Eskalaatorite ja liikurteede ohutus. Osa 2: Nõuded olemasolevate eskalaatorite ja liikurteede ohutuse parandamiseks

Safety of escalators and moving walks - Part 2: Rules for the improvement of safety of existing escalators and moving walks

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 115-2:2010 sisaldab Euroopa standardi EN 115-2:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 115-2:2010 consists of the English text of the European standard EN 115-2:2010.
Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 21.07.2010.	Date of Availability of the European standard text 21.07.2010.
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EUROPEAN STANDARD

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English Version

Safety of escalators and moving walks - Part 2: Rules for the improvement of safety of existing escalators and moving walks

Sécurité des escaliers mécaniques et trottoirs roulants - Partie 2: Règles pour l'amélioration de la sécurité des escaliers mécaniques et des trottoirs roulants existants

Sicherheit von Fahrtreppen und Fahrsteigen - Teil 2: Regeln für die Erhöhung der Sicherheit bestehender Fahrtreppen und Fahrsteige

This European Standard was approved by CEN on 12 June 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 115-2:2010) has been prepared by Technical Committee CEN/TC 10 “Lifts, escalators and moving walks”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2011, and conflicting national standards shall be withdrawn at the latest by January 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

The EN 115 series of standards consists of the following parts, under the general title *Safety of escalators and moving walks*:

— *Part 1: Construction and installation;*

— *Part 2: Rules for the improvement of safety of existing escalators and moving walks;*

— *Part 3: Correlation between EN 115:1995 and its amendments and EN 115-1:2008.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

Background of this standard

More than 75 000 escalators and moving walks are in use today in the European Union (EU) and European free Trade Association (EFTA) and almost 50 % were installed more than 20 years ago. However, this standard compares the safety level of escalators and moving walks installed after 1970 with those within EN 115-1:2008. This recognises that the first attempt to have a common standard for escalators and moving walks was the CIRA Recommendation 28 [1]. Escalators and moving walks were installed to the safety level appropriate at that time. This level is less than today's state of the art for safety.

New technologies and social expectations have led to today's state of the art for safety. This has led to the situation today of different levels of safety across Europe causing accidents. However, users and authorised persons expect a common acceptable level of safety.

Furthermore the life cycle of escalators and moving walks is longer than most other transportation systems and building equipment, which therefore means that the design, performance and safety can fall behind modern technologies. If all existing escalators and moving walks are not upgraded to today's state of the art of safety the number of injuries will increase (especially in areas which can be accessed by the general public, recognizing the change of behaviour and changing attitudes towards safety in general). If escalators or moving walks were installed before 1970 on the base of manufacturer's and national standards or were installed after 1970 but not in accordance with CIRA Recommendation 28, then they should be the subject of a separate risk assessment in addition to the recommendations of this standard to determine whether a safety upgrade or a full replacement is appropriate.

Approach of this standard

This standard

— categorises various hazards and hazardous situations, each of which has been analysed by a risk assessment (see in particular Annex A);

— is intended to provide corrective actions to progressively and selectively improve, step by step, the safety of all existing escalators and moving walks towards today's state of the art for safety (see Clause 5);

— enables each escalator and moving walk to be audited and safety measures to be identified and implemented in a step by step and selective fashion according to the frequency and severity of any single risk (see Table B.2);

— lists the high, medium and low risks and corrective actions which can be applied in separate steps in order to mitigate the risks (see Table B.2).

Use of this standard

This standard can be used as a guideline for:

a) national authorities to determine its own programme of implementation in a step by step process via a filtering process (see Annex A) in a reasonable and practicable[1)] way based on the level of risk (e.g. high, medium, low) and social and economic considerations;

1) "Reasonable and practicable" is defined as follows: "In deciding what is reasonably practicable the seriousness of a risk to injury should be weighted against the difficulty and cost of removing or reducing that risk. Where the difficulty and costs are high, and a careful assessment of the risk shows it to be comparatively unimportant, action may not need to be taken. On the other hand where the risk is high, action should be taken at whatever cost.".

b) owners to follow their responsibilities according to existing regulations (e.g. use of Work Equipment Directive);

c) maintenance companies and/or inspection bodies to inform the owners on the safety level of their installations;

d) owners to upgrade the existing escalator or moving walk on a voluntary basis in accordance with c) if no regulations exist.

In making an audit of an existing escalator or moving walk installation Annex B can be used to identify the hazards and corrective actions in this standard. However, where a hazardous situation is identified which is not covered in this standard a separate risk assessment should be made. This risk assessment should be based on ISO 14798 [2].

1 Scope

1.1 This European Standard gives rules for improving the safety of existing escalators and moving walks with the aim of reaching an equivalent level of safety to that of a newly installed escalator and moving walk by the application of today's state of the art for safety.

NOTE Due to situations such as the existing machine or building designs, it may not be possible in all cases to reach today's state of the art for safety. Nevertheless the objective is to improve the level of safety wherever possible.

1.2 This standard includes the improvement of safety of existing escalators and moving walks for:

a) users;

b) maintenance and inspection personnel;

c) persons outside the escalator or moving walk (but in its immediate vicinity);

d) authorised persons.

1.3 This standard is not applicable to:

a) safety during transport, installation, repairs and dismantling of escalators and moving walks;

b) spiral escalators;

c) accelerating moving walks.

However, this standard can usefully be taken as a reference basis.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 115-1:2008+A1:2010, *Safety of escalators and moving walks — Part 1: Construction and installation*

EN 13015:2001+A1:2008, *Maintenance for lifts and escalators — Rules for maintenance instructions*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 13850, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003, EN 115-1:2008+A1:2010 and the following apply.