



SLOVENSKI STANDARD
oSIST prEN 13852-1:2021
01-junij-2021

Žerjavi - Žerjavi na plavajočih objektih - 1. del: Žerjavi na plavajočih objektih za splošno uporabo

Cranes - Offshore cranes - Part 1: General-purpose offshore cranes

Krane - Offshore-Krane - Teil 1: Offshore-Krane für allgemeine Verwendung

Appareils de levage à charge suspendue - Grues off-shore - Partie 1 : Grues off-shore pour usage général

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Ta slovenski standard je istoveten z: prEN 13852-1

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ICS:

47.020.40	Dvigalna oprema in oprema za pretovor	Lifting and cargo handling equipment
53.020.20	Dvigala	Cranes

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 13852-1

April 2021

ICS 47.020.40; 53.020.20

Will supersede EN 13852-1:2013

English Version

Cranes - Offshore cranes - Part 1: General-purpose offshore cranes

Appareils de levage à charge suspendue - Grues off-shore - Partie 1 : Grues off-shore pour usage général

Krane - Offshore-Krane - Teil 1: Offshore-Krane für allgemeine Verwendung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 147.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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prEN 13852-1:2021 (E)**European foreword**

This document (prEN 13852-1:2021) 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 CEN Enquiry.

This document supersedes EN 13852-1:2013.

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 or ZB, which are integral parts of this document.

This document is one part of EN 13852. The parts are the following ones:

- *Part 1: General-purpose offshore cranes* (the present document);
- *Part 2: Floating cranes*;
- *Part 3: Light offshore cranes*.

This document is a full revision of EN 13852-1:2013.

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Introduction

This document is a type C standard as defined in EN ISO 12100:2010.

This document has been prepared to provide one means for general purpose offshore cranes to conform to the essential health and safety requirements of the Machinery Directive.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document (see Clause 1).

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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prEN 13852-1:2021 (E)**1 Scope**

This document applies to general purpose offshore cranes including their supporting pedestals and structures.

This document is applicable to general purpose offshore cranes, whose structures are made of steel.

This document provides requirements for all significant hazards, hazardous situations and events relevant to general purpose offshore cranes, for lifting of goods and lifting of persons, when used as intended and under the conditions foreseen by the risk assessment (see Clause 4).

This document is applicable to general purpose offshore cranes, which are manufactured after the date of approval by CEN of this document.

This document is not applicable for:

- a) transportation, assembly, disabling, scrapping, installation or erecting of the crane;
- b) any item attached to the hook, such as loads, non-fixed load lifting attachments, lifting accessories, baskets, carriers and containers;
- c) lifting operations in ambient temperatures below - 20 °C;
- d) lifting operations in ambient temperatures above 45 °C;
- e) accidental loads as result of collisions, earthquakes, explosions, etc., which are not covered by exceptional loads defined in Table B.7;
- f) floating cranes (covered by EN 13852-2), light offshore cranes (covered by FprEN 13852-3) and 2D/3D motion compensated cranes;
- g) subsea lifting operations;
- h) lifting operations involving more than one crane;
- i) emergency rescue operations (except training).

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 undated references in the body text, the corresponding dated references in this chapter applies.

EN 614-1:2006+A1:2009, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 614-2:2000+A1:2008, *Safety of machinery — Ergonomic design principles — Part 2: Interactions between the design of machinery and work tasks*

EN 795:2012, *Personal fall protection equipment — Anchor devices*

EN 842:1996+A1:2008, *Safety of machinery — Visual danger signals — General requirements, design and testing*

EN 894-1:1997+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

- EN 894-2:1997+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays*
- EN 894-3:2000+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*
- EN 1127-1:2019, *Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology*
- EN 1837:1999+A1:2009, *Safety of machinery — Integral lighting of machines*
- EN 1838:2013, *Lighting applications — Emergency lighting*
- EN 10204:2004, *Metallic products — Types of inspection documents*
- EN 12077-2:1998+A1:2008, *Cranes safety — Requirements for health and safety — Part 2: Limiting and indicating devices*
- EN 12385-1:2002+A1:2008, *Steel wire ropes — Safety — Part 1: General requirements*
- EN 12385-2:2002+A1:2008, *Steel wire ropes — Safety — Part 2: Definitions, designation and classification*
- EN 12385-3:2020, *Steel wire ropes — Safety — Part 3: Information for use and maintenance*
- EN 12385-4:2002+A1:2008, *Steel wire ropes — Safety — Part 4: Stranded ropes for general lifting applications*
- EN 12464-2:2014, *Light and lighting — Lighting of work places — Part 2: Outdoor work places*
- EN 12644-1:2001+A1:2008, *Cranes — Information for use and testing — Part 1: Instructions*
- EN 12644-2:2000+A1:2008, *Cranes — Information for use and testing — Part 2: Marking*
- EN 13001-1:2015, *Cranes — General design — Part 1: General principles and requirements*
- EN 13001-2:2014, *Crane safety — General design — Part 2: Load actions*
- EN 13001-3-1:2012+A2:2018, *Cranes — General design — Part 3-1: Limit states and proof of competence of steel structure*
- EN 13001-3-2:2014, *Cranes — General design — Part 3-2: Limit states and proof of competence of wire ropes in reeving systems*
- EN 13001-3-3:2014, *Cranes — General design — Part 3-3: Limit states and proof of competence of wheel/rail contacts*
- EN 13001-3-4:2018, *Cranes — General design — Part 3-4: Limit states and proof of competence of machinery bearings*
- EN 13001-3-5:2016, *Cranes — General design — Part 3-5: Limit states and proof of competence of forged hooks*
- EN 13001-3-6:2018, *Cranes — General design — Part 3-6: Limit states and proof of competence of machinery — Hydraulic cylinders*

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prEN 13001-3-7:2019, *Cranes — General design — Part 3-7: Limit states and proof of competence of machinery — Gears and gear boxes*

prEN 13001-3-8:2018, *Cranes — General design — Part 3-8: Limit states and proof of competence of machinery — Shafts*

EN 13135:2013+A1:2018, *Cranes — Safety — Design — Requirements for equipment*

EN 13557:2003+A2:2008, *Cranes — Controls and control stations*

EN 13586:2004+A1:2008, *Cranes — Access*

EN ISO 13732-1:2008, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)*

EN ISO 14118:2018, *Safety of machinery — Prevention of unexpected start-up (ISO 14118:2017)*

EN 14502-1:2010, *Cranes — Equipment for the lifting of persons — Part 1: Suspended baskets*

EN IEC 60079-0:2018, *Explosive atmospheres — Part 0: Equipment — General requirements (IEC 60079 0:2017)*

EN 60079-14:2014, *Explosive atmospheres — Part 14: Electrical installations design, selection and erection (IEC 60079-14:2013)*

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EN ISO 898-1:2013, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread (ISO 898-1:2013)*

EN ISO 3744:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 3834-1:2005, *Quality requirements for fusion welding of metallic materials — Part 1: Criteria for the selection of the appropriate level of quality requirements (ISO 3834-1:2005)*

EN ISO 3834-2:2005, *Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements (ISO 3834-2:2005)*

EN ISO 3834-3:2005, *Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements (ISO 3834-3:2005)*

EN ISO 3834-4:2005, *Quality requirements for fusion welding of metallic materials — Part 4: Elementary quality requirements (ISO 3834-4:2005)*

EN ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414:2010)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

- EN ISO 7731:2008, *Ergonomics — Danger signals for public and work areas — Auditory danger signals (ISO 7731:2003)*
- EN ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*
- EN ISO 11688-1:2009, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*
- EN ISO 11688-2:2000, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 2: Introduction to the physics of low-noise design (ISO/TR 11688-2:1998)*
- EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*
- EN ISO 12944-1:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 1: General introduction (ISO 12944-1:2017)*
- EN ISO 12944-2:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 2: Classification of environments (ISO 12944-2:2017)*
- EN ISO 12944-3:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 3: Design considerations (ISO 12944-3:2017)*
- EN ISO 12944-4:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 4: Types of surface and surface preparation (ISO 12944-4:2017)*
- EN ISO 12944-5:2019, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 5: Protective paint systems (ISO 12944-5:2019)*
- EN ISO 12944-6:2018, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 6: Laboratory performance test methods (ISO 12944-6:2018)*
- EN ISO 12944-7:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 7: Execution and supervision of paint work (ISO 12944-7:2017)*
- EN ISO 12944-8:2017, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 8: Development of specifications for new work and maintenance (ISO 12944-8:2017)*
- EN ISO 12944-9:2018, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 9: Protective paint systems and laboratory performance test methods for offshore and related structures (ISO 12944-9:2018)*
- EN ISO 13849-1:2015, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2015)*
- EN ISO 13850:2015, *Safety of machinery — Emergency stop function — Principles for design (ISO 13850:2015)*
- EN ISO 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)*