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

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 818-1:1999 sisaldab Euroopa standardi EN 818-1:1996 ingliskeelset teksti. Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 818-1:1999 consists of the English text of the European standard EN 818-1:1996. This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Standardi EN 818 see osa määrab kindlaks ümarterasest elekterkeevitusega valmistatud, tõstmisotstarbel kasutatavate lühilüliliste kettide ohutusega seotud põhinõuded, mis on nõutavad kettide vastavuseks tehnilistele tingimustele. Standard käsitleb keskmise tolerantsiga kette, mida kasutatakse tõstetroppidena või üldistel tõstmisotstarvetel, ning väikese tolerantsiga kette, mida kasutatakse tõstukite ja muude samalaadsete tõsteseadmete puhul.	**Scope:**

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Võtmesõnad: katsed, keevitatud ketid, ketilülid, konveieriketid, mehaanilised omadused, märgistamine, ohud, ohutus, sertifitseerimine, tehnilistele tingimustele vastavuse katsed, terased, õnnetuste vältimine

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Descriptors: Chains, safety, lifting appliances, acceptance conditions.

English version

Short link chains 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 1996-03-07.

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.

This European Standard exists 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 October 1996, and conflicting standards shall be withdrawn at the latest by October 1996.

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).

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

Part 6: Chain slings - Instructions for use and maintenance

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

This is the first edition of this Part of EN 818.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 to provide one means of conforming with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

The 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 292 for hazards which are not covered by this 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.

EN 292-1	Safety of machinery - Basic concepts - General principles for design Part 1: Basic terminology, methodology
EN 292-2: 1991	Safety of machinery - Basic concepts - General principles for design Part 2: Technical principles and specifications
EN 292-2: 1991 /A1:1995	Safety of machinery - Basic concepts - General principles for design Part 2: Technical principles and specifications (Amendment 1:1995)
prEN 818-6	Short link chain for lifting purposes - Safety Part 6: Chain slings - Instructions for use and maintenance
prEN 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