# Terastraadist trosside otsmuhvid. Ohutus. Osa 1: Terastraadist trosside troppide ühendusmuhvid KONSOLIDEERITUD TEKST

Terminations for steel wire ropes - Safety - Part 1:
Thimbles for steel wire rope slings CONSOLIDATED
TEXT



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13411-1:2002+A1:2008 sisaldab Euroopa standardi EN 13411-1:2002+A1:2008 ingliskeelset teksti. This Estonian standard EVS-EN 13411-1:2002+A1:2008 consists of the English text of the European standard EN 13411-1:2002+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, performance testing, performance tests, properties, rope thimbles, ropes, safety, safety requirements, specifications, steel-wire ropes, terminating ferrules, testing, tests, thimbles, thimbles (ropes), wire rope, wire ropes

#### Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

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### **EUROPEAN STANDARD**

## EN 13411-1:2002+A1

# NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

October 2008

ICS 21.060.70; 53.020.30

Supersedes EN 13411-1:2002

#### **English Version**

## Terminations for steel wire ropes - Safety - Part 1: Thimbles for steel wire rope slings

Terminaisons pour câbles en acier - Sécurité - Partie 1: Cosses pour élingues en câbles d'acier Endverbindungen für Drahtseile aus Stahldraht - Sicherheit - Teil 1: Kauschen für Anschlagseile aus Drahtseilen

This European Standard was approved by CEN on 11 November 2001 and includes Amendment 1 approved by CEN on 18 September 2008

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

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#### **Foreword**

This document (EN 13411-1:2002+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 13411-1:2002.

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 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).

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 2: Splicing of eyes for steel wire rope slings

Part 3: Ferrule secured eyes

Part 4: Metal and resin socketing

Part 5: Wire rope grips for eyes

Part 6: Asymmetric wedge socket clevis

Part 7: Symmetric wedge socket clevis

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.

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 (e.g. 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 the thimble shall have a pointed or truncated end and whether zinc coating is required.

#### 1 Scope

This European Standard specifies the minimum requirements for non welded general purpose steel thimbles produced from plate having dimensions in accordance with Figure 1. The thimbles are intended to be used in slings made with six or eight strand steel wire ropes from 8 mm to 60 mm diameter complying with EN 12385-4.

Reeving thimbles and solid thimbles are not covered by this standard.

The hazards covered by this standard are identified in clause 4.

#### 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 for design - Part 2: Technical principles and specifications (Amendment 1:1995).

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

EN 10025, Specification for hot rolled products of non-alloy structural steels - Technical delivery conditions (includes amendment A1:1993).

EN 12385-1:2002, Steel wire ropes - Safety - Part 1: General requirements.

prEN 12385-2, Steel wire ropes – Safety - Part 2: Definitions, designation and classification.

EN 12385-4:2002, Steel wire ropes - Safety - Part 4: Stranded ropes for general lifting applications.

#### 3 Terms and definitions

For the purpose of this European Standard, the terms and definitions given in prEN 12385-2 together with the following apply.