or field installed and that can expand its function, utility, and safety, but without which the portable ladder still functions in its intended manner (as a stepladder, extension ladder, combination ladder, etc.).

Angle of inclination — the angle between the horizontal and the ladder side rail measured on the opposite side of the ladder from the climbing side.

Articulated joint — a hinge that is capable of being locked in one or more positions.