



SLOVENSKI STANDARD

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Nadomešča:
SIST EN 1909:2005

Varnostne zahteve za žičniške naprave za prevoz oseb - Izpraznitev in reševanje

Safety requirements for cableway installations designed to carry persons - Recovery and evacuation

Sicherheitsanforderungen für Seilbahnen für den Personenverkehr - Räumung und Bergung

Prescriptions de sécurité pour les installations à câbles transportant des personnes - Récupération et évacuation

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45.100

Oprema za žičnice

Cableway equipment

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1909

January 2017

ICS 45.100

Supersedes EN 1909:2004

English Version

Safety requirements for cableway installations designed to carry persons - Recovery and evacuation

Prescriptions de sécurité pour les installations à câbles
transportant des personnes - Récupération et
évacuation

Sicherheitsanforderungen an Seilbahnen für den
Personenverkehr - Räumung und Bergung

This European Standard was approved by CEN on 24 November 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.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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European foreword

This document (EN 1909:2017) has been prepared by Technical Committee CEN/TC 242 "Safety requirements for cableway installations designed to carry persons", 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, by July 2017 at the latest, and all conflicting national standards shall be withdrawn no later than July 2017.

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

This document supersedes EN 1909:2004.

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 2000/9/EC.

For the relationship with EU Directive 2000/9/EC, see informative Annex ZA, which is an integral part of this document.

The most significant changes compared to the previous edition of EN 1909 are as follows:

- For Subclause 5.2.2 Danger factors: the factor "incompetence, unfitness, inattention or failure of those involved in evacuation operations" has been replaced by "human failure".
- For Subclause 7.2 Transmission of information: addition of a requirement in the event that landline telephones are used in tunnels.
- For numbered entry 9.1.6: addition of a recommendation concerning the management of lighting and the precautions to be taken against fire.
- For Subclause 9.6.3: Use of helicopters: change of approach. The previous version of the standard defined precisely the methods and resources to be implemented (which did not always correspond to field practices). The new version of the standard only indicates the need for prior consultation between the cableway operator and the organisation responsible for the helicopter.
- For Annex ZA (informative), Relationship between this European Standard and the Essential Requirements of EU Directive 2000/9/EC relating to cableway installations designed to carry persons: addition of two essential requirements of the Directive (4.4 and 7.3.2) in view of Clause 9.

This document forms part of the standards programme approved by the CEN Technical Board on safety requirements for cableway installations designed to carry persons. This programme comprises the following standards:

- EN 1907, *Safety requirements for cableway installations designed to carry persons – Terminology*;
- EN 12929 (all parts), *Safety requirements for cableway installations designed to carry persons – General requirements*;
- EN 12930, *Safety requirements for cableway installations designed to carry persons – Calculations*;

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- EN 12927 (all parts), *Safety requirements for cableway installations designed to carry persons – Ropes*;
- EN 1908, *Safety requirements for cableway installations designed to carry persons – Tensioning devices*;
- EN 13223, *Safety requirements for cableway installations designed to carry persons – Drive systems and other mechanical equipment*;
- EN 13796 (all parts), *Safety requirements for cableway installations designed to carry persons – Carriers*;
- EN 13243, *Safety requirements for cableway installations designed to carry persons – Electrical equipment other than for drive systems*;
- EN 13107, *Safety requirements for cableway installations designed to carry persons – Civil engineering works*;
- EN 1709, *Safety requirements for cableway installations designed to carry persons – Pre-commissioning inspection, maintenance and operational inspection and checks*;
- EN 1909, *Safety requirements for cableway installations designed to carry persons – Recovery and evacuation*;
- EN 12397, *Safety requirements for cableway installations designed to carry persons – Operation*;
- EN 12408, *Safety requirements for cableway installations designed to carry persons – Quality assurance*

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This series of standards forms a complete set dealing with the design, manufacture, construction, maintenance and operation of all cableway installations designed to carry persons.

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

1 Scope

This European Standard specifies the safety requirements applicable to the recovery of carriers and the evacuation of passengers from cableway installations designed to carry persons, with the exception of ski-tows. This standard is applicable to various types of installations and takes into account their environment.

It establishes the requirements relating to the methods and equipment to be used to ensure the safety of passengers on cableways in the event of extended stoppage of the installation.

It covers only the situation resulting from immobilization of the carriers, even if the passengers are not in immediate danger.

It does not cover specific operations resulting from an accident.

It includes requirements relating to the prevention of accidents and to worker protection, without affecting the application of national requirements relating to construction law or statutory law, or to the protection of specific groups of people. It does not apply to installations for the transportation of goods by rope or to lifts.

It does not deal with design requirements for carriers.

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 1709, *Safety requirements for cableway installations designed to carry persons - Precommissioning inspection, maintenance, operational inspection and checks*

EN 1907, *Safety requirements for cableway installations designed to carry persons - Terminology*

EN 1908, *Safety requirements of cableway installations designed to carry persons - Tensioning devices*

EN 12397, *Safety requirements for cableway installations designed to carry persons - Operation*

EN 12408, *Safety requirements for cableway installations designed to carry persons - Quality assurance*

EN 12927 (all parts), *Safety requirements for cableway installations designed to carry persons - Ropes*

EN 12929 (all parts), *Safety requirements for cableway installations designed to carry persons - General requirements*

EN 12930, *Safety requirements for cableway installations designed to carry persons - Calculations*

EN 13107, *Safety requirements for cableway installations designed to carry persons - Civil engineering works*

EN 13223, *Safety requirements for cableway installations designed to carry persons - Drive systems and other mechanical equipment*

EN 13243, *Safety requirements for cableway installations designed to carry persons - Electrical equipment other than for drive systems*

EN 13796 (all parts), *Safety requirements for cableway installations designed to carry persons - Carriers*

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EN 60268-5, *Sound system equipment – Part 5: Loudspeakers (IEC 60268-5)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1907 apply.

4 Symbols and abbreviations

This document does not include either symbols or abbreviations.

5 General requirements**5.1 Application of this standard**

The requirements of this European Standard apply to all cableway installations together with those of standards EN 1709, EN 1908, EN 12397, EN 12408, EN 12927 (all parts), EN 12929 (all parts), EN 12930, EN 13223, EN 13243, EN 13107 and EN 13796 (all parts).

5.2 Safety principles**5.2.1 General**

The safety principles set out in EN 12929-1 apply.

In addition, the following hazard scenarios and safety measures relative to the scope of this document are to be taken into consideration.

5.2.2 Hazard scenarios

The following events may lead to hazardous situations which may be avoided or reduced by the safety requirements of this document:

- prolonged exposure of persons to bad weather conditions, for example, wind, cold, heat, etc.;
- prolonged immobilization;
- human error;
- non-existence or inadequacy of organization;
- unsuitable, inadequate or improperly used equipment;
- unreasonable behaviour of the passengers;
- lack of self-sufficiency of the passengers.

5.2.3 Safety measures

In order to prevent or reduce the risks arising from the hazard scenarios mentioned in 5.2.2, the following safety measures shall be taken.

All cableways shall be designed, constructed and operated in such a way that, in the event of extended stoppage, it is possible to inform the passengers quickly and to ensure their return to safety within a reasonable time, without compromising their safety or the safety of the evacuation personnel.

In such circumstances, the carriers shall preferably be recovered. Failing this, the passengers shall be evacuated in accordance with the provisions of the previously established evacuation plan.

6 General requirements for recovery and evacuation

In the event of the installation being immobilized for a prolonged period of time, the head of operations shall inform and reassure the passengers.

Within half an hour of stoppage, the head of operations shall:

- either start recovery of the carriers;
- or initiate the evacuation of the passengers.

The head of operations may, however:

- defer the starting of passenger evacuation if he is sure he will be able to implement the recovery of the carriers under the prevailing circumstances;
- continue with preparations for recovery of the carriers while the evacuation of the passengers is in progress and interrupt the latter when recovery of the carriers becomes possible.

The anticipated total duration of all the operations specified in the evacuation plan shall not exceed 3 h and 30 min. If the safety analysis indicates that a shorter duration is needed, this should be taken into account.

In the event that the number of operating personnel is insufficient to ensure compliance with the scheduled evacuation time, the controller shall make contracts with separate persons or organizations such as the fire service, mountain rescue teams.

The total duration shall be counted from the immobilization of the installation to the arrival at a place of safety of the last evacuated passenger. The controller shall, as necessary, provide assistance for the passengers until they are able to proceed unaided. The evacuation plan shall, if necessary, contain information relating to this.

7 Requirements for informing the passengers

7.1 Information content

Passenger information consists of:

- notifying them of the situation;
- informing them of the progress of the operations undertaken to resolve the situation;
- telling them what they need to do.

It should also include the anticipated maximum period of immobilization.

This information shall be repeated at regular intervals.

7.2 Transmission of the information

This information is transmitted in particular:

- from the ground by the personnel appointed to do this, equipped if necessary with megaphones;
- by loudspeakers on the line structures;
- by sound systems in the carriers;