

**Troopide komponendid. Ohutus. Osa 3:
Sepaterasest iselukustuvad konksud. Klass 8
KONSOLIDEERITUD TEKST**

Components for slings - Safety - Part 3: Forged steel
self-locking hooks - Grade 8 CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1677-3:2002+A1:2008 sisaldab Euroopa standardi EN 1677-3:2001+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 20.06.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 02.04.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1677-3:2002+A1:2008 consists of the English text of the European standard EN 1677-3:2001+A1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 20.06.2008 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 02.04.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 53.020.30

Võtmesõnad: grades, grades (qualit, hoisting slings, hooks, lifting slings, load capacity, marking, mechanical properties, quality, round steel chains, safety, safety catch, safety requirements, self-closing, specification (approval), specifications, testing, wire rope slings

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English Version

Components for slings - Safety - Part 3: Forged steel self-locking hooks - Grade 8

Accessoires pour élingues - Sécurité - Partie 3: Crochets autobloquants en acier forgé - Classe 8

Einzelteile für Anschlagmittel - Sicherheit - Teil 3: Geschmiedete, selbstverriegelnde Haken - Güteklasse 8

This European Standard was approved by CEN on 11 August 2001 and includes Amendment 1 approved by CEN on 21 February 2008.

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Foreword

This document (EN 1677-3:2001+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 October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

This document includes Amendment 1, approved by CEN on 2008-02-21.

This document supersedes EN 1677-3:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

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 EC Directive(s).

For the relationship with EC Directives, see informative Annexes ZA and ZB, which are integral parts of this document.

This European Standard is a part of a products standard related to safety for components for slings.

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

- Part 1: Forged steel components - Grade 8
- Part 2: Forged steel lifting hooks with latch - 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 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 be a harmonized standard providing one means of complying with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

The hooks 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 hook 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 European Standard specifies requirements for forged steel self-locking lifting hooks of Grade 8 having eye or clevis and pin up to 21,2 t working load limit (WLL), mainly for use in:

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

intended for lifting objects, materials or goods.

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

Annex A gives the bases for calculation of hook dimensions.

Annex B gives an example of a designation systems for hooks of Grade 8.

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 818-4, Short link chain for lifting purposes - Safety - Part 4: Chain slings - Grade 8

EN 818-6, 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 for risk assessment

EN 1492-1, Textile slings - Safety - Part 1: Flat woven webbing slings, made of man-made fibres, for general purpose use

EN 1492-2, Textile slings - Safety - Part 2: Roundslings, made of man-made fibres, for general purpose use

EN 1677-1:2000+A1:2008, Components for slings - Safety - Part 1: Forged steel components, Grade 8

prEN 13414-1, Steel wire rope slings - Safety - Part 1: Wire rope slings

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1677-1+A1:2008 apply, together with the following.

3.1

self-locking hook

hook containing a locking mechanism, capable of being activated by the action of the load which, once correctly closed and locked, can only be opened in the unloaded condition by de-activation of the locking mechanism

4 Significant Hazards

Accidental release of a load or release of a load due to failure of a hook puts at risk, either directly or indirectly, the safety or health of those persons within the danger zone.

In order to provide the necessary strength and durability of hooks this Part of EN 1677 gives requirements for the design, manufacture and testing to ensure the specified levels of performance are met.

Since failure can be caused by the incorrect choice of grade and specification of hook, this Part of EN 1677 also gives requirements for marking and the manufacturer's certificate.

Errors of fitting can also lead to failure and this Part of EN 1677 contains dimensional requirements to allow correct fit.

Risk of injury due to sharp edges, sharp angles or rough surfaces when handling is also covered by this standard.

Those aspects of safe use associated with good practice are given in EN 818-6.

Table 1 contains those hazards which require action to reduce risk identified by risk assessment as being specific and significant for forged steel self-locking hooks of grade 8.

Table 1 — Significant hazards and associated requirements

Hazards identified in accordance with annex A of EN 1050:1996		Relevant clause of annex A of EN 292-2: 1991/A1:1995	Relevant clause / subclause of this Part of EN 1677
1.e	Mechanical hazard due to inadequacy of strength	1.3.2	5
		4.1.2.3	5
		4.1.2.5	5
		4.2.4	5
		1.7.3	7
1.3	Cutting hazard	1.3.4	5.4
1.8	Friction or abrasion	1.3.4	5.4
15	Errors of fitting hazard	1.5.4	5.2