

NFPA® 1932

Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders

2015 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

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NFPA® 1932

Standard on

Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders

2015 Edition

This edition of NFPA 1932, *Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders*, was prepared by the Technical Committee on Fire Department Ground Ladders. It was issued by the Standards Council on July 14, 2014, with an effective date of July 29, 2014, and supersedes all previous editions.

This edition of NFPA 1932 was approved as an American National Standard on July 29, 2014.

Origin and Development of NFPA 1932

In 1958, new material was added to NFPA 193, *Standard Procedures for Aerial Ladder Testing*, to cover the care, maintenance, and testing of fire department ground ladders. Subsequent editions were published in 1959 and 1972.

In 1975, NFPA 193 was separated into two documents, NFPA 1931, *Standard on Fire Department Ground Ladders*, and NFPA 1904, *Recommended Practice for the Maintenance, Care, Testing and Use of Fire Department Aerial Ladders and Elevating Platforms*.

The 1979 edition of NFPA 1931 incorporated extensive revisions, including editorial and style changes.

In 1984, the text of NFPA 1931 was again divided into two documents. NFPA 1931 contained the requirements for the design and design verification testing for new ground ladders, and NFPA 1932 contained the requirements for the use, maintenance, and service testing of fire department ground ladders. The strength requirements for new ground ladders were increased in NFPA 1931, and the loads used for in-service testing of ground ladders were increased based on research that indicated that ground ladders needed to handle greater loads. An exception allowed the authority having jurisdiction to use a reduced test weight for the horizontal bending test for extension ladders built prior to 1984 with a restriction on the use of those ladders while phasing in the more stringent testing requirement.

The 1989 edition added requirements for routine maintenance as well as additional cautions regarding accidental heating of ladders. The horizontal bending test for folding ladders was added. The horizontal bending test for extension ladders was modified to reflect changes determined acceptable from field experience with the use of the test method.

The 1994 edition removed the exception that allowed the authority having jurisdiction to use a reduced test weight for the horizontal bending test for extension ladders built prior to 1984. The standard was revised to keep it up to date, including adding requirements for retrofitting heat sensor labels after appropriate testing.

The 1999 edition incorporated minor editorial revisions and rearranged the document to better organize the material.

The 2004 edition changed the title to *Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders* to better reflect that this is a standard that pertains to the ladder after it has been put in service. The document was reorganized according to the current NFPA *Manual of Style*, and ambiguous wording was clarified. An alternate method for loading a ladder during the horizontal bending test was permitted. The maximum temperature that ladders can be subjected to under non-fire conditions was reduced to 212°F (100°C). The optional hardness test was deleted. The conditions for removal of ground ladders from service because of failing inspections or testing were clarified.



Documents

Document Sharing Hub

The 2010 edition of this standard included multi-purpose ladders. NFPA 1901, *Standard for Automotive Fire Apparatus*, recognized the installation of multi-purpose ladders in lieu of folding ladders on apparatus. As such, requirements for testing were necessary to ensure multi-purpose ladders are tested and maintained for fire service duty.

The 2015 edition brings clarification and improvement to the visual inspection checklist and adds an operational test for extension ladders to ensure there is no damage to the ladder.



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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for documents on the design, inspection, testing, and use of ground ladders for the fire service.

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A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1* Scope. This standard specifies requirements for the use, maintenance, inspection, and service testing of fire department ground ladders.

1.2 Purpose.

1.2.1* The purpose of this standard is to provide requirements for the use, maintenance, and service testing of fire department ground ladders that will result in reasonable safety for fire fighters and victims during the use of those ground ladders.

1.2.2 This standard also provides users of fire department ground ladders with a means to determine if in-service fire department ground ladders are fit for continued service.

1.3* Application. This standard applies to all ground ladders, regardless of year of manufacture, used by fire departments for rescue, fire-fighting operations, and training.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1931, *Standard for Manufacturer’s Design of Fire Department Ground Ladders*, 2015 edition.

2.3 Other Publications.

2.3.1 ANSI Publications. American National Standards Institute, Inc., 25 West 43rd Street, 4th Floor, New York, NY 10036.

ANSI A14.2, *Ladders — Portable Metal — Safety Requirements*, 2007.

ANSI A14.5, *Ladders — Portable Reinforced Plastic — Safety Requirements*, 2007.

2.3.2 Other Publications.

Merriam-Webster’s Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 1931, *Standard for Manufacturer’s Design of Fire Department Ground Ladders*, 2015 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster’s Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Shall. Indicates a mandatory requirement.

3.2.4 Should. Indicates a recommendation or that which is advised but not required.

3.2.5 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

3.3 General Definitions.

3.3.1 Angle of Inclination. The angle incorporated between the beams and a level plane. [1931, 2015]

3.3.2 Base (Bed) Section. The lowest or widest section of an extension ladder. [1931, 2015]

3.3.3 Beam (Side Rail). The main structural side of the ground ladder. [1931, 2015]

3.3.4 Bedded Position. The position in which the fly section(s) of an extension ladder is fully retracted with the pawls engaged. [1931, 2015]