

NAMS 81-21: 2019

First Edition

EN 81-21: 2009

NAMIBIAN STANDARD

Safety rules for the construction and installation of Lifts-Lifts for the transport of persons and Goods- Part 21: New passenger and goods passenger lifts in existing building

This Draft Namibian standard is the identical implementation of EN 81-21:2009 and is adopted with the permission of the European Committee for Standardization (CEN)

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Foreword

This Namibian standard is the identical implementation of EN 81-21:2009 Safety rules for the construction and installation of Lifts-Lifts for the transport of persons and Goods-Part 21: New passenger and goods passenger lifts in existing building and was approved by NSI TC 8/SC 1 and approved in accordance with procedures of the NSI and in compliance with Annex 3 of the WTO/TBT Agreement.

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Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods — Part 21: New passenger and goods passenger lifts in existing building

Sicherheitsregeln für die Konstruktion und den Einbau von Aufzügen — Aufzüge für die Personen- und Gütertransport — Teil 21: Neue Personen- und Lastenaufzüge in bestehenden Gebäuden

Règles de sécurité pour la construction et l'installation des élévateurs — Elévateur pour le transport de personnes et d'objets — Partie 21 : Ascenseurs et ascenseurs de charge neufs dans les bâtiments existants

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Foreword

This document (EN 81-21:2009+A1:2012) 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of an identical text or by endorsement, at the latest by February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.

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 EN 81-21:2009.

This document includes Amendment 1 approved by CEN on 2012-07-16.

The start and finish of text introduced or altered by amendment is indicated in the text by tags !".

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(s), see informative Annex ZA, which is an integral part of this document.

This standard is part of the EN 81 series of standards "*Safety rules for the construction and installation of lifts*". This is the first edition.

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, 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.

Introduction

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

When provisions of this type C standard are different from those stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

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

Where one or several requirements in EN 81-1 or EN 81-2 *!deleted text"* cannot be fulfilled, due to reasons such as the constraints of the structure of the existing building, the corresponding requirements in this European Standard apply. According to section 2.2 of Annex I to the Lifts Directive, the application of alternative measures to prevent the risk of crushing above and underneath the lift car is restricted to installations where the requirement for free space or refuge is impossible to fulfil and may be subject to prior approval by national authorities.

The main concern dealt with in this standard is the reduction of top and pit clearances that may be required due to site conditions. The adopted principle of safety is based on two levels of achievement: first by means of an electrical stopping of the lift car, then by means of a mechanical stopping of the lift car.

When drafting this standard, it has been considered for reduced overhead and pit the following:

- a) Risk reduction measures that rely solely on operations in compliance with procedures are considered as not acceptable, except in a few situations in which mistake-proof solutions are not available (e.g. some activities in repair and installation in which safety devices cannot be operational);
- b) The risk reduction measures shall be automatically (without any intervention) activated, or may be manually activated if mistake-proof-by-design, or a combination of both is used.

1 Scope

This European Standard specifies the safety rules related to new passenger and goods/passenger lifts permanently installed in existing buildings where in some circumstances due to limitations enforced by building constraints, some requirements of EN 81-1 and EN 81-2 cannot be met (see also **4th sentence of Introduction**).

This European Standard addresses a number of these constraints and gives requirements for alternative solutions. It shall be read and applied in conjunction with the European Standards EN 81-1 or EN 81-2 *!deleted text"*, including their Clause 0.

This European Standard covers:

- Either the construction and installation of one or more complete new lift(s) including new well and machinery spaces in an existing building; or
- The replacement of one or more existing lift(s) by new ones in existing well(s) and machinery spaces.

This European Standard does not cover:

- Replacement or modifications of some parts to a lift already installed;
- Other applications outside of the scope of EN 81-1 or EN 81-2.

2 Normative references

The following referenced documents are indispensable for the application 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 81-1, *Safety rules for the construction and installation of lifts — Part 1: Electric lifts*

EN 81-2, *Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

ISO 3864-1:2002, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and EN 81-1:1998 and EN 81-2:1998 and the following apply.

3.1

existing building

building, which is used or was already used before the order for the lift was placed

NOTE A building whose internal structure is completely renewed is considered as a new building.

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