DRAFT AMENDMENT

ISO 15614-1:2017/DAM 2

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

Part 1:
Arc and gas welding of steels and arc welding of nickel and nickel alloys

AMENDMENT 2

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

Partie 1: Soudage à l'arc et aux gaz des aciers et soudage à l'arc du nickel et des alliages de nickel

AMENDEMENT 2

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This document was prepared by Technical Committee [or Project Committee] ISO/TC [or ISO/PC] ###, *[name of committee]*, Subcommittee SC ##, *[name of subcommittee]*.

This second/third/... edition cancels and replaces the first/second/... edition (ISO #####:####), which has been technically revised.

The main changes compared to the previous edition are as follows:

— xxx xxxxxxx xxx xxxx

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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*.

The main changes compared to the previous edition are as follows:

— in sub-clause 8.4.1, level 2, the degree of mechaniszation as essential variable was deleted;

— in sub-clause 8.4.7, level 2, the requirements for measurenment of arc energy were modified.

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

Part 1:
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AMENDMENT 2

1 Replacement for 8.4.1

Replace

8.4.1 Welding processes

For level 1: The degree of mechanization is not an essential variable.

For level 2: Each degree of mechanization shall be qualified independently (manual, partly mecha-nized, fully mechanized and automatic).

by

8.4.1 Welding processes

The degree of mechanization is not an essential variable.

2 Replacement for 8.4.7

Replace second paragraph of 8.4.7 for level 2

8.4.7 Heat input (arc energy)

For level 1: When impact requirements apply, the upper limit of heat input qualified is the maximum heat input used when welding the test piece.

For level 2: When impact requirements apply, the upper limit of the heat input qualified is 25 % greater than used in welding the test piece. When hardness requirements apply, the lower limit of the heat input qualified is 25 % lower than that used in welding the test piece. If welding procedure test has been performed at both a high and a low heat input level, then all intermediate heat input levels are also qualified. It is not necessary to calculate every run.

by

8.4.7 Heat input (arc energy)

For level 1: When impact requirements apply, the upper limit of heat input qualified is the maximum heat input used when welding the test piece.

For level 2: When minimum impact requirements apply, the upper limits of the following ranges for heat input or arc energy apply. When maximum hardness requirements apply, the lower limits of the following ranges for heat input or arc energy apply. Average heat input for the relevant welding runs (fill, and cap) is calculated based on the recorded values from the welding procedure qualification test. These averages may be the average from the runs (fill and cap) or the average from the average of the runs per layer. The qualified range for the root, fill and cap is based on these calculated average values.

— **Root-run:**

The value of the heat input or arc energy of the root run, of the considered test piece +/- 25%.

— **Layers of filling runs:**

The average of the values of the filling run(s) or layers of filling runs of the considered test piece +/-25%

— **Layer of capping runs:**

The average of the values of the capping run(s) of the considered test piece +/-25%.