# Troppide komponendid. Ohutus. Osa 1: Sepaterasest komponendid, Klass 8

Components for slings - Safety - Part 1: Forged steel components, Grade 8



## **EESTI STANDARDI EESSÕNA**

## **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 1677-
1:2001 sisaldab Euroopa standardi EN
1677-1:2000 ingliskeelset teksti.

Käesolev dokument on jõustatud 15.01.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1677-1:2001 consists of the English text of the European standard EN 1677-1:2000.

This document is endorsed on 15.01.2001 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 Part of EN 1677 specifies general requirements for forged steel components of grade 8 up to 63 t WLL, mainly for use in: - chain slings according to EN 818-4; - steel wire rope slings according to prEN 13414-1:1999; - textile slings according to EN 1492-1:2000 intended for lifting objects, materials or goods.

## Scope:

This Part of EN 1677 specifies general requirements for forged steel components of grade 8 up to 63 t WLL, mainly for use in: - chain slings according to EN 818-4; - steel wire rope slings according to prEN 13414-1:1999; - textile slings according to EN 1492-1:2000 intended for lifting objects, materials or goods.

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Võtmesõnad: forged steel, grade 8, safety, slings

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1677-1

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## **English version**

## Components for slings - Safety

Part 1: Forged steel components, grade 8

Accessoires pour élingues – Sécurité – Partie 1: Accessoires en acier forgé, classe 8 Einzelteile für Anschlagmittel – Sicherheit – Teil 1: Geschmiedete Einzelteile, Güteklasse 8

This European Standard was approved by CEN on 2000-05-21.

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.

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 Central Secretariat 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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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### **Foreword**

This European Standard 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 February 2001, and conflicting national standards shall be withdrawn at the latest by February 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 EU Directive(s).

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

The other Parts of EN 1677 for components for slings are:

Part 2: Forged steel lifting hooks with latch - Grade 8

Part 3: Forged steel self-locking hooks - Grade 8

Part 4: Links - Grade 8

Part 5: Forged steel lifting hooks with latch - Grade 4

Part 6: Links - Grade 4

Annexes A and B of this European standard are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the , to pean ecc, Icc. witzerland a. 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.

### 0 Introduction

This European Standard has been prepared to be a harmonized standard providing one means of complying with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

The components covered by this Part of EN 1677 are normally supplied to be part of a sling, but they may also be used for other applications. In such instances it is important that the component design is checked to ensure its fitness for the intended use.

The extent to which hazards are covered is indicated in the scope. In addition, lifting equipment shall conform as appropriate to EN 292 for hazards that are not covered by this standard.

## 1 Scope

This Part of EN 1677 specifies general requirements for forged steel components of grade 8 up to 63 t WLL, mainly for use in:

- chain slings according to EN 818-4;
- steel wire rope slings according to prEN 13414-1:1999;
- textile slings according to EN 1492-1:2000, EN 1492-2:2000

intended for lifting objects, materials or goods.

This standard does not apply to hand forged components and welded links, nor to other welded components.

The hazards covered by this Part of EN 1677 are identified in clause 4.

Annex A is informative, and gives the bases for calculation of tabulated values of mechanical properties.

Jon School Schoo Annex B is informative, and gives an example of a designation system for forged steel lifting components of grade 8.

Annex ZA gives the relationship with EU-Directives

#### 2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at 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.

EN 292-1 Safety of machinery - Basic concepts - General principles for design

Part 1: Basic terminology, methodology

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 818-4 Short-link chain for lifting purposes - Safety

Part 4: Chain slings Grade 8

EN 818-6:2000 Short-link chain for lifting purposes - Safety

Part 6: Chain slings - Specification for information for use and maintenance to

be provided by the manufacturer

EN 1050 : 1996 Safety of machinery - Principles of risk assessment

EN 1492-1:2000 Textile slings - Safety

Part 1: Flat woven webbing slings made of man-made fibres

EN 1492-2:2000 Textile slings - Safety

Part 2: Round slings made of man-made fibres

prEN 13414-1:1999 Steel wire rope slings - Safety

Part 1:Wire rope slings

EN ISO 9001 Quality systems - Model for quality assurance in design/development,

production, installation and servicing

EN ISO 9002:1994 Quality systems - Model for quality assurance in production, installation and

servicing

EN 10002-2: 1991 Metallic materials - Tensile testing -

Part 2: Verification of the force measuring system of the tensile testing

machine

EN 10025: 1993 Hot rolled products of non-alloy structural steels - Technical delivery

conditions

EN 10228-1: 1999 Non-destructive testing of steel forgings

Part 1: Magnetic partical inspection

EN 10228-2: 1998 Non-destructive testing of steel forgings

Part 2: Penetrant testing

EN 45012 General criteria for certification bodies operating quality system certification

ISO 643 Steels - Micrographic determination of the ferritic or austenitic grain size