



## AWS D1.1 Interpretation

**Subject:** Camber Tolerances  
**Code Edition:** D1.1-84  
**Code Provision:** Subsection 3.5.1.3  
**AWS Log:** D1-85-028

**Inquiry:** (1) In 3.5.1.3 there are three different tolerances available to determine the variation from camber of welded beams or girders, and the Code states that when the calculations are made that the greatest variation from specified camber is to be used. Are these tolerances appropriate?  
(2) In 3.5.1.3 it states, “camber of welded beams or girders.” Do these tolerances also apply to rolled beams?

**Response:** (1) The tolerances of 3.5.1.3 are appropriate.  
(2) No. Tolerances in 3.5.1.3 are applicable to beams with weldments, such as cover plates. For unwelded beams, AISC specifications should apply.

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AWS D1.1, Structural Welding Code—Steel, is prepared by the AWS Structural Welding Committee. Because the Code is written in the form of a specification, it cannot present background material or discuss the committee’s intent.

Since the publication of the first edition of the Code, the nature of inquiries directed to the American Welding Society and the Structural Welding Committee has indicated that there are some requirements in the Code that are either difficult to understand or not sufficiently specific, and other that appear to be overly conservative.

It should be recognized that the fundamental premise of the Code is to provide general stipulations applicable to any situation and to leave sufficient latitude for the exercise of engineering judgment. Another point to be recognized is that the Code represents the collective experience of the committee; and, while some provisions may seem overly conservative, they have been based on sound engineering practice.