MALAYSIAN STANDARD

MS EN 81-20:2017

Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts
(Second revision)

ICS: 91.140.90

Descriptors: lifts, building codes, installation, lifts cars, landing doors, lift wells, compensating ropes, shock absorbers, machine rooms, electrical installations, safety, stopping and locking devices

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Committee representation

The Industry Standards Committee on Mechanical Engineering (ISC F) under whose authority this Malaysian Standard was adopted, comprises representatives from the following organisations:

Department of Occupational Safety and Health Malaysia
Department of Standards Malaysia
Jabatan Kerja Raya Malaysia
Machinery and Equipment Manufacturers' Association
Malaysian Investment Development Authority
Malaysian Iron and Steel Industry Federation
Ministry of International Trade and Industry
National Institute of Occupational Safety and Health
Petroliam Nasional Berhad
Science and Technology Research Institute for Defence
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd
Suruhanjaya Perkhidmatan Air Negara
Suruhanjaya Tenaga
The Institution of Engineers, Malaysia
Universiti Kebangsaan Malaysia
Universiti Malaya
Universiti Sains Malaysia
Universiti Teknologi Malaysia

The Technical Committee on Lifting Devices which supervised the adoption of the EN Standard as Malaysian Standard consists of representatives from the following organisations:

Bekaert
Construction Industry Development Board Malaysia
Department of Occupational Safety and Health Malaysia
Favelle Favco Cranes (M) Sdn Bhd
IKRAM QA Services Sdn Bhd
IQRAMXPERT Sdn Bhd
MS Elevator Engineering Sdn Bhd
Northport (Malaysia) Berhad
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd (Testing Services Department - Civil and Construction Section)
Tenaga Nasional Berhad (Bahagian Penghantaran)
The Institution of Engineers, Malaysia
Top Safe OSH Training Solution
Top Slings Trading Sdn Bhd
Universiti Kebangsaan Malaysia

The Working Group on Lifts and Escalators which recommended the adoption of the EN Standard as Malaysian Standard consists of representatives from the following organisations:

Access Elevators Sdn Bhd
Department of Occupational Safety and Health Malaysia
Dover Elevators (M) Sdn Bhd
EITA Elevator (M) Sdn Bhd
Fuji HD Elevator Sdn Bhd
Fujitec (Malaysia) Sdn Bhd
Hyundai Elevator Sales & Services Sdn Bhd
KONE Elevator (M) Sdn Bhd
Mitsubishi Elevator (M) Sdn Bhd
MS Elevator Engineering Sdn Bhd
Niche Elevators Sdn Bhd
Otis Elevator Company (M) Sdn Bhd
SIRIM Berhad (Secretariat)
Soon SL Enterprise
The Institution of Engineers, Malaysia
ThyssenKrupp Elevator (M) Sdn Bhd
Titi Maju Sdn Bhd
Trident Quantum Sdn Bhd

National foreword

The adoption of the EN Standard as a Malaysian Standard was recommended by the Working Group on Lifts and Escalators under the authority of the Industry Standards Committee on Mechanical Engineering.

This Malaysian Standard is identical with EN 81-20:2014, *Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts,* published by the European Committee for Standardization (CEN) with the exceptions as listed below:

a) in the source text, "this European Standard" should read "this Malaysian Standard";

b) the comma which is used as a decimal sign (if any), to read as a point;

c) 5.4.6.1, the note to read as 'when space allows a trap door of 0,50 m x 0,70 m is preferable'. This changes was made because the error to the unit of measurement; and

d) Clause Annex F.5 a) to read as 'there shall be a clear distance of 150 mm minimum between back of any rung and wall of the pit in the of vertical ladder'. This changes was made because of the inconsistency with 5.2.2.5 d).

This Malaysian Standard cancels and replaces MS EN 81-1:2012, *Safety rules for the construction and installation of lifts - Part 1: Electric lifts (First revision)* and MS 2021:Part 2:2007, *Safety rules for the construction and installation of lifts - Part 2: Hydraulic lifts.*

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 81-20

August 2014

ICS 91.140.90

Supersedes EN 81-1:1998+A3:2009, EN 81-2:1998+A3:2009

English Version

Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts

Règles de sécurité pour la construction et l'installation des élévateurs - Elévateurs pour le transport de personnes et d'objets - Partie 20: Ascenseurs et ascenseurs de charge

Sicherheitsregeln für die Konstruktion und den Einbau von Aufzügen - Aufzüge für den Personen- und Gütertransport - Teil 20: Personen- und Lastenaufzüge

This European Standard was approved by CEN on 28 May 2014.

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
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 81-20:2014 E

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Foreword

This document (EN 81-20:2014) 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 2015 and conflicting national standards shall be withdrawn at the latest by August 2017.

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, in conjunction with EN 81-50:2014, supersedes EN 81-1:1998+A3:2009 and EN 81-2:1998+A3:2009.

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 the culmination of the progressive development of the EN standards for lifts. Previous versions of the EN 81-1 and EN 81-2 standards incorporated into EN 81-20 and EN 81-50 include:

— EN 81-1:1985, Safety rules for electric lifts

— EN 81-1:1998, Safety rules for electric lifts

— EN 81-1:1998, Corrigendum No 1:1999;

— EN 81-1:1998/A1:2005, incorporating programmable electronic system in safety related applications for lifts;

— EN 81-1:1998/A2:2004, incorporating machine-room-less lifts;

— EN 81-1:1998+A3:2009, Incorporating unintended car movement with open doors;

— EN 81-2:1987, Safety rules for hydraulic lifts

— EN 81-2:1998, Safety rules for hydraulic lifts

— EN 81-2:1998, Corrigendum No 1:1999;

— EN 81-2:1998/A1:2005, incorporating programmable electronic system in safety related applications for lifts;

— EN 81-2:1998/A2:2004, incorporating machine-room-less lifts;

— EN 81-2:1998+A3:2009, incorporating unintended car movement with open doors.

This is the first edition of the standard. The need for replacement was based on the following points:

— improvement in safety due to changes in proven technology;

— the need to reflect changes to the state of the art;