
Forged steel lifting hooks with latch, grade 8

Crochets de levage forgés en acier avec loquet, classe 8

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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. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is 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 7597:1987), which has been technically revised.

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Introduction

The hooks covered by this International Standard are normally supplied to be part of a sling, but they can also be used for other applications. In such instances, it is important that the hook design is checked to ensure its fitness for the intended use.

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1 Scope

This International Standard specifies requirements for forged steel lifting hooks with latch of grade 8 having eye or clevis and pin up to 63 t working load limit (WLL), mainly:

- for use in chain slings according to ISO 4778 and ISO 7593;
- for use in steel wire rope slings according to ISO 7531;
- for use in textile slings;
- intended for lifting objects, materials or goods.

This International Standard does not apply to hand forged hooks.

[Annex A](#) gives the bases for calculation of hook dimensions.

[Annex B](#) gives an example of a designation system for hooks of grade 8.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8539:2009, *Forged steel lifting components for use with Grade 8 chain*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8539 apply.

4 Safety requirements

4.1 Design

The articulation and relative movement shall be in accordance with 4.1 of ISO 8539:2009.

NOTE The form of the hook is not specified in detail. For example, a minimum value of dimension F (see [Figure 1](#)) as measured in any direction is specified so that the eye of the hook can accommodate a pin, but the eye of the hook need not be circular.

The form of the upper end shall be either of the eye type or the clevis type as designated in [Table 1](#) and [Figure 1](#).

Each hook shall have a spring-loaded latch conforming to [4.6](#) to ensure that the load cannot become accidentally unhooked.

Table 1 — Forms of hook

Form	Description	Principal use
E	Eye type	Chain slings, wire rope slings and textile slings
C	Clevis type	Mechanically assembled chain slings

4.2 Dimensions

The principal dimensions of the hooks shall conform to [Table 2](#), in which the hook dimensions are related to the working load limit.

NOTE To meet the articulation and relative movement requirement when directly connected in wire rope slings and textile slings, dimension F will need to be larger than the minimum value given in [Table 2](#).

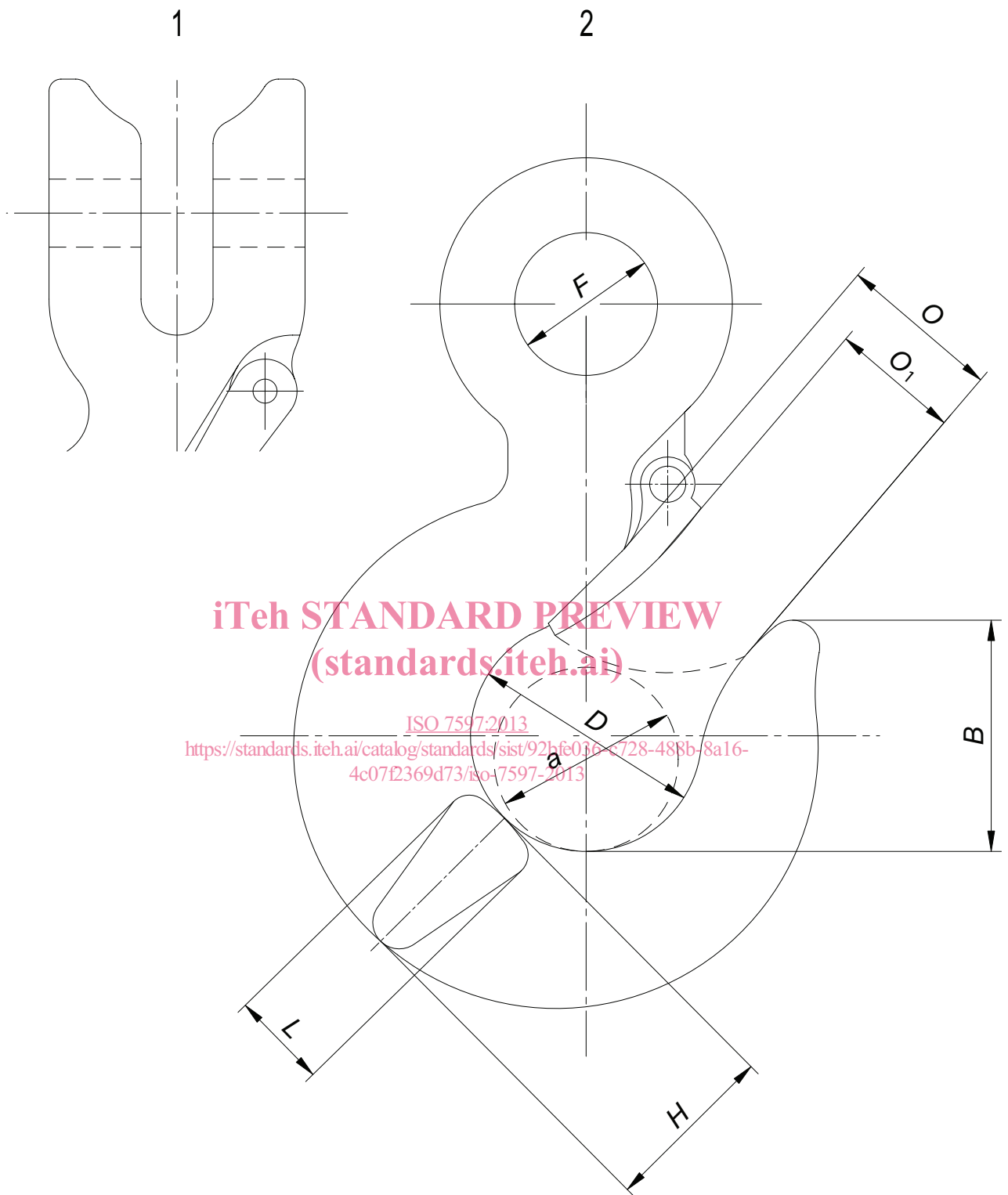
In addition, the following requirements shall be met:

- a) the actual point height, B , shall be equal to or greater than the full throat opening O (see [Figure 1](#));
- b) the full throat opening, O , shall not exceed 95 % of the actual seat diameter D ;
- c) the hook latch shall be capable of closing over the maximum diameter of bar (figure footnote a), as indicated in [Figure 1](#), that can be admitted through the actual throat opening O_1 .

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Key

- 1 clevis type
- 2 eye type
- a Maximum diameter of bar.

Figure 1 — Dimensions of hooks