Irish Standard
I.S.EN 81-40:2008

Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 40: Stairlifts and inclined lifting platforms intended for persons with impaired mobility

I.S.EN 81-40:2008

Incorporating amendments/corrigenda issued since publication:

This document replaces:	*This document is based on:* EN 81-40:2008	*Published:* 29 October, 2008

This document was published under the authority of the NSAI and comes into effect on:
18 February, 2009

ICS number:
11.180.10

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Price Code:
S

Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 81-40:2009

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 81-40

October 2008

ICS 11.180.10

English Version

Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 40: Stairlifts and inclined lifting platforms intended for persons with impaired mobility

Règles de sécurité pour la construction et l'installation des élévateurs - Élévateurs spéciaux pour le transport des personnes et des charges - Partie 40 : Ascensièges et plates-formes élévatrices inclinées à l'usage des personnes à mobilité réduite

Sicherheitsregeln für die Konstruktion und den Einbau von Aufzügen - Spezielle Aufzüge für den Personen- und Gütertransport - Teil 40: Treppenschrägaufzüge und Plattformaufzüge mit geneigter Fahrbahn für Behinderte

This European Standard was approved by CEN on 25 July 2008.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 81-40:2008: E

Contents

Page

Foreword

This document (EN 81-40:2008) 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 April 2009, and conflicting national standards shall be withdrawn at the latest by April 2009.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA and B, 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard is a Type C standard as stated in EN ISO 12100.

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

The stairlifts defined in this European Standard are suitable for type A and type B wheelchairs as defined in EN 12183 and/or EN 12184.

When provisions of this type C standard are different from those which are stated in type A and type 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.

Assumptions

With the aim of clarifying the intentions of the standard and avoiding doubts when reading it, the following assumptions were made when producing it:

a) components without specific requirements are:

   1) designed in accordance with the usual engineering practice and calculation codes, including all failure modes;

   2) of sound mechanical and electrical construction;

b) general electrical hazards are dealt with according to B level electrical safety standards;

c) components are kept in good repair and working order, in accordance with the maintenance manual, so that the required characteristics remain despite wear;

d) by design of the load bearing elements, a safe operation of the machine is assured throughout the entire maximum working load range;

e) a mechanical device built according to good practice and the requirements of the standard, will not deteriorate to a point of creating a hazard without the possibility of detection;

f) to ensure the safe functioning, the operating temperature range of the equipment has to take into account the conditions of the place of use of the machinery, inside the range of ambient temperature between 0 °C and +40 °C.

Negotiation occurs between the manufacturer (the person applying the CE mark) and the user concerning the specificity of the use and places of use of the stairlift:

g) suitability for user (see Annex C);

h) the place of installation allows a safe use for the machine;

i) any additional fire protection requirements.

1 Scope

1.1 This European Standard deals with safety requirements for construction, manufacturing, installation, maintenance and dismantling of electrically operated stairlifts (chair, standing platform and wheelchair platform) affixed to a building structure, moving in an inclined plane and intended for use by persons with impaired mobility:

— travelling over a stair or an accessible inclined surface;

— intended for use by one person;

— whose carriage is directly retained and guided by a guide rail or rails;

— supported or sustained by rope (5.4.4), rack and pinion (5.4.5), chain (5.4.6), screw and nut (5.4.7), friction traction drive (5.4.8), and guided rope and ball (5.4.9).

1.2 The standard identifies hazards as listed in Clause 4 which arise during the various phases in the life of such equipment and describes methods for the elimination or reduction of these hazards when used as intended by the manufacturer.

1.3 This European standard does not specify the additional requirements for:

— operation in severe conditions (e.g. extreme climates, strong magnetic fields);

— lightning protection;

— operation subject to special rules (e.g. potentially explosive atmospheres);

— handling of materials the nature of which could lead to dangerous situations;

— use of energy systems other than electricity;

— hazards occurring during manufacture;

— earthquakes, flooding, fire;

— type C wheelchairs as defined in EN 12183 and/or EN 12184;

— evacuation during a fire;

— stairlifts for goods only;

— concrete, hardcore, timber or other foundation or building arrangement;

— design of anchorage bolts to the supporting structure.

NOTE For the actual type of machinery, noise is not considered a significant nor relevant hazard.

1.4 This document is not applicable to power operated stairlifts which are manufactured before the date of publication of this document by CEN.