



SLOVENSKI STANDARD

oSIST prEN 13135:2025

01-junij-2025

Žerjavi - Varnost - Konstruiranje - Zahteve za opremo

Cranes - Safety - Design - Requirements for equipment

Krane - Sicherheit - Konstruktion - Anforderungen an die Ausrüstungen

Appareils de levage à charge suspendue - Sécurité - Conception - Prescriptions relatives à l'équipement

Ta slovenski standard je istoveten z: prEN 13135

ICS:

53.020.20

Dvigala

Cranes

oSIST prEN 13135:2025

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 13135

April 2025

ICS 53.020.20

Will supersede EN 13135:2013+A1:2018

English Version

Cranes - Safety - Design - Requirements for equipment

Appareils de levage à charge suspendue - Sécurité -
Conception - Prescriptions relatives à l'équipement

Krane - Sicherheit - Konstruktion - Anforderungen an
die Ausrüstungen

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.

CEN members are the national standards bodies of 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	8
4 Safety requirements and/or protective measures	11
4.1 General.....	11
4.2 Electrical equipment.....	11
4.2.1 General.....	11
4.2.2 Physical environment and operating conditions	11
4.2.3 Electrical supply	11
4.2.4 Protection against electric shock by direct contact.....	12
4.2.5 Control circuits and control functions.....	12
4.2.6 Operator interface and mounted control devices	12
4.2.7 Power driven motions	13
4.2.8 Selection of motors.....	13
4.3 Mechanical equipment.....	21
4.3.1 General.....	21
4.3.2 Clutches and couplings.....	21
4.3.3 Brakes.....	21
4.3.4 Gear drives.....	24
4.3.5 Wheels on rails.....	25
4.3.6 Rope systems	26
4.3.7 Chain systems	29
4.3.8 Belt systems	30
4.3.9 Adjustment rods	32
4.3.10 Compensating means.....	32
4.4 Structures associated with mechanical equipment.....	32
4.4.1 Structures.....	32
4.4.2 Structural equipment	32
4.5 Fluid power systems	34
4.5.1 Controls and control devices of fluid power systems	34
4.5.2 Protective measures	34
4.5.3 Overload testing	35
4.5.4 Hydraulic equipment.....	35
4.5.5 Pneumatic equipment	37
4.6 Fixed load lifting attachments.....	39
4.6.1 General.....	39
4.6.2 Hooks.....	39
4.7 Equipment for safeguarding	40
4.7.1 General.....	40
4.7.2 Safety related functions of control systems.....	41
4.7.3 Measures to decrease the consequences of loss of drive power.....	41
4.7.4 Safety devices to prevent overrunning of movements	41
4.7.5 Derailment safety device.....	42
4.7.6 Provisions to prevent tipping.....	43
4.7.7 Storm-locking.....	43
4.7.8 Anti-collision device.....	44

4.8	Environmental effects.....	44
4.8.1	Protection against weakening of material	44
4.8.2	Temperature	44
4.9	High risk applications	45
4.9.1	General	45
4.9.2	Decreasing of the probability of occurrence of harm.....	45
4.9.3	Additional requirements for the transportation of hot molten metal	48
5	Verification of the safety requirements and/or protective measures	51
6	Information for use.....	55
6.1	General	55
6.2	Instructions for operation in exceptional situations.....	55
6.3	Instructions for installation and maintenance	55
6.4	Maintenance instructions in the case of high risk applications	56
6.5	Marking	56
Annex A (informative)	List of significant hazards.....	57
Annex B (informative)	Selection of a suitable set of crane standards for a given application	60
Annex C (informative)	Design of rail wheel flanges	62
Annex D (informative)	Guidance on rope systems	65
Annex ZA (informative)	Relationship between this European Standard and the essential requirements of Regulation (EU) 2023/1230 aimed to be covered.....	66
Bibliography	69

ITEH Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN 13135:2025](https://standards.iteh.ai/catalog/standards/sist/cd544561-4c52-475e-b2f3-e55daf868183/osist-pren-13135-2025)

<https://standards.iteh.ai/catalog/standards/sist/cd544561-4c52-475e-b2f3-e55daf868183/osist-pren-13135-2025>

prEN 13135:2025 (E)**European foreword**

This document (prEN 13135:2025) has been prepared by Technical Committee CEN/TC 147 “Cranes - Safety”, the secretariat of which is held by SFS.

This document is currently submitted to the CEN Enquiry.

This document supersedes EN 13135:2013+A1:2018.

prEN 13135:2025 includes the following significant technical changes with respect to EN 13135:2013+A1:2018:

- updating of normative references;
- revision of List of significant hazards, move it to Annex A and re-numbering of other Annexes;
- revision and update of Table A.1;
- revision of Annex ZA.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

For the relationship with other European Standards for cranes, see Annex B.

[oSIST prEN 13135:2025](https://standards.iteh.ai/catalog/standards/sist/cd544561-4c52-475e-b2f3-e55daf868183/osist-pren-13135-2025)

<https://standards.iteh.ai/catalog/standards/sist/cd544561-4c52-475e-b2f3-e55daf868183/osist-pren-13135-2025>

Introduction

This document is a harmonized standard to provide one means for equipment for cranes to conform with the essential health and safety requirements of the Machinery Regulation, as mentioned in Annex ZA.

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

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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

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

<https://standards.iteh.ai/catalog/standards/sist/cd544561-4c52-475e-b2f3-e55daf868183/osist-pren-13135-2025>