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Stahl

The host:

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TEMA

Conference secretariat and organisation:

TEMA Technologie Marketing AG Conference Secretariat SCT 2011 Attn: Jutta Grawitter Theaterstraße 74 52062 Aachen Germany

Tel.: +49 (0)241 88970-69 Fax: +49 (0)241 88970-42 sct2011@tema.de www.tema.de 3rd International Conference on Steels in Cars and Trucks

SCT2011

Steels in Cars and Trucks June 5 - 9, 2011, Salzburg, Austria www.SCT2011.com



Content



Program Structure

6.11	16:00-17:30	Early Registration		
02.0	17:30-19:30	Get-together at Salzburg Congress		
06.06.11	08:00-09:00	Registration		
		Mozart-Saal 1-3	Mozart-Saal 4-5	Karajan-Saal
	09:00-10:30			Plenary Session
	11:15-12:30	Light weight solutions with flat products	Innovative steels for trucks	Steel components – Strength properties of long products
	14:00-15:40	Press hardening I	Profiles for body structure	Steel components – Made from long products
	16.10-17:50	Press hardening II	ZnMg-Coatings	Modern steel design and heat treatment
	19:30-21:00	Chamber Concert and Reception at Residenz Salzb	urg	
07.06.11	08:30-10:10	New high strength steels I	Testing of flat products	Modern steel design – Long products
	10:40-12:20	New high strength steels II	Collaboration of automotive and steel industry	Improved properties for long products
	12:30-23:00	Plant visit and Conference Dinner at voestalpine AG in Linz		
08.06.11	08:30-10:10	Corrosion protection	Electromobility	Diesel-injection solutions
	10:40-12:20	Hydrogen embrittlement / Weldability	Modelling and Simulation I	Machinability / Stainless steels
	14:00-15:40	Joining of flat products	Modelling and Simulation II	New high strength steels III
09.06.11		Plant visits		



Ladies and Gentlemen,

'Bringing the automotive, supplier and steel industries together' is one of the two goals behind this year's SCT 2011. This motto reinforces what the modern steel industry is all about: partnerships across value chains being made up of industry, research and development professionals.

The second motto of SCT 2011 is: 'Future trends in steel development, processing technologies and applications'. The ability to steadily innovate one of the humankind's earliest and most innovative materials for industrial use is reflected in the increasing amount of steel being consumed all over the world. Steel delivers a lot of solutions for solving such future global challenges as electro mobility or the preservation of material resources due to steel's excellent possibilities for recycling.

This is reason enough to organize a congress and accompanying exhibition dedicated to the close relationship between the steel, supplier and automotive industries, for a third time. Following the exciting launch of the SCTs in 2005 and 2008, we are looking forward to another successful event in 2011.

Steels in Cars and Trucks 2011 (SCT 2011), which takes place from June 5 to 9, 2011, at Salzburg Congress, Austria, is your chance to initiate future milestones for innovation and to take away valuable information for your business.

I would already like to thank the sponsors and exhibitors, in particular voestalpine Stahl and ArcelorMittal for becoming exclusive Platinum Sponsors; Benteler and Stahl Judenburg for becoming Gold Sponsors; as well as other Item Sponsors and several exhibitors. Also, the speakers and the many event supporters throughout the world who are actively promoting SCT 2011 deserve my special thanks.

I hereby cordially invite you to be with us in Salzburg, to become actively involved as an exhibitor or sponsor, and as a quest to reactivate your contacts with experts all over the world and find new contacts and business partners.

I look forward to greeting you on June 5, 2011, in Salzburg, Austria.

Hans Jürgen Kerkhoff Chairman Steel Institute VDEh President German Steel Federation



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TEMA TECHNOLOGIE

Program: Monday, 06.06.11 Karajan-Saal

Plenary Session

Chairman: Hans Jürgen Kerkhoff, Steel Institute VDEh, German Steel Federation, Germany

- 09:00 The steel industry challenges and chances in a global market, Hans Jürgen Kerkhoff, Steel Institute VDEh, German Steel Federation, Germany
- Volkswagen engineering global production 09:30 local materials, Stephan Eisenberg, Volkswagen AG, Germany
- Developments in Forging Technology Answers to Changes 10:00 and Challenges of the Automotive Industry, Hans-Willi Raedt, Hirschvogel Umformtechnik GmbH, Germany
- 10:30 **Opening of the exhibition,** Hans Jürgen Kerkhoff, Steel Institute VDEh, German Steel Federation, Germany
- 11:00 Press conference

Bringing the automotive, supplier and steel industry together.

Future trends in steel development, processing technologies and applications.

Program: Monday, 06.06.11 Mozart-Saal 1-3 | 11:15-15:40

06.06.2011 | Mozart-Saal 1-3 | Light weight solutions with flat products

Chairman: N.N.

11:15 FutureSteelVehicle leading edge innovation for steel body structures, Martin Peruzzi, voestalpine Stahl GmbH, Austria; Antoine Gauriat, ArcelorMittal, France; Marc Lambriks, Tata Steel Europe, The Netherlands; Oliver Hoffmann, ThyssenKruppSteel Europe, Germany; Jody R. Shaw, US Steel Corporation, USA

11:40 *Tubular steel components for light weight axle designs, Thomas Säuberlich*, Benteler Tube Management GmbH, Andreas Frehn, Benteler Automobiltechnik GmbH, Germany

12:05 Innovations for automotive light weight solutions – The steel aluminium hybrid blank, Enno Arenholz, voestalpine, Austria; Gerald Brugger, voestalpine Europlatinen GmbH Austria; Jürgen Bruckner, Fronius International, Austria

12:30 Lunch

Mozart-Saal 1-3 | Press hardening |

Chairman: Dong-Jin Kim, POSLAB, Germany

14:00 Current and future trends in the field of hot stamping of car body parts, Ralf Kolleck, Robert Veit, Institute Tools and Forming, Graz University of Technology, Austria

14:25 Production of load-adapted lightweight designs by partial hardening, Dieter Thomas, Thomas Tröster, Holger Block, University of Paderborn, Germany

14:50 Development of a close-to-production prototype of an induction heating device for hot stamping of boron alloyed steels, Robert Veit, Ralf Kolleck, Christian Gasser, Gernot Wilfinger, Institute Tools and Forming, Graz University of Technology, Austria

15:15 Significant insights and innovative processes for process-sure press hardening of laser-welded seams in hotform blanks, Max Brandt, ThyssenKrupp Tailored Blanks GmbH, Germany

15:40 Coffee/Tea Break in Exhibition

Program: Monday, 06.06.11 Mozart-Saal 4-5 | 11:15-15:40

Mozart-Saal 4-5 | Innovative steels for trucks

Chairman: Ralf Juse, MAN Truck & Bus AG, Germany

Innovative lightweight steel solutions for commercial vehicles, Helmut Mebus, Christa Heigele-Hempowitz, Thorsten Böger, ThyssenKrupp Steel Europe AG, Germany; Erik Seelen, ThyssenKrupp Tailored Blanks GmbH, Germany

Use of higher-alloyed metallic materials and duplex steels for transport tanks of dangerous goods, Margit Weltschev, Ralph Bäßler, BAM Federal Institute for Materials Research and Testing, Germany

Tubes used as rotating components in gear box applications, Karola Klenke, Benteler Tube Management GmbH, Germany

Lunch

Mozart-Saal 4-5 | Profiles for body structure Chairman: Michael Rethmeier, BAM Federal Institute for Materials Research and Testing, Germany

Vehicle structure innovations by advanced rollformed solutions, Robert Wurzer, voestalpine Krems GmbH, Austria

The HIPAT project for new semi finished products for the roll formingtailor rolled dual phase steels, Andreas Wedemeier, Thomas Schulz, Salzgitter Mannesmann Forschung GmbH, Germany; Adrian Istrate, Welser Profile GmbH, Germany; Jürgen Kötter, Schmitz Cargobull AG, Germany; Andreas Elvenkemper, Muhr und Bender KG, Germany; Philip Beiter, Peter Groche, PtU TU Darmstadt, Germany; Frank Nehuis, Jan Robert Ziebart, Thomas Vietor, IK TU Braunschweig, Germany Passive safety and tubes made of high strength steels – A symbiosis, Kenan Özdem, Benteler Tube Management GmbH, Germany; Michael Lueger, Benteler Tube Management, Switzerland

New methods for manufacturing 3D-bent lightweight structures made from high-strength steel, Daniel Staupendahl, Christoph Becker, Matthias Hermes, A. Erman Tekkaya, Matthias Kleiner, TU Dortmund, Institute of Forming Technology and Lightweight Construction (IUL), Germany

Coffee/Tea Break in Exhibition

Program: Monday, 06.06.11 Karajan-Saal | 11:15-15:40

Karajan-Saal | Steel components – Strength properties of long products

Chairman: Hans-Willi Raedt, Hirschvogel Umformtechnik GmbH, Germany

The fibre flow in steel and its influences on mechanical properties, Andreas Schuster, Hirschvogel Umformtechnik GmbH, Germany

Influence of manganese sulfide inclusions on fatigue properties of AFP steels, Nora Exel, Heinz Kaufmann, Fraunhofer-Institut für Betriebsfestigkeit und Systemzuverlässigkeit LBF, Germany

On the evaluation of strength of cold forged components made of high nitrogen steels, Johannes Noneder, M. Merklein, U. Engel, Lehrstuhl für Fertigungstechnologie, Germany

Lunch

Karajan-Saal | Steel components – Made from long products

Chairman: Peter Janßen, ArcelorMittal Ruhrort GmbH, Germany

Experiences in manufacturing crown wheels with a forged pre-gearing for commercial vehicle industry, Klaus Pfeiffer, Horst Schneider, Buderus Edelstahl Schmiedetechnik GmbH, Germany; Frank Hippenstiel, Buderus Edelstahl GmbH, Germany Oil tempered wire for high demanding applications – Necessity of defect management in the supply chain, Peter Janssen, ArcelorMittal Ruhrort GmbH, Germany; Malin Hallberg, Suzuki Garphyttan AB, Sweden; Hans Pengg, Johann Pengg AG, Austria

ArcelorMittal provides co-engineered solutions for high performance cars components, Bruno Cofino, ArcelorMittal Long Carbon R&D, France

Influence coefficients of the production of steel bars on the further production processes of engineering steels, Sven Kunow, Frank Wilke, Deutsche Edelstahlwerke GmbH, Germany

Coffee/Tea Break in Exhibition

Program: 06 / 07.06.11 Mozart-Saal 1-3 | 16:10-21:00 / 08:30-09:45

Mozart-Saal 1-3 | Press hardening II

Chairman¹ Marion Merklein, Lehrstuhl für Fertigungstechnologie, Germany

- **16:10** Influence of silicon on intermetallic phases formation in Al coating layer of HPF Steel, Baek Eungryul, Nandyo Alpalmy, Yeungnam University, South Korea; Cho Yeol Rae, POSCO Technical Research Laboratory, South Korea
- 16:35 Development of heat resistant galvanized sheet steels for press hardening process, Il-Ryoung Sohn, Yeol-Rae Cho, Sung-Ho Park, Wung-Yong Choo, POSCO, South Korea

17:00 Challenges and advantages in usage of zinc-coated, press-hardened components with tailored properties, Thomas Manzenreiter, Thomas Kurz, Martin Rosner, voestalpine Stahl GmbH, Austria; Andreas Sommer, Dieter Hartmann, Reiner Kelsch, voestalpine Polynorm GmbH & Co KG, Germany; Gerald Brugger, voestalpine Europlatine GmbH, Austria

17:25 Properties and modelling of material behaviour of hot forming steels with special emphasis of increased strength levels compared to 22MnB5, Thomas Gerber, Stephane Graff, Franz-Josef Lenze, Sascha Sikora, ThyssenKrupp Steel Europe AG, Germany

19:30 Chamber Concert and Reception at Residenz Salzburg

07.06.2011 | Mozart-Saal 1-3 | New high strength steels |

Chairman: Albert Tönnessen, Ford-Werke GmbH, Germany

- 08:30 Development of cold rolled intercritically annealed multiphase TRIP steels with a tensile strength above 980 MPa, Daniel Krizan, Andreas Pichler, Patrick Larour, Martin Gruber, voestalpine Stahl GmbH, Austria; Ekaterina Bocharova, Dorothea Mattissen, Thomas Heller, Annette Bäumer,
- ThyssenKrupp Steel Europe, Germany **08:55** New advanced high strength hot rolled steels, Brigitte Hammer, Sarah Abraham, Thomas Heller, ThyssenKrupp Steel Europe, Germany; Yoshimasa Funakawa, Akio Kobayashi, Katsumi Nakajima, Hayato Saito, Kazuhiro Seto, Takeshi Yokota, JFE, Japan
- 09:20 Fabrication of Load Optimized Truck Members with Variable Cross Sections by Flexible Roll Forming, Albert SedImaier, Roland Hennig, André Abee, data M Sheet Metal Solutions GmbH, Germany

06 / 07.06.11 Mozart-Saal 4-5 | 16:10-21:00 / 08:30-09:45

Mozart-Saal 4-5 | ZnMg-Coatings

Chairman: Franz Michael Androsch, voestalpine Stahl GmbH, Austria

Zinc-magnesium coatings for automobile & trucks – A new dimension for corrosion protection, Alain Besseyrias, Luc Diez, Christian Allely, ArcelorMittal, France

Tribological potential of zinc magnesium alloys, Anna-Elisabeth Raab, Erich Berger, Johann Freudenthaler, Franz Leomann, Christian Walch, voestalpine Stahl GmbH, Austria

MagiZinc Auto, a new HDG coating designed for automotive applications, Nitte Van Landschoot, Vlot Margot, Tata Steel Strip Products IJmuiden, The Netherlands

06 / 07.06.11 Karajan-Saal | 16:10-21:00 / 08:30-09:45

Karajan-Saal | Modern steel design and heat treatment

Chairman: Hans-Werner Zoch, Stiftung Institut für Werkstofftechnik, Germany

New developments in the material and process design of forged components in the automobile industry, Christoph Keul, Linda Mosecker, Wolfgang Bleck, RWTH Aachen University, Germany; Tim Rekersdrees, Henning Schliephake, Georgsmarienhütte GmbH, Germany; Christophe Beyer, Hans-Willi Raedt, Hirschvogel Umformtechnik GmbH, Germany Bainitic treatment and case hardening – latest development on heat treatment technologies, Matthias Steinbacher, Foundation Institute of Materials Science, Germany; Franz Hoffmann, Brigitte Clausen, IWT-Bremen, Germany One piece flow-vacuum heat treating - Integration of case hardening

into the manufacturing-line, Klaus Löser, Volker Heuer, ALD Vacuum Technologies GmbH, Germany

New approach for intermediate induction heating of preformed forging parts within a warm forming process chain, Martin Mach, Egbert Baake, Leibniz University of Hannover, Germany

Mozart-Saal 4-5 | Testing of flat products

Chairman: Jürgen Güttler, Daimler AG, Germany

Characterization of the transition area at partial hardened car body components by the 3-point bending test, Christian Hezler, Christine Kopp, Karl-Michael Bader, Bernd Griesbach, AUDI AG, Germany; Marion Merklein, Lehrstuhl für Fertigungstechnologie Universität Erlangen, Germany

Holistic approach for spotweld modelling in crashworthiness analysis, David Pieronek, Forschungsgesellschaft Kraftfahrwesen mbH Aachen (FKA), Germany; Andre Marx, Rolf Roettger, ThyssenKrupp Steel Europe AG, Germany

Thermographic testing of joints in automotive body structures, Ulrike Siemer, Volkswagen AG, Germany

Karajan-Saal | Modern steel design – Long products

Chairman: Günter Roth, Saarstahl AG, Germany

Improvement working and utility properties of classical and new Mo alloyed carburizing steels, Frank Hippenstiel, Buderus Edelstahl GmbH, Germany

B-alloyed quench and temper steels – an option to classic CrMo- and CrNiMo- quench and temper steels, Sascha Riedner, Frank van Soest, Sven Kunow, Deutsche Edelstahlwerke GmbH, Germany

Alternative alloying concepts for heat-treatable engineering steels, Herbert Schifferl, Sabine Zamberger, Albin Jöller, voestalpine Stahl Donawitz Gmbh, Austria

Program: Tuesday 07.06.11 Mozart-Saal 1-3 | 09:45-12:20

09:45 Microstructure-property relationships of bainitic high strength steel grade SZBS800, Markus Krieger, Uwe Eggers, Magsud Masimov, Salzgitter Mannesmann Forschung GmbH, Germany; Christian Pelz, Salzgitter Flachstahl GmbH, Germany

10:10 Coffee/Tea Break in Exhibition

Mozart-Saal 1-3 | New high strength steels II

Chairman: Christian Hielscher, Benteler Automobiltechnik GmbH, Germany

10:40 *N.N.*

11:05 Hot rolled, hot-dip galvanized high-strength steel for automotive applications, Markus Sonnleitner, Helmut Spindler, Matthias Flume, voestalpine Stahl GmbH, Austria; Alfred Seyr, voestalpine Krems GmbH, Austria

11:30 Materials concepts for high strength and ultra high strength automotive applications, Andreas Peters, Benteler Tube Management GmbH, Germany

11:55 Innovative high and ultra high strength steel concepts for cold forming applications, Thomas Thülig, Dieter Krech, Gerald Zwickel, BILSTEIN GmbH & Co. KG, Germany; Ralf Kolleck, Steffen Raschka, Techn. Universität Graz, Austria Tuesday 07.06.11 Mozart-Saal 4-5 | 09:45-12:20

Influence of manufacture-related imperfections on the fatigue behaviour of spot welded high strength steels, Stephan Brauser, Michael Rethmeier, Gert Weber, Gaul Holger, Lutz-Alexander Pepke, BAM Federal Institute for Materials Research and Testing, Germany

Coffee/Tea Break in Exhibition

Mozart-Saal 4-5 | Collaboration of automotive and steel industry

Chairman: Carsten Lachmann, Volkswagen AG, Germany

VDA Werkstoffblatt 239: An approach for a global sheet steel specification, Thomas Dettinger, Daimler AG, Germany; Johann Högerl, BMW AG, Germany; Heike Kantereit, Adam Opel GmbH, Germany; Carsten Lachmann, Volkswagen AG, Germany; Klaus Lamprecht, Audi AG, Germany; Albert Tönnessen, Ford-Werke GmbH, Germany

Application of material approval process in a globally acting company, Birgit Reichert, Klaus Unruh, Faurecia Automotive Seating, Germany; David Even, Faurecia Automotive Seating, France

A VDA-approach on the development of a test method for quantifying hydrogen embrittlement in advanced high strength automotive steel sheets. Matthias Loidl, BMW Group, Germany; Olaf Kolk, BMW, Germany

A new laboratory corrosion test for cars and trucks, Karl-Heinz Stellnberger, Gerald Luckeneder, voestalpine Stahl GmbH, Austria; Stefanie Geisler, Steel Institute, Germany Tuesday 07.06.11 Karajan-Saal | 09:45-12:20

New air cooled steels with outstanding impact toughness, Hans Roelofs, Stephan Hasler, Swiss Steel AG, Switzerland; Mirkka Lembke, Steeltec AG, Switzerland; Francisca G. Caballero, CSIC-CENIM, Spain

Coffee/Tea Break in Exhibition

Karajan-Saal | Improved properties for long products

Chairman: Frank Hippenstiel, Buderus Edelstahl GmbH, Germany

A new bainitic steel for cold heading applications, Stephan Hasler, Ulrich Urlau, Swiss Steel AG, Switzerland; Jochen Kruse, ZF Lemförder GmbH, Germany

A high-strength and super clean heat-treatable steel for application in the automotive industry, Rainer Fluch, Ingo Siller, Böhler Edelstahl GmbH & Co KG, Austria

Technological properties of the new high strength bainitic steel 20MnCrMo7, Serosh Engineer, Holger Justinger, EZM EdelstahlZieherei Mark GmbH, Germany; Peter Janßen, ArcelorMittal Ruhrort GmbH, Germany; Michael Härtel, Carsten Hampel, Continental Automotive GmbH, Germany; Frank Randelhoff, A. + E. Keller Gmbh & Co. KG, Arnsberg, Germany

Research & Development of High Strength Fastener using Hyper-Eutectoid Steel, You-Hwan Lee, Kim Dong Hyun, Kim Ji Soo, POSCO, South Korea; Lee Chong Soo, POSTECH, South Korea

Program: Tuesday 07.06.11 Linz | 12:30-23:00

12:30 Departure from Salzburg Congress to voestalpine AG, Linz. Lunch will be served at the bus.

The busses will be marked behind the windshield with their own color and letter.

You will find a program with the color and letter of one bus at the conference room. Please take the bus indicated on the program.

Depending on your bus, the order of the plant visit will vary, but all participants will receive the entire plant visit.

Schedule:

- 12:30 Departure from Salzburg / Lunch
- **14:00** Arrival at voestalpine Linz
- 14:15 Visit to voestalpine AG Stahlwelt
- 15:45 Coffee Break
- **16:30** Visit to voestalpine AG plant
- 18:30 Conference Dinner at voestalpine AG in Linz
- **23:00** Arrival at Salzburg Congress

An information point will be available at voestalpine AG.

voestalpine

ONE STEP AHEAD.

Program: Wednesday 08.06.11 Mozart-Saal 1-3 | 08:30-11:05

08.06.2011 | Mozart-Saal 1-3 | Corrosion protection

Chairman: Thomas Heller, ThyssenKrupp Steel Europe AG, Germany

08:30 Corrosion resistance of different metallic coatings on presshardened steels for automotive, Laurence Dosdat, Jacques Petitjean, ArcelorMittal Maizières Research, France; Thomas Vietoris, ArcelorMittal, Germany; Olivier Clauzeau, Bohr Technologies, France

08:55 New coatings for hot press forming, Maria Köyer, Patrick Kuhn, Jens Kondratiuk, Manfred Meurer, Dortmunder Oberflächencentrum GmbH, Germany; Franz-Josef Lenze, ThyssenKrupp Steel Europe, Germany

09:20 Aspects of cosmetic corrosion performance of galvanized and coil-coated steel substrates for car body applications, Gerald Luckeneder, voestalpine Stahl Gmbh, Austria

09:45 2nd generation corrosion protection primers – further advances in automotive corrosion prevention, Ingo Klüppel, ThyssenKrupp Dortmunder Oberflächencentrum GmbH, Germany; Karl-Heinz Stellnberger, voestalpine Stahl GmbH, Austria; Stefanie Geisler, Steel Institute VDEh, Germany; Thorsten Reier, Salzgitter Mannesmann Forschung GmbH, Germany; Eric Jacqueson, ArcelorMittal, France

10:10 Coffee/Tea Break in Exhibition

Mozart-Saal 1-3 | Hydrogen embrittlement / Weldability

Chairman: Johann Högerl, BMW Group, Germany

10:40 Influence of microstructure on the susceptibility towards hydrogen embrittlement, Richard Thiessen, Thomas Heller, ThyssenKrupp Steel Europe AG, Germany; Klemens Mraczek, Arnd Nitschke, Andreas Pichler, voestalpine Stahl GmbH, Austria

Wednesday 08.06.11 Mozart-Saal 4-5 | 08:30-11:05

	08.06.2011 Mozart-Saal 4-5 Electromobility	08.06.2011 Karajan-Saal Diesel-injection solutions
G, Germany	Chairman: N.N.	Chairman: Serosh J. Engineer, EZM Edelstahlzieherei Mark GmbH, Germany
tings on press- edat, arch, France; er Clauzeau, Bohr	Steel solutions for electromobility, Oliver Hoffmann, ThyssenKrupp AG, Germany	Advanced high-strength TRIP-aided steels for ultra high pressure DI-Diesel engine common rail, Kohichi Sugimoto, Nobuo Yoshikawa, Shinshu University, Japan
<i>yer,</i> r, Dortmunder osef Lenze,	Electrical steel – Current and future applications of a challenging material in the automotive industry, Thomas Böhm, ThyssenKrupp Electrical Steel GmbH, Germany; Johann Müller, ThyssenKrupp Steel Europe AG, Germany; Norbert Brachthäuser, C. D. Wälzholz GmbH, Germany; Franz Dorninger, voestalpine Stahl GmbH, Austria; Stefanie Geisler, Steel Institute VDEh, Germany; Sigrid Jacobs, ArcelorMittal, Belgium; Andreas Jansen, Rolf Stiller, ArcelorMittal Eisenhüttenstadt GmbH, Germany	Requirements on Diesel Injection Tubes for Common-Rail-Systems , <i>Karola Klenke</i> , Benteler Tube Management GmbH, Germany
f galvanized and l ications, stria		Injection Lines for Diesel engines – Simulation-based fatigue strength engineering, Steffen Zimmermann, Lars Bremer, Alfred Ostermann, Salzgitter Mannesmann Forschung GmbH, Germany; Uwe Lechtenfeld, Andreas Zaremba, Salzgitter Mannesmann Präzisrohr GmbH, Germany
– further n, Ingo Klüppel, ım GmbH, Stahl GmbH, iermany; ung GmbH,		Ultrafine-grained steels for high loaded engine components, <i>Matthias Kuntz,</i> Manfred Bacher-Höchst, Friedrich Mühleder, Robert Bosch GmbH, Germany; Shiro Torizuka, Yoshiyuki Furuya, National Institute of Materials Science, Tsukuba, Japan
:		Coffee/Tea Break in Exhibition
ity	Mozart-Saal 4-5 Modelling and Simulation I	Karajan-Saal Machinability / Stainless steels
	Chairman: Ralf Kolleck, Institute Tools and Forming, Austria	Chairman: Frank Wilke, Deutsche Edelstahlwerke GmbH, Germany
lity towards	Parameter identification of damage parameters of LS-DYNA gurson	New metallurgical concepts for improving machinability of steels,

material model from a tensile test, Wolfgang Wallisch, Dynardo -

Dynamic Software and Engineering GmbH, Austria; Johannes Will,

Germany

Henrick Nilsson, Dynardo - Dynamic Software and Engineering GmbH,

New metallurgical concepts for improving machinability of steels, Peter Janßen, ArcelorMittal Ruhrort GmbH, Germany; Serosh Engineer, EZM Edelstahlzieherei Mark, Germany

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Wednesday 08.06.11 Karajan-Saal | 08:30-11:05

Program: Wednesday 08.06.11 Mozart-Saal 1-3 | 11:05-15:40

- 11:05 Evaluation of hydrogen embrittlement for ultra high strength steel sheets, Norbert Rössler, ThyssenKrupp Steel Europe, Germany
- **11:30** Laserwelding of steel with cast-iron without filler material, Christian Elsner, Andreas Bünting, Daimler AG, Germany

11:55 Mechanical properties and weldability of 700 MPa structural steels with excellent formability, Jukka Kömi, Rautaruukki Oyj, Finland; Mikko Hemmilä, Tommi Liimatainen, David Porter, Pertti Mikkonen, Rautaruukki Oyj, Ruukki Metals, Finland

12:20 Lunch

Mozart-Saal 1-3 | Joining of flat products

Chairman: Michael Braun, Salzgitter Mannesmann Forschung GmbH, Germany

14:00 *Mechanical joining of hot stamped steel, Jan Kalich,* Uwe Füssel, TU Dresden, Germany

14:25 Development of joining technologies for production of hybrid chassis components, Jörn Tölle, Simon Potthast, Jürgen Krogmeier, Siegfried Fecke, Benteler Automobiltechnik GmbH, Germany

- 14:50 High strength low alloy steel weldments with accommodated qualities to the base metal, Rudolf Rauch, Stefan Kapl, voestalpine Stahl GmbH, Austria; Gerhard Posch, Boehler Schweisstechnik Austria GmbH, Austria; Karl Radlmayr, voestalpine Automotive GmbH, Austria
- **15:15** Joinability of thin steel sheets with new zinc-alloy coatings, Robert Sierlinger, Sabine Ritsche, voestalpine Stahl, Austria

Wednesday 08.06.11 Mozart-Saal 4-5 | 11:05-15:40

Formability prediction of high strength steels for automotive applications, Junhe Lian, Sebastian Münstermann, Wolfgang Bleck, Institute of Ferrous Metallurgy, RWTH Aachen University, Germany

Modelling the strain rate dependence of flow curves by improved yield strength prediction, Kirsten Dahmen, Wolfgang Bleck, RWTH Aachen University, Germany; Birgit Reichert, Faurecia Autositze GmbH, Germany

A method to determine the dynamic energy absorption by deformation for the automotive steels, Fang Jian, Zhou Yedong, Baosteel Research Institute, Baoshan Iron & Steel Co., Ltd., China

Lunch

Mozart-Saal 4-5 | Modelling and Simulation II

Chairman: Wolfgang Bleck, Institute of Ferrous Metallurgy, Germany

Virtual material development: From semi-finished material to crash behaviour, Bianca Springub, Salzgitter Mannesmann Forschung GmbH, Germany; Alexander Butz, Fraunhofer-Institut für Werkstoffmechanik IWM, Germany; Markus Feucht, Karl Roll, Sebastian Lossau, Frieder Neukamm, Daimler AG, Germany; André Haufe , DYNAmore GmbH, Germany; Magsud Masimov, Salzgitter Mannesmann Forschung GmbH, Germany; Franz Roters, Max-Planck-Institut für Eisenforschung GmbH, Germany; Rolf Schwarzer, Christoph Wagener, Kirchhoff Automotive GmbH, Germany Fatigue life estimation – a feature in virtual development of

passenger cars, Franz Ruprechter, Gerhard Kepplinger, Michael Hofer, MAGNA STEYR Fahrzeugtechnik AG & Co KG, Austria

A pragmatic strategy to take into account metal materials scatter in FEA, David Even, Faurecia Automotive Seating, France; Birgit Reichert, Faurecia Automotive Seating, Germany; Björn Carlsson, SSAB EMEA, Germany; Marc Lambriks, TATA Steel Europe, The Netherlands

Numerical simulation of the staking process of clinching fasteners, *Miriam Tofall*, Richard Bergner Verbindungstechnik GmbH & Co. KG, Germany; Marion Merklein, Raoul Plettke, Friedrich-Alexander-Universität Erlangen, Germany

Wednesday 08.06.11 Karajan-Saal | 11:05-15:40

Machinability of high-strength bainitic steel 20MnCrMo7,

Fabian Felderhoff, Dirk Biermann, Institut für Spanende Fertigung, TU Dortmund, Germany; Serosh Engineer, Holger Justinger, EZM Edelstahlzieherei Mark GmbH, Germany

Machining of stainless steels used in cars and trucks, Denis Fofanov, Ingrid Hofmann, Deutsche Edelstahlwerke GmbH, Germany

Properties of laser welded H400 austenitic chrome-manganese stainless steel sheets, Vanessa Quiroz, Gumenyuk Andrey, Michael Rethmeier, BAM Federal Institute for Materials Research and Testing, Germany

Lunch

Karajan-Saal | New high strength steels III

Chairman: Thomas Tröster, Lehrstuhl Leichtbau im Automobil, Germany

Reliably processable steel for chassis components with high structural durability, Joachim Schöttler, Volker Flaxa, Salzgitter Mannesmann Forschung GmbH, Germany; Jürgen Guettler, Marcus Rieth, Christian Martin Erdmann, Daimler AG, Germany

Ultra high strength steels produced by thermomechanical hot rolling – Advanced properties and applications, Martin Klein, voestalpine Stahl GmbH, Austria

Properties of new austenitic high manganese steels with improved property profile, Harald Hofmann, Sinasi Göklü, Helmut Richter, Ingo Thomas, Jens-Ulrik Becker, ThyssenKrupp Steel Europe AG, Germany

Specialists for extreme purposes: Stainless steel for automotive construction, Evelin Ratte, Tobias Müller, ThyssenKrupp Nirosta GmbH, Germany

Poster Presentations

Corrosion testing for stainless steels in automotive exhaust systems, *Cristina Hoffmann*, Paul Gümpel, University of Applied Sciences Konstanz, Germany

Locally Influencing the Properties by Local deformation and Bake Hardening in Hot rolled Multi Phase Steels, Mehdi Asadi, TU Clausthal, Germany

In-situ characterization of the microstructure evolution in low-alloyed TRIP steels using high-energy X-ray diffraction, Enrique Jimenez-Melero, Delft University of Technology, The Netherlands

Efficient Welding Simulation of an Automotive Sheet Metal Assembly, *William Perret,* Federal Institute for Materials Research and Testing, Germany





In the next few days you will find our offer for Plant Visits here.



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BENTELER ▼







TATA STEEL



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VOLKSWAGEN AKTIENGESELLSCHAFT

Participation Fees

Participation fees

The cost for attending as a participant in this extraordinary 3 day conference and exhibition and having the possibility to visit a company (charged extra) on the 09.06.11 is dependent upon your specific requirements.

All prices are plus Austrian VAT (20%). The conference fee includes the conference dinner and conference proceedings.

For detailed information please visit www.sct2011.de (Participation fees). Registration is only possible online.

Please look at: www.sct2011.de (Register now).

	3-days-card	1-day-card
Participant	980,00	370,00
Speaker	460,00	170,00
Member of university 1)	460,00	170,00
as speaker	350,00	130,00
Student (with student id; age < 25 years)	190,00	80,00
as speaker	120,00	60,00

Packages for Exhibitors/Sponsors

Exhibitors/Sponsors

Over 300 visitors (40 % international) attended the second conference on Steels in Cars and Trucks (SCT 2008 – June 2008) which was organized by the Steel Institute VDEh and supported by the VDA, AWT and ASMET. The ratio of steel producers to representatives from the automotive/supplier industry was 50:50. The goal of initiating and further developing the network between steel producers, automobile manufacturers and automotive suppliers was successfully achieved.

Enthusiastic feedback praised in particular the scientific and economic oriented presentations given by the international speakers, the accompanying exhibition, the impressive location and the good organisation. Furthermore, the enjoyable Evening Event still today remains in the memories of many, which truly helped to strengthen networks formed at the conference.

The positive press coverage reflects the broad interest in the use of steels in the automotive industry. A comprehensive and wide reaching marketing campaign with flyers, first/second announcements, mailings, newsletters, website, flags and much more brought, and continues to convey, the SCT message to the target groups.

The SCT provides its exhibitors and sponsors with an attractive possibility to strengthen their networks between the automotive, supplier and steel industries.

For detailed information, please visit www.sct2011.de (Exhibitors/Sponsors)



The Venue

Not as important as an excellent program, but important nevertheless is the conference venue. An interesting venue and exquisite food will ensure an additional feeling of well-being for sponsors, exhibitors and visitors.



Salzburg Congress

The Salzburg Congress will be the location of SCT 2011. Salzburg, Austria, is situated in the north of the Alps. Salzburg means Mozart, Salzburg Festival and "Salzburger NockerIn" (traditional sweet dish). It is easy accessible by car (Highway intersections A 1, A 8, A 10), train (Salzburg Main Station - ICE, Eurocity, Intercity and Interregio connections) and air (Salzburg Airport W. A. Mozart). Salzburg is very close to Munich with its international airport "Franz Josef Strauss". An appealing venue and exquisite food will ensure an additional feeling of well-being for sponsors, exhibitors and participants.

The Salzburg Congress was opened in June 2001. Designed to accommodate up to 2,500 guests, the congress centre is a real eye-catcher with features such as its generous glass and steel façade, spectacular interiors and views of the gardens of the historical Mirabell castle.



The Venue

Address

Salzburg Congress | Auerspergstraße 6 | A-5020 Salzburg | Austria

Building and Floor plan





Arrival and Hotels



Accommodation:

Together with our Hotel Partner (optiMICE), we have been able to secure special rates and cancellation terms for hotel rooms of various hotels in and the surrounding area of Salzburg.

The special offers are only eligible to persons, including spouse, attending the SCT2011 Conference in Salzburg.

All negotiated rates include breakfast and applicable taxes.

www.sct2011.com → Hotel Reservation

Getting to the SCT 2011:

