

TERASTRAADIST TROSSID. OHUTUS. OSA 3: KASUTUS-
JA HOOLDUSTEAVE

Steel wire ropes - Safety - Part 3: Information for use
and maintenance

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12385-3:2020 sisaldab Euroopa standardi EN 12385-3:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 12385-3:2020 consists of the English text of the European standard EN 12385-3:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.12.2020.	Date of Availability of the European standard is 09.12.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 77.140.65

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 12385-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2020

ICS 77.140.65

Supersedes EN 12385-3:2004+A1:2008

English Version

Steel wire ropes - Safety - Part 3: Information for use and maintenance

Câbles en acier - Sécurité - Partie 3 : Informations pour l'utilisation et la maintenance

Drahtseile aus Stahldraht - Sicherheit - Teil 3: Informationen für Gebrauch und Instandhaltung

This European Standard was approved by CEN on 18 October 2020.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 List of significant hazards	7
5 Safety instructions and information for use and maintenance.....	7
5.1 General.....	7
5.2 Use and maintenance.....	7
5.3 Rope selection	7
5.4 Material health and safety information on steel wire rope and its component parts	7
Annex A (informative) Example of general information for use and maintenance	8
A.1 Limitations on use due to adverse environmental conditions	8
A.1.1 Temperature.....	8
A.1.2 Use in exceptionally hazardous conditions	8
A.2 Before putting the rope into first use	9
A.2.1 Inspecting the rope and documents	9
A.2.2 Storing the rope	9
A.2.3 Checking the condition of rope related parts of the machine, equipment or installation.....	9
A.3 Handling and installing the rope.....	10
A.3.1 General.....	10
A.3.2 Rope supplied in a coil	10
A.3.3 Rope supplied on a reel.....	11
A.3.4 Cutting the rope	12
A.3.5 'Running in' the new rope	12
A.4 Maintenance.....	12
A.4.1 Inspecting and examining the rope	12
A.4.2 Lubricating the rope in service	13
Annex B (informative) Guidance on rope selection.....	14
B.1 Construction in relation to abrasion and wear	14
B.2 Type of core in relation to crushing of the rope at the drum	14
B.3 Wire finish in relation to corrosion.....	14
B.4 Direction of lay and type.....	15

B.4.1	Connecting ropes to each other (in series) or working alongside each other (in parallel).....	15
B.4.2	Direction of coiling.....	15
B.5	Rotational characteristics and use of a swivel.....	16
B.6	Fleet angle	17
Annex C (informative) Material health and safety information on steel wire rope and its component parts.....		20
C.1	Material.....	20
C.1.1	General	20
C.1.2	Fibre cores:	20
C.1.3	Filling and covering materials:	21
C.1.4	Manufacturing rope lubricants:	21
C.2	General information.....	22
C.2.1	Occupational protective measures:	22
C.2.2	Emergency medical procedures:.....	22
C.2.3	Safety information - fire or explosion hazard.....	22
C.2.4	Disposal.....	22
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered.....		23
Annex ZB (informative) Relationship between this European Standard and the essential requirements of Directive 2014/33/EU aimed to be covered		25
Bibliography		27

European foreword

This document (EN 12385-3:2020) has been prepared by Technical Committee CEN/TC 168 "Chains, ropes, webbing, slings and accessories - Safety", the secretariat of which is held by BSI.

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 June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12385-3:2004+A1:2008.

EN 12385-3:2020 incorporates editorial changes required as part of the compliance with the Lift Directive 2014/33/EU.

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 and Annex ZB, which are integral parts of this document.

The other Parts of this European standard are:

- Part 1: General requirements;
- Part 2: Definitions, designation and classification;
- Part 4: Stranded ropes for general lifting applications;
- Part 5: Stranded ropes for lifts;
- Part 6: Stranded ropes for mine shafts;
- Part 7: Locked coil ropes for mine shafts;
- Part 8: Stranded hauling and carrying-hauling ropes for cableway installations designed to carry persons;
- Part 9: Locked coil carrying ropes for cableway installations designed to carry persons;
- Part 10: Spiral ropes for general structural applications.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document is a type C standard as stated in EN ISO 12100.

This Part of this European standard has been prepared to support the other Parts of this standard that concern themselves with the particular requirements for steel wire ropes to be used in specific applications.

The types of ropes concerned and the extent to which hazards are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A and B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for information for use and maintenance according to the provisions of this type C standard.

1 Scope

This document specifies the type of information for use and maintenance of steel wire ropes to be provided by the rope manufacturer or to be included in the manufacturer's handbook that accompanies a machine, piece of equipment or installation of which the steel wire rope forms a part.

The particular hazards covered by this document are identified in Clause 4.

For steel wire ropes conforming to Parts 8 and 9 used on cableway installations designed to carry persons, additional information for use and maintenance is given in EN 12927.

For steel wire rope slings, specific information on use and maintenance is given in EN 13414-2.

This document is not applicable to steel wire ropes manufactured before the date of publication of this document by CEN.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12385-2:2002+A1:2008, *Steel wire ropes — Safety — Part 2: Definitions, designation and classification*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and EN 12385-2:2002+A1:2008 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1 inspection

routine visual check on the condition of the rope to identify obvious damage or deterioration which might affect its fitness for use

Note 1 to entry: Often performed on a daily basis before initial utilization of machine.

3.2 thorough examination

detailed external (and where possible, internal) examination of the rope carried out by a competent (trained and experienced) person at specific periodic time intervals as determined by national regulations

Note 1 to entry: Visual examination supplemented by other means, such as measurement or electro-magnetic non-destructive testing.