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Steel wire ropes - Safety - Part 1: General requirements

Câbles en acier - Sécurité - Partie 1: Prescriptions générales

Drahtseile aus Stahldraht - Sicherheit - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 12 November 2001 and includes Amendment 1 approved by CEN on 9 September 2008.

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Contents

		Page
Forew	vord	3
Introd	luction	4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	List of hazards	5
5	Safety requirements and/or measures	
6	Verification of safety requirements and/or measures	10
7	Information for use	13
Anne	x A (normative) Sampling and acceptance criteria for type testing of ropes produced in series	14
	x B (normative) Testing requirements for wires taken from the rope when specified in other Parts of this standard	
Anne	x ZA (informative)	19
	elationship between this European Standard and the Essential Requirements of EU Directive /EC 何	19
	x ZB (informative) 🗗 Relationship between this European Standard and the Essential irements of EU Directive 2006/42/EC 街	20
Biblio	ography	21

Foreword

This document (EN 12385-1:2002+A1:2008) 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of an identical text or by endorsement, at the latest by April 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document supersedes EN 12385-1:2002.

This document includes Amendment 1, approved by CEN on 2008-09-09.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

This European Standard 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 Annexes ZA and ZB, which are integral parts of this document. (A)

The other Parts of EN 12385 are:

Part 2: Definitions, designation and classification

Part 3: Information for use and maintenance

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

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Introduction

This Part of this European Standard has been prepared to support Parts 4 to 10 that concern themselves with the particular requirements for steel wire ropes for use in specific applications. It cannot, therefore, exist alone.

The ropes concerned and the extent to which hazards are covered for specific applications are indicated in the scopes of Parts 4 to 10.

1 Scope

This Part specifies the general requirements for the manufacture and testing of steel wire rope, whose particular requirements are specified in the other Parts.

Annex A gives the type testing regimes for rope produced in series.

Annex B gives the testing requirements for wires taken from the rope when specified in other Parts of this standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 292-2:1991/A1:1995, Safety of machinery — Basic concepts, general principles of design — Part 2: Technical principles and specifications.

EN 1050:1996, Safety of machinery – Principles for risk assessment.

EN 10204:1991, Metallic products — Types of inspection documents.

EN 10244-2, Steel wire and wire products – Non ferrous metallic coatings on steel wire – Part 2: Zinc or zinc alloy coatings.

EN 10264-1:2002, Steel wire and wire products — Steel wire for ropes — Part 1: General requirements.

EN 10264-2:2002, Steel wire and wire products – Steel wire for ropes – Part 2: Cold drawn non-alloyed steel wire for ropes for general applications.

EN 10264-3, Steel wire and wire products – Steel wire for ropes – Part 3: Cold drawn and cold shaped non-alloyed steel wire for heavy duty applications.

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

prEN 12385-3, Steel wire ropes — Safety — Part 3:Information of use and maintenance.

EN 13411-4:2002, Terminations for steel wire ropes — Safety — Part 4: Metal and resin socketing.

ISO 7500-1, Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system.

ISO 4345:1988, Steel wire ropes - Fibre main cores - Specification.

3 Terms and definitions

For the purposes of this part of EN 12385, the terms and definitions in part 2 of EN 12385 shall apply.

4 List of hazards

The release of a load due to failure of steel wire ropes puts at risk directly or indirectly the safety or health of those persons within the danger zone.