



American Welding Society

Founded in 1919 to Advance the Science, Technology, and Application of Welding

Idaho - Montana Section 185

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February Meeting

When: Thursday, February 8, 2007, 7:30 p.m.

Where: Happy's Chinese Restaurant
549 Park Avenue, Idaho Falls, ID

Technical topic: Joint Restraint and Mitigation of Residual Welding Stress
Speaker: Bill Komlos, Arc Tech LLC, Salt Lake City
AWS District 20 Director

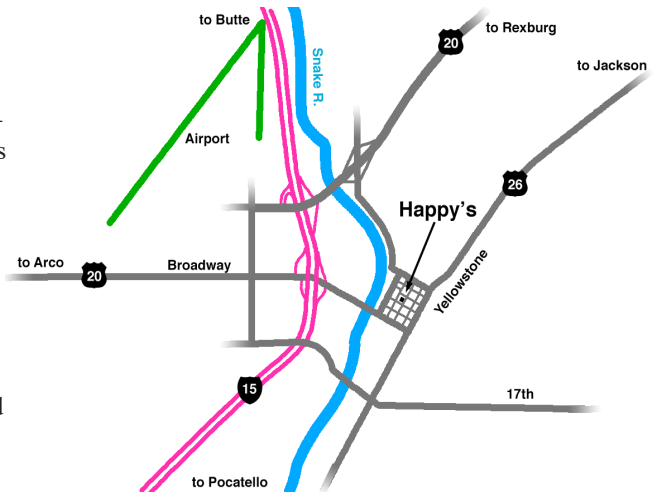
Experiments conducted at the University of Utah explore the structural bounds of medium and highly restrained joints to characterize the residual welding stress resulting from joint restraint. The research explores two cases of induced welding stress in thick-section structural frames:

- A beam free to move longitudinally while the end is joined to the column
- A beam end highly restrained and completely fixed while the second, closing joint is welded.

The relative degree of joint restraint completely changes the distribution of stress in the welded frame. The resulting residual stresses, not identified in construction codes, can rob connections of the strength expected by the structural design.

To address these residual stress issues, the University of Utah research team developed a holistic process to remove residual welding stress, analyzing the entire structure rather than focusing on individual welds. To demonstrate the application of this new process, laboratory experiments are related to a real-world application of welding on a 145 Mg (160-ton) truss like one installed in Las Vegas to support water-stages and hydraulics used in a popular aqua-theater.

RSVP to Nancy Carlson or Paul Tremblay (contacts at left) by 5 p.m., February 7



◆ Section News ◆

Thanks to University of Montana - Missoula, College of Technology welding students and instructors, Bob Shook and Bill Pinson, for a super meeting and tour of their facility, program, and new welding equipment.

Welding Scholarship - District and Section scholarships are offered to students who are either residents of Idaho or Montana and/or are attending post-secondary welding programs in the two states. Traditionally we offer 4 to 5 of these scholarships annually to qualified applicants in 2 and 4-year welding programs, ranging from \$400 to \$700 based on the applicant's qualifications and cost of education. What we look for in a district or section scholarship recipient is academic, leadership, work history, and welding excellence; an application packet, legibly written, with *all* forms completed per the directions; a GPA of 2.5 or better; and reference letters supporting the applicant's academic, leadership, work history, and welding excellence. The deadline for district and section scholarship applications is March 1, 2007. Visit http://aws.org/w/s/foundation/district_scholarships.html for information on these scholarship opportunities and to download the required forms. Contact Nancy Carlson at 208-523-9128 or nancymcarlson@msn.com if you have questions about these scholarship opportunities.

National Engineers Week banquet: This year, the banquet will be held Thursday evening, Feb 22nd at the Shilo Inn in Idaho Falls. Contact David Koelsh, dckoelsch@hotmail.com, for further details.

AWS National
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800-443-9353
www.aws.org

Internet Contacts

We encourage all members to use the Internet for contacts. Particularly now that the Section encompasses the entire states of Idaho and Montana-- corner to corner, a distance of about 800 miles-- using the Internet can really help tie people and their welding interests together.

We would like to continue to notify via e-mail; then, if you're very interested in a meeting place or topic you can easily find out more. This will save postage we can spend on scholarships and Section events. There will be no ads, and no further distribution of your address, just short messages with links to the meeting notice on the AWS server.

Please send an e-mail to Tim McJunkin, timothy.mcjunkin@inl.gov, containing your e-mail address and the statement that you would like to participate in this way.

You should also be aware that, as a service to its members, AWS operates a mail-forwarding service from its servers: you can have an e-mail address in the aws.org domain that is forwarded to your normal e-mail address.



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