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Specification and qualification of welding procedures for metallic materials — Welding procedure specification —

Part 5: Resistance welding

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques — Descriptif et qualification d'un mode opératoire de soudage —

Partie 5: Soudage par résistance

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 15609-5 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*.

This second edition cancels and replaces the first edition (ISO 15609-5:2004), which has been technically revised.

ISO 15609 consists of the following parts, under the general title *Specification and qualification of welding procedures for metallic materials — Welding procedure specification:*

— *Part 1: Arc welding*

— *Part 2: Gas welding*

— *Part 3: Electron beam welding*

— *Part 4: Laser beam welding*

— *Part 5: Resistance welding*

— *Part 6: Laser-arc hybrid welding*

Requests for official interpretations of any aspect of this part of ISO 15609 should be directed to the Secretariat of ISO/TC 44/SC 6 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

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Specification and qualification of welding procedures for metallic materials — Welding procedure specification —

Part 5: Resistance welding

1 Scope

This part of ISO 15609 specifies requirements for the content of welding procedure specifications for resistance spot, seam, butt and projection welding processes. It is necessary to establish the acceptability of applying the principles of this part of ISO 15609 to other resistance and related welding processes before any qualification is undertaken.

NOTE Details of ISO 15609 (all parts — for titles, see Foreword) are given in ISO 15607:2003, Annex A.

Variables listed in this part of ISO 15609 are those influencing either weld dimensions (quality), weld nugget dimension, weld pattern positioning, mechanical properties or geometry of the welded joint.

2 Normative references

The following referenced documents are indispensable for the application 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 669, *Resistance welding — Resistance welding equipment — Mechanical and electrical requirements*

ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers*

ISO 5183 (all parts), *Resistance welding equipment — Electrode adaptors, male taper 1:10*

ISO 5184, *Straight resistance spot welding electrodes*

ISO 5821, *Resistance welding — Spot welding electrode caps*

ISO 5827, *Spot welding — Electrode back-ups and clamps*

ISO 8205-1, *Water-cooled secondary connection cables for resistance welding — Part 1: Dimensions and requirements for double-conductor connection cables*

ISO 8205-2, *Water-cooled secondary connection cables for resistance welding — Part 2: Dimensions and requirements for single-conductor connection cables*

ISO 8430 (all parts), *Resistance spot welding — Electrode holders*

ISO 15607:2003, *Specification and qualification of welding procedures for metallic materials — General rules*

ISO 15614-12, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 12: Spot, seam and projection welding*

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