COMMISSION IX

BEHAVIOR OF METALS SUBJECTED TO WELDING

IX-2664-19

DRAFT AGENDA FOR 2019 MEETING OF COMMISSION IX, 72TH ANNUAL ASSEMBLY IN BRASTILAVAI, SOLVAKIA, ON JULY 07-12, 2019

(As of 06 May, 2019)

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DRAFT AGENDA FOR 2019 MEETING OF COMMISSION IX, 72TH ANNUAL ASSEMBLY IN BRASILAVAI, SOLVAKIA, ON JULY 07-12, 2019

Program Summary

July 08, 2019 (Mon.) 14:15 - 18:15 Commission IX-L meeting
Venue: London1, CROWNE PLAZA

July 09, 2019 (Tue.) 14:15 - 18:15 Commission IX-H meeting
Venue: Berlin, CROWNE PLAZA

July 10, 2019 (Wed.) 08:15 - 12:30 Joint meeting of IX-C and C-XI
Venue: Salonik Grand, TATRA

14:15 - 16:15 Commission IX-NF meeting
Commission IX-L meeting (cont.)
Venue: Sal LUX, TATRA

16:45 - 18:15 Commission IX-H meeting (conti.)
Venue: Sal LUX, TATRA

18:15- 18:20 Summary meeting of C-IX
Venue: Sal LUX, TATRA

IIW Antitrust policy

IIW activities are based on a close, voluntary cooperation of its worldwide members with the overall target to improve the knowledge and skills in joining. To maintain these fruitful activities, it is strictly necessary to meet the obligatory terms of antitrust laws during IIW working sessions, meetings and other events. Thus, any commercial oriented discussion (including, but not limited to market shares, prices, turnovers, production quantities, costs, suppliers and/or customers) is strictly banished.
**Monday, July 08, 2019**

I. Opening Session

1. Opening and welcome by the chair
2. Approval of Agenda (IX-2665-19)
3. Approval of Minutes of AA Meeting (IX-2661-18) of Bali 2018
4. Approval of Minutes of intermediate Meeting (IX-2664-19) of Maimi 2019

II. Commission IX-L: Low alloy steel welds

1. Administration matters of IX-L by Prof. Norbert Enzinger, Chair of IX-L
2. Presentation of documents

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<td>IX-2667-19</td>
<td>Usage of surface-modified filler material to increase the joint-</td>
<td>K. Treutler, V. Wesling</td>
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<td>strength of HSLA steels under different load types</td>
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<td>IX-2668-19</td>
<td>Effects of Niobium in Submerged Arc Weld Metal</td>
<td>T. Patterson, X. Liu, and J.C. Lippold</td>
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<td>IX-2670-19</td>
<td>Tensile and microstructural characteristics of 24Mn steel welds at</td>
<td>M. Choi, J. Lee, M. Kim, N. Kang, D. Cho</td>
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<td>and 298 K</td>
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Continued on July 10, 2019 (Wednesday)

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<td>IX-2674-19</td>
<td>Microstructure and toughness of C-Mn steel weld metal obtained by the</td>
<td>J.C.F. Jorge, I.S. Bott, L.F.G. Souza, M.C. Mendes, L.S. Araújo, G.M.</td>
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<td>SAW process, with and without titanium addition</td>
<td>Evans</td>
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Characterization of bainite-ferrite structures formed in the heat-affected zone of a dissimilar weld of high-strength steel (S700MC/S960QC) and their dependency on the cooling rate

K. F. N. Bayock, P. Kah, B. Mvolha, H. Eskelinen, and X. Cai

Review Seggau 2018

N. Enzinger

Tuesday, July 09, 2019

I. Commission IX-H: Welding of stainless Steels and Nickel-base Alloys

1. Administration matters of IX-H by Dr. Elin Westin, Chair of IX-H

2. Presentation of documents: to be splitted into two groups

- Influence of the process parameters on the corrosion behavior of quality 2205 duplex stainless steel in laser beam welding with highest focusability
  Stefan Ulrich, S. Jahn, P. Schaaf

- Bead by bead study of a multipass shielded metal arc welded super duplex stainless steel
  Vahid Hosseini, Kjell Hurting, Leif Karlsson

- Evaluation of test results and ranking criteria for Varestraint testing of an austenitic high temperature alloy
  Mikael M. Johansson, Peter Stenvall, Leif Karlsson, Joel Andersson

- Efficient welding of new FeCrAl alloys for high temperature corrosion environments
  M.A. Valiente Bermejo, S. Selin, A. Jonasson, Kjell Hurting, Lars-Erik Stridh, Johan Løthman, Leif Karlsson

- Advanced microstructural characterization of cast ATI 718Plus® – effect of homogenization heat treatment temperature on HAZ cracking during manual TIG repair welding
  Fabian Hanning, A.K. Khan, O.A. Ojo, Joel Andersson

- Investigation of Standardizing for Evaluation Method of Varestraint Test
  Kota Kadoi

- Solidification Cracking Susceptibility of Grain Boundary Engineered Fully Austenitic Stainless Steel
  Shun Tokita, Kota Kadoi, Yudai Kanno, Hiroshige Inoue

- Hot Cracking Susceptibility of Alloy 617 by Varestraint Test
  Shotaro Yamashita, Takahiro Niki, Kenji Kamimura, Tomo Ogura, Kazuyoshi Saida
Joint Meeting of Commission IX-C (Creep and Heat resistant welds) & Commission XI

1. Administration matters of IX-C by Prof. Peter Mayre, Chair of IX-C
2. Presentation of documents of IX-C

**IX-2685-19**
Hot Cracking Susceptibility in Duplex Stainless Steel Welds
*Dong-Cho Kim, Tomo Ogura, Shotaro Yamashita, Kazuyoshi Saida*

**IX-2686-19**
Evaluation of variations in Trans-Varestraint Test
*Daisuke Abe, Yu Murakami, Takaaki Matsuoka, Takanori Kanehiro, Boian T. Alexandrov, Benjamin Shutton and Steve McCracken*

**IX-2687-19**
Experimental and Numerical Modeling Study of Solidification Cracking in Alloy 52M Filler Metal in the Cast Pin Tear Test
*Huimin Wang, Boian T. Alexandrov, Eric Przybylowicz*

**IX-2688-19**
Varestraint Weldability Testing of Cast Haynes 282
*Sukhdeep Singh, Joel Andersson*

**IX-2689-19**
Nitrogen effect on pitting corrosion resistance of tube welded joints in super-austenitic stainless steels
*Zhiliang Zhou and Andreas Rahm Yhr*

**IX-2690-19**
Application of laser peening to grain boundary engineering process of 304 austenitic stainless steel
*Hiroyuki Kokawa, Shun Tokita, Shohei Kodama, Yutaka S. Sato, Yuji Sano, Zhuguo Li, Kai Feng*

**Wednesday, July 10, 2019**

**Morning session**

Joint Meeting of Commission IX-C (Creep and Heat resistant welds) & Commission XI

1. Administration matters of IX-C by Prof. Peter Mayre, Chair of IX-C
2. Presentation of documents of IX-C

**IX-2691-19**
Solidification phenomena in creep resistant 9Cr weld metals and their implications on mechanical properties
*A. Nitsche*

**IX-2692-19**
Utility properties of creep resistant boron and nitrogen containing martensitic steel base metal and weld deposits
*P. Brziak, L. Parilak, P. Pastier, P. Beraxa, P. Bekec, J. Pecha, M. Domankova*

**IX-2693-19**
Hydrogen diffusion in creep-resistant 9%-Cr steel welds
*M. Rhode, T. Richter, A. Nitsche, P. Mayr*
(Afternoon session)

I. Commission IX-NF: Non-ferrous materials

1. Administration matters of IX-NF by Dr. Jorge F. dos Santos, Chair of IX-NF
2. Presentation of documents:

| IX-2694-19 | Theoretical analysis of keyhole dynamics in laser spot welding for aluminum  
|            | H. Mori, Q. Zhou, F. Miyasaka |
| IX-2695-19 | Thermodynamic generation properties of multiple connected structure of copper-constantan laser welded joint  
|            | S. Meguro, S. Nigo, T. Nakamura |

II. Doc. Presentation of IX-L (continued)

III. Doc. Presentation of IX-H (continued)

VI. Meeting Summary and Others

1. Review of Recommendations
2. Review of Resolutions
3. Review of Administrative matters
4. Plan for Intermediate Meeting(s) of 2019
5. Any other business
6. Adjournment of Commission IX