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BSI Standards Publication

Safety rules for the construction and installation of lifts — Particular applications to passenger lifts and goods passenger lifts

Part 71: Vandal resistant lifts

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National foreword

This British Standard is the UK implementation of EN 81-71:2022. It supersedes BS EN 81-71:2018, which will be withdrawn on 31 May 2024.

The UK participation in its preparation was entrusted to Technical Committee MHE/4, Lifts, hoists and escalators.

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

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it will be listed on the relevant pages of <https://www.gov.uk/guidance/designated-standards> which will also list the date of withdrawal of the previous designated standard, EN 81-70:2003. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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© The British Standards Institution 2022
Published by BSI Standards Limited 2022

ISBN 978 0 539 12348 7

ICS 91.140.90

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2022.

Amendments/corrigenda issued since publication

Date	Text affected
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EUROPÄISCHE NORM

May 2022

ICS 91.140.90

Supersedes EN 81-71:2018+AC:2019

English Version

Safety rules for the construction and installation of lifts - Particular applications to passenger lifts and goods passenger lifts - Part 71: Vandal resistant lifts

Règles de sécurité pour la construction et
l'installation des ascenseurs - Applications
particulières pour les ascenseurs et les
ascenseurs de charge - Partie 71 : Ascenseurs
résistant aux actes de vandalisme

Sicherheitsregeln für die Konstruktion und den
Einbau von Aufzügen - Besondere Anwendungen
für Personen- und Lastenaufzüge - Teil 71:
Schutzmaßnahmen gegen mutwillige Zerstörung

This European Standard was approved by CEN on 20 April 2022.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

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, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Annex ZA (informative)

Relationship between this European Standard and the essential requirements of Directive 2014/33/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request "M/549 C(2016) 5884 final" to provide one voluntary means of conforming to requirements of Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts (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](#) and [Table ZA.2](#) 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 Annex I of Directive 2014/33/EU

Essential health and safety requirements of Annex I to Directive 2014/33/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1	See below, Table ZA.2	
1.5.2	5.2 , 5.3.1 , 5.3.2 , 5.3.3 , 5.3.4 , 5.3.5 , 5.4.1 , 5.4.2	
2.1	5.2 , 5.4.1 , 5.4.2	
2.3	5.4.1.2 , 5.4.1.3 , 5.4.2 , 5.4.5 , 5.4.6	
3.1	5.4.1.1 , 5.4.1.2 , 5.4.1.3 , 5.4.1.4 , 5.4.5 , 5.4.6 , 5.5.1.1 , 5.5.1.2 , 5.5.1.3 , 5.5.1.4 , 5.5.1.5 , 5.5.2 , 5.5.3	
4.1	5.4.1.8 , 5.4.4	
4.4	5.4.2 , 5.7	
4.7	5.5.3	
4.8	5.5.4	
6.2	7	

Table ZA.2 — Correspondence between this European Standard and Annex I of Directive 2006/42/EC

Essential health and safety requirements of Annex I to Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.2 (a)	5 , 6 , 7	
1.1.2 (c)	5 , 6 , 7	
1.1.2 (e)	5 , 6 , 7	
1.1.3	5.5.1.4 , 5.5.1.5 , 5.5.1.6 , 5.5.1.8 , 5.6.2.1 b) , 5.6.2.1 c) , 5.8	
1.2.2	5.4.2 , 5.4.4 , 5.5.1.9 , 5.6 , 5.9 , Annex B , Annex C , Annex E , Annex F	
1.2.6	5.4.2.4	

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Essential health and safety requirements of Annex I to Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.3.2	5.2.1.1 , 5.2.2.2 , 5.3.1 , 5.3.2 , 5.3.4 , 5.3.5 , 5.4.1.7 , 5.4.5 , 5.4.6 , 5.5.1 (except 5.5.1.9), 5.5.4 , 5.6.1.3 , 5.6.1.4 , 5.6.1.5 , 5.6.2.1 , 5.8 , Annex B , Annex F	
1.3.7	5.4.1.5 , 5.4.1.8 , 5.4.4	
1.5.1	5.5.1.9 , 5.5.4 , 5.6.1.1 , 5.6.1.3 , 5.6.1.4 , 5.6.2.1 , Annex B , Annex E , Annex F	
1.5.14	5.7	
1.5.15	5.2.1.1 , 5.4.1.2 , 5.4.1.3 , 5.4.2 , 5.4.5 , 5.4.6 , 5.5.1.1 , 5.5.1.5 , 5.5.1.6 , 5.5.2 , 5.8	
1.7.1	5.4.2.2 , 5.9 , Annex C	
1.7.4	7	
4.1.2.3	5.2.1.1 , 5.2.2.2 , 5.3.2 , 5.3.3 , 5.4.1.2 , 5.4.1.3 , 5.5.1.1 , 5.5.1.2 , 5.5.1.5 , 5.5.1.7 , 5.6.1.4 , 5.6.2.1 , Annex B , Annex E	

WARNING 1 Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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European foreword

This document (EN 81-71:2022) has been prepared by Technical Committee CEN/TC 10 "Lifts, escalators and moving walks", the secretariat of which is held by AFNOR.

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 November 2022, and conflicting national standards shall be withdrawn at the latest by May 2024.

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 81-71:2018+AC:2019.

In comparison with the previous edition, the following significant changes have been made:

- reference to Category 0 has been removed;
- normative references have been updated;
- [Annex ZA](#) has been modified.

No technical changes have been made in Clause 5 during this revision.

This document is intended to be used in conjunction with EN 81-20:2020, which gives the basic requirements for passenger and goods passenger lifts.

This document is part of the EN 81 series of standards. The structure of the EN 81 series is described in CEN/TR 81-10:2008.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative [Annex ZA](#), which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

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Introduction

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

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 in the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or 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 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 requirements of this type-C standard.

This document provides requirements for the design of lifts where it is considered that additional measures are required in order to protect against the risk of vandalism. Every lift is subject to some amount of careless and rough use. Additional protective measures against deliberate acts that may result in equipment damage or injury to persons are referred to in this document as Category 1 or Category 2.

The following assumptions were made whilst writing this document:

- The potential for vandalism of lifts depends on the following factors:
 - access to the lift installation;
 - the surrounding area;
 - observation of the lift by others in the vicinity;
 - the extent of building security and surveillance of the lift;
 - period of access to the building, including the lift (24 h);
 - vulnerability of lift.
- The forces exerted on the lift and its equipment will be as a result of manual effort or by item(s) such as those listed in [Annex E](#).

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1 Scope

This document defines requirements addressing the significant hazards related to lifts, which are subject to different expected levels of vandalism (see [Annex A](#) and [Annex D](#) for further information).

Those requirements are supplementary (additional and/or modified) to the requirements of EN 81-20:2020, intended to mitigate the effect of vandalism.

This document is not applicable to lifts installed 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 81-20:2020, *Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods — Part 20: Passenger and goods passenger lifts*

EN 81-28:2022, *Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods — Part 28: Remote alarm on passenger and goods passenger lifts*

EN 81-72:2020, *Safety rules for the construction and installation of lifts — Particular applications for passenger and goods passenger lifts — Part 72: Firefighters lifts*

EN 81-73:2020, *Safety rules for the construction and installation of lifts — Particular applications for passenger and goods passenger lifts — Part 73: Behaviour of lifts in the event of fire*

EN 13501-1:2018, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 60529:1991,¹⁾ *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010, EN 81-20:2020 and the following apply.

ISO and IEC maintain terminological 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

car ceiling

parts of the car roof accessible from inside the car

3.2

category 1 lift

lift which is protected against limited act of vandalism

NOTE For guidance on selection of the relevant category see [Annex A](#).

1) As impacted by EN 60529:1991/A1:2000, EN 60529:1991/A2:2013 and EN 60529:1991/A2:2013/AC:2019-02.