

**Terastraadist trosside otsmuhvid. Ohutus. Osa 6:  
Asümeetrilised kiil-liitmikud KONSOLIDEERITUD  
TEKST**

Terminations for steel wire ropes - Safety - Part 6:  
Asymmetric wedge socket CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13411-6:2004+A1:2008 sisaldab Euroopa standardi EN 13411-6:2004+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 10.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.10.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13411-6:2004+A1:2008 consists of the English text of the European standard EN 13411-6:2004+A1:2008.</p> <p>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.</p> <p>Date of Availability of the European standard text 22.10.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

**Terminations for steel wire ropes - Safety - Part 6: Asymmetric  
wedge socket**

Terminaisons pour câbles en acier - Sécurité - Partie 6:  
Boîte à coin asymétrique

Endverbindungen für Drahtseile aus Stahldraht - Sicherheit  
- Teil 6: Asymmetrische Seilschlösser

This European Standard was approved by CEN on 24 March 2004 and includes Amendment 1 approved by CEN on 18 September 2008.

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## Foreword

This document (EN 13411-6:2004+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of an identical text or by endorsement, at the latest by April 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.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 13411-6:2004.

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  $\boxed{A_1}$   $\boxed{A_1}$ .

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).

$\boxed{A_1}$  For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document.  $\boxed{A_1}$

Annexes A, B and C are informative.

This document includes a Bibliography.

EN 13411 with the general title *Terminations for steel wire ropes – Safety*, 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

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 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.

The wedge sockets 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 asymmetric wedge sockets that have been designed and produced according to the provisions of this Type C standard.

## 1 Scope

This European Standard specifies the minimum requirements, for asymmetrical wedge socket terminations for stranded steel wire ropes.

Examples of the construction and sizes of two separate designs of asymmetric wedge sockets are given in informative annexes A and B.

The informative annex C gives recommendations for safe use and inspection.

This European Standard deals with all significant hazards, hazardous situations and events relevant to asymmetric wedge sockets for terminations for steel wire ropes, when used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

This standard applies to terminations of steel wire ropes with asymmetrical wedge sockets which are manufactured after the date of its publication.

This standard does not cover rope fatigue.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

EN 1369: 1996, *Founding - Magnetic particle inspection*.

EN 1371-1:1997, *Founding – Liquid penetrant inspection – Part 1: Sand, gravity die and low pressure die castings*.

EN 10045-1, *Metallic materials - Charpy impact test – Part 1: Test method*.

EN 12385-2:2002, *Steel wire ropes - Safety - Part 2: Definitions, designation and classification*.

EN 45012, *General requirements for bodies operating assessment and certification/registration of quality systems ISO/IEC Guide 62:1996*.

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines (ISO 7500-1:1999)*.

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

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12385-2:2002 and the following apply.

### 3.1

#### **asymmetric wedge socket**

assembly consisting of a socket body, wedge, and pin; when assembled the centre line of the pin is directly in line with the longitudinal axis of the live portion of the rope

### 3.2

#### **socket body**

principal component of a wedge socket termination having an internal tapered form (see Figure 1) suitable for receiving a wedge (see 3.3) and the rope with which the wedge is associated

### 3.3

#### **wedge**

flat tapered component with peripheral groove, suitable for fitting into a tapered socket body to accommodate a rope of matching nominal diameter, see Figure 1