ASME A17.1-2019/CSA B44:19
(Revision of ASME A17.1-2016/CSA B44-16)

Safety Code for Elevators and Escalators

Includes Requirements for Elevators, Escalators, Dumbwaiters, Moving Walks, Material Lifts, and Dumbwaiters With Automatic Transfer Devices

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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Date of Issuance: December 31, 2019

The next edition of this Code is scheduled for publication in 2022. This Code will become effective 6 months after the Date of Issuance.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Code. Interpretations are published on the ASME website under the Committee Pages at http://cstools.asme.org/ as they are issued.

Errata to codes and standards may be posted on the ASME website under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

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The American Society of Mechanical Engineers
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ASME FOREWORD

The first edition of this Code was published in January 1921. It was prepared by an American Society of Mechanical Engineers (ASME) Committee on Protection of Industrial Workers with the assistance of representatives of a number of interests including manufacturers, insurance carriers, regulatory bodies, and technical societies.

Subsequently, ASME requested the American Engineering Standards Committee (AESC) to authorize the organization of a Sectional Committee to undertake a revision. The AESC acted favorably on this request and in January 1922 assigned sponsorship for the project jointly to the American Institute of Architects, the National Bureau of Standards, and ASME, all three of whom had taken an active part in the preparation of the first edition of the Code.

The organizational meeting of the Sectional Committee A17 was held in November 1922. A number of meetings of the Committee were held during the next two years, and in July 1925, a revision of the 1921 Code was completed, approved by the AESC, and published as an American Standard.

Subsequent to the publication of the 1925 revision of the Code, the necessity for development research on the design and construction of car safeties and oil buffers and for the development of test specifications for various parts of elevator equipment was realized.

As a result, a Subcommittee on Research, Recommendations, and Interpretations was appointed in 1926. This subcommittee held regular meetings thereafter until interrupted by the Second World War in 1940, and carried on an extensive test program at the National Bureau of Standards in connection with oil buffers and car safeties. Subsequent to the war, the name of this subcommittee was changed to "Executive Committee for the Elevator Safety Code."

The information gained as a result of these tests, together with the developments that had occurred in the design of the equipment as a result of installations made in very tall buildings, prompted the Sectional Committee to prepare and issue the third edition of the Code in 1931. The third edition was approved by the Sectional Committee in February 1931, and subsequently by the sponsors and by the American Standards Association (ASA, formerly the AESC) in July 1931.

Further experience and developments in the design of elevator equipment led the Sectional Committee, in line with its policy of revising the Code periodically, to prepare the fourth edition in 1937, which was approved by the sponsors and by the ASA in July 1937.

A fifth edition of the Code was well under way in 1940 when it was necessary to suspend the work due to the Second World War. However, a number of the revisions already agreed upon by the Sectional Committee and approved by the sponsors and by the ASA in April 1942 were issued as a supplement to the 1937 edition. They were subsequently incorporated in a reprint of the 1937 edition in 1945. In response to public demand, requirements for private residence elevators were also issued in a separate supplement, ASA A17.1.5-1953, and incorporated into the Code as Part V in the 1955 edition.

The Sectional Committee reinitiated consideration of the fifth edition of the Code in 1946. Due to the considerable period that had elapsed since the fourth revision in 1937, and to the very extensive developments in the elevator art, the Committee decided that the Code should be completely rewritten and brought up to date.

Special subcommittees were appointed to prepare the revisions of the various requirements. The membership of each subcommittee consisted of persons especially familiar with the requirements to be covered by that subcommittee. Fifteen subcommittees were set up with a total membership of over 150 persons. The membership of these subcommittees was not confined to members of the Sectional Committee. It also included other persons having expert knowledge of the subjects under consideration by the subcommittees. These subcommittees and their personnel were listed in the 1955 edition of the Code.

The drafts prepared by these subcommittees were widely circulated to interested groups for comment. After review of the comments and correlation of the drafts, the fifth edition of the Code was approved by the Sectional Committee, subsequently by the sponsors, and by the ASA in June 1955.

In December 1957, a Supplement to the Code listing a number of revisions was approved by the ASA and published by ASME.

A sixth edition was published in 1960 that incorporated the revisions contained in the 1957 Supplement as well as approximately 96 revisions that were approved by the Sectional Committee in March 1960.

In 1958 the scope of the A17 Code was enlarged to include moving walks. The membership of the Sectional Committee was expanded to include manufacturers whose primary interest in the Committee was the development of rules and regulations on moving walks. A subcommittee prepared a Safety Code for Moving Walks, which was approved by the

Sectional Committee, the sponsors, and by the ASA on March 20, 1962. This Code was published as Part XIII of the A17.1 Code, and was designated ASA A17.1.13-1962.

During 1962 and 1963, 38 additional changes to Parts I through XII of ASA A17.1 were approved by the Sectional Committee and the sponsors, and the ASA, and were published as the 1963 Supplement to the 1960 edition of the Code.

A seventh edition was published in 1965 that incorporated the rules of the Safety Code for Moving Walks, ASA A17.1.13-1962, as Part XIII, the revisions covered by the 1963 Supplement, and approximately 90 other revisions approved by the Sectional Committee, the sponsors, and the ASA. The title of the Code was also changed to the American Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks.

On August 24, 1966, the ASA was reconstituted as the United States of America Standards Institute. The designation of standards approved as American Standards was changed to USA Standards. There was no change in the index identification or the technical content of the standards. At the same time, the ASA Sectional Committee, A17 on A Safety Code for Elevators, was changed to the USA Standards Committee, A17 on A Safety Code for Elevators. Four supplements to the seventh edition were published from 1967 through 1970.

The United States of America Standards Institute changed its name to American National Standards Institute, Inc. (ANSI) on October 6, 1969. At the time that the new name became effective, the designation USA Standard was changed to American National Standard and the names of committees changed from USA Standards Committees to American National Standards Committees. The alphabetical designation of standard documents was changed from USA to ANSI.

The eighth edition of the Code (1971) incorporated the revisions covered by the four supplements and an additional 94 revisions. Seven supplements were issued from 1972 through 1976. Part XIV covering material lifts and dumbwaiters with automatic transfer devices was added in supplement ANSI A17.1d-1975.

The ninth edition of the Code (1978) incorporated 75 revisions in addition to those covered by the previous supplements. Part XV covering special purpose personnel elevators was added and the reference codes, standards, and specifications were moved from the Preface to a new Part XVI. Two supplements to this edition were issued in 1979 and 1980.

The tenth edition of the Code (1981) incorporated the revisions covered by Supplements ANSI A17.1a-1979 and ANSI A17.1b-1980, as well as the following new material: Part XVII, Inclined Elevators; Appendix F, Seismic Regulations; and Appendix G, Recommended Practice for Accelerating Moving Walks. Rule 211.3 and Part V were also completely revised, with the private residence inclined lifts moved to Part XVIII. Numerous other revisions and additions that had been approved since the time of the 1980 supplement were also included.

The tenth edition of the Code was approved by the A17 Standards Committee. After publication of the tenth edition, the Committee was reorganized in accordance with the ANSI Accredited Organization Method under the sponsorship of ASME. With this reorganization, the National Bureau of Standards and the American Institute of Architects relinquished their roles as cosecretariats. The Standards, Conference, and Executive Committees were also restructured as the Main Committee and the National Interest Review Committee, with the Working Committees (subcommittees) continuing to operate as before.

This reorganization also prompted a change in the title of the Code to the ANSI/ASME A17.1 Safety Code for Elevators and Escalators. The title was shortened for convenience, and it should not be construed that the Code no longer covered dumbwaiters, moving walks, or the other equipment included within the Scope of the Code.

Two supplements to the 1981 edition were issued: ANSI/ASME A17.1a-1982 and ANSI/ASME A17.1b-1983. The 1982 supplement included a new Part XIX covering elevators used for construction. In the 1983 supplement, the requirements for private residence inclined lifts in Part XVIII were expanded and incorporated into a new Part XXI covering private residence inclined stairway chairlifts and inclined and vertical wheelchair lifts. Part XX was added to cover these same devices installed in buildings other than private residences. Requirements for screw-column elevators were also added and designated as Part XVIII.

The eleventh edition of the Code (1984) incorporated the changes made in the 1982 and 1983 supplements, as well as additional revisions.

The eleventh edition was updated with five supplements, which were issued approximately every 6 months from 1985 through the spring of 1987. Appendix I (later redesignated as Appendix E) was added in ANSI/ASME A17.1a-1985. Requirements for rack-and-pinion elevators were added in ANSI/ASME A17.1c-1986, designated as Part XVI. The previous Part XVI (Reference Codes, Standards, and Specifications) was moved to Section 4 of the Introduction. In ANSI/ASME A17.1d-1986, the requirements for sidewalk elevators in Part IV, and alterations in Part XII, were completely revised.

The twelfth edition of the Code incorporated the changes made in supplements ANSI/ASME A17.1a-1985 through ANSI/ASME A17.1e-1987, as well as additional revisions. Among these changes was a complete revision of the requirements for dumbwaiters in Part VII. The format of the Code was also changed editorially to incorporate Exceptions into the body of the Rules.

The thirteenth edition of the Code incorporated the changes made in ANSI/ASME A17.1a-1988 and ANSI/ASME A17.1b-1989 as well as additional revisions. Part XXII, Shipboard Elevators, was added in ANSI/ASME A17.1b-1989. Part XXIII, Rooftop Elevators, appeared for the first time in the thirteenth edition.

The fourteenth edition of the Code incorporated the changes made in ASME A17.1a-1991 and ASME A17.1b-1992 as well as additional revisions. Safety requirements for seismic risk zone 3 and greater were moved from Appendix F into new Part XXIV, Elevator Safety Requirements for Seismic Risk Zone 2 or Greater. Requirements for seismic risk zone 2 were added to Part XXIV.

The fifteenth edition of the Code incorporated the changes made in ASME A17.1a-1994 and ASME A17.1b-1995 as well as additional revisions. Part XXV, Limited-Use/Limited-Application Elevators, was added in ASME A17.1b-1995. The rules in Part III were harmonized with CAN/CSA B44, Elevator Safety Standard, Sections 4 and 11, and Appendix G4.

The sixteenth edition of the Code incorporated changes made in ASME A17.1a-1997 through ASME A17.1d-2000. Requirements for mine elevators were also added in Section 5.9 of this edition. In addition, the entire Code was reformatted to incorporate a decimal numbering system. For the sixteenth edition of the Code, cross-reference tables were provided to facilitate the correlation between requirements from the fifteenth edition of the Code and the renumbered requirements of the sixteenth edition and vice versa. The sixteenth edition of ASME A17.1 was the result of a joint effort between the ASME A17 Elevator and Escalator Committee and the Canadian Standards Association (CSA) B44 Technical Committee to harmonize requirements between ASME A17.1, Safety Code for Elevators and Escalators, and CSA B44, Safety Code for Elevators.

The seventeenth edition of the Code incorporated changes made in ASME A17.1a-2002 and ASME A17.1b-2003. Additionally, in Sections 8.10 and 8.11, cross-references were updated to reflect ASME A17.2-2001, Guide for Inspection of Elevators, Escalators, and Moving Walks.

The eighteenth edition of the Code was a fully binational standard. All former deviations between the ASME A17.1 Code and the CSA B44 Code were fully addressed within this one Code. Additionally, this edition incorporated revisions to address the advancement of technologies used in the design and construction of elevator equipment that had enabled the installation of the equipment in other than traditional locations, such as machine rooms. New requirements were also added to address programmable electronic systems in safety-related applications of elevators.

The nineteenth edition of the Code incorporated changes made in ASME A17.1a-2008/CSA B44a-08 and ASME A17.1b-2009/CSA B44b-09. Major changes included former periodic inspections now being covered under maintenance requirements. New requirements were added to address the means and members of suspension, compensation, and governor systems for elevators. These new requirements were covered in detail through reference to ASME A17.6, which includes the material properties, design, testing, inspection, and replacement criteria for these means. It includes the requirements for steel wire rope, aramid fiber rope, and noncircular elastomeric-coated steel suspension members and provides direction for future constructions as new technology develops.

The twentieth edition of the Code contained well over one hundred revisions made to existing requirements, as well as some new requirements.

New requirements were added to address new types of elevator equipment being used in the industry, specifically wind turbine elevators and outside emergency elevators. In addition, requirements were added to address a new feature called Elevator Evacuation Operation (EEO), which allows for the use of elevators for occupant evacuation.

Besides the above, major changes included the following:

(a) The seismic requirements of the Code were revised to include seismic force levels as specified in the latest building codes in the United States (IBC) and Canada (NBCC). To facilitate incorporation of these requirements, ASME published Technical Report A17.1-8.4, Guide for Elevator Seismic Design.

(b) Requirements related to the maintenance control program were updated to improve clarity and organization for records, content, availability, and format.

(c) Regarding qualifications for elevator inspectors (QEI), effective January 1, 2014, accreditation of organizations that certify elevator inspectors and inspection supervisors was discontinued by ASME. Requirements were revised in this area to allow for accreditation to be done by other organizations.

The twenty-first edition of the Code contained many revisions to existing requirements and the addition of some new requirements. Some areas of note, in which significant updates were made, include, but are not limited to, seismic requirements for escalators; requirements for special purpose personnel elevators, rack-and-pinion elevators, private residence elevators, and material lifts with obscured transfer devices; and the addition of elastomeric buffer requirements. In addition, the requirements in Section 5.11, Wind Turbine Tower Elevators, are now addressed within ASME A17.8/CSA B44.8, and Section 7.11 on material lifts with obscured transfer devices was removed. Additionally, Nonmandatory Appendix T on inspection and replacement of steel wire ropes and Nonmandatory Appendix W on wind turbine tower elevator clearances were removed.

This twenty-second edition of the Code includes many revisions, including additional updates for door requirements in private residence elevators, occupant evacuation elevators, and clarifications of seismic requirements for elevators and escalators. In addition, some key revisions of note are the updating of emergency communication requirements for an elevator to ensure communication with any trapped passengers, including those that are hearing impaired, and additional requirements modified for increased door protection on passenger elevators.

The following is a complete list of editions and supplements to the Code that have been published and the dates when they received final approval. The dates of issuance are also included for the documents published since 1974, and the dates on which they became effective are included for those published since 1978.

Editions and Supplements		Approved	Issued	Effective
First Edition	1921	January 1921	...	...
Second Edition	A17-1925	April 1925	...	...
Third Edition	ASA A17-1931	July 1931	...	...
Fourth Edition	ASA A17.1-1937	July 1937	...	...
Supplements	ASA A17.3-1942	April 1942	...	...
	ASA A17.1.5-1953	June 9, 1953	...	...
Fifth Edition	ASA A17.1-1955	June 15, 1955	...	...
Supplements	ASA A17.1a-1957	December 10, 1957	...	...
Sixth Edition	ASA A17.1-1960	August 29, 1960	...	...
Supplements	ASA A17.1.13-1962	March 20, 1962	...	...
	ASA A17.1a-1963	August 16, 1963	...	...
Seventh Edition	ASA A17.1-1965	July 29, 1965	...	...
Supplements	USAS A17.1a-1967	July 7, 1967	...	...
	USAS A17.1b-1968	December 11, 1968	...	...
	USAS A17.1c-1969	May 6, 1969	...	...
	ANSI A17.1d-1970	March 2, 1970	...	...
Eighth Edition	ANSI A17.1-1971	July 27, 1971	...	...
Supplements	ANSI A17.1a-1972	February 16, 1972	...	...
	ANSI A17.1b-1973	October 11, 1973	...	...
	ANSI A17.1c-1974	April 26, 1974	September 15, 1974	...
	ANSI A17.1d-1975	February 26, 1975	October 31, 1975	...
	ANSI A17.1e-1975	March 26, 1975	October 31, 1975	...
	ANSI A17.1f-1975	April 2, 1975	October 31, 1975	...
	ANSI A17.1g-1976	August 12, 1976	November 30, 1976	...
Ninth Edition	ANSI A17.1-1978	May 4, 1978	June 15, 1978	September 15, 1978
Supplements	ANSI A17.1a-1979	February 5, 1979	March 30, 1979	June 30, 1979
	ANSI A17.1b-1980	March 20, 1980	May 15, 1980	August 15, 1980
Tenth Edition	ANSI/ASME A17.1-1981	September 8, 1981	October 22, 1981	April 22, 1982
Supplements	ANSI/ASME A17.1a-1982	October 5, 1982	November 30, 1982	May 30, 1983
	ANSI/ASME A17.1b-1983	October 24, 1983	December 23, 1983	June 23, 1984
Eleventh Edition	ANSI/ASME A17.1-1984	August 16, 1984	September 16, 1984	March 16, 1985
Supplements	ANSI/ASME A17.1a-1985	February 27, 1985	April 15, 1985	October 15, 1985
	ANSI/ASME A17.1b-1985	August 6, 1985	October 15, 1985	April 15, 1986
	ANSI/ASME A17.1c-1986	March 5, 1986	April 30, 1986	October 31, 1986
	ANSI/ASME A17.1d-1986	September 8, 1986	November 30, 1986	May 31, 1987
	ANSI/ASME A17.1e-1987	February 18, 1987	April 30, 1987	October 30, 1987
Twelfth Edition	ASME/ANSI A17.1-1987	October 20, 1987	January 15, 1988	July 16, 1988
Supplements	ASME/ANSI A17.1a-1988	October 6, 1988	November 15, 1988	May 16, 1989
	ASME/ANSI A17.1b-1989	November 10, 1989	November 30, 1989	May 31, 1990

Editions and Supplements		Approved	Issued	Effective
Thirteenth Edition	ASME A17.1-1990	October 8, 1990	February 8, 1991	August 9, 1991
Supplements	ASME A17.1a-1991	October 21, 1991	February 28, 1992	August 29, 1992
	ASME A17.1b-1992	October 28, 1992	December 29, 1992	June 30, 1993
Fourteenth Edition	ASME A17.1-1993	October 18, 1993	December 31, 1993	July 1, 1994
Supplements	ASME A17.1a-1994	August 17, 1994	December 31, 1994	July 1, 1995
	ASME A17.1b-1995	October 5, 1995	January 31, 1996	August 1, 1996
Fifteenth Edition	ASME A17.1-1996	October 3, 1996	December 31, 1996	July 1, 1997
Supplements	ASME A17.1a-1997	January 8, 1998	February 27, 1998	August 28, 1998
	ASME A17.1b-1998	November 13, 1998	February 19, 1999	August 20, 1999
	ASME A17.1c-1999	May 13, 1999	June 30, 1999	December 31, 1999
	ASME A17.1d-2000	October 12, 2000	November 30, 2000	January 31, 2001
Sixteenth Edition	ASME A17.1-2000	October 16, 2000	March 23, 2001	March 23, 2002
Supplements	ASME A17.1a-2002	February 26, 2002	April 4, 2002	October 4, 2002
	ASME A17.1b-2003	April 10, 2003	May 30, 2003	November 30, 2003
Seventeenth Edition	ASME A17.1-2004	January 14, 2004	April 30, 2004	October 31, 2004
Supplements	ASME A17.1a-2005	March 18, 2005	April 29, 2005	October 29, 2005
	ASME A17.1S-2005	March 23, 2005	August 12, 2005	February 12, 2006
Eighteenth Edition	ASME A17.1-2007/CSA B44-07	February 20, 2007	April 6, 2007	October 6, 2007
Supplements	ASME A17.1a-2008/CSA B44a-08	September 19, 2008	December 5, 2008	June 5, 2009
	ASME A17.1b-2009/CSA B44b-09	November 17, 2009	December 30, 2009	June 30, 2010
Nineteenth Edition	ASME A17.1-2010/CSA B44-10	October 19, 2010	December 30, 2010	June 30, 2011
Twentieth Edition	ASME A17.1-2013/CSA B44-13	May 31, 2013	October 21, 2013	April 21, 2014
Twenty-First Edition	ASME A17.1-2016/CSA B44-16	July 25, 2016	November 30, 2016	May 30, 2017
Twenty-Second Edition	ASME A17.1-2019/CSA B44:19	October 8, 2019	December 31, 2019	June 30, 2020

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(August 2019)

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ASME PREFACE

(19)

GENERAL

This Code is one of the numerous codes and standards developed and published by The American Society of Mechanical Engineers (ASME) under the general auspices of the American National Standards Institute, Inc. (ANSI).

The Code is intended to serve as the basis for the design, construction, installation, operation, testing, inspection, maintenance, alteration, and repair of elevators, dumbwaiters, escalators, moving walks, and material lifts.

Safety codes and standards are intended to enhance public health and safety. Revisions result from committee consideration of factors such as technological advances, new data, and changing environmental and industry needs. Revisions do not imply that previous editions were inadequate.

This Code applies to new installations only, except Part 1 and Sections 5.10, 8.1, and 8.6 through 8.12, which apply to both new and existing installations. Also, see ASME A17.3, Safety Code for Existing Elevators and Escalators, for further requirements.

The following conditions are not addressed in this Code:

(a) assignment of the responsibility for compliance to any particular party.

(b) establishment of a frequency for periodic inspections and tests. See Nonmandatory Appendix N for recommended inspections and test intervals.

(c) assignment of responsibility for persons authorized to make and witness inspections and tests.

APPLICATION OF REQUIREMENTS TO NEW TECHNOLOGY

With the advent of new technologies, materials, and processes in the mechanical, structural, electronic, and optic fields, and the analytical capabilities now available, the flexibility to introduce products into the marketplace using these technical developments is desirable. Previous editions of ASME A17.1 had long-standing provisions, in Section 1.2, that suggested that authorities having jurisdiction should recognize safety equivalent to that required by the Codes. This edition of ASME A17.1/CSA B44 recognizes that ASME A17.7/CSA B44.7 provides a structured method for establishing the safety of designs and products and that compliance with ASME A17.7/CSA B44.7 is equivalent to compliance with the requirements in ASME A17.1/CSA B44.

FORM AND ARRANGEMENT

This Code consists of Parts and Sections, each covering a specific subject so as to facilitate reference to the requirements.

The Foreword, Preface, Notes, and Appendices that are included in this Code are not part of this American National Standard. They are advisory in nature and are intended for clarification only.

In this edition, the revisions that are appearing for the first time are identified by **(19)**. Where editorial changes have been made, they are identified by **(ED)**. See also the Summary of Changes.

METRIC (SI) UNITS

This edition of the Code uses hard metric (SI) units wherever practical. The acceptable equivalent imperial units are shown in parentheses. Information on the usage of SI units and conversion to imperial units is contained in IEEE/ASTM SI 10-2016, American National Standard for Metric Practice; ASME Guide SI-1, Orientation and Guide for Use of SI (Metric) Units; or CAN/CSA-Z234.1, Canadian Metric Practice Guide.

Tables related to speed and load use the hard metric and hard imperial units in common practice, even though they are not exactly equivalent (e.g., see Table 2.22.4.1, Minimum Oil Buffer Strokes). The tabular values have been derived using 8.2.1 formulas and the metric and imperial values for buffer strokes, safety stopping distances, etc., are therefore not equivalent.

ASME ELEVATOR PUBLICATIONS

The following ASME publications are of special interest to users of this Code. For prices and availability, contact:

ASME
150 Clove Road, 6th Floor
Little Falls, NJ 07424-2138
Tel: 800-843-2763
Fax: 973-882-1717
E-mail: customercare@asme.org
ASME website: www.asme.org/shop

Abbreviations Used in This Code	
Abbreviation	**Unit**
A	ampere
°C	degree Celsius
deg	degree (angle)
°F	degree Fahrenheit
fc	footcandle
ft	foot
ft^2	square foot
ft^3	cubic foot
ft/min	foot per minute
ft/s	foot per second
ft/s^2	foot per second per second
h	hour
Hz	hertz
in.	inch
$in.^2$	square inch
$in.^3$	cubic inch
kg	kilogram
kPa	kilopascal
lb	pound (mass)

Abbreviations Used in This Code	
Abbreviation	**Unit**
lbf	pound (force)
lx	lux
m	meter
m^2	square meter
m^3	cubic meter
mA	milliampere
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
MPa	megapascal
m/s	meter per second
m/s^2	meter per second per second
N	newton
psi	pound per square inch
s	second
SIL	safety integrity level
V	volt
yr	year

ASME A17.2, Guide for Inspection of Elevators, Escalators, and Moving Walks. This Guide gives detailed procedures for the inspection and testing of elevators, escalators, and moving walks required to conform to the Safety Code for Elevators and Escalators, ASA A17.1-1955 and later editions and the Safety Code for Existing Elevators and Escalators, ASME A17.3. Subsections are arranged to focus on routine and periodic inspection requirements, as well as acceptance criteria.

ASME A17.3, Safety Code for Existing Elevators and Escalators. This Code covers retroactive requirements for existing elevators and escalators. The purpose of this Code is to establish minimum requirements that will provide a reasonable degree of safety for the general public. While many of these requirements will also increase the degree of safety for the elevator mechanic and inspector, this area has not been specifically addressed at this time.

ASME A17.4, Guide for Emergency Personnel. This guide for emergency personnel (fire, police, etc.), building owners, lessees, and building operating managers explains the proper procedures to be used for the safe removal of passengers from stalled cars.

CSA B44.1/ASME A17.5, Elevator and Escalator Electrical Equipment. This Code contains requirements for obtaining, labeling, and listing electrical equipment for elevators, escalators, moving walks, dumbwaiters, material lifts, platform lifts, and stairway lifts.

ASME A17.6, Standard for Elevator Suspension, Compensation, and Governor Systems. This Standard covers the means and members of suspension, compensation, and governor systems for elevators within the scope of ASME A17.1/CSA B44. This Standard includes the material properties, design, testing, inspection, and replacement criteria for these means. It includes the requirements for steel wire rope, aramid fiber rope, and noncircular elastomeric-coated steel suspension members, and provides direction for future constructions as new technology develops.

ASME A17.7/CSA B44.7, Performance-Based Safety Code for Elevators and Escalators. This American National Standard performance-based safety code covers the design, construction, installation, operation, testing, maintenance, alteration, and repair of elevators, dumbwaiters, escalators, moving walks, and material lifts.

ASME A17.8/CSA B44.8, Safety Code for Wind Turbine Tower Elevators. This American National Standard covers elevators permanently installed in a wind tower to provide vertical transportation of authorized personnel and their tools and equipment only.

Published Interpretations. Interpretations of the various ASME A17 standards are issued in real time in ASME's Interpretation Database at http://go.asme.org/Interpretations. Historical Code interpretations may also be found in the Database.

Interpretations of ASME A17.1 and ASME A17.2 approved by the A17 Committee from June 14, 1972, through June 1979 were published in a separate book in 1980.

Starting with the 1981 edition of the Code, and ending with the 2016 edition, interpretations were published with each new edition and supplement of the applicable standard. A compilation of Interpretations Nos. 2–13 (June 1979–May 1989) has also been published by ASME.

ASME A17.1/CSA B44 Handbook. This Handbook augments the ASME A17.1/CSA B44 Code with commentary, diagrams, and illustrations that are intended to explain the requirements of the ASME A17.1/CSA B44 Code.

The commentary contained in the Handbook is the opinion of the author and has not been approved by the A17 Committee or the B44 Technical Committee.

ASME QEI-1, Standard for the Qualification of Elevator Inspectors. This Standard covers requirements for the qualification and duties of inspectors and inspection supervisors engaged in the inspection and testing of equipment within the scope of the ASME A17.1/CSA B44 Code.

ASME A18.1, Safety Standard for Platform Lifts and Stairway Chairlifts. This safety Standard covers the design, construction, installation, operation, inspection, testing, maintenance, and repair of inclined stairway chairlifts and inclined and vertical platform lifts intended for transportation of a mobility-impaired person only.

CORRESPONDENCE WITH THE A17 COMMITTEE

ASME Codes and Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this and other ASME A17 Codes and Standards may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to:

Secretary, A17 Standards Committee
The American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016-5990
http://go.asme.org/Inquiry

All correspondence to the Committee must include the individual's name and post office address in case the Committee needs to request further information.

Proposing Revisions. Revisions are made periodically to the Code to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the procedures, and in order to conform to developments in the elevator art. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Code. Such proposals should be as specific as possible, citing the Section number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

Interpretations. Upon request, the A17 Standards Committee will render an interpretation of any requirement of the Code. Interpretations can only be rendered in response to a written request sent to the Secretary of the A17 Standards Committee.

Requests for interpretation should preferably be submitted through the online Interpretation Submittal Form. The form is accessible at http://go.asme.org/InterpretationRequest. Upon submittal of the form, the Inquirer will receive an automatic e-mail confirming receipt.

If the Inquirer is unable to use the online form, he/she may mail the request to the Secretary of the A17 Standards Committee at the above address. The request for an interpretation should be clear and unambiguous. It is further recommended that the Inquirer submit his/her request in the following format:

Subject:	Cite the applicable Section number(s) and the topic of the inquiry in one or two words.
Edition:	Cite the applicable edition and supplement of the Code for which the interpretation is being requested.
Question:	Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. Please provide a condensed and precise question, composed in such a way that a "yes" or "no" reply is acceptable.
Proposed Reply(ies):	Provide a proposed reply(ies) in the form of "Yes" or "No," with explanation as needed. If entering replies to more than one question, please number the questions and replies.

Background Information: Provide the Committee with any background information that will assist the Committee in understanding the inquiry. The Inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in the format described above may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

Moreover, ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Code requirements. If, based on the inquiry information submitted, it is the opinion of the Committee that the Inquirer should seek assistance, the inquiry will be returned with the recommendation that such assistance be obtained.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Attending Committee Meetings. The A17 Standards Committee and the various Working Committees regularly hold meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the A17 Standards Committee.

CSA PREFACE (19)

This is the fifth edition of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*. It supersedes the previous editions of ASME A17.1/CSA B44, published in 2016, 2013, 2010, and 2007; and the previous editions of CSA B44, published in 2004, 2000, 1994, 1990, 1985, 1975, 1971, 1966, 1960, and 1938.

This Code is the result of a joint effort by the CSA B44 Technical Committee on the Elevator Safety Code and the ASME A17 Committee on Elevators and Escalators to harmonize the provisions of CSA B44 and ASME A17.1. This edition of ASME A17.1/CSA B44 consists of the complete ASME A17.1 Code, with additional requirements applicable only in Canadian jurisdictions. These Canadian requirements are prefaced in the body of the Code by the following: "In jurisdictions enforcing the NBCC ...".

CSA B44 was originally developed to facilitate the implementation of uniform legislation across Canada and to replace the existing legislation, which had proved inadequate for prevailing elevator practices. The primary purpose of the Code is to establish minimum requirements, suitable for adoption by regulatory authorities throughout Canada, for the design, installation, and maintenance of elevators, escalators, dumbwaiters, moving walks, and material lifts. It is also intended as a standard reference for architects, consulting engineers, elevator manufacturers, and building owners.

This Code was reviewed for use in Canada by the CSA Technical Committee on the Elevator Safety Code under the jurisdiction of the CSA Strategic Steering Committee on Mechanical Industrial Equipment Safety.

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 http://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.

ASME A17.1-2019/CSA B44:19
SUMMARY OF CHANGES

Following approval by the ASME A17 Elevators and Escalators Committee and ASME, and after public review, ASME A17.1-2019/CSA B44:19 was approved by the American National Standards Institute on October 8, 2019. It was issued on December 31, 2019, and is effective as of June 30, 2020.

ASME A17.1-2019/CSA B44:19 incorporates the revisions and editorial changes made since the previously published edition. Revisions are identified by a margin note, **(19)**. Changes made to correct errors, as well as other new editorial changes, are identified by **(ED)**. The following is a summary of the latest revisions and changes.

Page	*Location*	*Change*
x	ASME Foreword	Revised
xxiii	ASME Preface	Revised
xxvii	CSA Preface	Revised
1	1.1.3	Revised
2	Section 1.3	(1) Definitions of *car door interlock*, *car door or gate electric contact*, *door or gate electric contact*, *elevator discharge level*, *hoistway door electric contact*, *hoistway door combination mechanical lock and closed detection means*, *hoistway door interlock*, and *mechanical lock* revised (2) Definitions of *door locked detection means, dynamic braking*; *executable software*; *Fire Service Access Elevator (FSAE)*; *manual reset*; *private residence elevator*; *relocation, escalator or moving walk*; *restrictor, car door*; *software-based parameters and/or variables*; *unique software identifier (USI)*; and *valve, manually (manual) operated* added
21	2.2.2.5	Revised
29	2.7.3.3.2	Revised
30	2.7.5.1.2	Subparagraph (e) revised
31	2.7.5.3	Reference to 8.6.11.9 corrected by errata
32	2.7.5.3.1	Reference to 8.6.11.9 corrected by errata
35	2.7.8	Revised
36	2.8.2.4	Added
36	2.8.3.1.4	Added
37	2.8.3.3.2	Subparagraph (d) added
37	2.8.3.3.4	Revised
43	2.11.10.2	Revised
44	2.11.11.5.7	Revised
48	Section 2.12	Title revised
49	2.12.1.5	Revised
49	2.12.2.4	Revised in its entirety
50	2.12.3	Title revised
50	2.12.3.1	Introductory sentence revised
51	2.12.3.4	Revised

Page	*Location*	*Change*
51	2.12.3.4.1	Revised
51	2.12.3.4.2	Revised
51	2.12.3.4.4	Revised
51	2.12.3.5	Revised
51	2.12.4	Revised in its entirety
52	2.12.7.2.1	Revised
57	2.13.3.4.10	Subparagraph (b) revised
58	2.13.4.2.4	Revised
58	2.13.5	Revised in its entirety
61	2.14.1.5.1	Subparagraph (c) revised
63	2.14.2.2	Subparagraph (g)(4) revised
63	2.14.2.3.3	Subparagraph (b) and Note revised
64	2.14.4.2	(1) Title revised (2) Paragraph 2.14.4.2.1 revised (3) Paragraph 2.14.4.2.3 revised (4) Paragraphs 2.14.4.2.4 and 2.14.4.2.5 added and following paragraphs redesignated (5) Paragraph 2.14.4.2.6 (formerly 2.14.4.2.4) revised (6) Paragraph 2.14.4.2.7 (formerly 2.14.4.2.5) revised
66	2.14.4.11	Subparagraphs (a) and (c) revised
67	2.14.5.7	Revised
67	2.14.5.7.5	Revised
67	2.14.5.7.6	Added
69	2.14.7.1.3	Subparagraph (g) revised
75	2.16.3.1	Revised
76	2.16.3.2.2	Subparagraph (f) added
76	2.16.3.3	Revised in its entirety
76	2.16.5.1	Revised
76	2.16.5.2	Revised
77	2.16.7.5	Revised
79	Table 2.17.3	Title revised
81	2.17.14	Introductory sentence revised
81	2.17.16	Second paragraph revised
83	2.18.5.3	Paragraph following (h) revised
85	2.18.9	Introductory sentence revised
85	2.19.2.1	Introductory sentence and subpara. (a) revised
86	2.19.3.2	Subparagraphs (a)(5), (i)(1), (i)(2), and (k) revised
87	2.19.3.3	Revised
87	2.20.2.1	Introductory sentence revised
87	2.20.2.2.1	Introductory sentence and subpara. (d) revised
87	2.20.2.2.2	Introductory sentence revised
89	2.20.8.1	Subparagraph (d)(2) revised
95	2.20.10.9	Revised
97	2.22.3.1	Revised

Page	*Location*	*Change*
98	2.22.3.3	Revised
99	2.22.4.10	Revised
100	2.22.4.11	Revised
100	2.22.5.1	Subparagraph (c) deleted
110	2.24.2.3.5	Added
112	2.24.8.5	Revised
112	2.24.9.2.1	Reference revised
118	2.26.1.5	Last paragraph revised
119	2.26.1.5.5	Revised
119	2.26.1.5.6	Revised
119	2.26.1.5.7	Revised
119	2.26.1.5.8	Revised
120	2.26.1.7	Added
121	2.26.2.14	Revised
121	2.26.2.15	Revised
122	2.26.2.36	Revised
122	2.26.2.37	Revised
123	Table 2.26.4.3.2	Eighteenth and nineteenth rows revised
124	2.26.4.4	Second paragraph revised
125	2.26.5	Revised in its entirety
126	2.26.9.3.1	Revised
127	2.26.11	Introductory sentence revised
127	2.26.12	Note revised
127	Section 2.27	Note revised
129	2.27.1.1	Revised in its entirety
130	2.27.2.4.1	Revised
131	2.27.2.4.2	Revised
131	2.27.2.4.5	Revised
131	2.27.2.4.6	Revised
132	2.27.3.1.2	Revised
132	2.27.3.1.6	(1) Introductory paragraph and subparas. (a), (h), (j), (k), and (k)(1) revised (2) Note added after subpara. (n)(5)
134	2.27.3.2.3	Subparagraph (a) revised
134	2.27.3.2.4	Revised
134	2.27.3.2.5	Revised
137	2.27.3.3.7	Revised
138	2.27.3.5.1	Revised
138	2.27.4.1	Revised
139	2.27.4.2	Subparagraph (c) revised
139	2.27.5.3	Revised
139	2.27.6	Revised
139	2.27.7	(1) Paragraph 2.27.7.1 revised (2) Paragraph 2.27.7.4 deleted

Page	*Location*	*Change*
141	2.27.10	Revised in its entirety
141	2.27.11	Revised in its entirety
142	Figure 2.27.9	Revised
145	2.28.1	Subparagraph (k) added
150	3.7.1	Title added
151	Section 3.12	Title revised
151	3.12.2	Revised
157	3.19.2.5	Revised in its entirety
158	3.19.4.1	Revised in its entirety
158	3.19.4.4	Revised
162	3.26.1	Subparagraph (i) added
163	3.26.4.2	Subparagraphs (c) and (d) revised
164	3.26.8	Revised
165	3.26.11	Added
176	4.2.12	Paragraphs deleted and designator reserved for future use
188	5.2.1.4.3	Revised
188	5.2.1.4.4	Revised
189	5.2.1.4.5	Revised
190	5.2.1.16.2	Subparagraph (b) revised
193	5.3.1.3	Revised in its entirety
193	5.3.1.5	Revised
194	5.3.1.6	Added and following paragraphs redesignated
195	5.3.1.7	Formerly 5.3.1.6, title revised
195	5.3.1.7.3	Added
195	5.3.1.8.1	Formerly 5.3.1.7.1, revised
196	5.3.1.9.1	Formerly 5.3.1.8.1, subpara. (f) added
196	5.3.1.9.2	Formerly 5.3.1.8.2, subpara. (a) revised
199	5.3.1.17.2	Formerly 5.3.1.16.2, subparas. (a)(8), (b)(1), (b)(3), (j)(2), and (j)(4) revised
201	5.3.1.19.9	Added
221	Section 5.9	Revised
230	Section 5.11	Revised
232	6.1.3.3.6	(1) Subparagraph (b) revised (2) Subparagraph (d) added
235	6.1.3.9.1	Revised
235	6.1.3.9.2	Revised
236	6.1.3.9.3	Revised
236	6.1.3.10	Revised
236	6.1.3.10.2	Revised
236	6.1.3.10.3	Revised
236	6.1.3.10.4	Revised
236	6.1.3.12	Revised
237	6.1.5.3.1	Subparagraph (a) revised
238	6.1.5.3.3	Revised

Page	*Location*	*Change*
238	6.1.5.3.4	Added
239	6.1.6.3.1	Subparagraphs (a) and (c) revised
239	6.1.6.3.3	Subparagraph (a) revised
240	6.1.6.3.6	Revised
240	6.1.6.3.7	Revised
240	6.1.6.3.9	Revised
240	6.1.6.3.11	Revised
240	6.1.6.3.12	Revised
241	6.1.6.3.14	Revised
241	6.1.6.3.16	Revised
241	6.1.6.4	Revised
241	6.1.6.5	Revised
241	6.1.6.6	Revised
241	6.1.6.8	Revised
243	6.1.6.10.4	Subparagraph (c) revised
243	6.1.6.11	Revised
243	6.1.6.13	Revised
245	6.2.3.3.6	Revised
248	6.2.3.10.1	Revised
248	6.2.3.10.2	Revised
248	6.2.3.10.3	Revised
249	6.2.3.11	Revised in its entirety
249	6.2.3.15	Revised
250	6.2.5.3.1	Subparagraph (a) revised
250	6.2.5.3.3	Added
252	6.2.6.3.1	Subparagraphs (a) and (c) revised
252	6.2.6.3.3	Revised
252	6.2.6.3.6	Revised
252	6.2.6.3.8	Revised
252	6.2.6.3.9	Revised
253	6.2.6.3.10	Revised
253	6.2.6.4	Revised
253	6.2.6.5	Revised
253	6.2.6.6	Revised
253	6.2.6.7	Revised
254	6.2.6.10.4	Subparagraph (c) revised
254	6.2.6.11	Revised in its entirety
255	6.2.6.13	Revised
257	Scope, Part 7	Revised
257	Section 7.1	Title and introductory paragraph revised
259	7.1.10	Revised
259	7.1.11	Paragraphs 7.1.11.1.2, 7.1.11.2.2, 7.1.11.3.2, and 7.1.11.12.9 deleted
260	7.1.12	Paragraph 7.1.12.2 deleted and designator reserved for future use

Page	*Location*	*Change*
262	Section 7.2	(1) Title and introductory paragraph revised (2) Paragraph 7.2.4.3 deleted and designator reserved for future use (3) Paragraphs 7.2.6.1.2 and 7.2.10.2 deleted
269	7.4.3	Introductory paragraphs revised
270	7.4.4	Revised
272	7.4.13.2	Paragraphs 7.4.13.2.4 through 7.4.13.2.11 redesignated as 7.4.13.2.3 through 7.4.13.2.10
274	7.5.1.1.7	Revised in its entirety
276	7.5.10	Revised
280	7.6.7	Revised in its entirety
280	7.6.8.1	Revised
284	8.1.2	(1) Subparagraph (p) of Note revised (2) Subparagraph (z) of Note added
284	8.1.3	Subparagraphs (n) and (o) of Note added
304	Section 8.3	(1) Subparagraph (a)(6) revised (2) Subparagraph (b)(7) added
307	8.3.3.1	Revised
307	8.3.3.3.1	Revised in its entirety
308	8.3.3.3.2	Revised
308	8.3.3.4	Revised
308	8.3.3.4.2	Revised
308	8.3.3.4.3	Revised
309	8.3.3.4.6	Revised
309	8.3.3.4.10	Revised
309	8.3.3.4.11	Revised
310	8.3.6	Title revised
310	8.3.6.1	Revised
314	8.3.14	Added
315	8.3.15	Added
315	Section 8.4	Subparagraph (a)(3) revised
335	8.4.10.1.4	Subparagraph (c) revised
334	Figure 8.4.10.1.3	Revised
342	Section 8.5	Subparagraph (a)(3) revised
345	8.6.1.1.2	Notes added
345	8.6.1.1.4	Added
346	8.6.1.2.2	Subparagraphs (e) and (f) added
347	8.6.1.2.3	Added
347	8.6.1.4.1	Subparagraphs (b)(3) and (d)(2) added
349	8.6.2.3	Revised
352	8.6.4.2.2	Revised
354	8.6.4.19.2	Subparagraph (b)(1) revised
355	8.6.4.19.8	Revised
356	8.6.4.19.18	Added
356	8.6.4.19.19	Added

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356	8.6.4.19.20	Added
356	8.6.4.20.1	Subparagraphs (a) and (b)(2) revised
359	8.6.4.23	Added
360	8.6.5.14.3	(1) Subparagraph (g) revised (2) Subparagraph (j) added
360	8.6.5.14.6	Revised
360	8.6.5.14.9	Added
360	8.6.5.14.10	Added
361	8.6.5.16.4	Revised
361	8.6.6.1.1	Revised
363	8.6.7.9.6	Added
363	8.6.8	Revised
364	8.6.8.3.3	Revised
364	8.6.8.5	Subparagraph (a) revised
365	8.6.8.15	Title revised
365	8.6.8.15.4	Revised in its entirety
367	8.6.8.15.25	Added
367	8.6.8.15.26	Added
367	8.6.9	Introductory paragraph revised
368	8.6.9.14	Added
368	8.6.10.1.1	Revised
368	8.6.11.1	Revised
371	8.7.1.4	Revised
372	8.7.1.10	Added
372	8.7.2.2	Introductory paragraph added
372	8.7.2.3	Revised
372	8.7.2.4	Revised
372	8.7.2.5	Revised
372	8.7.2.6	Revised
372	8.7.2.7	Introductory paragraph added
373	8.7.2.8	Revised
373	8.7.2.10.1	Revised
373	8.7.2.10.2	Revised
373	8.7.2.10.3	Revised
373	8.7.2.10.4	Revised
374	8.7.2.11	Introductory paragraph added
374	8.7.2.11.5	Revised
374	8.7.2.12	Revised
374	8.7.2.13	Revised
374	8.7.2.14	Introductory paragraph added
375	8.7.2.14.5	Revised
375	8.7.2.15.1	Revised
375	8.7.2.15.2	Revised
376	8.7.2.16.1	Revised

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376	8.7.2.16.2	Revised
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376	8.7.2.16.4	Revised
376	8.7.2.17.1	Revised
377	8.7.2.17.2	Revised
377	8.7.2.18	Introductory paragraph added
378	8.7.2.19	Revised
378	8.7.2.20	Revised
378	8.7.2.21	Introductory paragraph added
378	8.7.2.22	Introductory paragraph added
378	8.7.2.23	Revised
378	8.7.2.24	Revised
379	8.7.2.25.1	Revised
379	8.7.2.25.2	Revised
379	8.7.2.26	Revised
379	8.7.2.27.1	Revised
379	8.7.2.27.2	Revised
379	8.7.2.27.3	Revised
379	8.7.2.27.4	Revised
380	8.7.2.27.5	Revised
381	8.7.2.27.6	Revised
381	8.7.2.27.7	Revised
381	8.7.2.27.8	Revised
381	8.7.2.27.9	Revised
382	8.7.2.28	Revised
382	8.7.3.2.1	Revised
382	8.7.3.3	Revised
382	8.7.3.4	Revised
382	8.7.3.5	Revised
382	8.7.3.6	Revised
382	8.7.3.7	Revised
382	8.7.3.8	Revised
383	8.7.3.10	Revised
383	8.7.3.11	Revised
383	8.7.3.12	Revised
383	8.7.3.13.1	Revised
383	8.7.3.13.2	Revised
383	8.7.3.14	Revised
383	8.7.3.15.1	Revised
383	8.7.3.15.2	Revised
383	8.7.3.15.3	Revised
383	8.7.3.16	Revised
383	8.7.3.17	Revised
383	8.7.3.18	Revised

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384	8.7.3.19	Revised
384	8.7.3.20	Revised
384	8.7.3.21	Revised
384	8.7.3.22.1	Revised
384	8.7.3.22.2	Revised
384	8.7.3.22.3	Revised
384	8.7.3.23.1	Revised
384	8.7.3.23.2	Revised
384	8.7.3.23.3	Revised
384	8.7.3.23.4	Revised
384	8.7.3.23.5	Revised
385	8.7.3.23.6	Revised
385	8.7.3.23.7	Revised
385	8.7.3.24	Revised
385	8.7.3.25.1	Revised
385	8.7.3.26	Revised
385	8.7.3.27	Revised
385	8.7.3.28	Revised
385	8.7.3.30	Revised
385	8.7.3.31.1	Revised
385	8.7.3.31.2	Revised
385	8.7.3.31.3	Revised
385	8.7.3.31.4	Revised
386	8.7.3.31.5	Revised
386	8.7.3.31.6	Revised
387	8.7.3.31.7	Revised
387	8.7.3.31.8	Revised
388	8.7.3.31.9	Revised
388	8.7.3.31.10	Revised
388	8.7.3.31.11	Revised
388	8.7.3.31.12	Revised
388	8.7.3.31.13	Added
389	8.7.5.7	Revised in its entirety
395	8.7.6.1.5	Introductory paragraph added
395	8.7.6.1.6	Revised
395	8.7.6.1.7	Revised
395	8.7.6.1.8	Revised
395	8.7.6.1.9	Revised
395	8.7.6.1.10	Revised
395	8.7.6.1.11	Revised
395	8.7.6.1.12	Revised
395	8.7.6.1.13	Revised
395	8.7.6.1.14	Revised
395	8.7.6.1.15	Revised

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395	8.7.6.1.16	Revised
395	8.7.6.1.17	Revised
395	8.7.6.1.18	Revised
395	8.7.6.1.19	Added
396	8.7.6.2.5	Revised
396	8.7.6.2.6	Revised
396	8.7.6.2.7	Revised
396	8.7.6.2.8	Revised
396	8.7.6.2.9	Revised
396	8.7.6.2.10	Revised
396	8.7.6.2.11	Revised
396	8.7.6.2.12	Revised
396	8.7.6.2.13	Revised
396	8.7.6.2.14	Revised
396	8.7.6.2.15	Revised
396	8.7.6.2.16	Revised
397	8.7.6.2.17	Revised
397	8.7.6.2.18	Added
397	8.7.6.2.19	Added
398	8.10.1.3	Notes revised
399	8.10.2.2.1	Subparagraphs (i) and (j)(2) revised
400	8.10.2.2.2	(1) Subparagraphs (ff)(4) and (tt) added (2) Subparagraphs (ii)(1)(-b), (ii)(1)(-c), (ii)(1)(-f), (ii)(4)(-a), (ii)(4)(-b), and (ii)(4)(-c) revised
403	8.10.2.2.3	Subparagraph (k) revised
405	8.10.2.2.7	In subpara. (a)(1), reference to 8.6.11.9 corrected by errata
405	8.10.2.3.2	(1) Subparagraphs (a), (d), (g), (i), (j), (l) through (q), (s), and (u) revised (2) Subparagraphs (v) through (rr) added
408	8.10.3.2.2	Subparagraph (jj) added
410	8.10.3.2.5	Subparagraphs (d) and (n) revised
411	8.10.3.2.7	In subpara. (a)(1), reference to 8.6.11.9 corrected by errata
411	8.10.3.3.2	(1) Subparagraphs (a), (d), (g), (j), (n), (o), and (q) through (s) revised (2) Subparagraphs (t) through (pp) added
413	8.10.4.1.1	Subparagraph (p)(3) revised
414	8.10.4.1.2	Subparagraph (t) revised
416	8.10.4.2.2	(1) Subparagraphs (i) and (j) revised (2) Subparagraphs (k) through (o) added
419	8.11.1.2	Notes revised
420	8.11.2.1.2	Subparagraph (oo) added
421	8.11.2.1.6	Revised in its entirety
421	8.11.2.1.7	In subpara. (a)(1), reference to 8.6.11.9 corrected by errata
422	8.11.3.1.2	Subparagraph (dd) added

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423	8.11.3.1.5	(1) Subparagraph (d) revised
		(2) Subparagraph (r) added
423	8.11.3.1.7	In subpara. (a)(1), reference to 8.6.11.9 corrected by errata
423	8.11.4.1	Subparagraph (k) revised
425	Section 8.13	Added
427	Part 9	(1) Introductory text revised
		(2) In Section 9.1, ADA/ABAAG and FED-STD-595C added
		(3) In Section 9.1, ASME A17.8/CSA B44.8, ASME B29.1, ASME B29.8, ASME B29.100, CSA C22.2 No. 141, and UL 924 revised
		(4) In Section 9.1, ASME B29.2M-1982 (R1987) and ASME B29.15-1973 (R1987) deleted
		(5) Section 9.2 updated
449	Table F-1	Revised
452	Figure G-1	Revised
466	Nonmandatory Appendix L	Revised
483	Table P-1	Title revised
489	Nonmandatory Appendix S	(1) Title revised
		(2) Figures S-13 through S-16 added
510	Table X-1	Lines 10, 11, 24, and 27 revised
511	Table X-2	(1) Line 19 deleted and following lines redesignated
		(2) Lines 24 (formerly 25), 28 (formerly 29), and 29 (formerly 30) revised
512	Table X-3	Lines 1, 3, 17, 22, and 25 revised
513	Table X-4	Lines 1, 3, 16, and 21 revised
519	Nonmandatory Appendix AA	Added
522	Index	Updated

NOTE: The Interpretations of ASME A17.1 are no longer published in a separate supplement to the edition. Interpretations are issued in real time in ASME's Interpretation Database at http://go.asme.org/Interpretations.

Part 1
General

SECTION 1.1
SCOPE

1.1.1 Equipment Covered by This Code

This Code covers the design, construction, operation, inspection, testing, maintenance, alteration, and repair of the following equipment and its associated parts, rooms, spaces, and hoistways, where located in or adjacent to a building or structure (see Section 1.2):

(a) hoisting and lowering mechanisms, equipped with a car, that move between two or more landings. This equipment includes, but is not limited to, elevators (see Section 1.3).

(b) power-driven stairways and walkways for carrying persons between landings. This equipment includes, but is not limited to, escalators and moving walks (see Section 1.3).

(c) hoisting and lowering mechanisms equipped with a car that serves two or more landings and is restricted to the carrying of material by its limited size or limited access to the car. This equipment includes, but is not limited to, dumbwaiters and material lifts; it does not include vertical reciprocating conveyors (see Section 1.3).

1.1.2 Equipment Not Covered by This Code

Equipment not covered by this Code includes, but is not limited to, the following:

(a) personnel hoists within the scope of ANSI A10.4 and CSA Z185

(b) material hoists within the scope of ANSI A10.5 and CSA Z256

(c) platform lifts and stairway chairlifts within the scope of ASME A18.1, CSA B355, and CSA B613

(d) manlifts within the scope of ASME A90.1 and CSA B311, and in jurisdictions enforcing the National Building Code of Canada (NBCC), special purpose personnel elevators (Section 5.7)

(e) mobile scaffolds and towers; platforms within the scope of ANSI/SAIA A92 and CSA B354

(f) powered platforms and equipment for exterior and interior building maintenance within the scope of ASME A120.1 and CSA Z271

(g) conveyors and related equipment within the scope of ASME B20.1

(h) cranes, derricks, hoists, hooks, jacks, and slings within the scope of ASME B30, CSA Z150, CSA B167, CSA Z202, and CSA Z248

(i) industrial trucks within the scope of ASME B56 and CSA B335

(j) portable equipment, except for portable escalators, that are covered by Section 6.1

(k) tiering or piling machines used to move material to and from storage located and operating entirely within one story

(l) equipment for feeding or positioning material at machine tools, printing presses, etc.

(m) skip or furnace hoists

(n) wharf ramps

(o) amusement devices

(p) stage and orchestra lifts

(q) lift bridges

(r) railroad car lifts and dumpers

(s) mechanized parking garage equipment

(t) line jacks, false cars, shafters, moving platforms, and similar equipment used for installing an elevator

(u) platform-type elevators installed on board a marine vessel

NOTES:

(1) A maritime, industrial-use device with no car enclosure. Controls are located outside of the hoistway. Typically uses elevator-type rail systems and elevator-type interlock systems.

(2) Not a platform lift within the scope of ASME A18.1.

(v) dock levelers (freight platform lifts) having a rise of 500 mm (20 in.) or less

(w) in Canadian jurisdictions, devices having a rise of 2 000 mm (79 in.) or less and used only for the transfer of materials or equipment

(x) in jurisdictions enforcing the NBCC, mine elevators within the scope of Section 5.9

1.1.3 Application of Parts (19)

This Code applies to new installations only, except Part 1 and Sections 5.10, 8.1, and 8.6 through 8.12, which apply to both new and existing installations.

1.1.4 Effective Date

The requirements of this edition of the Code are effective as of the date noted on the Summary of Changes page of this Code, with the exception of 8.10.1.1.3 and 8.11.1.1,