

# WELDING *Journal*



July 2011



**Understanding  
Weld Flaws**

**Welding's Role  
in Our Lives**

**Locomotive  
Wheel Repair**

PUBLISHED BY THE AMERICAN WELDING SOCIETY TO ADVANCE THE SCIENCE, TECHNOLOGY, AND APPLICATION OF WELDING  
AND ALLIED JOINING AND CUTTING PROCESSES, INCLUDING BRAZING, SOLDERING, AND THERMAL SPRAYING

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On the cover: Randy Jennings performs gas metal arc welding using a 0.045-in. wire to create yard ramps. (Photo courtesy of Bluff Manufacturing, Inc., Fort Worth, Tex.)