BS EN 81-82:2013

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Safety rules for the construction and installation of lifts — Existing lifts

Part 82: Rules for the improvement of the accessibility of existing lifts for persons including persons with disability

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National foreword

This British Standard is the UK implementation of EN 81-82:2013. It supersedes DD CEN/TS 81-82:2008 which is withdrawn.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 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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ISBN 978 0 580 77379 2

ICS 91.140.90

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 30 September 2013.

Amendments issued since publication

Date	Text affected

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 81-82

August 2013

ICS 91.140.90

Supersedes CEN/TS 81-82:2008

English Version

Safety rules for the construction and installation of lifts - Existing lifts - Part 82: Rules for the improvement of the accessibility of existing lifts for persons including persons with disability

Règles de sécurité pour la construction et l'installation des élévateurs - Ascenseurs existants - Partie 82: Règles pour l'amélioration de l'accessibilité aux ascenseurs existants pour toutes les personnes, y compris les personnes avec handicap

Sicherheitsregeln für die Konstruktion und den Einbau von Aufzügen - Bestehende Aufzüge - Teil 82: Regeln für die Erhöhung der Zugänglichkeit von bestehenden Aufzügen für Personen einschließlich Personen mit Behinderungen

This European Standard was approved by CEN on 19 July 2013.

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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Ref. No. EN 81-82:2013: E

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Foreword

This document (EN 81-82:2013) 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 February 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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

This document supersedes CEN/TS 81-82:2008.

CEN/CENELEC have embarked on a programme of work to produce a series of related machinery and lift safety standards as part of European standardization. This document makes use of and refers to EN 81-70.

This document is part of the EN 81 series of standards: *“Safety rules for the construction and installation of lifts”.* This is the first edition of this European Standard.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

Background of this European Standard

More than four million lifts are in use today in the EU and EFTA, and almost 50 % were installed more than 25 years ago. Existing lifts were installed to the safety and accessibility level appropriate at that time. This level is less than today's state of the art.

New technologies and social expectations have led to today's state of the art for accessibility resulting in different levels of accessibility across Europe. Nevertheless, users expect a common acceptable level of safety and accessibility.

There is a growing trend for people to live longer and for disabled people to expect access and design for all. Therefore, it is especially important to provide a safe means of vertical transport for all lift users including disabled and elderly persons without assistance.

Furthermore, the life cycle of a lift is longer than most other transportation systems and building equipment, which therefore means that lift design, performance, safety and accessibility can fall behind modern technologies. If existing lifts are not upgraded to today's state of the art, the number of problems related to accessibility will increase as the proportion of the population with disabilities increases, thereby resulting in a less accessible environment for the society in general.

With the freedom of movement of people within the EU for all users including users with disabilities, familiarity with the different installations is becoming more desirable.

EN 81-82 has been prepared to address these issues. This European Standard is intended to help owners, authorities and lift designers/manufacturers to find practical solutions and ways of applying EN 81-70 to existing lifts to improve accessibility and use by persons including persons with disabilities. Where, due to practical reasons, EN 81-70 cannot be fully applied, this European Standard provides alternative proposals.

In such cases, it is still considered an advantage to apply parts of EN 81-70. For example, if the existing entrance opening is not large enough for a wheelchair and cannot be modified, it is still a major improvement to make the lift controls suitable for other types of disability.

Such changes/improvements could enable elderly and disabled people to remain living in their own homes instead of having to re-locate to specialised nursing homes.

Use of this European Standard

This European Standard can be used by:

a) national authorities to determine a specific programme of implementation;

b) owners to follow their responsibilities according to existing regulations (e.g. national building regulations, anti discrimination acts);

c) maintenance companies and/or inspection bodies to inform the owners on the accessibility level of their installations;

d) owners to upgrade the existing lifts on a voluntary basis if no regulations exist by making an audit of an existing lift installation using Annex A and Annex B.

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1 Scope

1.1 This European Standard provides rules on how to apply EN 81-70 referred to in EN 81-80:2003, 5.2.1 [4] to existing lifts to improve their accessibility for persons including persons with disability.

1.2 This European Standard applies to permanently installed lifts serving defined landing levels, having a car designed for the transportation of persons or persons and goods and moving between guide rails inclined not more than 15° to the vertical.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 81-70:2003, *Safety rules for the construction and installations of lifts — Particular applications for passenger and good passenger lifts — Part 70: Accessibility to lifts for persons including persons with disability*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the EN 81 series of standards apply.

4 List of significant hazards

EN 81-70:2003, Clause 4 applies.

5 Requirements for safe access and use and/or protective measures

5.1 General

The general accessibility of the building needs to be taken into account.

5.2 Entrances – Door opening

5.2.1 Entrance clear opening

If the size of the car is in accordance with EN 81-70:2003, Table 1, the minimum entrance clear opening shall be 800 mm.

NOTE National regulations can require more than 800 mm. Type 2 lifts should be provided with an entrance clear opening of 900 mm, according to ISO 4190-1 (series B) [6], and type 3 lifts with a clear opening of 1 100 mm.

The car and landing doors shall be constructed as automatic power operated horizontally sliding doors. If that is not the case and if it is not possible to do so, the manual door shall be converted to a power operated door.

If the lift is equipped with hinged doors at the landings and if the size of the lift does not allow the use by a wheel chair user, the accessibility can nevertheless be improved for impaired mobility users by the installation of automatic power operated horizontally sliding doors even if the car entrance has to be reduced (e.g. existing hinged doors with a car entrance of 800 mm replaced by automatic power operated horizontally sliding doors with a car entrance of 700 mm).

Existing folding car doors may remain if the accessibility for wheel chair users is not restricted.

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5.2.2 Accessible and obstacle free landings

Obstacle-free accessibility on the landing floors is required on all eligible floors as defined in EN 81-70:2003, 5.2.2.

Special attention should be given to adequate local lighting at the landings (see EN 81-1/2:1998, 7.6.1 [1], [2]).

5.2.3 Door dwell time

When the lift is equipped with automatic power operated doors, the door dwell time shall be sufficiently long to facilitate access or the control system shall be equipped with an adjustable dwell time as defined in EN 81-70:2003, 5.2.3.

5.2.4 Re-opening device without physical contact

When the lift is equipped with automatic power operated horizontally sliding doors, it shall at least also be equipped with a protection device preventing physical contact as defined in EN 81-70:2003, 5.2.4.

NOTE In case of interference between the device and door coupler and/or locks, the protective device covers the opening over a distance between at least 25 mm and 1 600 mm above the car door sill.

For power operated hinged doors, the effort needed to prevent the door opening and closing shall not exceed 150 N. The kinetic energy shall not exceed 4 J in each direction.

5.3 Car dimensions, equipment in the car, stopping/levelling accuracy

5.3.1 Car dimensions

Car dimensions shall be in accordance with EN 81-70:2003, 5.3.1.

NOTE 1 The sizes shown in EN 81-70:2003, Table 1, are ideal sizes particularly for new buildings. However, there are many existing lifts where smaller wheelchairs can be used. Therefore no change to the car is necessary, providing this is acceptable for the expected users of the building.

NOTE 2 Attention needs to be given to the fact that dimensions of the well dictate dimensions of the car.

5.3.2 Equipment in the car

5.3.2.1 Handrail

Handrails shall be in compliance with EN 81-70:2003, 5.3.2.1.

If placing the handrail on the side reduces the entrance width and prevents wheel chair user's access, it shall be placed on the rear wall.

5.3.2.2 Tip-up seats

Tip-up seats where provided shall be in compliance with EN 81-70:2003, 5.3.2.2. It should be ensured that the relevant car wall has sufficient strength.

5.3.2.3 Moving backwards out of the car

Devices shall be installed in compliance with EN 81-70:2003, 5.3.2.3.

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