Terastraadist trosside otsmuhvid. Ohutus. Osa 3: Jätkuklemmid ja nende kindlustamine

Terminations for steel wire ropes - Safety - Part 3: Ferrules and ferrule-securing

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13411-3:2004 sisaldab Euroopa standardi EN 13411-3:2004 + AC:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 23.09.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13411-3:2004 consists of the English text of the European standard EN 13411-3:2004 + AC:2005. This document is endorsed on 23.09.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard deals with the requirements for the ferrule-securing of eyes and endless loops. It also deals with the requirements for ferrules for the ferrule-securing of eyes and endless loops. This European Standard applies to the ferrule-securing of eye terminations formed either by a Flemish eye or turnback eye and covers ferrules made of non alloy carbon steel and aluminium. This European Standard applies to slings and assemblies using steel wire ropes for general lifting applications up to and including 60mm diameter conforming to EN 12385-4, lift ropes conforming to EN 12385-5 and spiral strand ropes conforming to EN 12385-10.	**Scope:** This European Standard deals with the requirements for the ferrule-securing of eyes and endless loops. It also deals with the requirements for ferrules for the ferrule-securing of eyes and endless loops. This European Standard applies to the ferrule-securing of eye terminations formed either by a Flemish eye or turnback eye and covers ferrules made of non alloy carbon steel and aluminium. This European Standard applies to slings and assemblies using steel wire ropes for general lifting applications up to and including 60mm diameter conforming to EN 12385-4, lift ropes conforming to EN 12385-5 and spiral strand ropes conforming to EN 12385-10.

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Terminations for steel wire ropes - Safety - Part 3: Ferrules and ferrule-securing

Terminaisons pour câbles en acier - Sécurité - Partie 3: Manchons et boucles manchonnées

Endverbindungen für Drahtseile aus Stahldraht - Sicherheit - Teil 3: Pressklemmen und Verpressen

This European Standard was approved by CEN on 16 April 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.

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Contents

Foreword

This document (EN 13411-3:2004) 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 December 2004, and conflicting national standards shall be withdrawn at the latest by December 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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Annex A is informative.

EN 13411 consists of the following parts:

Part 1: Thimbles for steel wire rope slings

Part 2: Splicing of eyes for wire rope slings

Part 3: Ferrules and ferrule-securing

Part 4: Metal and resin socketing

Part 5: U-bolt wire rope grips

Part 6: Asymmetric wedge socket

Part 7: Symmetric wedge socket

This is the first edition of this Part of this European Standard.

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.

Introduction

This European Standard is a Type C Standard as stated in EN 1070

This European Standard has been prepared to provide a means of conforming with the essential requirements of the Machinery Directive and associated EFTA regulations.

Purchasers ordering to this standard are advised to specify in their purchasing contract that the supplier operates an independently verified quality assurance system to ensure themselves that products claimed to comply consistently achieve the required level of quality.

It is understood that type testing of a ferrule-secured eye termination system is the responsibility of the ferrule-secured eye termination system designer.

It is also understood that the ferrule supplier is responsible for ensuring that the material, design and quality of the ferrule is in accordance with the ferrule-secured eye system designer’s specification.

Ferrule-secured eyes manufactured by the ferrule-secured eye termination producer in accordance with this standard are permitted for use as rope terminations in the production of steel wire rope slings. They are also used as terminations for steel wire rope assemblies for raising, lowering and supporting loads.

The steel wire rope terminations concerned and the extent to which hazards, hazardous situations and events 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 or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for steel wire rope terminations that have been designed and produced according to the provisions of this type C standard.

1 Scope

This European Standard deals with the requirements for the ferrule-securing of eyes and endless loops.

It also deals with the requirements for ferrules for the ferrule-securing of eyes and endless loops.

This European Standard applies to the ferrule-securing of eye terminations formed either by a Flemish eye or turn-back eye and covers ferrules made of non alloy carbon steel and aluminium.

This European Standard applies to slings and assemblies using steel wire ropes for general lifting applications up to and including 60mm diameter conforming to EN 12385-4, lift ropes conforming to EN 12385-5 and spiral strand ropes conforming to EN 12385-10.

Type testing of ferrule-secured systems and manufacturing quality control requirements are also specified.

This European standard deals with all significant hazards, hazardous situations and events relevant to this particular steel wire rope termination when used as intended and under conditions of use which are foreseeable by the manufacturer.

This standard applies to terminations of steel wire ropes with ferrules and ferrule-securing which are manufactured after the date of this publication.

NOTE One design of ferrule-secured turn-back eye termination using an oval aluminium ferule which satisfies the requirements of this European Standard is given for information in annex A.

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 515, *Aluminium and aluminium alloys - Wrought products - Temper designations*

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

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 12385-4, *Steel wire ropes – Safety – Part 4: Stranded ropes for general lifting applications*

EN 12385-5, *Steel wire ropes – Safety – Part 5: Stranded ropes for lifts*

EN 12385-10, *Steel wire ropes – Safety – Part 10: Spiral ropes for general structural applications*

EN ISO 12100-2, *Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles (ISO 12100-2:2003)*