

**Lühikeste lülidega tõstekett. Ohutus. Osa 1:
Tehnilistele tingimustele vastavuse põhitingimused
KONSOLIDEERITUD TEKST**

Short link chain for lifting purposes - Safety - Part 1:
General conditions of acceptance CONSOLIDATED
TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 818-1:1999+A1:2008 sisaldab Euroopa standardi EN 818-1:1996+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 19.05.2008 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 818-1:1999+A1:2008 consists of the English text of the European standard EN 818-1:1996+A1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 19.05.2008 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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English Version

Short link chain for lifting purposes - Safety - Part 1: General conditions of acceptance

Chaînes de levage à maillons courts - Sécurité - Partie 1:
Conditions générales de réception

Kurzgliedrige Rundstahlketten für Hebezwecke - Sicherheit
- Teil 1: Allgemeine Abnahmebedingungen

This European Standard was approved by CEN on 7 March 1996 and includes Corrigendum 1 issued by CEN on 20 November 1996 and Amendment 1 approved by CEN on 10 February 2008.

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Foreword

This document (EN 818-1:1996+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of an identical text or by endorsement, at the latest by October 2008 and conflicting national standards shall be withdrawn at the latest by October 2008.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 2008-02-10.

This document supersedes EN 818-1:1996.

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

The modifications of the related CEN Corrigendum have been implemented at the appropriate places in the text and are indicated by the tags **AC** **AC**.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

The other parts of EN 818 are:

Part 2: Medium tolerance chain for chain slings – Grade 8

Part 3: Medium tolerance chain for chain slings – Grade 4

Part 4: Chain slings – Grade 8

Part 5: Chain slings – Grade 4

A1 Part 6: Chain slings – Specification for information for use and maintenance to be provided by the manufacturer **A1**

A1 Part 7: Fine tolerance hoist chain, Grade T (Types T, DAT and DT) **A1**

A further part or parts will cover fine tolerance chains for chain hoists and other lifting appliances.



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 to provide one means of conforming with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

This Directive stipulates that where chain with welded links is used for lifting accessories it is to be of short link type and for the purposes of this standard this is chain having a ratio of nominal pitch to nominal size of 3:1.

Chains covered by this European Standard are divided into grades which relate to the mechanical properties of the finished product and not simply to the strength of the material. Each grade is identified by a letter for fine tolerance chain or number for medium tolerance chain in the series: M,4; P,5; S,6; T,8; V,10 (see note 1 to table 0). The letter or number indicates the mean stress at the minimum breaking force as shown in table 0.

The extent to which hazards are covered is indicated in the scope of this Part of EN 818. In addition, lifting equipment shall comply as appropriate with  EN ISO 12100  for hazards which are not covered by this standard.

 This standard is a Type C standard as stated in EN ISO 12100.


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 equipment that have been designed and build according to the provisions of this type C standard. 

Table 0 — Basis of grade symbols

Grade		Mean Stress at the specified minimum breaking force, N/mm ²
Fine tolerance	Medium tolerance	
M	4	400
P	5	500
S	6	630
T	8	800
V	10	1000

NOTE: Chains in all of these grades may not be the subjects of European Standards.

This grading system has also been applied to hooks, links, shackles and other accessories, indicating their strength compatibility with the appropriate grade of chain.

The stresses in a chain link are not uniform and at the extrados at the crown particularly, the maximum fibre stress is considerably greater than the mean stress obtained by dividing the force by the total cross-sectional area of both legs of the link.

1 Scope

This part of EN 818 specifies the general conditions of acceptance related to safety for electrically welded round steel short link chain for lifting purposes. It includes:

- a) medium tolerance chain for use in chain slings and for general lifting service and;
- b) fine tolerance chain for use with hoists and other similar lifting appliances.

The hazards covered by this Part of EN 818 are identified in clause 4.

Annex C gives proposals for clauses covering inspection, inspection marking and steel makers cast analysis which may be included in a form of contract.

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.

deleted text

EN 818-6:2000+A1, *Short link chain for lifting purposes - Safety - Part 6: Chain slings, instructions for use and maintenance*

EN 1050, *Safety of machinery - Risk assessment*

EN 10002-2, *Metallic materials - Tensile testing - Part 2: Verification of the force measuring system of the tensile testing machines*

EN ISO 12100-1, *Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

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

3 Terms and definitions

For the purposes of this document, the following terms, definitions and symbols apply.

3.1

nominal size (d_n)

nominal diameter of the round section steel wire or bar from which the chain is made

3.2

material diameter (d_m)

diameter of the material in the chain link as measured

3.3

weld diameter (d_s)

diameter at the weld as measured