

IIW
Comm XII - SG 212 / Osaka 2004
AG 45 möte 04-10-05

- Commission XII
"Arc Welding Processes and Production Systems"
- Chairman B Lucas
 - ⇒ XIIA Metallurgy
 - ⇒ XIIB Arc Welding Processes H Hackl
 - ⇒ XIIC Production System Y Sugitani
 - ⇒ XIID Environment, H&S H W Ludewik
 - ⇒ XIIE Quality Assurance D Rehfeldt
- SG 212
"Physics of Welding"
Chairman E Halmøy



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IIW
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- Joint III-IV-XII Workshop
⇒ "Improving Productivity and Reliability in Welding Processes"
- Joint XII-SG 212 Workshop
⇒ "Understanding the Mechanism of the A-TIG Process and its Application in Industry" Improving



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IIW
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- 54 tekniska dokument presenterades i Osaka
- Inklusive mellanmötet (XII) har total 66 dokument presenterats i XII, SG 212 + Joint Workshops under 2004
- Japan i särklass - 55% av alla dokument
- UK 17 %
- Sverige delad 3:a
- Se även Tabell



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XIIA Metallurgy

- "State of the Art Welding Consumables for Offshore Structures"
- 420 - 500 - 700 MPa Grades
- SMAW - SAW - GMAW - FCAW
- Review beträffande senaste generationen tillsatsmaterial för offshore applikationer



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XIIB Arc welding Processes
H Hackl

- 10 dokument presenterade
- Highlights
 - Narrow Gap Tandem GMAW
 - Laser-Hybrid-MAG svetsning av galvaniserad plåt
 - Klassificering av Droppövergång i bågsvetsning
 - Tandem-MIG/MAG (Svenskt bidrag)



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XIIC Production Systems
Y Sugitani

- 7 Dokument presenterade
- Highlights
 - Ultra-Narrow Gap Hot Wire GTA Welding Process
 - Laser-Arc Hybrid
 - OSW - Image Processing => No backing plate needed
 - GTA Robot System for Al-frames
 - Two-Joint Synchronized Robotic Arc welding System (Box columns)



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XIID Enviromental, Health & Safety H W Ludewig

- 2 svenska bidrag presenterades
 - * Energy Efficiency in Welding - Klas Weman
- * Electromagnetic Fields - Bertil Pekkari
 - Nya EU direktiv 2004
 - Kritiska processer
 - Pulsad MIG
 - Kortbågs MIG
 - TIG med fyrkantsvåg
 - MMA (AI)

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XIIE Quality Assurance in Arc Welding D Rehfeldt

- 5 Dokument presenterade
- Highlights
 - * Signature Imaging Monitoring
 - * Training - Visual Sensors
 - * Temperature Distribution in Thick Plate Fillet welding
 - * Using Space Technology in welding

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III - IV - XII **Improving Productivity and Reliability in** **Welding Processes**

- 12 Dokument presenterade
- Highlights
 - * Trends on Welding Consumables in Japan
 - * Trends on Welding Power Sources in Japan
 - * Trends on Sensing and Monitoring Systems in Japan
 - * Trends on CAD/CAM and Systematization Technology
 - * Friction Stir Welding
 - * MPW (Magnetic Pulse Welding)
 - * CHRW (Conductive Heat Resistance Welding)
 - * Laser Applications
 - * Reduced Pressure EB welding - High Productivity - Thick Plates

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XII - SG 212 **Mechanism of the A-TIG Process and its** **Applications in Industry**

- 8 Dokument presenterade
- Mekanismen
 - * Surface Tension ?
 - * Electron Attachment ?
 - * Maragani effect ?
 - * En kombination av alla tre effekterna troligen närmast sanningen!

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Comm XII / Osaka 2004

- Nästa mellanmöte
 - * Vintern 2004 - Plats ?
- Annual Assembly 2005
 - * Prag Juli

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