DIN EN ISO 5817

DIN

ICS 25.160.40

Supersedes
DIN EN ISO 5817:2006-10
and DIN EN ISO 5817
Corrigendum 1:2007-10

**Welding –
Fusion-welded joints in steel, nickel, titanium and their alloys
(beam welding excluded) –
Quality levels for imperfections (ISO 5817:2014);
English version EN ISO 5817:2014,
English translation of DIN EN ISO 5817:2014-06**

Schweißen –
Schmelzschweißverbindungen an Stahl, Nickel, Titan und deren Legierungen
(ohne Strahlschweißen) –
Bewertungsgruppen von Unregelmäßigkeiten (ISO 5817:2014);
Englische Fassung EN ISO 5817:2014,
Englische Übersetzung von DIN EN ISO 5817:2014-06

Soudage –
Assemblages en acier, nickel, titane et leurs alliages soudés par fusion
(soudage par faisceau exclu) –
Niveaux de qualité par rapport aux défauts (ISO 5817:2014);
Version anglaise EN ISO 5817:2014,
Traduction anglaise de DIN EN ISO 5817:2014-06

Document comprises 35 pages

Translation by DIN-Sprachendienst.
In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

The present standard is the result of standardization at international level. The content of this standard is identical with that of ISO 5817:2014, which was developed by ISO/TC 44/SC 10 “Unification of requirements in the field of metal welding” and has been published in Europe as EN ISO 5817:2014 .

The responsible German body involved in its preparation was the *Normenausschuss Schweißen und verwandte Verfahren* (Welding and Allied Processes Standards Committee), Working Committee NA 092-00-04 AA *Qualitätssicherung beim Schweißen (DVS AG Q 2)*.

This standard serves as a reference standard for specifying the assessment of welds in various applications such as steel construction and the construction of pressure vessels, as well as for the qualification testing of welders and the qualification of welding procedures. This standard is also to be used for weld assessment in the qualification testing of welders for under-water welding as specified in DIN EN ISO 15618-1 and DIN EN ISO 15618-2.

Due to the broad scope of this standard and the need to come to a consensus, some compromises were necessary which could not cover every individual case. However, it was still possible to create a common basis for assessing fusion-welded joints and thus to lay down requirements for welded joints and production facilities that are comparable.

The assessment criteria laid down in this standard include limits for internal imperfections; at present it is not possible to identify such imperfections in all possible weld geometries using current methods such as those commonly used in the US. Therefore, these assessment criteria can only be used for welds for which internal imperfections can be clearly identified.

This standard assumes that the welds have been made by a qualified welder using a suitable welding process.

This prevents the setting of provisions that are related to a specific application and deviate in terms of scope, selection and quality, and would impede production.

The International Standards referred to in this standard have been published as the corresponding DIN EN ISO Standards with the same number:

ISO 2553	DIN EN ISO 2553
ISO 4063	DIN EN ISO 4063
ISO 6520-1:2007	DIN EN ISO 6520-1:2007-11
ISO 13919-1	DIN EN ISO 13919-1
ISO 17635	DIN EN ISO 17635

Amendments

This standard differs from DIN EN ISO 5817:2006-10 and DIN EN ISO 5817 Corrigendum 1:2007-10 as follows:

a) the Introduction has been revised;

b) the scope now covers several types of load;

c) normative references have been updated;

d) the terms and definitions in 3.8 (“smooth weld transition”) and 3.9 (“fatigue class”) have been added

e) previously missing symbols have been added to Clause 4;

f) in Table 1 the temper colour (1.24) and linear misalignment between plates (3.1) have been added;

g) Annex C containing additional requirements for welds in steel subject to fatigue has been added;

h) the Bibliography has been updated;

Previous editions

DIN 1912-1: 1927-04, 1932-05, 1937-05, 1956-05, 1960-07, 1976-06
DIN 8563-1: 1964-06, 1973-03, 1978-10
DIN 8563-3: 1972-04, 1975-07, 1979-01, 1985-10
DIN EN 25817: 1992-09
DIN EN ISO 5817: 2003-12, 2006-10
DIN EN ISO 5817 Corrigendum 1: 2007-10

National Annex NA
(informative)

Bibliography

DIN EN ISO 2553, *Welding and allied processes — Symbolic representation on drawings — Welded joints*

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

DIN EN ISO 6520-1:2007-11, *Welding and allied processes — Classification of geometric imperfections in metallic materials — Part 1: Fusion welding (Trilingual version)*

DIN EN ISO 13919-1, *Welding — Electrons and laser beam welded joints — Guidance on quality levels for imperfections — Part 1: Steel*

DIN EN ISO 15618-1, *Qualification testing of welders for under-water welding — Part 1: Diver-welders for hyperbaric wet welding*

DIN EN ISO 15618-2, *Qualification testing of welders for under-water welding — Part 2: Diver-welders and welding operators for hyperbaric dry welding*

DIN EN ISO 17635, *Non-destructive testing of welds — General rules for metallic materials*

EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN ISO 5817

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Supersedes EN ISO 5817:2007

English Version

Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) - Quality levels for imperfections (ISO 5817:2014)

Soudage - Assemblages en acier, nickel, titane et leurs alliages soudés par fusion (soudage par faisceau exclu) - Niveaux de qualité par rapport aux défauts (ISO 5817:2014)

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This European Standard was approved by CEN on 4 January 2014.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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