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BSI Standards Publication

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

Part 72: Firefighters lifts

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National foreword

This British Standard is the UK implementation of EN 81-72:2020. It supersedes BS EN 81-72:2015, which is withdrawn.

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

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Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lifts - Part 72: Firefighters lifts

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des élévateurs - Applications particulières pour les
ascenseurs et ascenseurs de charge - Partie 72 :
Ascenseurs pompiers

Sicherheitsregeln für die Konstruktion und den Einbau
von Aufzügen - Besondere Anwendungen für
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This European Standard was approved by CEN on 15 June 2020.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 81-72:2020) 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 January 2021, and conflicting national standards shall be withdrawn at the latest by July 2022.

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 81-72:2015.

This document is a revision of EN 81-72:2015 in order to align its Annex ZA to the new format and requirements as laid out in the EU Commission Standardization Request "M/549 C (2016) 5884 final". During this revision no technical changes are made and the technical requirements of this document remain identical to EN 81-72:2015, with the exception of the normative references in the text which have been updated to the latest versions of the documents.

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 95/16/EC amended by 2006/42/EC and 2014/33/EU, see informative Annex ZA, which is an integral part of this document.

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 12100:2010.

Firefighters lifts are used to bring the firefighters and their equipment to the required floors.

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

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 lifts that have been designed and built according to the provisions of this type C standard.

The following assumptions were made in writing this document.

Negotiations have been made between the owner, customer, building designers, fire authorities or other relevant bodies and installer concerning:

- a) the intended use of the lift;
- b) environmental conditions;
- c) civil engineering problems;
- d) interfaces between the lift and the building management system (BMS) or fire detection system;
- e) the firefighting strategy;
- f) smoke management, e.g. pressurizing system impact to the lift system such as sway of travelling cables and operation of landing doors;
- g) water management, and where applicable, the highest permissible water level in the pit, e.g. 0,5 m;
- h) other aspects related to the place of the installation and the rescue of persons from within the car;
- i) power supply including regenerative power during secondary power supply operation;
- j) size of safe area(s);
- k) the need for an additional firefighters car key switch and availability of the key.

Developers and architects will need to take account of national building regulations in providing a suitable fire resistant structure of the building, safe areas, fire detection and extinguisher systems. Examples are shown in Annex B and Annex F.

1 Scope

1.1 This document specifies the additional or deviating requirements to EN 81-20:2020 for new passenger and goods passenger lifts, which can be used for firefighting and evacuation purposes under firefighters control.

1.2 This document applies, when the following conditions are fulfilled:

- the lift well and the lift environment are designed to restrict the ingress of fire, heat and smoke to the lift well, machinery spaces and safe areas;
- the building design limits the flow of water into the lift well;
- the firefighters lift is not used as an escape route;
- the lift well and the lift environment are fire protected for at least to the same level as the building structure;
- the power supply is secure and reliable;
- the electrical cable(s) providing power to the lift is fire protected to the same fire protection level as given to the lift well structure;
- a suitable maintenance and verification plan is implemented.

1.3 This document does not cover:

- the use of lifts with partially enclosed wells for use as firefighters lifts;
- lifts installed in new or existing buildings, which are not included in fire resisting building structure;
- important modification to existing lifts.

1.4 This document does not define:

- the number of firefighters lifts and the floors to be served during firefighting operations;
- size of safe area(s);
- the use of other than the highest deck of a multi deck lift for firefighting operations.

1.5 This document deals with the significant hazards, hazardous situations and events relevant to firefighters lifts (as listed in Clause 4) when they are used as intended and under the conditions as foreseen by the installer.

1.6 The following significant hazards are not dealt with in this document and are assumed to be addressed by the building designer:

- not having enough or correctly located firefighters lifts to move the firefighters up the building;
- a fire in the firefighters lift well, safe area, machinery space or car;
- the absence of building floor identification signs at any floor;
- water management is not operating correctly.