International Standard

ISO 15611

Specification and qualification of welding procedures for metallic materials — Qualification based on previous welding experience

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques — Qualification sur la base de l'expérience en soudage

Second edition
2024-01

Reference number
ISO 15611:2024(en)

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Published in Switzerland

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Foreword

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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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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 10, *Quality management in the field of welding*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 15611:2003), which has been technically revised.

The main changes are as follows:

— normative references have been updated;

— Clause 5 and Clause 7 have been revised;

— Clause 8 has been deleted;

— the bibliography has been deleted.

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. Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Introduction

In ISO 15607, one of the methods of welding procedure qualification is by relating to previous welding experience. Many manufacturers have considerable experience in fabricating welded structures. Welded components and structures may have been supplied to end users/clients for a variety of applications and have performed satisfactorily over a period of time in service. If this experience is traceable and documented, this document provides a route to welding procedure qualification based on this experience.

This document is a part of a series of standards, details of this series are given in ISO 15607:2019, Annex A.

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Specification and qualification of welding procedures for metallic materials — Qualification based on previous welding experience

1 Scope

This document gives the necessary information to explain the requirements referenced in ISO 15607 about the qualification of welding procedures based on previous welding experience.

In addition, it gives the range of qualification.

The use of this document can be restricted by an application standard or a specification.

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 14555, *Welding — Arc stud welding of metallic materials*

ISO 15607, *Specification and qualification of welding procedures for metallic materials — General rules*

ISO 15609 (all parts), *Specification and qualification of welding procedures for metallic materials — Welding procedure specification*

ISO 15614 (all parts), *Specification and qualification of welding procedures for metallic materials — Welding procedure test*

ISO 15620, *Welding — Friction welding of metallic materials*

ISO 18785-4, *Friction stir spot welding — Aluminium — Part 4: Specification and qualification of welding procedures*

ISO 25239-4, *Friction stir welding — Aluminium — Part 4: Specification and qualification of welding procedures*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15607 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 Preliminary welding procedure specifications (pWPS)

The qualification of a welding procedure related to previous welding experience shall be based on a pWPS according to ISO 14555, the relevant part of the ISO 15609 series, ISO 15620, ISO 18785-4 or ISO 25239-4. This pWPS shall specify the range for all the relevant parameters.

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