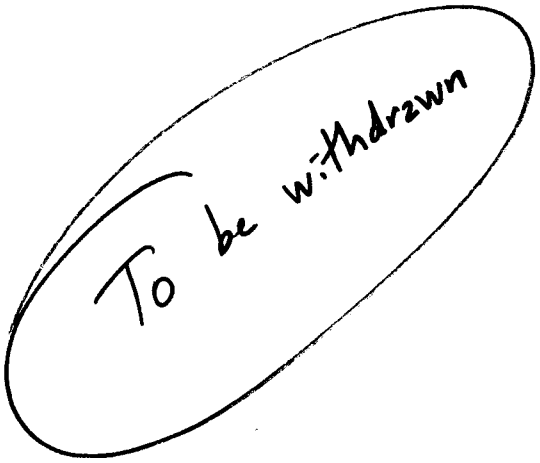
# International Standard 1836

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

# Short link chain for lifting purposes — Grade M (4), calibrated, for chain hoists and other lifting appliances

*Chaînes de levage à maillons courts, classe M (4), calibrées, pour palans à chaînes et autres appareils de levage*

**First edition — 1980-09-15**




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**Descriptors** : chains, hoisting slings, chain blocks, short pitch chains, welded link chains, materials specifications, dimensions, dimensional tolerances, tests, mechanical properties, tensile strength.

Price based on 9 pages

## FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1836 was developed by Technical Committee ISO/TC 111, *Round steel link chains, chain wheels, lifting hooks and accessories*, and was circulated to the member bodies in March 1978.

It has been approved by the member bodies of the following countries :

| | | |
|---|---|---|
| Australia | Ireland | Sweden |
| Austria | Italy | Turkey |
| Belgium | Japan | United Kingdom |
| Canada | Korea, Rep. of | USA |
| Chile | Mexico | USSR |
| Czechoslovakia | Netherlands | Yugoslavia |
| Denmark | Poland | |
| India | South Africa, Rep. of | |

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Germany, F.R.
France

This International Standard cancels and replaces ISO Recommendation R 1836-1971, of which it constitutes a technical revision.

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# Short link chain for lifting purposes — Grade M (4), calibrated, for chain hoists and other lifting appliances

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies requirements for lifting chains, grade M (4), accurately calibrated for use as load chains in chain hoists and similar appliances. These are electrically welded round steel short link chains fully heat treated and tested, and comply with the general conditions of acceptance of ISO 1834.

The range of sizes covered by this International Standard is from 5 to 32 mm. The annex gives a range of temporary additional sizes 6 to 46 mm.

## 2 REFERENCES

ISO/R 388, *ISO metric series for basic thicknesses of sheet and diameters of wire.*

ISO/R 643, *Micrographic determination of the austenitic grain size of steels.*

ISO 1035/1, *Dimensions of hot rolled steel bars — Part 1 : Round bars — Metric series.*[1)]

ISO 1834, *Short link chain for lifting purposes — General conditions of acceptance.*

## 3 DEFINITIONS

For the purposes of this International Standard the definitions given in ISO 1834 apply.

## 4 GENERAL CONDITIONS OF ACCEPTANCE

The chain shall comply fully with the requirements of ISO 1834 as well as those of this International Standard.

## 5 DIMENSIONS

### 5.1 Size of chain (see ISO 1834, clause 4, "Definitions")

The size of chain shall be one of the sizes listed in table 2, column 1 corresponding to the nominal diameter ($d_n$) of the steel wire (ISO/R 388) or bar (ISO 1035/1) from which the chain is made.

NOTE — Control over the size of the material (bar or wire) from which the chain is made is important but this International Standard concerns finished chain and must assume that the inspector may not have the opportunity of retrospective measurement of the original material. The chain manufacturer will realize the need for the size of this material to be kept within accepted tolerances.

### 5.2 Material diameter (see ISO 1834 for definition of material diameter and method of measurement).

#### 5.2.1 Tolerance on material diameter

For sizes less than 18 mm the diameter $d$ of the material in the finished link shall nowhere differ from the nominal diameter by more than $^{+\ 2}_{-\ 6}$ %, except at the weld.

For sizes 18 mm and over, the diameter $d$ of the material in the finished link shall nowhere differ from the nominal diameter by more than ± 5 %, except at the weld.

#### 5.2.2 Tolerances at the weld

The dimension of the steel at the weld shall nowhere be less than the diameter $d$ of the steel adjacent to the weld, or exceed it by more than the following tolerances. (See figure 1 and table 2.)

Type 1 : 8 % of the nominal diameter in any direction;

Type 3 : 8 % of the nominal diameter in the direction perpendicular to the plane of the link and 17 % in other planes.

#### 5.2.3 Area affected dimensionally by welding

The area affected dimensionally by welding shall not extend by more than 0,6 of the material diameter to either side of the centre of the link.

1) At present at the stage of draft. (Revision of ISO/R 1035/1-1969.)