

First edition
2023-12

Steel structures — Execution of structural steelwork —

Part 4: Erection

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

Partie 4: Montage



Reference number
ISO 17607-4:2023(E)

© ISO 2023



COPYRIGHT PROTECTED DOCUMENT

© ISO 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of ISO 17607-4:2023. [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Execution specification and quality requirements	2
4.1 General.....	2
4.2 Execution specification.....	2
5 Constituent products	2
5.1 General.....	2
5.2 Anchorages, foundation bolts and other anchorages.....	2
5.3 Grouting materials.....	2
5.3.1 General.....	2
5.3.2 Cement-based grout.....	3
5.3.3 Special grout.....	3
5.3.4 Fine concrete.....	3
5.4 Expansion joints for bridges.....	3
6 Erection	3
6.1 General.....	3
6.2 Site conditions.....	3
6.3 Erection method.....	4
6.3.1 Design basis for the erection method.....	4
6.3.2 Constructor's erection method statement.....	5
6.4 Survey.....	6
6.4.1 Reference system.....	6
6.4.2 Position points.....	6
6.5 Supports.....	6
6.5.1 General.....	6
6.5.2 Measuring and documenting suitability of supports.....	6
6.5.3 Maintaining suitability of supports.....	7
6.5.4 Temporary supports.....	7
6.5.5 Grouting.....	7
6.5.6 Anchoring.....	7
6.6 Erection and work at site.....	7
6.6.1 Erection drawings.....	7
6.6.2 Marking.....	8
6.6.3 Handling and storage on site.....	8
6.6.4 Trial assembly.....	8
6.6.5 Erection methods.....	8
7 Geometrical tolerances	10
8 Inspection, testing and correction	11
8.1 General.....	11
8.2 Erection.....	11
8.2.1 Inspection of trial assembly.....	11
8.2.2 Inspection of the erected structure.....	11
8.2.3 Survey of geometrical position of connection nodes.....	11
8.2.4 Other acceptance tests.....	13
9 Documents required to claim conformity to this document	13
9.1 General.....	13
9.2 Declaration of conformity.....	13

This is a preview of ISO 17607-4:2023. [Click here to purchase the full version from the ANSI store.](#)

Annex A (normative) Additional information, list of options and requirements related to the execution levels	14
Annex B (normative) Grouting	17
Annex C (informative) Geometrical tolerances — Buildings	18
Annex D (informative) Geometrical tolerances — Bridges	57
Annex E (informative) Geometrical tolerances — Crane runways	60
Annex F (informative) Geometrical tolerances — Concrete foundations and supports	72
Bibliography	82

This is a preview of ISO 17607-4:2023. [Click here to purchase the full version from the ANSI store.](#)

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.

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

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.

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 17607-2 (Steels);
- ISO 17607-3 (Fabrication);
- ISO 17607-5 (Welding);
- ISO 17607-6 (Bolting).

This is a preview of ISO 17607-4:2023. Click here to purchase the full version from the ANSI store.

Steel structures — Execution of structural steelwork —

Part 4: Erection

1 Scope

This document defines the general requirements for erection of steels used in the execution of structural steelwork as structures or as manufactured 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 4463-1, *Measurement methods for building — Setting-out and measurement — Part 1: Planning and organization, measuring procedures, acceptance criteria*

ISO 7976-1, *Tolerances for building — Methods of measurement of buildings and building products — Part 1: Methods and instruments*

ISO 7976-2, *Tolerances for building — Methods of measurement of buildings and building products — Part 2: Position of measuring points*

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

ISO 17607-3, *Steel structures — Execution of structural steelwork — Part 3: Fabrication*

ISO 17607-5, *Steel structures — Execution of structural steelwork — Part 5: Welding*

ISO 17607-6, *Steel structures — Execution of structural steelwork — Part 6: Bolting*

ISO 22966, *Execution of concrete structures*

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/>