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Safety of escalators Date: 2024-04-11

Escalators and moving walks

Part 3:
Requirements from other Standardsstandards (ASME A17.1/CSA B44 and Japanese codes) not included in ISO 8103-1

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Contents

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documentsdocument should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation onof the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT)), see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 178, *Lifts, escalators and moving walks*.

A list of all parts in the ISO 8103 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 General

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this standard.

0.2 General remarks

This document is to be used in combination with ISO 8103-1 for the purpose of achieving equivalency with the requirements of ASME A17.1/CSA B44 and Japanese codes respectively, where the scopes of ASME A17.1/CSA B44 and Japanese codes coincide with the scope of this document. Equipment outside of the scope of this document is not addressed.

This document identifies section and requirement numbers from ASME A17.1/CSA B44 or Japanese codes for requirements to be used in addition to or in place of specific clauses in ISO 8103-1. The content of the specific requirements is published in ASME A17.1/CSA B44 and Japanese codes.

This document is not a substitute for ASME A17.1/CSA B44 or Japanese codes and it does not evaluate or interpret requirements in those standards/codes. The onus is on the user of this document to comply with the actual requirements in force in the particular jurisdictions.

As a further clarification, it is emphasized that although differences exist in the various standards, it does not imply that any standard is superior to another standard covering the same scope.

~~Safety of escalators~~Escalators and moving walks~~—~~ —

Part ~~—~~ 3: Requirements from other ~~Standards~~standards (ASME A17.1/CSA B44 and Japanese codes) not included in ISO 8103-1

1 Scope

This document identifies section and requirement numbers from ASME A17.1/CSA B44 or Japanese codes for requirements not included in ISO 8103-1. The content of the specific requirements is published in ASME A17.1/CSA B44 and Japanese codes.

This document is applicable for new escalators and moving walks (pallet or belt type) as defined in ISO/DIS 8103-1:—, Clause 3.

This document deals with all significant hazards, hazardous situations, and events relevant to escalators and moving walks when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see ~~Clause 4).~~ Clause 4).

This document is not applicable to escalators and moving walks which were manufactured before the date of its publication. It is, however, ~~recommended~~expected that existing installations be adapted to this standard.

2 Normative references

~~The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.~~

~~ASME A17.1/CSA B44-2016~~

~~The Building Standard Laws of Japan (BSLJ)~~

~~The Building Standard Laws of Japan Enforcement Order (BSLJ-EO),~~

~~Notifications of Ministry of Construction (MOC-N),~~

~~Notification of Ministry of Land, Infrastructure and Transport (MLIT-N)~~

~~Ministry of International Trade and Industry Ordinance No. 52-1997 (TSEE-MO), and the interpretation (Int. TSEE-MO)~~

~~JIS A 4302:2006~~

~~JIS C 8201-1:2007~~

~~JIS B 9703:2011~~

~~Japan Elevator Association Standards-2016~~

~~Japan Electric Association Code 8001-2016 (JEAC 8001-2016)~~

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain ~~terminological~~terminology databases for use in standardization at the following addresses:

~~— IEC Electropedia: available at http://www.electropedia.org/~~

— ~~—~~ ISO Online browsing platform: available at ~~https://www.iso.org/obp~~https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Use of this ~~technical specification~~document

Products designed in compliance with specific requirements of ISO 8103-1 may not be in compliance with specific prescriptive requirements in ASME A17.1/CSA B44-2016 or Japanese Codes.

By referring to ~~Tables 1 of this document,~~Table 1, specific prescriptive requirements of ASME A17.1/CSA B44-2016 that need to be addressed in addition to or in place of requirements of ISO 8103-1 can be identified by the user.

In a similar way ~~Tables 2 identify~~, Table 2 identifies requirements of Japanese codes that need to be addressed by the user.

~~Tables 1~~Tables 1 and ~~2~~2 provide guidance and in all cases the relevant ~~Standards~~standards need to be consulted.

In each table, there are five columns as follows:

~~a)~~— Column 1 identifies the clause number in ISO 8103-1~~;~~—;

~~b)~~— Column 2 describes the subject matter;

~~c)~~— Column 3 identifies the requirement to be addressed in addition to ISO 8103-1~~;~~—;

~~d)~~— Column 4 identifies the requirement to be addressed in place of ISO 8103-1~~;~~—; and

~~e)~~— Column 5 contains comments and explanations intended to provide guidance to the user.

Table 1

— ASME A17.1/CSA B44 Requirements to be used in addition to or in place of requirementsnot included in ISO 8103-1

Column 1	Column 2	Column 3	Column 4	Column 5
ISO 8103-1 Clause #	**Subject**	**A17.1/B44 Section or Requirement number to be used in addition to Column 1**	**A17.1/B44 Section or Requirement number to be used in place of Column 1**	**Comments**
3.1.21	nominal speed		1.3	A17.1/B44 has differing speed definition
	Protection of floor openings	6.1.1		A17.1/B44 has additional requirements regarding floor openings referred to applicable building code.
5.2.1.5	Apertures for ventilation	6.1.2/ 6.2.2		A17.1/B44 has additional requirements regarding aperture access restriction. *Escalators/moving walks are to be effectively ventilated to dissipate excessive heat. Apertures are to not enable contact with moving parts.*
5.2.1.6	Requirement for safety device		6.1.7.3.3 6.2.7.3.3	A17.1/B44 has differing requirements
5.2.2	Angle of inclination		6.1.3 6.1.3.1 6.2.3.1	A17.1/B44 has differing requirement regarding maximum inclination angle.
5.2.3	Access to the interior	8.1.3		A17.1/B44 has additional requirements
5.2.4	Inspection covers		6.1.7.3 6.1.7.3.1 6.1.7.3.2	A17.1/B44 has differing requirements regarding the locking device and additional cover weight requirements.
5.2.5	Structural design		6.1.3.9 6.2.3.10 6.1.3.9.1 6.2.3.10.1	A17.1/B44 has specific requirements for the calculation of structural components.
		6.1.3.5.8 6.2.3.5.6		A17.1/B44 has additional requirements regarding step and pallet retention.

Column 1	Column 2	Column 3	Column 4	Column 5
ISO 8103-1 Clause #	**Subject**	**A17.1/B44 Section or Requirement number to be used in addition to Column 1**	**A17.1/B44 Section or Requirement number to be used in place of Column 1**	**Comments**
5.3.2	Dimensions		6.2.3.7	A17.1/B44 has differing dimensional requirements
5.3.3.1	Structural design		6.1.3.9.4 6.1.3.10.4 6.2.3.11.4	A17.1/B44 has differing requirements.
5.3.2.2	Step treads and pallets		6.2.3.7	A17.1/B44 has differing requirements.
5.3.2.2.3	Step treads		6.1.3.5.5 6.2.3.5.1	A17.1/B44 has differing requirements.
5.3.2.3	Belts		6.2.3.6.2	A17.1/B44 has differing requirements.
5.3.3	Structural design		6.1.3.9.4 6.1.3.10.4 6.2.3.11.4	A17.1/B44 has differing requirements.
5.3.3.2.4	Belts		6.2.3.9	A17.1/B44 has differing requirements.
5.3.3.3	Dynamic tests	6.1.3.5.7 8.3.11		A17.1/B44 has additional requirements regarding evaluation of step cracks.
5.3.3.3.2.1	Pallets Load test		6.2.3.5.4 8.3.11	A17.1/B44 has differing requirements.
5.3.4	Guiding of steps, pallets and belt		6.1.3.5.4 6.2.3.5.2 6.1.3.5.6	A17.1/B44 has different requirements.
5.3.5	Clearance between steps or pallets		6.1.3.5.4 6.2.3.5.2 6.1.3.5.6	A17.1/B44 has different requirements.
5.4.1.2.2	Speed of escalators		6.1.4.1.1	A17.1/B44 has differing requirements. For escalators the defined maximum is 0,5 m/s.
5.4.1.2.3	Speed of moving walks		6.2.4	A17.1/B44 has different requirements.

Column 1	Column 2	Column 3	Column 4	Column 5
ISO 8103-1 Clause #	**Subject**	**A17.1/B44 Section or Requirement number to be used in addition to Column 1**	**A17.1/B44 Section or Requirement number to be used in place of Column 1**	**Comments**
5.4.1.3	Link between operational brake and step, pallet or belt drive		6.1.5 6.2.5 6.1.5.1 6.2.5.1 6.1.5.3 6.2.5.3 6.1.5.3.1 6.2.5.3.1	A17.1/B44 has differing requirements.
No equivalent requirements	V belts drive	6.2.3.14		A17.1/B44 has additional requirements.
5.4.1.3.2	Safety factor of driving elements		6.1.3.1 6.2.3.11	A17.1/B44 has differing requirements.
5.4.2.1.1.2	Operational braking by electro mechanical brake.	6.1.5.3.1(a) 6.2.5.3.1(a)		A17.1/B44 has additional requirements.
5.4.2.1.1.3	Operational braking by electrical braking.			A17.1/B44 does not allow the use of electrical braking. Note: A17.1/B44 – 2019 allows electrical braking. Reference 6.1.5.3.3 and 6.1.5.3.4.
5.4.2.1.2	Electro-mechanical brake		6.1.5.3.1 (a) and (b) 6.2.5.3.1 (a) and (b)	A17.1/B44 has differing requirements.
5.4.2.1.3.1	Determination of the brake load for escalators		6.1.3.9.3	A17.1/B44 has differing requirements.
5.4.2.1.3.2	Stopping distances for the escalator		6.1.5.3.1 (c)	A17.1/B44 has differing requirements.