INTERNATIONAL STANDARD

ISO 17607-2

First edition
2023-12

Steel structures — Execution of structural steelwork —

Part 2: **Steels**

Structures en acier – Exécution des charpentes et ossatures en acier —

Partie 2: Aciers

Reference number
ISO 17607-2:2023(E)

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Published in Switzerland

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 167, *Steel and aluminium structures*.

This first edition cancels and replaces ISO 10721-2:1999, which has been technically revised.

A list of all parts in the ISO 17607 series can be found on the ISO website.

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.

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Introduction

Specific requirements for the achievement of structures that are optimal with respect to safety, the state of the economy, development and general values of a nation are given in the appropriate regional or national standards, if they exist.

Many nations do not have their own standards for structural steelwork. Some reference other national or regional standards. Some permit the project's standard to be selected by the owner, designer or constructor of the structure. Some do not require any standards to be followed.

The ISO 17607 series of standards on the execution of structural steelwork was developed to serve as a means to provide a set of requirements and guidance for projects that are constructed without a governing regional or national standard. The ISO 17607 series can also serve to reduce trade barriers.

Additional requirements to be addressed in the execution of structural steelwork, as structures or as fabricated components, can be found in the other parts of the series:

— ISO 17607-1 (General requirements and terms and definitions);

— ISO 17607-3 (Fabrication);

— ISO 17607-4 (Erection);

— ISO 17607-5 (Welding);

— ISO 17607-6 (Bolting).

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Steel structures — Execution of structural steelwork —

Part 2:
Steels

1 Scope

This document defines the general requirements for the constituent products of steels and steel products used in the execution of structural steelwork as structures or as fabricated components in conjunction with ISO 17607-1.

Additional requirements to be addressed in the execution of structural steelwork, as structures or as fabricated components, can be found in other parts of the ISO 17607 series.

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 630-1, *Structural steels — Part 1: General technical delivery conditions for hot-rolled products*

ISO 630-2, *Structural steels — Part 2: Technical delivery conditions for structural steels for general purposes*

ISO 630-3, *Structural steels — Part 3: Technical delivery conditions for fine-grain structural steels*

ISO 630-4, *Structural steels — Part 4: Technical delivery conditions for high yield strength quenched and tempered structural steel plates and wide flats*

ISO 630-5, *Structural steels — Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance*

ISO 630-6, *Structural steels — Part 6: Technical delivery conditions for seismic-improved structural steels for building*

ISO 4990, *Steel castings — General technical delivery requirements*

ISO 7778, *Through-thickness characteristics for steel products*

ISO 9477, *High strength cast steels for general engineering and structural purposes*

ISO 10474, *Steel and steel products — Inspection documents*

ISO 10799-1, *Cold-formed welded structural hollow sections of non-alloy and fine grain steels — Part 1: Technical delivery conditions*

ISO 10799-2, *Cold-formed welded structural hollow sections of non-alloy and fine grain steels — Part 2: Dimensions and sectional properties*

ISO 12633-1, *Hot-finished structural hollow sections of non-alloy and fine grain steels — Part 1: Technical delivery conditions*

ISO 12633-2, *Hot-finished structural hollow sections of non-alloy and fine grain steels — Part 2: Dimensions and sectional properties*

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ISO 17607-1, *Steel structures — Execution of structural steelwork— Part 1: General requirements and vocabulary*

ISO/TR 20172, *Welding — Grouping systems for materials — European materials*

ISO/TR 20173, *Welding — Grouping systems for materials — American materials*

ISO/TR 20174, *Welding — Grouping systems for materials — Japanese materials*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17607-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Execution specification and quality requirements

4.1 General

See ISO 17607-1.

4.2 Execution specification

National standards and documents that provide technically equivalent conditions may be used, in whole or in part, in place of referenced ISO standards or requirements of this document. In these cases, the technically equivalent national standards and documents, and deviations from the requirements of this document, shall be referenced in the execution specification.

The necessary information and technical requirements for structural steel and steel products shall be agreed upon and completed before commencement.

The execution specification shall include the following items from Annex A as relevant:

a) additional information, see A.1;

b) options, see A.2;

c) requirements related to execution levels, see A.3.

There shall be procedures for making alterations to a previously agreed execution specification.

If constituent products of steels and steel products not covered by national standards or documents are to be used, their relevant properties shall be specified.

For national standards and documents for structural steels and steel products, see Annex B (informative).

5 Constituent products

5.1 Identification, inspection documents and traceability

For steels, the inspection documents according to ISO 10474 shall be as listed in Table 1.

Type 3.2 inspection documents are also suitable if Type 3.1 documents are listed in Table 1.

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