

**Ohutusnõuded inimeste
transportimiseks mõeldud
köisteepaigaldistele. Ajamisüsteemid ja
muud mehaanilised seadmed**

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13223:2004 sisaldab Euroopa standardi EN 13223:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 21.12.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13223:2004 consists of the English text of the European standard EN 13223:2004.</p> <p>This document is endorsed on 21.12.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard specifies safety requirements for the mechanical and electrical devices of the drive system and other mechanical devices for cableway installations designed to carry persons. This standard is applicable to the various types of installations and takes into account their environment.</p>	<p>Scope:</p> <p>This European Standard specifies safety requirements for the mechanical and electrical devices of the drive system and other mechanical devices for cableway installations designed to carry persons. This standard is applicable to the various types of installations and takes into account their environment.</p>
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Võtmesõnad:

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English version

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

Prescriptions de sécurité pour les installations à câbles transportant des personnes - Entraînements et autres dispositifs mécaniques

Sicherheitsanforderungen für Seilbahnen für den Personenverkehr - Antriebe und weitere mechanische Einrichtungen

This European Standard was approved by CEN on 23 August 2004.

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Foreword

This document (EN 13223:2004) has been prepared by Technical Committee CEN/TC 242 "Safety requirements for passenger transportation by rope", 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 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

This document contains a bibliography.

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:

- 1) Safety requirements for cableway installations designed to carry persons – Terminology.
- 2) Safety requirements for cableway installations designed to carry persons - General requirements.
- 3) Safety requirements for cableway installations designed to carry persons – Calculations.
- 4) Safety requirements for cableway installations designed to carry persons – Ropes.
- 5) Safety requirements for cableway installations designed to carry persons - Tensioning devices.
- 6) Safety requirements for cableway installations designed to carry persons – Drive systems and other mechanical devices.
- 7) Safety requirements for cableway installations designed to carry persons – Carriers.
- 8) Safety requirements for cableway installations designed to carry persons – Electrical installations apart from drive systems.
- 9) Safety requirements for cableway installations designed to carry persons - Civil engineering works.
- 10) Safety requirements for cableway installations designed to carry persons – Pre-commissioning inspection, maintenance and operational inspection and checks.
- 11) Safety requirements for cableway installations designed to carry persons – Recovery and evacuation.
- 12) Safety requirements for cableway installations designed to carry persons – Operation.
- 13) Safety requirements for cableway installations designed to carry persons - Quality assurance.

Together these form a series of standards regarding design, production, maintenance and operation of all installations for cableway installations designed to carry persons.

In respect of ski-tows, the drafting of this document has been guided by the works of the International Organisation for transportation by rope (OITAF).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania,

Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This document specifies safety requirements for the mechanical and electrical devices of the drive system and other mechanical devices for cableway installations designed to carry persons. This standard is applicable to the various types of installations and takes into account their environment.

This document applies to the design, production, installation, maintenance and operation of the mechanical and electrical devices of the drive system and other mechanical devices for cableway installations designed to carry persons.

It includes requirements relating to the prevention of accidents and protection for workers.

It does not apply to installations for the transportation of goods, nor to inclined lifts.

Clauses 6 to 11 apply to the mechanical and electrical devices of the drive system.

Clauses 12 to 20 apply to other mechanical devices.

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 288, *Specification and approval of welding procedures for metallic materials*.

EN 1709, *Safety requirements for cableway installations designed to carry persons – Pre-commissioning inspection, maintenance and operational checks*.

prEN 1907:2004, *Safety requirements for passenger transportation by rope – Terminology*.

EN 1908:2004, *Safety requirements for cableway installations designed to carry persons - Tensioning devices*.

EN 1909, *Safety requirements for cableway installations designed to carry persons - Recovery and evacuation*.

ENV 1993-1-1, *Eurocode 3: Design of steel structures – Part 1-1: General – General rules and rules for buildings*.

EN 10025, *Hot-rolled products of non alloy structural steels - Technical delivery conditions*.

EN 10083, *Quenched and tempered steels*.

EN 10204, *Metallic materials - Types of inspection documents*.

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 12927-1, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 1: Selection criteria for ropes and their end fixings*.

EN 12927-2, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 2: Safety factors*.

EN 12927-3, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 3: Long splicing of 6 strand hauling, carrying-hauling and towing ropes*.

EN 12927-4, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 4 : End fixing.*

EN 12927-5, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 5: Storage, transportation, installation and tensioning.*

EN 12927-6, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 6: Discard criteria.*

EN 12927-7, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 7: Calculation, repair and maintenance.*

EN 12927-8, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 8: Magnetic rope testing (MRT).*

EN 12929-1:2004, *Safety requirements for cableway installations designed to carry persons - General requirements - Part 1: Requirements applicable to all installations.*

EN 12929-2, *Safety requirements for cableway installations designed to carry persons - General provisions - Part 2: Additional requirements for reversible bicable aerial ropeways without carrier truck brakes.*

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 13243:2004, *Safety requirements for cableway installations designed to carry persons - Electrical installations apart from drive systems.*

prEN 13796-1, *Safety requirements for cableway installations designed to carry persons - Carriers - Part 1 : Grips, carrier trucks, on-board brakes, cabins, chairs, carriages, maintenance carriers, tow-hangers.*

prEN 13796-2, *Safety requirements for cableway installations designed to carry persons - Carriers - Part 2 : Slipping resistance tests for grips.*

prEN 13796-3, *Safety requirements for cableway installations designed to carry persons - Carriers - Part 3 : Fatigue testings.*

EN 20898, *Mechanical properties of fasteners.*

EN ISO 5817, *Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) - Quality levels for imperfections (ISO 5817:2003).*

ISO 185, *Grey cast iron – Classification.*

ISO 1083, *Spheroidal graphite cast iron - Classification.*

ISO 6336, *Calculation of load capacity of spur and helical gears.*