Tech Topics

Interpretation
AWS D1.1:2006, *Structural Welding Code — Steel*

Subject: Electrodes and Procedure Qualification
Code Provision: Table 4.6, Variable No. 5
AWS Log: D1.1-06-I01

Inquiry: Are the words 'type of electrode' intended to require a separate procedure qualification for each manufacturer's filler metal designator? (Example: A change from "Filler metal No. 1 — AWS A5.20 Class E71T-1M, manufactured by ABC Co., called ABC WELD-FLUXCORE-1" to "Filler metal No. 2 — AWS A5.20 Class E71T-1M, manufactured by ABC Co., called ABC WELD-FLUXCORE-2").

Response: Yes, see AWS D1.1:2006 Table 4.6, Variable No. 5.

Standards Approved by ANSI

B2.3:2008, *Specification for Soldering Procedure and Performance Qualification.* New standard approved 12/20/07.

C3.2M/C3.2:2008, *Standard Method for Evaluating the Strength of Brazed Joints.* Revised standard approved 1/14/08.

Technical Committee Meetings

March 4–7, D1 Committee on Structural Welding. Charlotte, N.C. Contact: S. Morales, ext. 313.

March 6, A5K Subcommittee on Titanium and Zirconium Filler Metals. Charlotte, N.C. Contact: S. Borrero, ext. 334.

March 6, G2D Subcommittee on Reactive Alloys. Charlotte, N.C. Contact: S. Borrero, ext. 334.

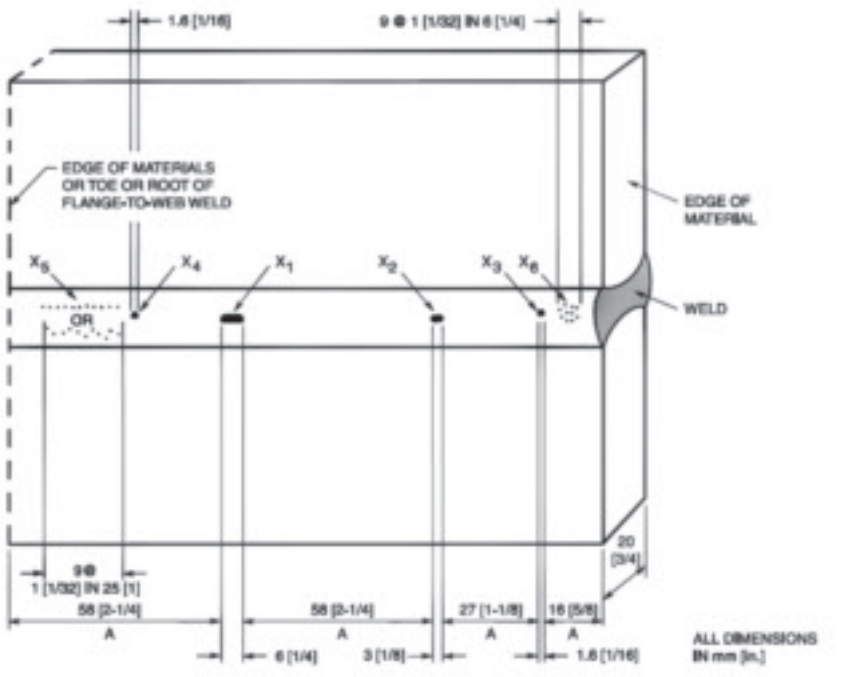
April 8, D8 Committee on Automotive Welding, Novi, Wis. Contact: A. Alonso, ext. 299.♦

Interpretation
AASHTO/AWS D1.5M/D1.5:2002, *Bridge Welding Code*

Subject: Annex A — Discontinuities
Code Provision: Section 6.26.2.1, Fig. 6.8
AWS Log: D1.5-02-I03b

Inquiry: (See figure below.) **Is X_4 unacceptable because it is too close to discontinuity X_5, and if so, then should not X_3 be unacceptable because it is located too close to X_6?**

Response: The Committee has determined that Annex A, 6th bullet, is in error in that X_4 should be changed to X_1. X_1 or X_4 is unacceptable as a result of their proximity to each other. X_1 at 6 mm [¼ in.] "B" size must have a "C" dimension of 58 mm [2¼ in.] from adjacent discontinuities.



General Notes:

- A –minimum clearance allowed between edges of porosity or fusion-type discontinuities 2 mm [1/16 in.] or larger. Larger of adjacent discontinuities governs.
- X_1 –largest allowable porosity or fusion-type discontinuity for 20 mm [3/4 in.] joint thickness (see Figure 6.8).
- X_2, X_3, X_4 –porosity or fusion-type discontinuity 2 mm [1/16 in.] or larger, but less than maximum allowable for 20 mm [3/4 in.] joint thickness.
- X_5, X_6 –porosity or fusion-type discontinuity less than 2 mm [1/16 in.].
- Discontinuity size indicated is assumed to be its greatest dimension.
- Porosity or fusion-type discontinuity X_4 is not acceptable because it is within the minimum clearance allowed between edges of such discontinuities (see 6.26.2.1 and Figure 6.8). Remainder of weld is acceptable.

Brazing Handbook and Book of Official D1.1 Interpretations Published

The Official Book of D1.1 Interpretations:2008 and the expanded fifth edition of the AWS *Brazing Handbook* have been released. The D1.1 Interpretations is a compilation of the questions formally submitted by Code users over the years to the AWS Structural Welding Committee with the Committee's official responses. The format groups the inquiries according to the Code date. To assist the reader, two indexes are provided. One index is compiled by subject matter, and the second is indexed by the various section numbers referenced in the document in numerical order, regardless of the Code date. This is the second edition of the publication; the first was published in 2000. The list price of the 54-page document is $64, $48 to AWS members.

The expanded fifth edition of the AWS *Brazing Handbook* is organized into three main sections, fundamentals, processes, and applications. Topics include brazement design, filler metals and fluxes, inspection of brazed joints, codes and standards, and safety and health issues. Two new chapters feature induction brazing and diamond brazing. The 740-page handbook includes 36 chapters, three appendixes, 308 figures, and 116 reference tables. The list price is $136, $102 for members of the American Welding Society. The handbook is the result of years of work by the AWS C3 Committee on Brazing and Soldering, and AWS C3A Subcommittee on Brazing Handbook.

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