SLOVENSKI STANDARD
kSIST FprEN 13001-2:2010

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Varnost dvigala (žerjava) - Konstrukcija, splošno - 2. del: Bremenski učinki

Crane safety - General design - Part 2: Load actions

Kransicherheit - Konstruktion allgemein - Teil 2: Lasteinwirkungen

Sécurité des appareils de levage à charge suspendue - Conception générale - Partie 2: Effets de charge

Ta slovenski standard je istoveten z: **FprEN 13001-2**

ICS:

53.020.20 Dvigala Cranes

kSIST FprEN 13001-2:2010 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

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FINAL DRAFT
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English Version

Crane safety - General design - Part 2: Load actions

Sécurité des appareils de levage à charge suspendue - Conception générale - Partie 2: Effets de charge

Kransicherheit - Konstruktion allgemein - Teil 2: Lasteinwirkungen

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Foreword

This document (FprEN 13001-2:2010) has been prepared by Technical Committee CEN/TC 147 “Cranes - Safety”, the secretariat of which is held by BSI.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 13001-2:2004+A3:2009.

CEN/TC 147 / WG 2 "Cranes – Design General" has developed a revision of this document to give added value, which differ from EN 13001-2:2004+A3:2009 as follows:

— Table 3 - Definition of HD 1 … HD 5 are modified and

— Annex B – illustration added to clarify HD 1…HD 5 classes.

NOTE This document does not change the previous content.

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 integral part of this document.

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 European Standard is one Part of EN 13001. The other parts are as follows:

— *Part 1: General principles and requirements*

— *Part 3-1: Limit states and proof of competence of steel structures*

— *Part 3-2: Limit states and proof of competence of rope reeving components*

— *Part 3-3: Limit states and proof of competence of wheel/rail contacts*

— *Part 3-4: Limit states and proof of competence of machinery*

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Introduction

This European Standard has been prepared to be a harmonised standard to provide one means for the mechanical design and theoretical verification of cranes to conform with the essential health and safety requirements of the Machinery Directive, as amended. This standard also establishes interfaces between the user (purchaser) and the designer, as well as between the designer and the component manufacturer, in order to form a basis for selecting cranes and components.

This European Standard is a type C standard as stated in the EN ISO 12100-1.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this European 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 machines that have been designed and built according to the provisions of this type C standard.

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1 Scope

This European Standard is to be used together with Part 1 and series of Part 3 and as such they specify general conditions, requirements and methods to prevent hazards of cranes by design and theoretical verification.

NOTE Specific requirements for particular types of crane are given in the appropriate European Standard for the particular crane type.

The following is a list of significant hazardous situations and hazardous events that could result in risks to persons during normal use and foreseeable misuse. Clause 4 is necessary to reduce or eliminate the risks associated with the following hazards:

a) rigid body instability of the crane or its parts (tilting and shifting);

b) exceeding the limits of strength (yield, ultimate, fatigue);

c) elastic instability of the crane or its parts (buckling, bulging);

d) exceeding temperature limits of material or components;

e) exceeding the deformation limits.

This European Standard is applicable to cranes which are manufactured after the date of approval by CEN of this standard and serves as reference base for the European Standards for particular crane types.

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 1990:2002, *Eurocode — Basics of structural design*

EN 13001-1, *Cranes — General design — Part 1: General principles and requirements*

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 and specifications (ISO 12100-2:2003)*

ISO 4306-1:2007, *Cranes — Vocabulary — Part 1: General*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1990:2002 and ISO 4306-1:2007, Clause 6 apply.

3.2 Symbols and abbreviations

For the purposes of this European Standard, the symbols and abbreviations given in Table 1 apply.