Kraanad. Ohutus. Kinnituseta koormuse tõstmise vahendid KONSOLIDEERITUD TEKST

Cranes - Safety - Part 1: Non-fixed load lifting attachments CONSOLIDATED TEXT

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13155:2003+A2:2009 sisaldab Euroopa standardi EN 13155:2003+A2:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 13155:2003+A2:2009 consists of the English text of the European standard EN 13155:2003+A2:2009.
Standard on kinnitatud Eesti Standardikeskuse 30.04.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2009 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 25.03.2009.	Date of Availability of the European standard text 25.03.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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Võtmesõnad: cranes, hoists, hygiene, lifting equipment, materials handling equipment, s, safety, safety measures, safety requirements, specification (approval), specifications, telltales, testing, transportation goods, warning signs, warnings, verification, workplace safety

EUROPEAN STANDARD

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EN 13155:2003+A2

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English Version

Cranes - Safety - Non-fixed load lifting attachments

Appareils de levage à charge suspendue - Sécurité – Equipements amovibles de prise de charge

Krane - Sicherheit - Lose Lastaufnahmemittel

This European Standard was approved by CEN on 17 November 2001 and includes Amendment 1 approved by CEN on 24 June 2005 and Amendment 2 approved by CEN on 17 February 2009.

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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 13155:2003+A2:2009) has been prepared by Technical Committee CEN/TC 147 “Cranes - Safety”, the secretariat of which is held by BSI.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2005-06-24 and Amendment 2, approved by CEN on 2009-02-17.

This document supersedes EN 13155:2003.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ⟨A1⟩ ⟨A1⟩ and ⟨A2⟩ ⟨A2⟩.

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 EC Directive(s).

⟨A2⟩ For relationship with EC Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. ⟨A2⟩

For the relationship with other European standards for cranes, see informative Annex H.

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, 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 European Standard has been prepared to be a harmonized standard to provide one means for non-fixed load lifting attachments used on cranes to conform with the essential health and safety requirements of the Machinery Directive, as amended.

This European Standard is a type C standard as stated in EN 1070.

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

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 non-fixed load lifting attachments which have been designed and built according to the provisions of this type C standard.

1 Scope

This European Standard specifies safety requirements for the following non-fixed load lifting attachments for cranes, hoists and manually controlled load manipulating devices:

— plate clamps;

— vacuum lifters;

  — self priming,

  — non-self priming (pump, venturi, turbine);

— electric lifting magnets (battery fed and mains-fed);

— permanent lifting magnets;

— electro-permanent lifting magnets;

— lifting beams;

— C-hooks;

— lifting forks;

— clamps;

defined in clause 3.

This standard does not specify the additional requirements for:

— non fixed load lifting attachments in direct contact with foodstuffs or pharmaceuticals requiring a high level of cleanliness for hygiene reasons;

— hazards resulting from handling specific hazardous materials (e.g. explosives, hot molten masses, radiating materials);

— hazards caused by operation in an explosive atmosphere;

— hazards caused by noise;

— electrical hazards;

— hazards due to hydraulic and pneumatic components.

This standard does not cover the hazards related to mechanical strength of structural elements of attachments designed for more than 20 000 lifting cycles.

NOTE The coefficient of utilization specified in clause 5.1.1 ensures that no fatigue verification is needed for less than 20 000 cycles. This is in accordance with the well accepted calculation codes e.g. FEM 1001.

This standard does not cover attachments intended to lift above people.

This standard does not cover slings, ladles, expanding mandrels, buckets, grabs, or grab buckets.

The hazards covered by this European Standard are identified in clause 4.

This European Standard does not cover hazards related to the lifting of persons.

This European Standard is applicable to non-fixed load lifting attachments which are manufactured after the date of approval by CEN of this standard.

2 Normative references

[A1] The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. [A1]

[A2] *deleted text* [A2]

EN 287-1, *Approval testing of welders for fusion welding — Part 1: Steels*

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

EN 457, *Safety of machinery — Auditory danger signals — General requirements, design and testing*

EN 818-4, *Short link chain for lifting purposes — Safety — Part 4: Chain slings — Grade 8*

EN 818-5, *Short link chain for lifting purposes — Safety — Part 5: Chain slings —Grade 4*

EN 842, *Safety of machinery — Visual danger signals — General requirements, design and testing*

EN 981, *Safety of machinery - System of auditory and visual danger and information signals*

EN 1070: 1998, *Safety of machinery — Terminology*

EN 1492-1, *Textile slings — Safety — Part 1: Flat woven webbing slings, made of man-made fibres, for general purpose use*

EN 1492-2, *Textile slings — Safety — Part 2: Roundslings, made of man-made fibres, for general purpose use*

ENV 1993-1-1: 1992, *Eurocode 3: Design of steel structures — Part 1-1: General rules and rules for buildings*

EN 10025, *Hot-rolled products of non alloy structural steels — Technical delivery conditions*

EN 10045-1, *Metallic materials — Charpy impact test — Part 1: Test method*

prEN 13414-1, *Steel wire rope slings — Safety — Part 1: Slings for general lifting service*

prEN 13557:2003, *Cranes — Controls and control stations*

EN 25817, *Arc-welded joints in steel — Guidance on quality levels for imperfections (ISO 5817:1992)*

[A2] EN ISO 12100-1:2003, *Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology (ISO 12100-1:2003)* [A2]

[A2] EN ISO 12100-2:2003, *Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles (ISO 12100-2:2003)* [A2]