

Short link chain for lifting purposes — Safety —

Part 1: General conditions of acceptance

ICS 53.020.30

National foreword

This British Standard is the UK implementation of EN 818-1:1996+A1:2008. It supersedes BS EN 818-1:1996 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee MHE/1, Chains and fittings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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- Teil 1: Allgemeine Abnahmebedingungen

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Contents

Page

Foreword.....	4
Introduction	5
1 Scope	7
2 Normative references	7
3  Terms and definitions 	7
4 Hazards	9
5 Safety requirements	10
5.1 Dimensions.....	10
5.2 Material, manufacture and heat treatment	10
5.2.1 Material	10
5.2.2 Welding and trimming	10
5.2.3 Heat treatment.....	10
5.2.4 Surface finish	10
5.2.5 Links inserted in the course of manufacture	10
5.3 Mechanical properties	11
5.3.1 Manufacturing proof force (MPF).....	11
5.3.2 Breaking force (BF) and total ultimate elongation (A)	11
5.3.3 Bend deflection	11
6 Verification of safety requirements.....	13
6.1  Qualification of personnel.....	13
6.2 Material diameter	13
6.3 Condition of chain tested.....	13
6.4 Selection of samples	13
6.5 Static tensile test	14
6.5.1 Testing machine.....	14
6.5.2 Tensile test samples.....	14
6.5.3 Procedure	14
6.5.4 Total ultimate elongation (A)	14
6.6 Bend test.....	14
6.6.1 Test equipment	14
6.6.2 Procedure	15
6.7 Acceptance criteria.....	15
6.8 Re-tests	15
7 Marking	15
7.1 Grade marking.....	15
7.2 Manufacturer's marking	15
7.3 Additional marking	15
8 Manufacturer's certificate	16
9  Information  for use	16
Annex A (normative) Requirements for the static tensile test machine.....	17
Annex B (normative) Requirements for the bend test equipment	19
Annex C (informative) Proposed contractual clauses.....	20
C.1 General.....	20
C.2 Inspection	20
C.3 Inspection marking	20

C.4	Steel makers cast analysis	20
Annex ZA (informative)	Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC	21
Annex ZB (informative)	Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	22
Bibliography		23

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.