
**Short link chain for lifting purposes —
General conditions of acceptance**

Chaîne de levage à maillons courts — Conditions générales de réception

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1834 was prepared by Technical Committee ISO/TC 111, *Round steel link chains, chain slings, components and accessories*, Subcommittee SC 1, *Chains and chain slings*.

This second edition cancels and replaces the first edition (ISO 1834:1980), which has been technically revised.

Annex A forms a normative part of this International Standard.

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Introduction

Chains covered by this International 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). The letter or number indicates the mean stress at the minimum breaking force as shown in Table 1.

Table 1 — Basis of grade symbols

Grade		Mean stress at the specified minimum breaking force
Fine tolerance	Medium tolerance	
		N/mm ²
M	4	400
P	5	500
S	6	630
T	8	800
V	10	1 000
NOTE Chains of these grades may all not be the subjects of International Standards.		

The stresses in a chain link are not uniform and at the extrados, particularly at the crown, 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.

Attention is drawn to the fact that repairs to chain should be carried out in accordance with ISO 3056, in the case of medium tolerance chain, and ISO 7592, in the case of fine tolerance chain.

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

Short link chain for lifting purposes — General conditions of acceptance

1 Scope

This International Standard specifies the general conditions of acceptance for electrically welded round steel short link chain for lifting purposes. It includes medium tolerance chain for use in chain slings and for general lifting purposes, and fine tolerance chain for use with chain hoists and other similar lifting appliances.

It is applicable to short link lifting chain in accordance with ISO 1835, ISO 3075, ISO 3076 and ISO 3077.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1835:—¹⁾, *Short link chain for lifting purposes — Grade M(4), non-calibrated, for chain slings, etc.*

ISO 3075:—²⁾, *Short link chain for lifting purposes — Grade S(6), non-calibrated, for chain slings, etc.*

ISO 3076:—³⁾, *Short link chain for lifting purposes — Grade T(8), non-calibrated, for chain slings, etc.*

ISO 3077:—⁴⁾, *Short link chain for lifting purposes — Grade T(8), calibrated, for chain hoists and other lifting appliances.*

ISO 7500-1:1999, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system.*

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1

nominal size

d_n

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

¹⁾ To be published. (Revision of ISO 1835:1980)

²⁾ To be published. (Revision of ISO 3075:1980)

³⁾ To be published. (Revision of ISO 3076:1984)

⁴⁾ To be published. (Revision of ISO 3077:1984)