

**Ohutusnõuded inimeste
transportimiseks mõeldud
köistepaigaldistele. Köied. Osa 7:
Kontrollimine, parandamine ja
hooldamine**

Safety requirements for cableway installations
designed to carry persons - Ropes - Part 7:
Inspection, repair and maintenance

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12927-7:2004 sisaldab Euroopa standardi EN 12927-7:2004 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 12927-7:2004 consists of the English text of the European standard EN 12927-7:2004.</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>
--	---

<p>Käsitlusala:</p> <p>This part of EN 12927 specifies the safety requirements applicable to maintaining, inspecting and repairing steel wire ropes and their related for installations passenger transportation by rope. It is essential to meet its requirements taking into account the various types of installations systems and their environment. Some requirements concern synthetic ropes. Requirements relating to the protection of workers are not included in this part of EN 12927. This part does not apply to installations for transportation of goods, nor to inclined lifts.</p>	<p>Scope:</p> <p>This part of EN 12927 specifies the safety requirements applicable to maintaining, inspecting and repairing steel wire ropes and their related for installations passenger transportation by rope. It is essential to meet its requirements taking into account the various types of installations systems and their environment. Some requirements concern synthetic ropes. Requirements relating to the protection of workers are not included in this part of EN 12927. This part does not apply to installations for transportation of goods, nor to inclined lifts.</p>
--	--

ICS 45.100

Võtmesõnad:

ICS 45.100

English version

Safety requirements for cableway installations designed to carry persons - Ropes - Part 7: Inspection, repair and maintenance

Prescriptions de sécurité pour les installations à câbles transportant des personnes - Câbles - Partie 7 : Contrôle, réparation et entretien

Sicherheitsanforderungen für Seilbahnen und Schleppaufzüge des Personenverkehrs - Seile; Teil 7: Inspektion, Reparatur, Wartung

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

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

Contents

	Page
Foreword	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 General requirements	7
4.1 Application of this standard	7
4.2 Safety principles	7
5 Maintenance	8
5.1 General	8
5.2 Rope cleaning or dressing	8
5.3 Relocation of track ropes and fixed grips	8
5.4 End fixing	9
5.5 Shortening of rope loops	9
5.6 End fixing of towing cords	9
6 Inspection	10
6.1 General	10
6.2 Periodical inspection	10
6.3 Extraordinary inspections	10
6.4 Visual annual inspection	10
6.5 Measurement	11
6.6 Magnetic MRT inspection	11
6.7 Ray inspection	11
6.8 Interpretation	11
6.9 Personnel requirements	11
6.10 Inspection report	12
7 Repair	13
7.1 General provisions	13
7.2 Stranded rope	13
7.3 Locked coil rope	13
8 Rope re-use	14
Table 1 — Carrying rope	15
Table 2 — Carrying hauling rope & hauling rope	16
Table 3 — Other ropes	17
Annex A (informative) A—deviations	18
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	19
Table ZA — Correspondence between this European Standard and Directive 2000/9/EC relating to cableway installations designed to carry persons	19

Foreword

This document (EN 12927-7:2004) 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 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 EN 12927 consists of the following parts, under the general title "*Safety requirements for cableway installations designed to carry persons – Ropes*":

- *Part 1: Selection criteria for ropes and their end fixings*
- *Part 2: Safety factors*
- *Part 3: Long splicing of 6 strand hauling, carrying hauling and towing ropes*
- *Part 4: End fixings*
- *Part 5: Storage, transportation, installation and tensioning*
- *Part 6: Discard criteria*
- *Part 7: Inspection, repair and maintenance*
- *Part 8: Magnetic rope testing (MRT)*

This European Standard forms part of the standards programme adopted by the CEN Technical Board (CEN/BT) in relation to safety requirements for passenger transportation by rope.

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 equipment*
- 7) *Safety requirements for cableway installations designed to carry persons - Carriers*
- 8) *Safety requirements for cableway installations designed to carry persons - Electrical equipment other than for 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, manufacture, production, maintenance and operation of all installations for passenger transportation by rope.

In respect of ski-tows the drafting of this European Standard 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 United Kingdom.

1 Scope

This part of EN 12927 specifies the safety requirements applicable to maintaining, inspecting and repairing steel wire ropes and their related installations for passenger transportation by rope. It is essential to meet its requirements taking into account the various types of installation systems and their environment.

Some requirements concern synthetic ropes.

Requirements relating to the protection of workers are not included in this part of EN 12927.

This part does not apply to installations for transportation of goods, nor to inclined lifts.

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 444, *Non-destructive testing - General principles for radiographic examination of metallic materials by X- and gamma rays.*

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

prEN 1907:2004, *Safety requirements for cableway installations designed to carry persons – Terminology.*

EN 1908, *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.*

EN 12385-1, *Steel wire ropes - Safety - Part 1: General requirements.*

EN 12385-2:2002, *Steel wire ropes - Safety - Part 2: Definitions, designation and classification.*

EN 12385-3, *Steel wire ropes - Safety - Part 3: Information for use and maintenance.*

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 fixings.*

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

EN 12929-1, *Safety requirements for passenger transportation by rope - General requirements - Part 1: Requirements for all installations.*

EN 12929-2, *Safety requirements for cableway installations designed to carry persons – General requirements – 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 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.*

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 testing.*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 1907:2004 and in EN 12385-2:2002 and the following apply.

3.1

rope dressing

any product applied to the rope in service in order to protect it against internal wear, corrosion or both