



BSI Standards Publication

**Chain components for lifting purposes —
Forged eye hook with point and latch —
Grade 4, stainless steel, solution annealed**

National foreword

This British Standard is the UK implementation of ISO 4779:2021.

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 committee manager.

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**Chain components for lifting
purposes — Forged eye hook with
point and latch — Grade 4, stainless
steel, solution annealed**

*Éléments de chaînes de levage — Crochets de levage forgés en acier à
bec et à œil — Grade 4, acier inoxydable, recuit d'homogénéisation*





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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 111, *Round steel link chains, chain slings, components and accessories*, Subcommittee SC 3, *Components and accessories*.

This second edition cancels and replaces the first edition (ISO 4779:1986), which has been technically revised.

The main changes compared to the previous edition are as follows:

- limitation of the materials used to stainless steels;
- corresponding adaptation of the alloy elements and heat treatment;
- reduction of the sizes, corresponding to the related nominal chain sizes;
- including detailed formulae base for calculation of dimensions, working load limits and mechanical requirements in [Annex A](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Chain components for lifting purposes — Forged eye hook with point and latch — Grade 4, stainless steel, solution annealed

1 Scope

This document specifies the requirements for forged eye hooks with point and latch of grade 4 from stainless steel and solution annealed for use preferably as a component in chain slings of welded construction of grade 4 from stainless steel and solution annealed.

IMPORTANT — For other applications, e.g. steel wire rope slings or textile slings, it is important that the hook design is checked to ensure its fitness for a safe use.

NOTE 1 The grade for the hook according to this document is taken from the grade of the sling chain according to ISO 1835. Both (sling chains and hooks) have identical scopes and values for the working load limit, *WLL*, according to Table 2 and values for the mechanical requirements according to Table 3. Thus, the direct correlation of hooks to the sling chain is given by the *WLL* and especially the code system on the product body itself. The grade of the hook does not define any values of the tensile strength of the hook material. For further information, see Annex B.

The range of the nominal diameter, d_n , of the associated sling chain according to ISO 1835 is from 4 mm to 22 mm.

Hooks according to this document are for use in the temperature range $-100\text{ }^{\circ}\text{C}$ to $+400\text{ }^{\circ}\text{C}$.

These hooks are solution annealed in the finished condition and can therefore be used without restrictions with regard to the corrosion resistance of the steels according to 5.1.

NOTE 2 The term “eye hook with point and latch” is taken from ISO 1837:2003, Figure 5.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1835, *Round steel short link chains for lifting purposes — Medium tolerance sling chains — Grade 4, stainless steel*

ISO 1837, *Lifting hooks — Nomenclature*

ISO 3452-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

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

ISO 8539, *Forged steel lifting components for use with Grade 8 chain*

ISO 13385-1, *Geometrical product specifications (GPS) — Dimensional measuring equipment — Part 1: Design and metrological characteristics of callipers*

ISO 16143-2, *Stainless steels for general purposes — Part 2: Corrosion-resistant semi-finished products, bars, rods and sections*

EN 10228-2, *Non-destructive testing of steel forgings - Part 2: Penetrant testing*