



DPC: 25/30505822 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

Date: 10 April 2025

Origin: European

Latest date for receipt of comments: 03 June 2025

Project No. 2024/03468

Responsible committee: MHE/3/1 Crane design

Interested committees:

Title: Draft BS EN 13586 BS Cranes - Access.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD. THIS DRAFT IS NOT CURRENT BEYOND 03 June 2025

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: +44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <https://standardsdevelopment.bsigroup.com/>.

Responsible Committee Secretary: Ms Charlotte Hennessey (BSI)

Direct tel: 020 8996 6436

E-mail: charlotte.hennessey@bsigroup.com

Full document details: 25/30505822 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
------------------	------------------------

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Cranes - Access

Appareils de levage à charge suspendue - Accès

Krane - Zugang

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.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Safety requirements and/or protective measures.....	6
4.1 General.....	6
4.2 Selection of means of access.....	7
4.3 Classification of access	8
4.4 General design principles	8
4.5 Stairs and step ladders.....	9
4.6 Spiral stairs	10
4.7 Rung ladders - footholds.....	11
4.8 Hoop guards	14
4.9 Walkways, inclined walkways, platforms	16
4.10 Minimum clear passage of access routes.....	17
4.11 Handrails and side protection.....	18
4.12 Handholds.....	20
4.13 Hatches and manholes.....	21
4.14 Strength, means of access and their supporting structures	22
5 Verification of the safety requirements and/or protective measures.....	23
6 Information for use	23
Annex A (informative) List of significant hazards	24
Annex B (informative) Selection of a suitable set of crane standards for a given application.....	25
Annex C (informative) Examples of surfaces considered to be slip-resistant.....	27
Annex ZA (informative) Relationship between this European standard and the essential requirements of Regulation (EU) 2023/1230 aimed to be covered.....	29

European foreword

This document (prEN 13586:2025) 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 will supersede EN 13586:2020.

prEN 13586:2025 includes the following significant technical changes with respect to EN 13586:2020:

- updating of normative references;
- revision of grammar and linguistic consistency;
- revision of List of significant hazards and its move to Annex A;
- re-numbering of clauses and 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 the 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.

Introduction

This document has been prepared to be a harmonized standard to provide one means for crane access 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 hazardous 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 standard, 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 requirements of this type-C standard.

1 Scope

This document specifies design requirements for non-powered access installed on cranes.

NOTE 1 For other type of access, a requirement for information to be supplied is specified.

Slidable, retractable means of access are excluded from the scope, except movable hoop guards.

This document covers means of access to control stations and all access required for maintenance, certain erection and dismantling operations.

For those cranes which are intended to be erected and dismantled frequently to change their places of work, specific requirements for the access needed during these operations are not covered by this document and can be given in the appropriate European Standards for specific crane types.

Lighting of means of access is not covered by this document and can be given in the appropriate European Standards for specific crane types.

NOTE 2 Specific requirements for access on particular types of cranes are given in the appropriate European Standard for the particular crane type.

The requirements given in this document do not take into account the safety distances related to:

- guarding against hazard from moving parts;
- relative movement between crane and adjacent structure or the ground/floor;
- hazardous surface temperature;
- electrical equipment.

The significant hazards covered by this document are identified in Annex A.

This document is not applicable to cranes manufactured before the date of its publication.

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 dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 363:2018, *Personal fall protection equipment — Personal fall protection systems*

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

EN 13001-3-1:2012+A2:2018, *Cranes — General Design — Part 3-1: Limit States and proof competence of steel structure*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13854:2019, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)*

EN ISO 14122-4:2016, *Safety of machinery — Permanent means of access to machinery — Part 4: Fixed ladders (ISO 14122-4:2016)*

EN ISO 20607:2019, *Safety of machinery — Instruction handbook — General drafting principles (ISO 20607:2019)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>.

3.1

rest platform

standing area for persons to rest, situated at intervals between flights of ladders or stairs

3.2

platform

standing area for persons to work from, e.g. for maintenance or inspection

3.3

handrail

device, which provides continuous hand support between two locations

3.4

handhold

means of providing support by a single hand placement

3.5

foothold

means of providing support for one or two feet for vertical access

3.6

manhole

access opening to allow the passage of persons, and which could have a cover fitted

3.7

hatch

access opening to allow the passage of persons, provided with a cover openable without use of tools

4 Safety requirements and/or protective measures

4.1 General

Means of access shall comply with the safety requirements and/or protective/risk reduction measures of this clause. In addition, the equipment shall be designed according to the principles of EN ISO 12100:2010 for hazards relevant but not significant which are not dealt with by this document.

4.2 Selection of means of access

The following factors shall be taken into account, when determining means of access for cranes:

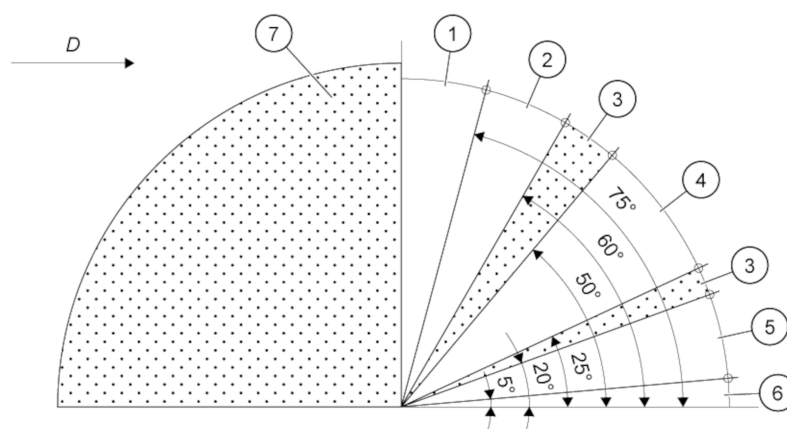
- frequency of use;
- equipment and tools to be carried;
- vertical distance to cover;
- nature of use, e.g. regular operator access, maintenance, inspection.

The following hierarchy of access methods shall be applied when moving from one level to another where no technical reason exists to exclude it:

- stair,
- step ladder,
- rung ladder.

Furthermore, permanent protective equipment (e.g. hoop guard, side protection) is preferred to personal protection equipment. Where personal protective equipment is required, the use of a continuous system avoiding the need to connect and disconnect shall be applied where no technical reason exists to exclude it.

The type of the means of the access depending on its steepness shall be selected in accordance with the Figure 1.



Key

- | | |
|-----------------------|---|
| 1 rung ladder | 5 inclined walkway |
| 2 step ladder | 6 walkway |
| 3 range to be avoided | 7 not permitted zone (90 degrees or more) |
| 4 stair | D access direction when going upwards |

Figure 1 — Ranges of angles for different means of access in their working position

For structural requirements of means of access, the term “ladder” is used to refer both to rung ladders and step ladders.

Where the vertical height between point of access and operator’s control station is more than 30 m, the crane shall be designed with provisions to receive a powered access. Where a powered access system is provided, an additional access way of Type 1, see 4.3, shall also be provided.

Other means of access than those in the scope of this standard may be utilized, e.g. for inspection locations with an inspection interval longer than one year, for emergency exit or for access for erection and dismantling. Access in such cases shall be designed to rely on use of personal fall protection equipment against falls from a height in accordance with EN 363:2018 and EN 795:2012 or use of mobile elevating work platforms.

NOTE Specific requirements for particular crane types can be given in the appropriate European Standards, see Annex B.

4.3 Classification of access

Type 1 access shall be provided in the following cases:

- the main access way of the crane operator to the control station and to starting equipment;
- the access way to maintenance locations, with a maintenance or inspection period shorter than one month.

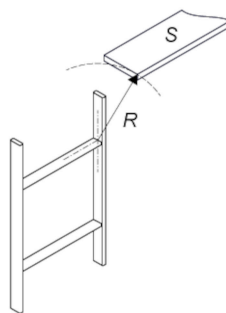
Type 2 access may be provided, instead of Type 1 access, in the following cases:

- the access way to maintenance locations, with a maintenance or inspection period one month or longer;
- emergency exit;
- access for erection and dismantling.

4.4 General design principles

When ascending or descending provisions shall be made to provide simultaneous three-point support; two hand holds and one foot hold or two feet holds and one hand hold.

Where a lateral body move is necessary from a rung of a ladder to another support surface, the distance between the step or rung and the nearest edge of the support surface shall be within a spherical radius of 300 mm, see Figure 2.



Key

- R spherical radius
- S support surface

Figure 2 — Distance between a step or rung and the nearest edge of any support surface