Ehituse kaubatõstukid. Osa 1: Ligipääsetavate platvormidega tõstukid KONSOLIDEERITUD TEKST

Builders' hoists for goods - Part 1: Hoists with accessible platforms CONSOLIDATED TEXT

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12158-1:2006+A1:2010 sisaldab Euroopa standardi EN 12158-1:2000+A1:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 12158-1:2006+A1:2010 consists of the English text of the European standard EN 12158-1:2000+A1:2010.
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.
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Monte-matériaux - Partie 1: Monte-matériaux à plates-formes accessibles

Bauaufzüge für den Materialtransport - Teil 1: Aufzüge mit betretbarer Plattform

This European Standard was approved by CEN on 17 February 2000 and includes Amendment 1 approved by CEN on 12 June 2010.

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Foreword

This document (EN 12158-1:2000+A1:2010) 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of an identical text or by endorsement, at the latest by January 2011, and conflicting national standards shall be withdrawn at the latest by January 2011.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.

This document includes Amendment 1, approved by CEN on 2010-06-12.

This document supersedes EN 12158-1:2000.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ▌A1〉 〈A1▐.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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

This standard is one of a series of standards produced by CEN/TC 10/SC 1 “Building hoists” as part of the CEN programme of work to produce machinery safety standards.

The standard is a Type C standard relating to safety for builders hoists for goods.

The extent to which hazards are covered is indicated in the scope of this standard. In addition, machinery shall comply as appropriate with ⟦A1⟩ EN ISO 12100:2003 ⟨A1⟧ for hazards which are not covered by this standard.

⟦A1⟩ When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this European Standard. ⟨A1⟧

1 Scope

1.1 This standard deals with power operated temporarily installed builders hoists (referred to as “hoists“ in this standard) intended for use by persons who are permitted to enter sites of engineering and construction, serving landing levels, having a load carrying device:

— designed for the transportation of goods only;

— guided;

— travelling vertically or along a path within 15 degrees max. of the vertical;

— supported or sustained by drum driven wire rope, chain, rack and pinion, hydraulic jack (direct or indirect), or an expanding linkage mechanism;

— where masts, when erected, may or may not require support from separate structures;

— which permits the access of instructed persons during loading and unloading;

— which are driven by appointed persons;

— which permits, if necessary, during erection, dismantling, maintenance and inspection, the access and travel by persons who are competent and authorised.

1.2 The standard identifies hazards as listed in clause 4 which arise during the various phases in the life of such equipment and describes methods for the elimination or reduction of these hazards when used as intended by the manufacturer.

1.3 This European standard does not specify the additional requirements for:

— operation in severe conditions (e.g. extreme climates, strong magnetic fields);

— lightning protection;

— operation subject to special rules (e.g. potentially explosive atmospheres);

— electromagnetic compatibility (emission, immunity);

— handling of loads the nature of which could lead to dangerous situations (e.g. molten metal, acids/bases, radiating materials, fragile loads);

— the use of combustion engines;

— the use of remote controls;

— hazards occurring during manufacture;

— hazards occurring as a result of mobility;

— hazards occurring as a result of being erected over a public road;

— earthquakes;

— noise.

1.4 This standard is not applicable to

— builders hoists for persons and materials;

— lifts according to EN 81-1:1998, 81-2:1998 and [A1] EN 81-3:2000 [/A1];

— inclined hoists according to [A1] EN 12158-2:2000 [/A1];

— work cages suspended from lifting appliances;

— work platforms carried on the forks of fork trucks;

— work platforms;

— funiculars;

— lifts specially designed for military purposes;

— mine lifts;

— theatre elevators;

— special purpose lifts.

1.5 This standard deals with the hoist installation. It includes the base frame and base enclosure but excludes the design of any concrete, hard core, timber or other foundation arrangement. It includes the design of mast ties but excludes the design of anchorage bolts to the supporting structure. It includes the landing gates and their frames but excludes the design of any anchorage fixing bolts to the supporting structure.

2 Normative references

[A1] 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. [A1]

EN 81-1:1998, *Safety rules for the construction and installation of lifts — Part 1: Electric lifts*

EN 81-2:1998, *Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts*

[A1] EN 81-3:2000, *Safety rules for the construction and installation of lifts — Part 3: Electric and hydraulic service lifts* [A1]

[A1] *deleted text* [A1]

EN 349:1993, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

[A1] *deleted text* [A1]

EN 894-1:1997, *Safety of machinery — Ergonomic requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

[A1] *deleted text* [A1]

EN 982:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics*

EN 1037:1995, *Safety of machinery — Prevention of unexpected start-up*

EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

[A1] EN 12158-2:2000, *Builders hoists for goods — Part 2: Inclined hoists with non-accessible load carrying devices* [A1]

[A1] EN 12159:2000, *Builders hoists for persons and materials with vertically guided cages* [A1]

[A1] EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)* [A1]

[A1] EN 60204-32:2008, *Safety of machinery — Electrical equipment of machines — Part 32: Requirements for hoisting machines (IEC 60204-32:2008)* [A1]

[A1] EN 60529:1991, *Degrees of protection provided by enclosures (IP-Code) (IEC 60529:1989)* [A1]

[A1] EN 60947-4-1:2001, *Low-voltage switchgear and controlgear — Part 4-1: Contactors and motor-starters; Electromechanical contactors and motor-starters (IEC 60947-4-1:2000)* [A1]

[A1] EN 60947-5-1:2004, *Low-voltage switchgear and controlgear — Part 5-1: Control circuit devices and switching elements — Electromechanical control circuit devices (IEC 60947-5-1:2003)* [A1]

EN ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

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 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

EN ISO 13850:2008, *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)*

ISO 2408:2004, *Steel wire ropes for general purposes — Minimum requirements*

ISO 4302:1981, *Cranes — Wind load assessment*

ISO 4309:2004, *Cranes — Wire ropes — Care, maintenance, installation, examination and discard*

ISO 6336-1:2006, *Calculation of load capacity of spur and helical gears — Part 1: Basic principles, introduction and general influence factors*

ISO 6336-2:2006, *Calculation of load capacity of spur and helical gears — Part 2: Calculation of surface durability (pitting)*

ISO 6336-3:2006, *Calculation of load capacity of spur and helical gears — Part 3: Calculation of tooth bending strength*

ISO 6336-5:2003, *Calculation of load capacity of spur and helical gears — Part 5: Strength and quality of materials*

3 Terms and definitions

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

3.1
builder's hoist
a temporary lifting machine serving landing levels on sites of engineering and construction with a platform, cage or other load carrying device, which is guided

3.2
working load/rated load
the maximum load which the hoist has been designed to carry in service

3.3
rated speed
the speed of the platform for which the equipment has been designed

3.4
wire rope hoist
a hoist which uses wire rope as the load suspension system