

**Lühikeste lülidega tõstekett. Ohutus. Osa 3:
Keskmise tolerantsiga kett tõstetroppide
valmistamiseks. Klass 4**

Short link chain for lifting purposes - Safety - Part 3:
Medium tolerance chain for chain slings - Grade 4

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 818-3:1999 sisaldab Euroopa standardi EN 818-3:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 818-3:1999 consists of the English text of the European standard EN 818-3:1999.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This part of EN 818 specifies the requirements related to safety for short link lifting chains, Grade 4, of medium tolerance for use in chain slings and for general lifting purposes.</p>	<p>Scope:</p> <p>This part of EN 818 specifies the requirements related to safety for short link lifting chains, Grade 4, of medium tolerance for use in chain slings and for general lifting purposes.</p>
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Võtmesõnad:

English version

Short link chains for lifting purposes – Safety

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

Chaînes de levage à maillons courts –
Sécurité – Partie 3: Chaînes de
tolérance moyenne pour élingues en
chaînes – Classe 4

Kurzgliedrige Rundstahlketten für
Hebezwecke – Sicherheit – Teil 3:
Mitteltolerierte Rundstahlketten für
Anschlagketten – Güteklasse 4

This European Standard was approved by CEN on 1999-04-16.

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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Contents	Page
Foreword	3
0 Introduction	4
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Hazards	5
5 Safety requirements	6
6 Verification of safety requirements	11
7 Marking	12
8 Manufacturer's certificate	12
9 Instructions for use	12
Annex A (informative) Calculation of dimensions, working load limits and mechanical properties	13
Annex B (informative) Mass of chain	16
Annex C (informative) Designation system for chain (medium tolerance) - Grade 4	17
Annex ZA (informative) Relationship of this European Standard with EU Directives	17

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 November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the 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.

The other Parts of EN 818 are:

- Part 1 : General conditions of acceptance
- Part 2 : Medium tolerance chain for chain slings - Grade 8
- Part 4 : Chain slings - Grade 8
- Part 5 : Chain slings - Grade 4
- Part 6 : Chain slings - Specification for information for use and maintenance to be provided by the manufacturer
- Part 7 : Fine tolerance chains for hoists, Grade T (types T, DAT, DT).

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

0 Introduction

This European Standard has been prepared to be a harmonised standard to provide one means of complying 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.

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 which are not covered by this standard.

1 Scope

This Part of EN 818 specifies the requirements related to safety for short link lifting chains, Grade 4, of medium tolerance for use in chain slings and for general lifting purposes. The standard is applicable to electrically welded round steel short link chains, conforming to EN 818-1, which are intended for lifting objects, materials or goods.

The range of nominal sizes of chain covered by this Part of EN 818 is from 7 mm to 45 mm.

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

Annex A contains the bases for calculation of tabulated values for dimensions, working load limits and mechanical properties.

Annex B gives information on the mass/metre of chain.

Annex C gives an example of a designation system for chains of grade 4.

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
EN 818-1:1996	Short link chain for lifting purposes - Safety - Part 1: General conditions of acceptance
prEN 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 10025:1990/A1:1993	Hot rolled products of non-alloy structural steels - Technical delivery conditions (includes amendment A1:1993)
ISO 643	Steels - Micrographic determination of the ferritic or austenitic grain size

3 Terms and definitions

For the purposes of this Part of EN 818 the terms, definitions and symbols given in EN 818-1:1996 apply.

4 Hazards

The release of a load due to failure of lifting accessories such as chain slings or their component parts puts at risk either directly or indirectly the safety or health of those persons within the danger zone of lifting equipment.

In order to provide the necessary strength and durability of lifting accessories this Part of EN 818 lays down requirements for the design, manufacture and testing to ensure that specified levels of performance are met.

Fatigue failure has not been identified as being a hazard when chain, having the specified levels of performance given in this Part of EN 818, is used in general lifting service.

Since failure can be caused by the incorrect choice of grade and specification of lifting accessories this Part of EN 818 also gives the requirements for marking and the manufacturer's certificate.

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

Table 1 contains those hazards, which require action to reduce risk identified by risk assessment as being specific and significant for short link chain (medium tolerance) grade 4.

Table 1: Hazards and associated requirements

Hazards identified in 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 818
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	6
		1.7.3	7
		4.2.4	8
		1.7.4	9