# Terastraadist trosside otsmuhvid. Ohutus. Osa 2: Terastraadist trosside troppide avade jätkamine

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



## **EESTI STANDARDI EESSÕNA**

## **NATIONAL FOREWORD**

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

Käesolev dokument on jõustatud 16.01.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

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

This document is endorsed on 16.01.2002 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 standard specifies minimum requirements for the splicing of eye terminations for six or eight stranded 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 withstanda force at least 80% of the minimum breaking load of the rope.

## Scope:

This standard specifies minimum requirements for the splicing of eye terminations for six or eight stranded 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 withstanda force at least 80% of the minimum breaking load of the rope.

ICS 53.020.30, 77.140.99

**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

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 13411-2

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ICS 53.020.30; 77.140.99

## **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 Drahtseile aus Stahldraht – Sicherheit – Teil 2: Spleißen von Seilschlaufen für Anschlagseile

This European Standard was approved by CEN on 2001-04-20.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

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#### **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 168 "Chains, ropes, webbing slings and accessories", 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 November 2001, and conflicting national standards shall be withdrawn at the latest by November 2001.

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 EC Directive(s).

For the relationship with EC Directives, see informative annex ZA which is an integral part of this standard.

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

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the 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 standards 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 Safety of machinery - Basic concepts - General principles of design +A1: 1995 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