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Z259.2.5-17

Fall arresters and vertical lifelines

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Standards Update Service

Z259.2.5-17

April 2017

Title: *Fall arresters and vertical lifelines*

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Z259.2.5-17
Fall arresters and vertical lifelines



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*Published in April 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
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ISBN 978-1-4883-0719-5

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Contents

Technical Committee on Fall Protection	3
Subcommittee on Fall Arresters and Vertical Life Lines	7
Preface	9
1 Scope	10
2 Reference publications	10
3 Definitions	11
4 Design requirements	13
4.1 General	13
4.2 Materials	13
4.3 Fall arresters	13
4.4 Connecting means	14
4.5 Vertical lifelines	14
4.5.1 General	14
4.5.2 Synthetic rope lifelines	15
4.5.3 Wire rope lifelines	15
5 Fall arresters and vertical lifeline testing	15
5.1 Samples	15
5.1.1 General	15
5.1.2 Sample conditioning	15
5.2 Test equipment	15
5.2.1 Test mass	15
5.2.2 Test wire rope lanyard and connectors	15
5.2.3 Quick release	16
5.2.4 Drop test structure	16
5.2.5 Cable tie	16
5.3 Test procedures	16
5.3.1 General	16
5.3.2 Dynamic performance test	16
5.3.3 Dynamic strength test	17
5.3.4 Residual static strength test	17
5.3.5 Mobile test	17
5.3.6 Panic grab performance test	18
5.3.7 Test evaluation	18
6 Test performance	18
6.1 Dynamic performance and strength	18
6.1.1 Dynamic performance of synthetic rope fall arresters	18
6.1.2 Dynamic performance of wire rope fall arresters	18
6.1.3 Dynamic strength of synthetic rope fall arresters	18
6.1.4 Dynamic strength of wire rope fall arresters	19

6.1.5	Dynamic performance of panic grab feature	19
6.1.6	Dynamic performance and dynamic strength of fall arresters with a park feature	19
6.1.7	Residual static strength	19
6.2	Mobility	19
7	Markings and instructions	19
7.1	Markings — Fall arresters	19
7.2	Markings — Lifelines	20
7.3	Instructions	20

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Preface

This is the second edition of CSA Z259.2.5, *Fall arresters and vertical lifelines*. It supersedes the previous edition published in 2012. It is part of a series of Standards on components of fall-protection systems and replaces that part of CAN/CSA-Z259.2.1-98 (R2011), *Fall arresters, vertical lifelines and rails*, covering vertical lifelines.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

Changes to this edition include

- a) the removal of the slope test;
- b) modifications to the dynamic performance test;
- c) modifications to the test equipment requirements for dynamic strength;
- d) changes to the informational requirements;
- e) the definitions have been updated;
- f) the references have been updated; and
- g) connecting means (except connectors) used for fall arresters are permitted to be integral only.

CSA Group gratefully acknowledges the financial and in-kind support from the Canadian government departments responsible for occupational health and safety for the development of this edition.

This Standard was prepared by the Subcommittee on Fall Arresters and Vertical Life Lines, under the jurisdiction of the Technical Committee on Fall Protection 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 CSA Standards, please send the following information to inquiries@csa.ca 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 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.*

Z259.2.5-17

Fall arresters and vertical lifelines

1 Scope

1.1

This Standard specifies design, testing, and marking requirements for manufactured fall arresters for single users and for manufactured vertical lifelines.

1.2

The equipment specified in this Standard is intended for use where there is a danger of falling from heights. In the event of a fall, the equipment will lock to arrest the fall.

1.3

This Standard does not cover

- a) the design, testing, installation, or supply of anchorage connectors;
- b) horizontal lifeline systems;
- c) rope adjusting implements for use in travel restraint or work positioning applications; and
- d) any system incorporating a knot, hitch, or rope sliding hitch.

1.4

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.

1.5

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, including all amendments published thereto:

CSA Group

Z259.2.4-15

Fall arresters and vertical rigid rails

Z259.10-12

Full body harnesses

Z259.12-16

*Connecting components for personal fall-arrest systems (PFAS)***ASTM International (American Society for Testing and Materials)**

E8/E8M-15a

*Standard Test Methods for Tension Testing of Metallic Materials***CI (Cordage Institute)**

1500 (2015)

*Test Methods for Fiber Rope***ISO (International Organization for Standardization)**

2307:2010

Fibre ropes — Determination of certain physical and mechanical properties

9227:2012

*Corrosion tests in artificial atmospheres — Salt spray tests***SAE International (Society of Automotive Engineers)**

AS23190A (2010)

Wiring, Positioning, and Support Accessories

3 Definitions

The following definitions shall apply in this Standard:

Connecting means — a lanyard, self-retracting device (SRD), or other device used to connect a body holding device to an anchorage or anchorage subsystem, to provide protected mobility for an elevated work task.

Note: *While the practice is not commonly used in industry today, care needs to be taken at the design stage to ensure that the activation mechanisms do not interfere with each other for a SRD/fall arrester combination.*

Connector — a means for joining a component to

- a) another component; or
- b) an anchorage.

Notes:

- 1) *Examples of connectors include anchorage connectors, carabiners, D-rings, snap hooks, and soft loops.*
- 2) *For the purposes of this Standard, connectors also refers to connecting linkages such as lanyards, energy absorbers, locking connectors, and any combinations thereof inserted between a fall arrester and the appropriate attachment point on a worker's full body harness.*

Fall arrester — a component that

- a) engages a vertical lifeline or rigid rail in the vertical or sloped plane;