



Radiographic Testing Classroom Training Book, second edition

Errata – 1st Printing 04/16

The following text correction pertains to the second edition of the *Radiographic Testing Classroom Training Book*. Subsequent printings of this publication will incorporate the correction into the printed text.

The attached corrected page applies to the first printing. In order to verify the print run of your book, refer to the copyright page. Ebooks are updated as corrections are found.

Page	Correction
218	The photomacrograph and radiograph in Figure 17 are incorrect in that each is showing a repeated instance of the unconsumed insert shown in Figure 16. The images should be showing mismatch or high-low.

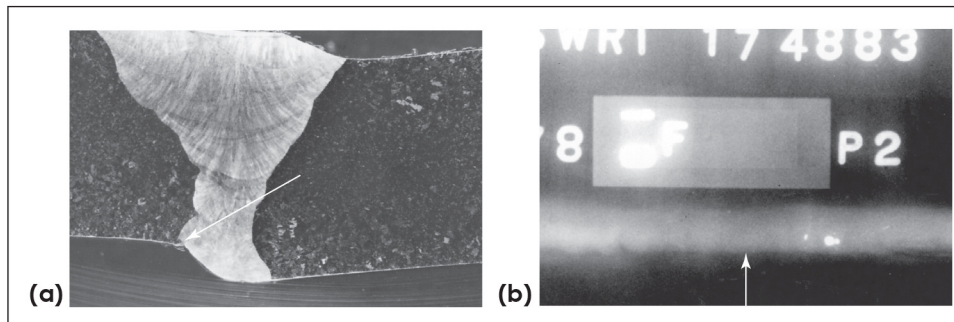
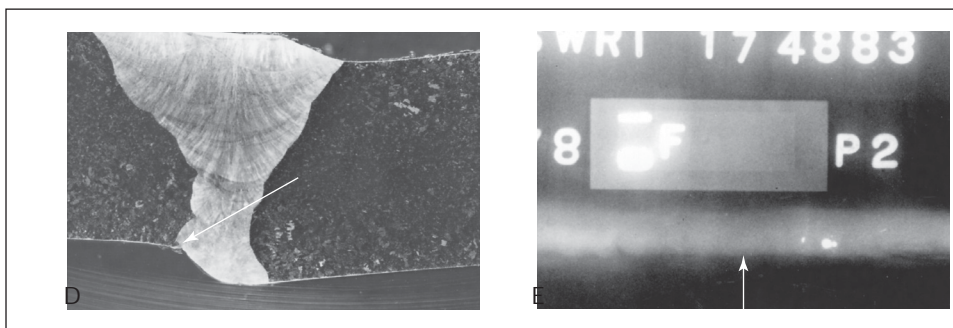


Figure 17: Mismatch or high-low discontinuity: (a) photomacrograph at 4.4x; (b) radiograph at 1.1x.

When the effective throat (the thinnest part of a fillet weld) of the deposited weld metal is less than the theoretical throat or the thickness of the parent metal, the discontinuity is called *under fill*. This discontinuity causes a reduction in thickness of the weld metal deposit. As a result, the radiographic image is darker than the image of the surrounding metal.

0 L V P D W F K

Mismatch or *high-low* is a structural discontinuity or fault arising during fit-up (alignment of parts to be welded) resulting in a completed weld bead with two different thicknesses. Due to differential absorption, a portion of the radiographic image of the weld bead will have darker and lighter densities. (See Figure 17.)



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 E U D G L R J U D S K D W E

([F H V V & D S 3 U R W U X V L R Q

When the weld metal deposit increases in thickness more than the parent metal thickness, the discontinuity is called *excess reinforcement* or *protrusion*. Excess reinforcement or over-protrusion may become a source for stress concentration leading to service failure. Because of the excess thickness, the image of this discontinuity will be lighter compared to the weld metal area with no reinforcement area.