

# American National Standard for Ladders – Fixed – Safety Requirements



American National Standards

# **American National Standard for Ladders – Fixed – Safety Requirements**

Secretariat

**American Ladder Institute**

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**American National Standards Institute, Inc.**



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# American National Standard

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# Foreword

(This Foreword is not a part of the American National Standard A14.3 – 2008.)

This standard is a revision of American National Safety Standard for Fixed Ladders, ANSI A14.3-2002. It is one of a series of seven standards prepared under the supervision of American National Standards Committee ASC A14. All seven standards have been developed by subcommittees reporting to American National Standards Committee ASC A14. The subcommittees are: A14.1, Portable Wood Ladders; A14.2, Metal Ladders; A14.3, Fixed Ladders; A14.4, Job-Made Ladders, A14.5, Portable Reinforced Plastic Ladders, A14.7, Mobile Ladder Stands and Mobile Ladder Stand Platforms, and A14.9, Ceiling Mounted Disappearing and Climbing Systems.

All seven standards derive from the original American National Standard Safety Code for Construction, Care and Use of Ladders, A14, which was first approved in 1923. Revisions were approved in 1935, 1948, 1952, 1984, 1992, and 2002. Prior to the 1948 revision, the Code contained some treatment of metal and fixed ladders. Requirements for these types of ladders were removed from the 1948 revision, which then became the American National Standard for Wood Ladders, ANSI

A14.1 – 1948, because, in the opinion of the committee, the rapid development in the metal ladder field warranted special consideration and treatment of metal ladders and fixed ladders (usually metal) in separate standards.

Subcommittee A14.3 was created for the purpose of reviewing the data on fixed ladders originally contained in the Code prior to the 1948 revision, and making any changes or additions necessary to conform to the requirement of interested groups. The A14.3 standard was submitted to the ASC A14 Committee for letter ballot in December of 1955 and approved in 1956. A revision was published in 1974, 1984, 1992, and 2002.

This revision addresses a new section on ladder security systems, and changes to graspability in roof hatches, modifications of ladder safety systems, maintenance, use and additional figures to assist document users.

Suggestions for improvement of this standard will be welcome. They should be sent to the ASC A14 Committee c/o the American Ladder Institute at 401 N. Michigan Avenue, Chicago, IL 60611. All comments must be sent on the Official Comment Form that can be found on the last page of this document. Each comment must include a rationale.

This standard was processed and approved for submittal to ANSI by American National Standards Committee on the safety requirements for fixed ladders, ASC A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard, the A14 Committee had the following members:

Erick Knox, Chairman  
 Don Gibson, Vice Chair  
 Ron Pietrzak, Secretariat

| <b>Organization Represented</b>                                | <b>Name of Representative</b>  |
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| American Ladder Institute .....                                | Marc McConnell   |
| American Society of Safety Engineers.....                      | Earnest Harper<br>Michael Lorenzo (Alt)  |
| Associated General Contractors of America .....                | Charles Bird<br>Michele Myers (Alt)  |
| Canadian Standards Association .....                           | Walter Dick  |
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# Contents

| <b>Section</b> |  | <b>Page</b> |
|----------------|--|-------------|
| 1.             | General . . . . .  | 1           |
| 1.1            | Scope . . . . .  | 1           |
| 1.2            | Purpose . . . . .  | 1           |
| 1.3            | Applications . . . . .                                       | 1           |
| 1.4            | Pitch . . . . .  | 1           |
| 1.5            | Exceptions . . . . .   | 1           |
| 1.6            | Existing Installations . . . . .                             | 1           |
| 1.7            | Interpretation . . . . .                                     | 2           |
| 1.8            | Mandatory and Advisory Rules . . . . .                       | 2           |
| 1.9            | Equivalent . . . . .   | 2           |
| 1.10           | Recognized Design Practice . . . . .                         | 2           |
| 2.             | Related Standards . . . . .                                  | 2           |
| 2.1            | Related American National Standards . . . . .                | 2           |
| 2.2            | Other Related Standards . . . . .                            | 2           |
| 3.             | Definitions . . . . .  | 2           |
| 4.             | General Design Criteria . . . . .                            | 3           |
| 4.1            | Maximum Ladder Lengths and Protection Requirements . . . . . | 3           |
| 4.2            | Design Loads . . . . .                                       | 4           |
| 4.3            | Design Stresses and Fabrication . . . . .                    | 4           |
| 5.             | Design Details for Fixed Ladders . . . . .                   | 5           |
| 5.1            | Steps and Rungs . . . . .                                    | 5           |
| 5.2            | Side Rails . . . . .   | 6           |
| 5.3            | Termination at the Top of the Ladder . . . . .               | 7           |
| 5.4            | Clearances . . . . .   | 7           |
| 5.5            | Grounding . . . . .  | 8           |
| 5.6            | Corrosive Resistance . . . . .                               | 8           |
| 6.             | Design Details for Cages, Wells and Platforms . . . . .      | 8           |
| 6.1            | Cages . . . . .  | 8           |
| 6.2            | Wells . . . . .  | 8           |
| 6.3            | Platforms . . . . .  | 9           |

|     |   |    |
|-----|---|----|
| 7   | Ladder Safety System .....  | 9  |
| 7.1 | General Design .....  | 9  |
| 7.2 | Safety Factors .....  | 9  |
| 7.3 | Ladder Safety Systems Consisting of a Carrier, Safety Sleeve, and Full Body Harness ..... | 9  |
| 7.4 | Ladder Safety Systems of Other Designs .....  | 10 |
| 7.5 | Test Methods .....  | 10 |
| 8   | Protective Finishes .....   | 11 |
| 8.1 | Metal Ladders .....   | 11 |
| 8.2 | Wood Ladders .....  | 11 |
| 8.3 | Combined Materials .....  | 11 |
| 9   | Maintenance and Use of Ladders .....  | 11 |
| 9.1 | General .....   | 11 |
| 9.2 | Use .....   | 11 |
| 9.3 | Maintenance .....   | 12 |
| 9.4 | Ladder Security Systems .....   | 12 |
| 10. | Revision of American National Standards Referred to in This Document .....                | 12 |

## Figures

|           |  |    |
|-----------|--|----|
| Figure 1  | Pitch of Fixed Ladders .....   | 13 |
| Figure 2  | Length of Climbing 24 ft. or Less .....  | 13 |
| Figure 3  | Length of Climbing 24 ft. or Less With Elevated Access .....                                 | 14 |
| Figure 4  | Single Length of Climb Greater Than 24 ft. ....  | 14 |
| Figure 5  | Total Lengths of Climb Greater Than 50 ft. ....  | 15 |
| Figure 6  | Support and Ladder Dimension and Side Clearances .....                                       | 16 |
| Figure 7  | Rung Ends .....  | 17 |
| Figure 8  | Individual Rung Ladders .....  | 18 |
| Figure 9  | Termination at Floor or Platform .....   | 18 |
| Figure 10 | Terminations at Roof .....   | 19 |
| Figure 11 | Grab Bars .....  | 19 |
| Figure 12 | General Arrangements for Ladders in Wells .....  | 20 |
| Figure 13 | Deflector Plate for Hatch Opening with Reduced Clearance .....                               | 21 |
| Figure 14 | Counterbalanced Hatch Cover at Roof .....  | 21 |
| Figure 15 | Minimum Ladder Clearance .....   | 22 |
| Figure 16 | Through Ladder Clearance .....   | 22 |
| Figure 17 | Example of the General Construction of Cages .....   | 23 |
| Figure 18 | Example of a Cage Plan .....   | 24 |
| Figure 19 | Display of Power Grip .....  | 25 |
| Figure 20 | Connection Length Between Carrier and Safety Sleeve .....                                    | 25 |
| Figure 21 | Dynamic Strength Test, Ladder Safety System, Shown Prior to Release of the Test Weight ..... | 26 |
| Figure 22 | Ladder Guard .....   | 27 |
|           | Comment Form .....   | 28 |



# American National Standard for Ladders — Fixed — Safety Requirements

## 1. General

### 1.1 Scope

This standard prescribes minimum requirements for the design, construction, and use of fixed ladders, and sets forth requirements for cages, wells, and ladder safety systems used with fixed ladders, in order to minimize personal injuries. All parts and appurtenances necessary for a safe and efficient ladder shall be considered integral parts of the design.

### 1.2 Purpose.

The purpose of this standard is to provide safety for life, limb, and property by establishing minimum standards for the design and installation of fixed ladders.

### 1.3 Application.

The methods employed to ensure compliance with this standard shall be determined by the proper regulatory or administrative authority.

### 1.4 Pitch.

This standard covers fixed ladders within the pitch range of 60 to 90 degrees from the horizontal.

**1.4.1 Preferred Pitch.** The preferred pitch of fixed ladders shall be considered to be within the range of 75 to 90 degrees from the horizontal (See Fig. 1).

**1.4.2 Substandard Pitch.** Fixed ladders shall be considered substandard if they are installed within the substandard pitch range of 60 to 75 degrees from the horizontal.

**1.4.3 Pitch Greater Than 90 Degrees.** Ladders having a pitch in excess of 90 degrees from the horizontal shall not be permitted.

### 1.5 Exceptions

**1.5.1** This standard is intended for application to the

types of fixed structures depicted and described in the standard (i.e., buildings, wells, and shafts). It sets forth the criteria (what is needed) necessary to build a fixed ladder in a certain way and manner (how to build). The standard does not contemplate special or unique (as to where and when) applications of the requirements, although individual requirements, or a combination of requirements, may apply universally.

**1.5.2** This standard establishes requirements for fixed ladders in order to promote a greater degree of standardization. In cases where difficulty is encountered in complying with the standard, or where there are special service conditions, it is expected that the administrative authority will grant exceptions from the literal requirements of the standards, or will permit the use of alternative designs or features, if equivalent safety is thereby secured (see 1.9).

### 1.6 Existing Installation

**1.6.1** The requirements of this standard shall not apply to existing installations, provided they meet one of the following conditions:

(1) The installation was made in compliance with a state, federal, or consensus standard that was in existence and applicable at the time of installation, and documentation is available to substantiate this.

(2) The installation differs from the design measurements of this standard by a degree, determined by an individual competent in structural design, such that its performance will not substantially deviate from the requirements of this standard.

**1.6.2** If the existing installation is subsequently modified or replaced, or if repairs on more than 25 percent of the total unit are required, the installation shall be made to conform to the requirements of this standard.