Terastraadist trosside otsmuhvid. Ohutus. Osa 2: Terastraadist trosside troppide avade jätkamine KONSOLIDEERITUD TEKST

Terminations for steel wire ropes - Safety - Part 2:
Splicing of eyes for wire rope slings CONSOLIDATED
TEXT



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13411-
2:2002+A1:2008 sisaldab Euroopa standardi
EN 13411-2:2001+A1:2008 ingliskeelset teksti.

This Estonian standard EVS-EN 13411-2:2002+A1:2008 consists of the English text of the European standard EN 13411-2:2001+A1:2008.

Standard on kinnitatud Eesti Standardikeskuse 10.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

This standard is ratified with the order of Estonian Centre for Standardisation dated 10.11.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.10.2008.

Date of Availability of the European standard text 22.10.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

ICS 21.060.70, 53.020.30

Võtmesõnad: cables, loops, performance testing, performance tests, properties, ropes, safety, safety requirements, slings, specifications, steel-wire ropes, terminating ferrules, testing, tests, wire rope, wire rope slings, wire ropes

Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

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

EUROPEAN STANDARD

EN 13411-2:2001+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2008

ICS 21.060.70; 53.020.30

Supersedes EN 13411-2:2001

English Version

Terminations for steel wire ropes - Safety - Part 2: Splicing of eyes for wire rope slings

Terminaisons pour câbles en acier - Sécurité - Partie 2: Epissures de boucles pour élingues en câble d'acier Endverbindungen für Stahldrahtseile - Sicherheit - Teil 2: Spleißen von Seilschlaufen für Anschlagseile

This European Standard was approved by CEN on 20 April 2001 and includes Amendment 1 approved by CEN on 18 September 2008.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, 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

	word	
ntro	ductionduction	
	Scope	4
2	Normative references	4
3	Terms and definitions	
Ļ	Hazards	5
able	e 1 — Hazards and associated requirements	5
;	Splicing operation	5
5.1	General	
5.2 5.3	Number of tucks required Direction of the load carrying tucks	
3 5.4	Ropes with a steel wire rope core	
5.5	Protruding wires	6
;	Verification of the safety requirements	6
5.1	Qualification of personnel	6
5.2	Number of tucks	
5.3	Direction of the tucks	6
.4	Ropes with a steel wire rope core	
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe	ean standard and the Essential
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe	ean standard and the Essential7 ean standard and the Essential8
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
Anne Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
Anne Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential7 ean standard and the Essential8
Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
Anne Anne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential
nne	ex ZA (informative) A Relationship between this Europe Requirements of EU Directive 98/37/EC 4ex ZB (informative) A Relationship between this Europe Requirements of EU Directive 2006/42/EC 4	ean standard and the Essential ean standard and the Essential

Foreword

This document (EN 13411-2:2001+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 13411-2:2001.

This document includes Amendment 1, approved by CEN on 2008-09-18.

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).

A) For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. (A)

The other Parts of this European Standard are:

- Part 1: Thimbles for steel wire rope slings
- Part 3: Ferrules and ferrule-securing
- Part 4: Metal and resin socketing
- Part 5: U-bolt wire rope gripped termination
- Part 6: Asymmetric wedge socket
- Part 7: Symmetric wedge socket

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

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

The method of splicing described in the standard is based on historical experience and will produce a termination having an efficiency of at least 80%.

Purchasers ordering to this standard are advised to specify in their purchasing contract that the supplier operates a certified quality assurance system applicable to the relevant Part of this standard (eg EN ISO 9001) to ensure themselves that products claiming to comply consistently achieve the required level of quality.

While producing this standard it was assumed that negotiation occurs between the manufacturer and the user to decide whether a spliced eye is required.

1 Scope

This standard specifies minimum requirements for the splicing of eye terminations for six or eight strand steel wire ropes of up to 60 mm diameter complying with prEN 12385-4 used for slings to ensure that the spliced eye is strong enough to withstand a force of at least 80 % of the minimum breaking load of the rope.

Other hazards covered by this standard are identified in clause 4. Resistance to fatigue loading is not considered to be a significant hazard for slings and is not covered by 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 (Amendment 1: 1995)

EN 1050:1996, Safety of machinery - Principles for risk assessment acceptance

prEN 12385-2, Steel wire ropes - Safety - Part 2: Classification, designation and definitions

3 Terms and definitions

For the purposes of this European Standard the terms and definitions given in prEN 12385-2 apply together with those given below.

3.1

spliced eye termination (hand-spliced)

loop or eye at the end of a rope made by tucking the ends of the strands back into the main body of the rope