



**BSI Standards Publication**

## **Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs**

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## National foreword

This British Standard is the UK implementation of EN ISO 13857:2019. It is identical to ISO 13857:2019. It supersedes BS EN ISO 13857:2008, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/3, Safeguarding of machinery.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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# EN ISO 13857

October 2019

ICS 13.110

Supersedes EN ISO 13857:2008

English Version

## Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)

Sécurité des machines - Distances de sécurité empêchant les membres supérieurs et inférieurs d'atteindre les zones dangereuses (ISO 13857:2019)

Sicherheit von Maschinen - Sicherheitsabstände gegen das Erreichen von Gefährdungsbereichen mit den oberen und unteren Gliedmaßen (ISO 13857:2019)

This European Standard was approved by CEN on 6 October 2019.

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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-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN ISO 13857:2019) has been prepared by Technical Committee ISO/TC 199 "Safety of machinery" in collaboration with Technical Committee CEN/TC 114 "Safety of machinery" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 13857:2008.

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 the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

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, 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, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 13857:2019 has been approved by CEN as EN ISO 13857:2019 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the essential requirements of EU Directive 2006/42/EC aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/549 COMMISSION IMPLEMENTING DECISION C(2016) 5884 final of 21.9.2016 to provide one voluntary means of conforming to essential requirements of New Approach Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast).

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and Directive 2006/42/EC**

Essential Requirements of Directive 2006/42/EC	Clause(s)/subclause(s) of this EN	Remarks/Notes
1.1.2. Principles of safety integration	Clause 1	Safety distance for reaching over/under and through
1.4.3. Special requirements for protective devices	4.2.2.1	Reaching over protective structures
1.4.3. Special requirements for protective devices	4.2.2.2.	Values
1.4.3. Special requirements for protective devices	4.2.3	Reaching around
1.4.3. Special requirements for protective devices	4.2.4	Reaching through openings
1.4.3. Special requirements for protective devices	4.2.4.1	Reaching through regular openings — Persons of 14 years of age and above
1.4.3. Special requirements for protective devices	4.2.4.2	Reaching through regular openings — persons of 3 years of age and above
1.4.3. Special requirements for protective devices	4.2.4.3	Openings of irregular shape
1.4.3. Special requirements for protective devices	4.2.5	Effect of additional protective structures on safety distances
1.4.3. Special requirements for protective devices	4.3	Safety distances to prevent access by lower limbs
1.4.3. Special requirements for protective devices	4.4	Consideration of whole body access