

ASME A17.2-2007
(Revision of ASME A17.2-2004)

Guide for Inspection of Elevators, Escalators, and Moving Walks

**Includes Inspection Procedures
for Electric Traction and
Winding Drum Elevators,
Hydraulic Elevators, and
Escalators and Moving Walks**

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**



ASME A17.2-2007
(Revision of ASME A17.2-2004)

Guide for Inspection of Elevators, Escalators, and Moving Walks

**Includes Inspection Procedures
for Electric Traction and
Winding Drum Elevators,
Hydraulic Elevators, and
Escalators and Moving Walks**

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

Three Park Avenue • New York, NY 10016

Copyright © 2007 by the American Society of Mechanical Engineers.
No reproduction may be made of this material without written consent of ASME.



Date of Issuance: October 5, 2007

The next edition of this Guide is scheduled for publication in 2010. There will no addenda issued to this edition.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Guide. Interpretations are also published on the ASME Web site under the Committee Pages at <http://cstools.asme.org> as they are issued.

ASME is the registered trademark of The American Society of Mechanical Engineers.

This Guide was developed under procedures accredited as meeting the criteria for American National Standards. The Standards Committee that approved the Guide was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed Guide was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not “approve,” “rate,” or “endorse” any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor assume any such liability. Users are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this Guide.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

No part of this document may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.

The American Society of Mechanical Engineers
Three Park Avenue, New York, NY 10016

Copyright © 2007 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
All rights reserved
Printed in U.S.A.



CONTENTS

Foreword	ix
Committee Roster	xii
Preface	xvi
Summary of Changes	xix
Introduction	1
1 Scope	1
2 Application	1
3 Qualifications of Inspectors	2
4 Personal Safety	2
5 Duties of Inspectors	2
6 Arrangement for Inspection	2
7 Recommended Equipment	2
8 Reference Documents	3
Part 1 Elevator — Inside of Car	4
1.1 Door Reopening Device	4
1.2 Stop Switches	4
1.3 Operating Control Devices	5
1.4 Sills and Car Floor	5
1.5 Car Lighting and Receptacles	6
1.6 Car Emergency Signal	6
1.7 Car Door or Gate	7
1.8 Door Closing Force	8
1.9 Power Closing of Doors or Gates	8
1.10 Power Opening of Doors or Gates	8
1.11 Car Vision Panels and Glass Car Doors	10
1.12 Car Enclosure	10
1.13 Emergency Exit	11
1.14 Ventilation	12
1.15 Signs and Operating Device Symbols	12
1.16 Rated Load, Platform Area, and Data Plate	12
1.17 Standby Power Operation	13
1.18 Restricted Opening of Car or Hoistway Doors	14
1.19 Car Ride	14
Part 2 Elevator — Machine Room	16
2.1 Access to Machine Space	16
2.2 Headroom	16
2.3 Lighting and Receptacles	16
2.4 Machine Space	17
2.5 Housekeeping	17
2.6 Ventilation	17
2.7 Fire Extinguisher	18
2.8 Pipes, Wiring, and Ducts	18
2.9 Guarding of Exposed Auxiliary Equipment	18
2.10 Numbering of Elevators, Machines, Controllers, and Disconnect Switches	18
2.11 Disconnecting Means and Control	19
2.12 Controller Wiring, Fuses, Grounding, etc.	19
2.13 Governor, Overspeed Switch, and Seal	20



2.14	Code Data Plate	24
2.15	Static Control	25
2.16	Overhead Beam and Fastenings	25
2.17	Drive Machine Brake	25
2.18	Traction Drive Machines	26
2.19	Gears, Bearings, and Flexible Couplings	26
2.20	Winding Drum Machine and Slack Cable Device	27
2.21	Belt- or Chain-Drive Machine	27
2.22	Motor Generator	28
2.23	Absorption of Regenerated Power	28
2.24	AC Drives From a DC Source	28
2.25	Traction Sheaves	29
2.26	Secondary and Deflector Sheaves	29
2.27	Rope Fastenings	30
2.28	Terminal Stopping Devices	30
2.29	Car and Counterweight Safeties	31
2.30	Hydraulic Power Unit	36
2.31	Relief Valves	36
2.32	Control Valve	37
2.33	Tanks	37
2.34	Flexible Hydraulic Hose and Fitting Assemblies	38
2.35	Supply Line and Shutoff Valve	38
2.36	Hydraulic Cylinders	39
2.37	Pressure Switch	39
2.38	Roped Water Hydraulic Elevators	40
2.39	Low Oil Protection	40
2.40	Maintenance Records	40
2.41	Static Control	40
Part 3	Elevator — Top of Car	41
3.1	Top-of-Car Stop Switch	41
3.2	Car Top Light and Outlet	41
3.3	Top-of-Car Operating Device	41
3.4	Top-of-Car Clearance, Refuge Space, and Standard Railing	42
3.5	Normal Terminal Stopping Devices	43
3.6	Final and Emergency Terminal Stopping Devices	44
3.7	Car Leveling and Anticreep Devices	45
3.8	Top Emergency Exit	46
3.9	Floor and Emergency Identification Numbering	46
3.10	Hoistway Construction	46
3.11	Hoistway Smoke Control	47
3.12	Pipes, Wiring, and Ducts	47
3.13	Windows, Projections, Recesses, and Setbacks	47
3.14	Hoistway Clearances	48
3.15	Multiple Hoistways	48
3.16	Traveling Cables and Junction Boxes	49
3.17	Door and Gate Equipment	50
3.18	Car Frame and Stiles	52
3.19	Guide Rails Fastening and Equipment	52
3.20	Governor Rope	53
3.21	Governor Releasing Carrier	53
3.22	Wire Rope Fastening and Hitch Plate	53
3.23	Suspension Rope	55
3.24	Top Counterweight Clearance	56
3.25	Car, Overhead, and Deflector Sheaves	56
3.26	Broken Rope, Chain, or Tape Switch	58
3.27	Crosshead Data Plate and Rope Data Tags	58



3.28	Counterweight and Counterweight Buffer	58
3.29	Counterweight Safeties	59
3.30	Speed Test	59
3.31	Slack Rope Device — Roped-Hydraulic Elevators Installed Under A17.1b–1989 and Later Editions	60
3.32	Traveling Sheave — Roped-Hydraulic Elevators Installed Under A17.1b-1989 and Later Editions	60
3.33	Compensating Ropes and Chains	61
Part 4	Elevator — Outside Hoistway	62
4.1	Car Platform Guard	62
4.2	Hoistway Doors	62
4.3	Vision Panels	63
4.4	Hoistway Door Locking Devices	63
4.5	Access to Hoistway	64
4.6	Power Closing of Hoistway Doors	64
4.7	Sequence Operation	65
4.8	Hoistway Enclosure	65
4.9	Elevator Parking Devices	65
4.10	Emergency Doors in Blind Hoistways	65
4.11	Separate Counterweight Hoistway	66
4.12	Standby Power Selection Switch	66
Part 5	Elevator — Pit	67
5.1	Pit Access, Lighting, Stop Switch, and Condition	67
5.2	Bottom Clearance, Runby, and Minimum Refuge Space	68
5.3	Final and Emergency Terminal Stopping Devices	69
5.4	Normal Terminal Stopping Devices	70
5.5	Traveling Cables	70
5.6	Governor-Rope Tension Devices	70
5.7	Car Frame and Platform	71
5.8	Car and Counterweight Safeties and Guiding Members — Including Roped-Hydraulic Elevators Installed Under A17.1b–1989 and Later Editions	71
5.9	Buffer and Emergency Terminal Speed Limiting Devices	72
5.10	Compensating Chains, Ropes, and Sheaves	74
5.11	Plunger and Cylinder	74
5.12	Car Buffer	74
5.13	Guiding Members	75
5.14	Supply Piping	75
5.15	Overspeed Valve	75
Part 6	Elevator — Firefighters’ Service	77
6.1	Operation of Elevators Under Fire and Other Emergency Conditions (A17.1b–1973 Through A17.1b–1980)	77
6.2	Operation of Elevators Under Fire and Other Emergency Conditions (A17.1–1981 Through A17.1b-1983)	79
6.3	Firefighters’ Service (A17.1–1984 Through A17.1a–1988 and A17.3)	81
6.4	Firefighters’ Service (A17.1b–1989 Through A17.1d–2000)	83
6.5	Acceptance Checklist for Firefighters’ Service (ASME A17.1–2000 and CSA B44-00): Automatic Elevators	87
Part 7	Escalator — External	90
7.1	General Fire Protection	90
7.2	Geometry	90
7.3	Handrails	91
7.4	Entrance and Egress Ends	92
7.5	Lighting	94
7.6	Caution Signs	94



7.7	Combplate and Comb Step Impact Device	94
7.8	Deck Barricades and Antislid Devices	96
7.9	Steps and Upthrust Device	98
7.10	Operating and Safety Devices	98
7.11	Skirt Obstruction Device	102
7.12	(Reserved)	102
7.13	Egress Restriction (Rolling Shutter) Device	102
7.14	Speed	102
7.15	Balustrades	103
7.16	Ceiling Intersection Guards	104
7.17	Step/Skirt Clearances, Panels, and Performance Index	104
7.18	Outdoor Protection	106
7.19	Maintenance Records	107
Part 8	Escalator — Internal	108
8.1	Machinery Space Access, Lighting, Receptacle, and Condition	108
8.2	Stop Switch	108
8.3	Controller and Wiring	109
8.4	Drive Machine and Brake	109
8.5	Speed Governor	110
8.6	Broken Drive Chain and Disconnected Motor Safety Device	110
8.7	Reversal Stop Switch	111
8.8	Broken Step Chain Device	111
8.9	Step Upthrust Device	111
8.10	Missing Step Device	112
8.11	Step Level Device	112
8.12	Steps, Step Chains, and Trusses	113
8.13	Handrail Systems and Safety Devices	114
8.14	Code Data Plate	114
8.15	Response to Smoke Detectors	114
8.16	Step Lateral Displacement Device	115
8.17	Inspection Control	115
Part 9	Moving Walk — External	116
9.1	General Fire Protection	116
9.2	Geometry	116
9.3	Handrails	116
9.4	Entrance and Egress Ends	119
9.5	Lighting	119
9.6	Caution Signs	120
9.7	Combplate and Comb Step Impact Device	120
9.8	Deck Barricades	121
9.9	Treadways	121
9.10	Operating and Safety Devices	122
9.11	(Reserved)	123
9.12	(Reserved)	123
9.13	Egress Restriction (Rolling Shutter) Device	123
9.14	Speed	123
9.15	Balustrades	124
9.16	Ceiling Intersection Guards	124
9.17	Skirt Panels	125
9.18	Outdoor Protection	125
9.19	Maintenance Records	126
Part 10	Moving Walk — Internal	127
10.1	Machinery Space Access, Lighting, Receptacle, and Condition	127
10.2	Stop Switch	127
10.3	Controller and Wiring	127



10.4	Drive Machine and Brake	128
10.5	Speed Governor	129
10.6	Broken Drive Chain and Disconnected Motor Safety Device	129
10.7	Reversal Stop Switch	130
10.8	Broken Treadway Device	130
10.9	(Reserved)	130
10.10	Missing Pallet Device	130
10.11	Pallet Level Device	131
10.12	Pallets, Pallet Chains, and Trusses	131
10.13	Handrail Systems and Safety Devices	132
10.14	Code Data Plate	132
10.15	Response to Smoke Detectors	132
10.16	Inspection Control	133

Figures

1.10.2	Door Operation Relative to Car Position	9
2.13.2	Dynamometer Connections for Testing the Pull-Through of Governor Jaws	22
2.29.2(a)	Safety Marks on Guide Rails, Poor Illumination	35
2.29.2(b)	Safety Marks on Guide Rails, Good Illumination	35
3.4.1.2	Top Car Clearance and Runby (A17.1–1978 and Later Editions)	43
3.16.1	Self-Tightening Grips	50
3.22.1	Cross-Section Through Tapered Rope Socket Showing Maximum and Minimum Projection of Loops Above Embedment Medium	54
3.23.1	Typical Wire Rope Constructions	57
5.2.3	Bottom Car Clearance Hydraulic Elevators	69
6.4.2(b)(9)	Visual Signal	84
6.4.2(g)(1)	Phase I Instructions	85
6.4.2(g)(2)	Phase II Instructions (A17.1–1989 Through A17.1b–1995)	86
6.4.2(g)(3)	Phase II Instructions (A17.1–1996 Through A17.1d–2000)	86
7.2.1(a)	Dimensions for Existing Escalators (for Escalators Installed Under A17.1–1955 and A17.1–1960 Editions)	91
7.2.1(b)	Dimensions for Existing Escalators (for Escalators Installed Under A17.1–1965 Through A17.1–1981)	92
7.2.1(c)	Relationship of Escalator Parts (A17.1a–1982 and Later Editions)	93
7.2.3	Checking Incline	93
7.4.1	Safety Zone	94
7.7.1	Checking Step/Combplate Mesh	95
7.7.3	Test of Combplate/Landing Plate Assembly	96
7.8.1(a)	Deck Barricade	97
7.8.1(b)	High Deck Balustrade Antislid e Devices	97
7.9.1(a)	Smooth Riser	99
7.9.1(b)	Cleated Riser	100
7.9.1(c)	Escalator Step Riser	100
7.9.1(d)	Escalator Step Tread [A17.1–1955 Through A17.1–1990, Rule 802.5 (Requirement 6.1.3.5)]	101
7.9.3	Example of Two Flat Steps	101
7.11.1	Typical Skirt Obstruction Device	103
7.16.1	Ceiling or Soffit Guard [Requirements 6.1.3.3.9 and 6.2.3.3.7 (Rules 802.3g and 902.3g)]	105
7.17.1	Measuring Gap Between Step and Skirt	105
7.17.2	Angle of Skirt Panel	106
7.18.3	Escalator Cover Overlap	107
8.9.2	Typical Step Upthrust Device	112
8.12.2	Positioning of Steps for Inspection of Truss	113
9.2.1(a)	Moving Walk Geometry (for Moving Walks Installed Under A17.1–1965 Through A17.1–1980)	117



9.2.1(b)	Moving Walk Geometry (for Moving Walks Installed Under A17.1–1981 Through A17.1a–1991)	118
9.2.3	Maximum Treadway Angle	118
9.3.3	Moving Walk Handrail Extension (A17.1–1971 and Later Editions)	120
9.9.1	Moving Walk Treadway Slots	122
9.17.1	Treadway Clearances	125
Tables		
1	Procurement Information	3
2.13.2	Governor Adjustment Settings	21
2.29.2(a)	Maximum Safety Rope Pullout	31
2.29.2(b)	Minimum and Maximum Stopping Distances for Type B Car Safeties With Rated Load, and Type B Counterweight Safeties With No Load in the Car	33
2.29.2(c)	Gradual Wedge Clamp Safety	34
2.29.2(d)	Flexible Guide Clamp Safety	34
2.29.2(e)	Wedge Clamp Safety (Constant Retarding Force)	34
2.34.3	Minimum Bend Radius for SAE 100R2 Hose	38
3.14.3(a)	Horizontal Clearances	48
3.14.3(b)	Horizontal Distances	49
3.22.1	Projection of Rope Strands Above Embedment Medium for 6- and 8-Strand Ropes	54
9.2.3(a)	Treadway Width (A17.1–1965 Through A17.1–1970)	119
9.2.3(b)	Treadway Width (A17.1–1971 and Later Editions)	119
9.2.3(c)	Minimum Treadway Width	119
9.14.3(a)	Treadway Speed (A17.1–1981 and Later Editions)	123
9.14.3(b)	Treadway Speed (A17.1–1965 Through A17.1–1980 Editions)	123
9.14.3(c)	Treadway Speed	123
Nonmandatory Appendices		
A	Inspection Checklists	134
B	Acceptance Checklist	157
C	Guidelines for B44.1/A17.5–2004	162



FOREWORD

(07)

Following the publication of the 1925 edition of the Safety Code for Elevators, Dumbwaiters, and Escalators, requests for a handbook, or manual, covering the inspection of elevators were received by the A17 Committee. This Committee appointed a subcommittee to prepare such a manual. Cities, states, insurance companies, elevator manufacturers and maintenance companies, and the federal government furnished the Committee with material based on their field experiences. A final draft was prepared and was unanimously approved by the A17 Committee, the Code Sponsors, and the American National Association (presently known as the American National Standards Institute, Inc.) and the first edition of the Manual was published in 1937 simultaneously with the fourth edition of the Code.

A second edition of the Manual was prepared by the Committee to bring it in line with the fourth edition of the Code, including the 1942 supplement. A new Part to cover the inspection of escalators, and new Appendices were added to cover descriptions of various types of safeties, methods for determining stopping distances of gradual-type safeties, guide rail data, types of speed governors, and the handling and socketing of wire rope. The second edition of the Manual was approved by the American Standards Association and was published in 1945.

The third edition of the Manual was published in 1960 and included revision to bring it in line with the 1960 edition of the Code.

The fourth edition of the Manual was published in 1973 to bring it in line with the 1971 editions including the 1972 supplement to the Code, and to update the inspection procedures. A new Part was also added to cover the inspection of moving walks.

The Inspectors' Manual Subcommittee was reactivated in 1976 to review the Manual and coordinate it with a proposed new edition of the Code. The Subcommittee, during its review, felt that it was time for the Manual to take on a new format. Thus, the fifth edition of the Manual, published in 1979, was reorganized into four major Parts: Electric Elevators, Hydraulic Elevators, Escalators, and Moving Walks. Each Part was further divided into three major Divisions: Routine Inspection, Periodic Inspection and Test, and Acceptance Inspection and Test. New Appendices were added to this edition, containing sample inspection checklists for electric elevators, hydraulic elevators, escalators and moving walks. A considerable amount of new material was also added to the Manual to bring it in line with the 1978 edition of the Code.

In order to keep the Manual as current as possible, the Committee began the policy of publishing supplements on a regular basis. Supplements were issued in 1980 and 1981 to update the 1979 edition.

The sixth edition of the Manual contained the revisions included in the 1980 and 1981 supplements, as well as many other revisions made to keep the Manual abreast of new Code requirements and to add more comprehensive inspection and testing procedures. The title of this edition was also changed to ANSI/ASME A17.2 Inspectors' Manual for Elevators and Escalators. This change was made to reflect a reorganization of the A17 Committee structure, and to shorten the title for convenience.

The seventh edition of the Manual included the revisions in the 1983 and 1984 supplements as well as other new revisions. One of the major revisions was the Inspection Checklists in Appendix E, which were expanded to include routine and periodic inspections and tests in addition to acceptance inspections and tests.

The eighth edition included revisions in the 1986 and 1987 supplements as well as other revisions listed in the Summary of Changes section.

In 1989, the Inspectors' Manual Committee polled the inspection community to determine what portions of the Manual were most effective and the direction that should be taken to meet the need of the inspector. In response to requests for equipment, specific inspection guidelines, techniques, and cautionary notes as well as field convenience, the concept of individual equipment inspection manuals was developed. The Committee decided to concentrate initially on three major segments. As a result, the Inspectors' Manual is to be published in three volumes: A17.2.1, Electric Elevators; A17.2.2, Hydraulic Elevators; and A17.2.3, Escalators and Moving Walks. Each volume addresses inspection procedures for assuring compliance with the A17.1 Code since 1955 and the A17.3 Code. It is the Committee's plan to publish additional manuals to address inspection of other equipments such as roped-hydraulic elevators, dumbwaiters, sidewalk elevators, private residence elevators, hand elevators, material lifts and dumbwaiters with automatic transfer devices, special purpose personnel elevators, rack and pinion elevators, inclined elevators, screw-column elevators, elevators used for construction, wheelchair and stairway chairlifts, ship-board elevators, and rooftop elevators.



In 1993, the Inspectors' Manual Committee was requested to review equipment installed prior to the 1955 edition of A17.1. ASME A17.2.3 includes inspection and testing procedures for assuring compliance with some requirements in pre-1955 editions of A17.1.

In 1999, based on feedback from the user community, the A17 Main Committee approved the Inspectors' Manual Committee's recommendation to consolidate the three existing manuals: A17.2.1–1996, Inspectors' Manual for Electric Elevators (including A17.2.1a–1997 and A17.2.1b–1998 Addenda); A17.2.2–1997, Inspectors' Manual for Hydraulic Elevators (including A17.2.2a–1998 Addenda); and A17.2.3–1998, Inspectors' Manual for Escalators and Moving Walks (including A17.2.3a–2000 Addenda). The resulting A17.2–2001, *Guide for*

Inspection of Elevators, Escalators, and Moving Walks, represents an editorial consolidation of the three manuals. The revised standard also includes technical revisions, which have been approved by the A17.1 Committee since the last publications.

The second edition of the Guide was published in 2004. Nonmandatory Appendix B appears for the first time in this edition.

The third edition of the Guide includes revisions listed in the Summary of Changes section.

The following is a list of past editions and supplements and the dates on which they received final approval. The dates of issuance are also included for documents published since 1979.

Editions and Supplements		Approved	Issued
First Edition	ASA A17.2–1937	July 1937	...
Second Edition	ASA A17.2–1945	October 22, 1945	...
Third Edition	ASA A17.2–1960	August 10, 1960	...
Addenda	ASA A17.2a–1965	July 29, 1965	...
Supplement	USAS A17.2b–1967	July 7, 1967	...
Fourth Edition	ANSI A17.2–1973	May 29, 1973	...
Fifth Edition	ANSI A17.2–1979	February 18, 1979	May 15, 1979
Supplement	ANSI A17.2a–1980	August 11, 1980	September 15, 1980
Supplement	ANSI A17.2b–1981	November 23, 1981	January 15, 1982
Sixth Edition	ANSI/ASME A17.2–1982	September 22, 1982	November 30, 1982
Supplement	ANSI/ASME A17.2a–1983	September 23, 1983	December 20, 1983
Supplement	ANSI/ASME A17.2b–1984	August 16, 1984	September 16, 1984
Seventh Edition	ANSI/ASME A17.2–1985	July 23, 1985	October 31, 1985
Supplement	ANSI/ASME A17.2a–1986	September 8, 1986	October 31, 1986
Supplement	ANSI/ASME A17.2b–1987	September 11, 1987	October 30, 1987
Eighth Edition	ANSI/ASME A17.2–1988	August 25, 1988	October 31, 1988
Addenda	ANSI/ASME A17.2a–1989	November 10, 1989	December 31, 1989
Addenda	ANSI/ASME A17.2b–1990	October 8, 1990	January 21, 1991
First Edition	ASME A17.2.1–1993	January 22, 1993	May 31, 1993
Addenda	ASME A17.2.1a–1994	August 18, 1994	December 31, 1994
Addenda	ASME A17.2.1b–1995	August 10, 1995	January 29, 1996
Second Edition	ASME A17.2.1–1996	September 6, 1996	January 31, 1997
Addenda	ASME A17.2.1a–1997	December 16, 1997	January 30, 1998
Addenda	ASME A17.2.1b–1998	November 13, 1998	February 19, 1999
First Edition	ASME A17.2.2–1994	April 14, 1994	May 31, 1994
Addenda	ASME A17.2.2a–1995	August 10, 1995	January 10, 1996
Addenda	ASME A17.2.2b–1996	September 6, 1996	December 31, 1996
Second Edition	ASME A17.2.2–1997	November 18, 1997	December 31, 1997
Addenda	ASME A17.2.2a–1998	November 13, 1998	February 5, 1999
First Edition	ASME A17.2.3–1994	August 19, 1994	October 21, 1994
Addenda	ASME A17.2.3a–1996	September 6, 1996	November 22, 1996
Addenda	ASME A17.2.3b–1997	November 18, 1997	December 31, 1997



Editions and Supplements		Approved	Issued
Second Edition	ASME A17.2.3-1998	November 16, 1998	February 26, 1999
Addenda	ASME A17.2.3a-2000	June 22, 2000	August 10, 2000
First Edition	ASME A17.2-2001	October 4, 2001	December 31, 2001
Second Edition	ASME A17.2-2004	July 22, 2004	March 31, 2005
Third Edition	ASME A17.2-2007	July 11, 2007	October 5, 2007



ASME A17 ELEVATOR AND ESCALATOR COMMITTEE

(March 2007)

STANDARDS COMMITTEE

J. W. Coaker, *Chair*
N. B. Martin, *Vice Chair*
H. E. Peelle III, *Vice Chair*
G. A. Burdeshaw, *Secretary*
E. V. Baker, National Elevator Industry Educational Program
R. E. Baxter, Richard E. Baxter & Associates, LLC
L. Bialy, Otis Elevator Co.
N. E. Marchitto, *Alternate*, Otis Elevator Co.
J. R. Brooks, North Carolina Department of Labor
G. A. Burdeshaw, The American Society of Mechanical Engineers
E. A. Donoghue, Edward A. Donoghue Associates, Inc.
R. E. Droste, Consultant
J. Filippone, Port Authority of New York and New Jersey
J. H. Humphrey, *Alternate*, Port Authority of New York and New Jersey
C. C. Fox, Rainbow Security Control Ltd.
G. W. Gibson, George W. Gibson & Associates, Inc.
R. A. Gregory, Vertex Corp.
R. F. Hadaller, Technical Standards and Safety Authority
A. P. Juhasz, Kone, Inc.
D. A. Kalgren, Kone, Inc.
G. A. Kappenhagen, Schindler Elevator Corp.
J. W. Koshak, ThyssenKrupp Elevator Manufacturing, Inc.
H. Simpkins, *Alternate*, ThyssenKrupp Elevator Manufacturing, Inc.
K. S. Lloyd, Jr., Abell Elevator International
S. K. Lloyd, *Alternate*, Abell Elevator International
N. B. Martin, State of Ohio
Z. R. McCain, Jr., McCain Engineering Associates, Inc.
M. V. Farinola, *Alternate*, MV Farinola, Inc.
D. McColl, Otis Canada, Inc.
H. E. Peelle III, Peelle Co.
S. P. Reynolds, *Alternate*, Peelle Co.
R. L. Phillips, Georgia Department of Labor
A. Rehman, Schindler Elevator Corp.
V. P. Robibero, Schindler Elevator Corp.
C. W. Rogler, State of Michigan Elevator Safety Division
R. L. Seymour, Robert L. Seymour & Associates
R. S. Seymour, *Alternate*, Robert L. Seymour & Associates
D. L. Steel, David L. Steel Escalators
D. L. Turner, Davis L. Turner & Associates
R. S. Caporale, *Alternate*, Elevator World, Inc.
A. H. Verschell, Dwan Elevator
D. M. Winkle, Sr., Consultant
D. A. Witham, GAL Manufacturing

Ex Officio Members

J. W. Coaker , <i>Chair</i>	M. Martin
G. A. Burdeshaw , <i>Secretary</i>	H. E. Peelle III
R. E. Baxter	J. B. Peskuski
L. M. Capuano	J. H. Shull
E. A. Donoghue	D. L. Steel
G. W. Gibson	M. R. Tilyou
G. A. Kappenhagen	A. H. Verschell

Honorary Members

G. A. Burdeshaw , <i>Secretary</i>	A. A. Mascone
L. Blaiotta	J. McAulary, Jr.
W. E. Chamberlain	E. M. Philpot
B. J. Fanguy	R. L. Rogers
H. E. Godwin, Jr.	L. E. White
C. E. Hempel	R. W. Young
C. L. Kort	

Regulatory Advisory Council

N. B. Martin , <i>Chair</i>	I. D. Jay
G. A. Burdeshaw , <i>Secretary</i>	L. C. Kanicki
J. R. Runyan , <i>Secretary</i>	M. J. Mellon, Jr.
G. Antona	S. Mercier
J. L. Borwey	K. P. Morse
J. R. Brooks	M. E. Pedersen
J. H. Burpee	J. P. Roche
P. Caploon	C. W. Rogler
J. Day	D. Stanlaske
N. C. Dimitruck	S. F. Stout
M. Dorosk	L. M. Taylor
A. N. Griffin	L. E. Watson
R. F. Hadaller	W. C. Watson
S. J. Hickory	W. J. Witt
D. Holmes	C. D. Wagner , <i>Alternate</i>

NATIONAL INTEREST REVIEW COMMITTEE

G. A. Burdeshaw , <i>Secretary</i>	W. R. Larsen
J. P. Andrew	B. H. Larson
T. D. Barkand	M. A. Malek
M. B. Blankenship	J. J. Mancuso
R. J. Blatz	C. C. Mann
J. E. Brannon	N. E. Marchitto
M. T. Brierley	J. J. Marcusky
J. A. Caluori	J. L. Meyer
C. S. Carr	T. S. Mowrey
M. A. Chavez	F. G. Newman
H. J. Clifford	J. W. O'Boyle
R. F. Dieter	J. J. O'Donoghue
B. Faerber	M. J. Pfeiffer
J. G. Gerk	M. Poulin
L. A. Giovannetti	P. M. Puno
J. M. Gould	L. S. Rigby
N. R. Herchell	J. R. Runyan
J. E. Herwig	R. D. Schloss
J. Inglis	S. Shanes
F. A. Kilian	D. M. Stanlaske
M. L. Lane	D. A. Swerrie



**B44.1/A17.5 ELEVATOR AND ESCALATOR
ELECTRICAL EQUIPMENT COMMITTEE**

J. H. Shull, *Chair*
M. L. Hite, *Vice Chair*
G. A. Burdeshaw, *Secretary*
T. J. Tulshi, *Secretary*
P. D. Barnhart
J. W. Blain
A. D. Brown
J. D. Busse
J. Caldwell

J. L. Della Porta
I. D. Jay
R. A. Mackenzie
P. F. McDermott
M. Mihai
A. Rehman
J. P. Rennekamp
V. M. Todd
J. M. Weber, *Alternate*

CODE COORDINATION COMMITTEE

E. A. Donoghue, *Chair*
G. A. Burdeshaw, *Secretary*
L. Bialy
R. Bukowski
P. Caploon
R. Cote
G. W. Gibson

G. A. Gress
G. A. Kappenhagen
J. W. Koshak
E. D. Kuligowski
R. D. Weber
K. Paarlberg, *Alternate*

CSA B44 TECHNICAL COMMITTEE

T. Baik
S. Bornstein
A. D. Byram
R. Cavan
D. Cook
D. Eastman
A. N. Griffin
R. F. Hadaller
J. Halge
A. S. Hopkirk
U. Huskic
I. D. Jay
K. Jenkins
I. M. Kennedy
R. M. Kennedy
E. MacArthur
A. J. Marchant
R. Marion

R. Marsiglio
L. Martineau
T. McCann
D. McColl
S. Mercier
M. Mihai
T. Nguyen
M. Pedram
H. E. Peelle III
A. Rehman
J. T. Rooney
R. C. Scharfe
F. K. Tawfik
T. J. Tulshi
B. Virk
P. Yau
A. D. Brown, *Alternate*

DUMBWAITER AND ATD COMMITTEE

J. B. Peskuski, *Chair*
R. Mohamed, *Secretary*
R. Dolan
E. A. Donoghue
R. A. Gregory

K. Holdcraft
B. P. McCune
C. Milley
R. Kremer, *Alternate*

EARTHQUAKE SAFETY COMMITTEE

G. W. Gibson, *Chair*
M. J. Smith, *Vice Chair*
E. S. Cho, *Secretary*
B. Blackaby
R. E. Droste
J. L. Meyer

W. C. Ribeiro
J. K. Ruth
W. C. Schadrack III
A. J. Schiff
A. J. Shelton
D. A. Kalgren, *Alternate*

EDITORIAL COMMITTEE

E. A. Donoghue, *Chair*
D. McColl, *Vice Chair*

G. A. Burdeshaw, *Secretary*
J. Filippone

ELECTRICAL COMMITTEE

A. P. Juhasz, *Chair*
J. D. Busse, *Vice Chair*
G. A. Burdeshaw, *Secretary*
T. D. Barkand
P. D. Barnhart
S. H. Benjamin
B. Blackaby
J. W. Blain
J. Caldwell
F. J. Christensen
J. P. Donnelly
R. E. Droste
R. Elias
S. E. Fisher
G. N. Henry
Y. C. Ho
N. E. Marchitto
P. I. McDermott

T. G. Moskal
A. L. Peck
D. K. Prince
P. M. Puno
V. P. Robibero
M. Stergulc
M. Yonemoto
D. Alley, *Alternate*
J. C. Carlson, *Alternate*
R. L. Frazier, *Alternate*
S. H. Grainer, *Alternate*
R. F. Hadaller, *Alternate*
D. Henderson, *Alternate*
M. Mihai, *Alternate*
T. H. Nguyen, *Alternate*
J. P. Rennekamp, *Alternate*
J. M. Weber, *Alternate*

**ELEVATORS USED FOR CONSTRUCTION
COMMITTEE**

N. B. Martin, *Chair*
G. A. Burdeshaw, *Secretary*
R. E. Baxter
E. A. Donoghue

C. C. Fox
R. A. Gregory
J. R. Quackenbush
C. W. Rogler

EMERGENCY OPERATIONS COMMITTEE

M. Martin, *Chair*
R. Mohamed, *Secretary*
J. Beamish
D. R. Beste
M. T. Brierley
M. W. Bunker, Jr.
P. Caploon
G. B. Cassini
D. Cook
E. A. Donoghue
R. B. Fraser
D. Henderson
S. R. James
C. Koenig
J. Latham
D. McColl
C. H. Murphy

T. F. Norton
J. J. O'Donoghue
B. F. O'Neill
D. K. Prince
A. Rehman
L. F. Richardson
R. L. Seymour
M. Tevyaw
D. J. Winslow
D. A. Witham
J. C. Carlson, *Alternate*
R. F. Hadaller, *Alternate*
H. Ickes, *Alternate*
J. K. O'Donnell, *Alternate*
R. J. Roux, *Alternate*
J. Varon, *Alternate*

ESCALATOR AND MOVING WALK COMMITTEE

D. L. Steel, *Chair*
D. L. Turner, *Vice Chair*
R. Mohamed, *Secretary*
P. E. Burge
D. R. Evans
J. Filippone
J. G. Gerk
R. A. Glanzmann
P. L. Hackett
K. M. Harris
H. A. Hausmann
R. Herndobler
J. A. Kinahan
C. Milley
T. G. Moskal

T. R. Nurnberg
J. D. Shupe
K. J. Smith
P. J. Welch
D. Winkelhake
C. Anayiotos, *Alternate*
K. A. Apperson, *Alternate*
A. D. Clarke, Jr., *Alternate*
R. E. Creak, *Alternate*
K. G. Hamby, *Alternate*
A. Rehman, *Alternate*
D. E. Rush, *Alternate*
J. C. Steele, *Alternate*
J. E. Tyler, *Alternate*
P. Valasquez, Jr., *Alternate*



EVACUATION GUIDE COMMITTEE

D. L. Turner, *Chair*
R. S. Seymour, *Vice Chair*
G. A. Burdeshaw, *Secretary*
D. Cook
E. A. Donoghue

R. E. Fleming
C. C. Fox
J. L. Meyer
J. J. O'Donoghue

EXISTING INSTALLATIONS COMMITTEE

D. B. Labrecque, *Chair*
E. S. Cho, *Secretary*
R. E. Baxter
J. Bera
M. L. Blankenship
W. C. Burklund
J. H. Butler
J. D. Carlisle, Jr.
G. B. Cassini
E. A. Donoghue
C. J. Duke
A. T. Gazzaniga
R. A. Gregory
J. A. Jaudes
R. Kremer
B. H. Larson
R. Lauch
K. S. Lloyd, Jr.

G. M. Losey
Z. R. McCain, Jr.
D. McColl
P. McPartland
N. R. Mistry
R. C. Morrical
G. Nyborg III
R. L. Phillips
S. A. Quinn
T. Quinn
J. S. Rearick
A. J. Saxer
G. Stiffler
P. J. Welch
L. E. White
R. D. Cary, *Alternate*
M. Strachan, *Alternate*

HAND AND SIDEWALK ELEVATOR COMMITTEE

R. S. Caporale, *Chair*
G. A. Burdeshaw, *Secretary*
V. G. Bahna
E. A. Donoghue
J. Duffy

G. Greenberg
H. J. Macuga
N. J. Montesano
G. West
J. P. Merkel, *Alternate*

HOISTWAY COMMITTEE

L. M. Capuano, *Chair*
D. McColl, *Vice Chair*
R. Mohamed, *Secretary*
R. Berhinig
L. J. Blaiotta
D. S. Boucher
R. Brun
F. R. Cooper
E. A. Donoghue
G. W. Gibson
H. J. Gruszynski
R. F. Hadaller
J. L. Harding
M. E. Jagoditz
J. R. Johnson
D. Kaczmarek
D. P. Kraft
G. L. Nuschler

H. E. Peelle III
R. L. Phillips
R. Quinlan
F. Regalado
A. Rehman
S. P. Reynolds
H. Simpkins
S. W. Smith
D. A. Witham
W. Ziegert
L. Bialy, *Alternate*
M. P. Lamb, *Alternate*
R. K. Leckman, *Alternate*
K. H. Lewis, *Alternate*
M. Tevyaw, *Alternate*
K. Uerling, *Alternate*
J. Varon, *Alternate*

HYDRAULIC COMMITTEE

G. A. Kappenhagen, *Chair*
M. G. Miller, *Vice Chair*
G. A. Burdeshaw, *Secretary*
L. Bialy
P. E. Burge
C. C. Fox
R. F. Hadaller
H. A. Hammerstrom
C. B. Jackson
A. Jahn
T. S. Mowrey
L. S. Rigby
C. W. Rogler

R. N. Rouse III
W. M. Shrum, Jr.
H. Simpkins
D. B. Spaethe
J. Strzelec
K. A. Grunden, *Alternate*
J. A. Kennedy, *Alternate*
J. W. Koshak, *Alternate*
A. M. McClement, *Alternate*
S. S. Pearson, *Alternate*
A. Rehman, *Alternate*
J. L. Shrum, *Alternate*

INCLINED ELEVATOR COMMITTEE

A. H. Verschell, *Chair*
G. A. Burdeshaw, *Secretary*
J. R. Carrick

R. Elias
T. L. Pope

INSPECTIONS COMMITTEE

M. Tevyaw, *Chair*
J. Filippone, *Vice Chair*
R. Mohamed, *Secretary*
G. Antona
C. Archer
R. E. Baxter
M. L. Blankenship
J. R. Brooks
J. W. Coaker
C. E. Cunningham
E. A. Donoghue
M. V. Farinola
H. S. Frank
R. F. Hadaller
P. Hampton
J. T. Herrity
L. C. Kanicki

J. J. Knolmajer
G. W. Kosinski
K. S. Lloyd, Jr.
N. B. Martin
Z. R. McCain, Jr.
J. S. Rearick
C. W. Rogler
J. D. Rosenberger
J. R. Runyan
R. D. Schloss
R. S. Seymour
W. M. Snyder
D. M. Stanlaske
J. Strzelec
J. A. Kennedy, *Alternate*
D. McLellan, *Alternate*

INTERNATIONAL STANDARDS COMMITTEE

G. W. Gibson, *Chair*
L. Bialy, *Vice Chair*
G. A. Burdeshaw, *Secretary*
V. Q. Bates
B. Blackaby
R. S. Caporale
E. A. Donoghue
R. E. Droste
G. L. Harmon

A. P. Juhasz
G. A. Kappenhagen
J. W. Koshak
V. P. Robibero
D. M. Stanlaske
J. Strzelec
D. L. Turner
T. Derwinski, *Alternate*
D. R. Evans, *Alternate*

LIMITED-USE/LIMITED-APPLICATION ELEVATOR COMMITTEE

R. E. Baxter, *Chair*
D. C. Balmer, *Vice Chair*
R. Mohamed, *Secretary*
P. M. Bass
K. Brinkman
R. G. Buonora
P. Chance
E. A. Donoghue
C. C. Fox
F. J. Giampa
M. L. McDonald

W. M. McKinley
C. H. Murphy
R. Murphy
S. Z. Sanossian
M. W. Schumacher
R. D. Stephens
A. H. Verschell
R. B. Weber
D. M. Winkle, Sr.
G. L. Harmon, *Alternate*
J. L. Mickel, *Alternate*



MAINTENANCE, REPAIR, AND REPLACEMENT COMMITTEE

Z. R. McCain, Jr., *Chair*
R. A. Gregory, *Vice Chair*
E. S. Cho, *Secretary*
R. E. Baxter
M. L. Blankenship
G. B. Cassini
J. J. DeLorenzi
E. A. Donoghue
C. J. Duke
M. V. Farinola
J. Filippone
S. P. Greene
R. F. Hadaller
R. E. Haukeness
A. S. Hopkirk
J. A. Jaudes
R. Kremer
D. B. Labrecque

B. H. Larson
K. S. Lloyd, Jr.
G. M. Losey
D. McColl
N. R. Mistry
R. C. Morrical
J. Murphy
W. B. Pletch
J. R. Quackenbush
T. Quinn
J. S. Rearick
A. Rehman
V. P. Robibero
A. Saxer
R. D. Schloss
J. Strzelec
R. Lauch, *Alternate*

MARINE ELEVATOR COMMITTEE

M. R. Tilyou, *Chair*
G. A. Burdeshaw, *Secretary*
E. J. Crawford

W. D. George
T. J. Ingram
R. Wagner

MECHANICAL DESIGN COMMITTEE

G. W. Gibson, *Chair*
L. Bialy, *Vice Chair*
D. L. Turner, *Vice Chair*
E. S. Cho, *Secretary*
K. A. Apperson
E. V. Baker
R. J. Bolen
C. C. Fox
H. S. Frank
R. F. Hadaller
D. K. Kaczmarek
D. A. Kalgren
K. Konyar
J. W. Koshak

R. Kremer
M. P. Lamb
M. L. Lane
T. G. Moskal
A. Rehman
W. C. Ribeiro
H. Simpkins
C. E. Vlahovic
S. P. Wurth
R. E. Creak, *Alternate*
D. P. Kraft, *Alternate*
R. K. Leckman, *Alternate*
W. C. Schadrack III,
Alternate

MINE ELEVATOR COMMITTEE

T. D. Barkand, *Chair*
E. S. Cho, *Secretary*
C. D. Barchet
R. M. Bates
W. M. Dietz
P. E. Fernatt
M. G. Kalich
J. B. Ketchem
D. C. Lewetag

A. L. Martin
N. B. Martin
G. L. Miller
H. E. Newcomb
A. J. Saxer
D. J. Shook
R. L. Sidwell
J. K. Taylor

NEW TECHNOLOGY COMMITTEE

J. W. Coaker, *Chair*
G. A. Burdeshaw, *Secretary*
M. H. Bayyari
L. Bialy
A. D. Brown
A. D. Byram
R. S. Caporale
L. M. Capuano
E. A. Donoghue
R. E. Droste
G. W. Gibson
A. N. Griffin
I. D. Jay
A. P. Juhasz
L. C. Kanicki

R. M. Kennedy
J. W. Koshak
G. W. Kosinski
R. H. Laney
K. S. Lloyd, Jr.
D. McColl
M. Mihai
M. Pedram
V. P. Robibero
D. M. Stanlaske
T. J. Tulshi
D. L. Turner
R. E. Baxter, *Alternate*
M. Chan, *Alternate*

OUTSIDE EMERGENCY ELEVATOR COMMITTEE

G. Antona
E. A. Donoghue
G. L. Nuschler

H. E. Peelle III
D. M. Stanlaske

RACK AND PINION AND SPECIAL PURPOSE PERSONNEL ELEVATOR COMMITTEE

A. J. Marchant, *Chair*
P. E. Borders, *Vice Chair*
G. A. Burdeshaw, *Secretary*
D. F. Grund
S. Harris
J. A. Harrison

R. E. Haukeness
B. L. O'Neill
P. J. Welch
T. A. Gross, *Alternate*
K. M. Harrison, *Alternate*

RESIDENCE ELEVATOR COMMITTEE

A. H. Verschell, *Chair*
P. M. Bass, *Vice Chair*
P. A. Reddington, *Secretary*
D. C. Balmer
R. E. Baxter
K. Brinkman
R. G. Buonora
P. Chance
D. J. DeGere
P. Edwards
R. Elias
F. J. Giampa
P. Giannis

F. M. Hoch
S. D. Holat
M. L. McDonald
W. M. McKinley
W. M. Middleton
R. Murphy
R. L. Phillips
T. L. Pope
R. D. Stephens
G. L. Harmon, *Alternate*
J. C. Lund, *Alternate*
J. L. Mickel, *Alternate*
J. B. Peskuski, *Alternate*



PREFACE

FORM AND ARRANGEMENT

This Guide addresses how-to inspection guidelines, techniques, and cautionary notes in a logical sequence. Subsections are arranged to focus on routine inspection requirements, followed by periodic test (annual and five year) and acceptance criteria. Appropriate references to the latest edition of the Code, in effect at the time of this Guide's publication, are listed at the end of each subsection. The referenced numbers may not be the same in earlier editions. This Guide is organized as follows: Parts 1 through 6 apply to electric and hydraulic elevators, Parts 7 and 8 apply to escalators, and Parts 9 and 10 apply to moving walks. The Parts are arranged to show the location of the inspection:

Part 1	Elevator — Inside of Car
Part 2	Elevator — Machine Room
Part 3	Elevator — Top of Car
Part 4	Elevator — Outside Hoistway
Part 5	Elevator — Pit
Part 6	Elevator — Firefighters' Service
Part 7	Escalator — External
Part 8	Escalator — Internal
Part 9	Moving Walk — External
Part 10	Moving Walk — Internal

Each inspection location is further subdivided as follows:

X	Location of inspection
X.X	Item to be inspected
X.X.1	Periodic inspections (routine)
X.X.1.1	Electric elevators (as applicable)
X.X.1.2	Hydraulic elevators (as applicable)
X.X.2	Periodic test
X.X.2.1	Electric elevators (as applicable)
X.X.2.2	Hydraulic elevators (as applicable)
X.X.3	Acceptance inspection
X.X.3.1	Electric elevators (as applicable)
X.X.3.2	Hydraulic elevators (as applicable)
X.X.4	Code references
X.X.4.1	Electric elevators (as applicable)
X.X.4.2	Hydraulic elevators (as applicable)

When a requirement within A17.1 or A17.3 cross-references another requirement, the cross-reference is shown with the referring requirement in braces, { }. For the A17.1–2000 and later edition requirements, where no direct cross-reference is found within the A17.1–2000 Cross-Reference Table, the prior code Rule (A17.1d–2000 and earlier editions) is shown in parentheses, (), with a preceding "NR" designation.

Subsection numbering of items may not be sequential when there are no inspection or test procedures indicated within this Guide.

NOTE: This Guide addresses the requirements of A17.1–1955 and later editions and latest edition of A17.3. Some requirements in earlier editions of A17.1 are also addressed. The inspector is referred to the particular edition of the A17.1 Code that applies for requirements prior to 1955.

This Guide has included the pertinent requirement from prior editions of A17.1, which differ from the requirements in the latest edition. As the inspector becomes familiar with the prescribed order of inspection procedures, variations may be appropriate. The Foreword, Preface, and Appendix that are included in this document have been approved by the A17 Committee, but are not part of this American National Standard.

NOTE: See also para. 2, Application, under the Introduction of this Guide.

REQUIREMENTS FOR EXISTING INSTALLATIONS

Elevators and escalators in jurisdictions that have adopted the Safety Code for Existing Elevators and Escalators, ASME A17.3, and installations that have been altered in accordance with Part XII of the Safety Code for Elevators and Escalators ANSI/ASME A17.1d–1986 and later editions must, as a minimum, conform to the requirements identified in this Guide as "A17.3." If an existing installation does not meet the requirements of the A17.3 Code, it must be upgraded. If an existing installation was required to meet more stringent requirements, it must continue to meet those requirements.

Alteration, if made, must conform to the requirements of A17.1, Part XII and the entire installation must conform to the requirements of A17.3. The alteration requirements in A17.1, Part XII may be more stringent than the requirements of A17.3. The equipment must conform to the more stringent of the two.

METRIC (SI) UNITS

This edition of the Guide uses both imperial and metric (SI) units. The units used in the Guide are the units found in the referenced code [e.g., imperial (metric) or metric (imperial)]. Information on the usage of SI units and conversion to imperial units is contained in IEEE/ASTM SI 10-1997, *Standard for the Use of the International System of Units (SI): The Modern Metric System*; ASME Guide SI-1, *Orientation and Guide for Use of SI (Metric)*



Units; or CAN/CSA-Z234-1, *Canadian Metric Practice Guide*.

DEFINITIONS

For definitions, see Section 3 of the ASME A17.1d-2000 and earlier editions (Section 3.1, A17.1-2000 and later editions).

ASME ELEVATOR PUBLICATIONS

This Guide is one of the numerous codes and standards that have been or are being developed and published by the American Society of Mechanical Engineers. The following publications are of special interest to users of this Guide. For prices and availability, contact:

ASME Order Department
22 Law Drive
Box 2300
Fairfield, NJ 07007-2300
Tel: 800-843-2763
Fax: 973-882-1717
E-Mail: infocentral@asme.org
ASME Website: www.asme.org/catalog

ASME A17.1/CSA B44 Safety Code for Elevators and Escalators. This American National Standard Safety Code covers the design, construction, installation, operation, testing, maintenance, alteration, and repair of elevators, dumbwaiters, escalators, moving walks, and material lifts and dumbwaiters with automatic transfer devices.

Inspection Checklists. The checklist forms shown in Nonmandatory Appendices A and B of this book are posted on the ASME Website: www.asme.org.

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 addressed at this time.

ASME A17 CD-ROM for Elevators and Escalators. This CD-ROM contains the ASME A17.1, A17.2, and A17.3 standards. In addition, it contains the published interpretations applicable to these standards.

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 A17.7/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.

Published Interpretations. Interpretations of the various A17 standards are published periodically.

Interpretations of A17.1 and 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, interpretations are 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. A compilation of all interpretations can also be obtained through the A17 CD-ROM.

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

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 A17.1/B44 Code. It also includes requirements for the accreditation of organizations that certify inspectors and inspection supervisors as meeting the QEI criteria.

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:



Abbreviations Used in This Code

Abbreviation	Unit	Abbreviation	Unit
A	Ampere	lb	pound (mass)
°C	degree Celsius	lbf	pound (force)
deg	degree (angle)	lx	lux
°F	degree Fahrenheit	m	meter
ft/min	foot per minute	m ²	square meter
ft/s	foot per second	m ³	cubic meter
ft	foot	mA	milliamperere
fc	footcandle	m/s	meter per second
ft ²	square foot	m/s ²	meter per second per second
ft ³	cubic foot	mm	millimeter
ft/s ²	foot per second per second	mm ²	square millimeter
h	hour	mm ³	cubic millimeter
Hz	hertz	MPa	megapascal
in.	inch	N	Newton
in. ²	square inch	psi	pound per square inch
in. ³	cubic inch	s	second
kg	kilogram	V	volt
kPa	kilopascal		

Secretary, A17 Standards Committee
 The American Society of Mechanical Engineers
 Three Park Avenue
 New York, NY 10016-5990
 E-mail: infocentral@asme.org

Proposing Revisions. Revisions are made periodically to the Guide 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 elevator technology. Approved revisions will be published periodically.

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

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

The request for interpretation should be clear and unambiguous. It is further recommended that the inquirer submits his request using the following format:

Subject: Cite the applicable Item number(s) and a concise description.

Edition: Cite the applicable edition and supplement of the Guide for which the interpretation is being requested.

Question: Phrase the question as a request for an interpretation of a specific item suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. 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 this format will be written in this format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

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, all of which are open to the public. Persons wishing to attend any meeting should contact the Secretary of the Standards Committee.



ASME A17.2-2007 SUMMARY OF CHANGES

Following approval by the ASME A17 Elevator and Escalator Committee and ASME, and after public review, ASME A17.2-2007 was approved by the American National Standards Institute on July 11, 2007.

The 2007 edition of ASME A17.2 includes revisions that are identified by a margin note, (07). Changes made to correct errors, as well as other editorial changes, are identified by (ED). The following is a summary of the latest revisions and changes:

<i>Page</i>	<i>Location</i>	<i>Change</i>
ix–xi	Foreword	Updated
xvi–xviii	Preface	ASME Elevator Publications updated
3	Table 1	Addresses updated
6	1.5.1(a)	Revised
	1.5.3	Revised
7	1.7.1(a)	Revised
8	1.10.1	Paragraph added
10	1.11.1	Revised
11	1.12.1	(1) Subparagraph (d) revised (2) New subparagraphs (i) and (j) added
	1.12.3	Revised in its entirety
	1.12.4.1	Revised
12	1.14.4.1	Revised
	1.14.4.2	Revised
13	1.17.2	Revised in its entirety
	1.17.3	Revised
	1.17.3.1	Revised in its entirety
14	1.17.3.2	Added
16	2.1.3.1	Revised
	2.1.3.2	Revised
18	Item 2.10	Title revised
	2.10.1	Revised
	2.10.3	Revised
20	2.13.1.1	Subparagraphs (c) and (e) revised
23	2.13.2.2(b)(5)	(1) Editorially revised (2) Subparagraph (b)(6) merged into subparagraph (b)(5) (3) Subparagraph (b)(7) redesignated as subparagraph (b)(6)



<i>Page</i>	<i>Location</i>	<i>Change</i>
25	2.17.2.1(b)	Revised in its entirety
26	2.17.2.2	Added
	2.17.3.1	Deleted
	2.17.4.1	Revised
	2.17.4.2	Added
28	2.22.1.1	Item reference editorially corrected
29	2.24.2.1(d)	Revised
	2.24.3	Sentence added
30	2.28.3.1	Revised
31–34	2.29.1	Paragraph 2.29.1.1 deleted, and sentence merged with 2.29.1
	2.29.2	(1) Paragraph 2.29.2.1 deleted (2) Subparagraphs (a)(1) through (a)(3) revised (3) Subparagraph (b) title revised (4) Subparagraph (b)(6) added (5) Subparagraph (c)(1) and Note revised (6) Subparagraph (c)(2) revised (7) Subparagraph (e) title revised (8) Subparagraphs (e)(3)(a), (e)(4), and (e)(7) revised
36	2.29.3	(1) Paragraph 2.29.3.1 deleted (2) Subparagraphs (a) and (b) revised
40	Item 2.40	Moved to Item 8.17, and former Item 2.41 editorially redesignated as new Item 2.40
	Item 2.41	Former Item 2.42 editorially redesignated as new Item 2.41
42	3.4.1.2	First sentence revised
46	3.10.1	Second and third paragraphs revised
47	3.11.1	First paragraph deleted
51, 52	3.17.1	Subparagraph (b) and Note revised
	3.17.3	Second paragraph revised
	3.17.4.1	New reference added
	3.17.4.2	New reference added
53–56	3.22.1.1	(1) Title revised (2) Subparagraphs (a), (d)(3), and (e) revised (3) Subparagraph (g) deleted, and former subparagraphs (h) and (i) redesignated as new (g) and (h), respectively
	3.22.1.2	(1) Title revised (2) Revised in its entirety



<i>Page</i>	<i>Location</i>	<i>Change</i>
53–56	3.23.1	(1) Paragraphs 3.23.1.1 and 3.23.1.2 deleted (2) Subparagraphs (a), (c)(1), and (c)(1)(a) revised (3) Subparagraph (c)(1)(c) added (4) Second paragraph for new (c)(1)(c) revised
	3.23.4.1	Revised
	3.23.4.2	Revised
	3.24.1.1	Second through fifth paragraphs added
58	3.26.1.1	Revised
	3.27.3.1	Revised
	3.27.3.2	Title and paragraph revised
59	Item 3.29	Revised in its entirety
62, 63	4.2.1	(1) Paragraph 4.2.1.1 deleted (2) Metric equivalents for $\frac{3}{8}$ in. in subparagraphs (b)(1) and (b)(1)(b) revised (3) Subparagraph (b)(2) revised (4) Subparagraph (c) title revised (5) Subparagraph (d) title and paragraph revised (6) Paragraph 4.2.1.2 deleted
	4.2.3	Revised
	4.4.1	First paragraph revised
66	4.13	Moved to Item 10.16
71–73	Item 5.8	Title revised
	5.8.1.1	(1) Subparagraph (a) and Note revised (2) Subparagraph (b)(4) added
	5.8.2	(1) Paragraph 5.8.2.1 deleted, and sentence merged into 5.8.2 (2) Paragraph 5.8.2.2 revised in its entirety
	5.8.3	(1) Paragraph 5.8.3.1 deleted, and sentence merged into 5.8.3 (2) Paragraph 5.8.3.2 deleted
	5.8.4.1	References in second paragraph revised
	5.9.2.1(a)	Revised
	5.9.2.1(b)	Note revised
74	5.10.1.1(d)	Revised
75	Item 5.15	Added
84	Fig. 6.4.2(b)(9)	Revised
91, 92	7.3.2	Paragraph added
95	7.7.2	Last paragraph added



<i>Page</i>	<i>Location</i>	<i>Change</i>
96	7.7.4	Revised
98	7.10.1(a)	New first sentence added
102	7.10.4	Revised
109, 110	8.4.2	Revised in its entirety
	8.4.3	Last paragraph added
115	Item 8.17	Added
116	9.2.4	Revised
117	9.3.1(f)	Added
	9.3.2	Paragraph added
120, 121	9.7.2	Last paragraph added
	9.7.4	Revised
122	9.10.1(a)	New first sentence added
123	9.10.4	Revised
	9.14.3	First paragraph and subparagraph (a) revised
128, 129	10.4.2	Revised in its entirety
133	Item 10.16	Added
134–156	Nonmandatory Appendix A	Checklists revised in their entirety
162, 163	Nonmandatory Appendix C	Added



GUIDE FOR INSPECTION OF ELEVATORS, ESCALATORS, AND MOVING WALKS

Introduction

1 SCOPE

This Guide covers recommended inspection and testing procedures for electric and hydraulic elevators, escalators, and moving walks required to conform to the Safety Code for Elevators and Escalators, A17.1–1955 and later editions and The Safety Code for Existing Elevators and Escalators, A17.3. This Guide also addresses some requirements from editions of A17.1 prior to 1955.

NOTE: This Guide may not reflect the latest requirements in the current A17.1 and A17.3 Codes.

2 APPLICATION

This Guide is intended to assist qualified inspectors performing routine inspections and witnessing periodic and acceptance inspections and tests. It is not intended to serve as a basis for government regulations. This Guide does not contain information on handling discrepancies noted during an inspection and test. The authority having jurisdiction in their legislation adopting the Code is responsible for addressing this subject. The acceptance inspection and testing procedures apply only to the extent that they conform to the latest edition of the A17.1 Code. The routine and periodic inspection and testing procedures apply only to the extent that they conform to the applicable Code requirements that were in effect at the time of installation or alteration. The inspection and testing procedures do not take into account local regulations that may differ.

It is recognized that inspectors will not be able to accomplish all the inspection procedures specified in this Guide, during each inspection. Qualified inspectors have the knowledge and experience to recognize potential deficiencies and to focus the inspection in those areas.

This Guide uses the following format to describe the appropriate inspection and test:

(a) For inspections and tests performed in compliance with ASME A17.1d–2000 and earlier editions:

(1) *Routine.* The examination and operation of equipment at specified intervals by an inspector to check for compliance with the applicable Code requirements.

(2) *Periodic Tests.* Routine inspection and tests plus additional detailed examination and operation of equipment at specified intervals witnessed by an inspector to check for compliance with the applicable Code requirements.

(3) *Acceptance.* The initial inspection and tests of new or altered equipment to check for compliance with the applicable Code requirements.

(b) For inspections and tests performed in compliance with ASME A17.1–2000 and later editions:

(1) *Periodic Inspection.* The examination and operation of equipment at specified intervals by an inspector to check for compliance with the applicable Code requirements.

(2) *Periodic Tests.* The testing and detailed examination and operation of equipment at specified intervals witnessed by an inspector to check for compliance with the applicable Code requirements.

(3) *Acceptance.* The initial inspection and test of new or altered equipment to check for compliance with the applicable Code requirements.

The procedures in this Guide are recommendations only and are intended to illustrate a method of complying with the requirements in ASME A17.1d–2000 and earlier editions and A17.1–2000 and later editions, requirements 8.10 and 8.11. The person performing the inspection and test may employ other methods to demonstrate compliance with the applicable code requirement. Qualified inspectors have the knowledge and experience to recognize potential deficiencies and to focus the inspection where necessary.

Where no inspection procedure is specified for routine inspections, it indicates that the Code requirements need no explanation. This does not indicate that no inspection of the specified item is required. The item is to be inspected for compliance with the applicable Code requirements.

