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Standards

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

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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 : Ascenseurs 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.

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Contents

Page

Foreword.....	4
1 Scope	6
2 Normative references	7
3 Terms and definitions	8
4 List of significant hazards	10
5 Safety requirements and/or protective measures	14
5.1 General.....	14
5.1.1 Introduction	14
5.1.2 Pattern of use	14
5.1.3 Access for maintenance, repair and inspection.....	14
5.1.4 Fire resistance.....	15
5.1.5 Rated speed.....	15
5.1.6 Rated load.....	16
5.1.7 Resistance to operating forces	17
5.1.8 Protection of equipment against harmful external influences.....	17
5.1.9 Guarding of equipment from mechanical damage.....	17
5.2 Guide rails and mechanical stops.....	18
5.2.1 Guide rails	18
5.2.2 Folding guide rails	18
5.2.3 Stairlift guide rail.....	18
5.2.4 Rail design.....	18
5.3 Safety gear and overspeed detection device.....	18
5.3.1 General.....	18
5.3.2 Control	19
5.3.3 Release	19
5.3.4 Access for inspection	19
5.3.5 Electrical checking	19
5.3.6 Overspeed detection device	19
5.3.7 Rotation monitor unit	19
5.3.8 Safety nut.....	20
5.4 Driving units and drive system	20
5.4.1 General requirements.....	20
5.4.2 Braking system	21
5.4.3 Emergency/manual operation	21
5.4.4 Additional requirements for rope suspension drive	22
5.4.5 Additional requirements for rack and pinion drive	23
5.4.6 Additional requirements for chain suspension drive	24
5.4.7 Additional requirements for screw and nut drive.....	24
5.4.8 Additional requirements for friction/traction drive	25
5.4.9 Additional requirements for guided rope and ball drive.....	25
5.5 Electrical installation and equipment	26
5.5.1 General.....	26
5.5.2 Drive contactors.....	28
5.5.3 Motor and brake circuits for stopping the machine and checking its stopped condition	28
5.5.4 Creepage and clearance distances and enclosure requirements	29
5.5.5 Protection against electrical faults	29
5.5.6 Electric safety devices	30
5.5.7 Time delay	31
5.5.8 Protection of the driving motor	31
5.5.9 Electrical wiring	31
5.5.10 Safety circuits	32
5.5.11 Residual current devices	33
5.5.12 Additional requirements for battery powered operation	33

5.5.13	Cableless controls.....	34
5.5.14	Control devices.....	34
5.5.15	Terminal limit switches and final limit electric safety devices	35
5.5.16	Emergency alarm devices and warning signals	36
5.5.17	Socket outlet	36
5.6	Carriage	36
5.6.1	Combined type of carriage	36
5.6.2	Chair.....	37
5.6.3	Carriage with standing platform	39
5.6.4	Carriage with wheelchair platform.....	40
6	Verification of safety requirements and/or protective measures	43
6.1	General	43
6.2	Verification of design	43
6.3	Examinations and tests before putting into service	45
6.4	Verification tests on each machine before first use	45
7	Information for use	45
7.1	General	45
7.2	Signals and warning devices	46
7.3	Accompanying documents (in particular: Instruction handbook)	46
7.3.1	General	46
7.4	Marking.....	47
7.4.1	Carriage	47
7.4.2	Emergency alarm device	48
7.4.3	Disabled persons symbol.....	48
7.4.4	Emergency manual operation	48
7.5	The additional information given to the installer	48
7.5.1	Dedicated electrical supply	48
Annex A	(normative) Verification type tests for overspeed detection device and safety gear	49
A.1	Instruments	49
A.2	Safety gear and overspeed detection device	49
A.2.1	General provisions	49
A.2.2	Method of test.....	49
A.2.3	Test report.....	50
Annex B	(normative) Electronic components: failure exclusion	51
Annex C	(informative) Guidance in selection of stairlifts	60
C.1	Introduction.....	60
C.2	Selection of stairlift	60
C.2.1	Suitability.....	60
C.2.2	Control devices.....	60
C.2.3	Location of the stairlift.....	60
C.2.4	Duty cycle.....	60
C.3	Electrical supply and lighting	61
C.4	Maintenance	61
C.5	Alarm system	61
Annex D	(informative) Recommendations for the provisions and use of specially adapted control devices, switches and sensors	62
D.1	Control devices.....	62
D.2	Specially adapted switches	62
Annex E	(informative) In-use periodic examination, tests and servicing	63
E.1	Periodic examinations and tests	63
E.2	Servicing.....	63
Annex ZA	(informative) Relationship between this European Standard and the Essential Requirements of the EU Directive 98/37EC	64
Annex ZB	(informative) Relationship between this European Standard and the Essential Requirements of the EU Directive 2006/42/EC	65
Bibliography	66

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.

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