

Sigma Pool Hosts Gear Seminar, WZL Event



Dr.-Ing. Andreas Mehr (Liebherr-Verzahntechnik Kempten) presents a lecture on "Grinding Technology—Basics and the Future."



Prof. Dr.-Ing. Fritz Klocke and Dr.-Ing. Alois Mundt, managing director of Liebherr-Verzahntechnik Kempten, catch up during the tour of Liebherr's Saline, MI facilities.



Thierry Guertin of the Klingelberg-Oerlikon Tech Center enlightens the crowd on bevel gear prototyping.




Prof. Dr.-Ing. Fritz Klocke and the young engineers that comprise the WZL Aachen Gear Conference pose with Dr.-Ing. Klaus Finkenwirth of Liebherr-Verzahntechnik Kempten and Dr.-Ing. Hartmuth Müller of Klingelberg GmbH Hückeswagen.

More than 120 attendees from the American gear community congregated in Saline, MI, last month for the 2007 Sigma Pool Gear Seminar.

The three-day event consisted of two full days of addresses by Sigma Pool employees on various gearing technologies. The first day focused on bevel gear technology and the third on parallel axis gearing technology. Sandwiched in the middle was the WZL Aachen gear conference, a bi-annual event that presents research results in 10 sessions.

"It's always surprising to me that we get so many busy people who are willing to take three days out of the office and listen to the Sigma Pool explain our way of thinking," says Andreas Montag, marketing manager at the Sigma Pool. "They're not all local to the Detroit area and we're very pleased that so many people are willing to make the trip."

Among some highlights of the bevel gear day were a presentation by Günter Mikoleizig, Klingelnberg's manager of design and development for gear inspection machinery, on the company's new *GINA* software, which provides quicker and more accurate gear measurements. In some of the other 30-minute sessions, Dr. Joachim Thomas, the company's head of application engineering, presented on the correlations he has found between design and road tests and Dr. Alexander Langvogt, technical director in charge of running test machines, shared some smart and fast test methods for bevel gears.

Interestingly enough, Montag thought some of the event's most productive moments took place during the between-session coffee breaks. "At the shows, people walk by and maybe stop for an hour to talk, then walk over to the competitor and talk to them for an hour. In this environment, we have them for eight hours and the coffee breaks provide a wonderful opportunity for people to talk to our engineers as well as interact with their friends and competitors." 

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July 16-18—Powder Metallurgy Basic Short Course.

Penn Starter Conference Center Hotel, State College, PA. Highlights include technical sessions discussing designing for PM; how metal powders are produced; different designs used in compacting tools; use of sintering to develop functional properties; injection molding of metal powder; various secondary operations; and MPIF standards. Note: Participants do not need a technical background. MPIF members receive preferred rate of \$1,375 (\$1,475 after June 15). For more information, contact the Metal Powder Industries Federation online at www.mpif.org or by phone at (609) 452-7700.

July 24-27—India Machine Tools Show 2007.

Pragati Maidan, New Delhi, India. Exhibitor profiles include heavy machinery; machine tools; CNC and SPM; hand tools; cutting tools; power tools, pumps and valves; hydraulics and pneumatics; air compressors/gears, motors and drives; material handling; electrical; electronics; instrumentation, wire and cables; testing and measuring equipment; switch gears; controls; water treatment and specialty chemicals; adhesives, welding and welding consumables; woodworking machinery; plastics; printing and packaging; and CAD/CAM software technology. For more information, contact K&D Communication Ltd. online at www.engimach.com.

August 21—Gear Manufacturing Technology Seminar.

Lyon Oaks Golf Course Club House. Wixom, MI. Hosted by Mitsubishi Heavy Industries America Inc. Program includes seminars covering gear basics; Mitsubishi's philosophy with regard to super-dry cutting tools and applications; evaluating potential errors from hobbing and shaping; and generating gear grinding. The featured guest speaker is Paul Suwijn of Gear Resource Technologies, who will present a lecture entitled "Important Principles for Workholding Success."

The free seminar runs from 7:30 to 5 and includes breakfast and lunch. A limited number of tee times at the club have been reserved at a rate of \$33 for nine holes after the seminar. For more information, contact Mitsubishi Heavy Industries by telephone at (248) 669-6136 or by sending e-mail to karen.armstrong@mitsubishigearcenter.com.

September 4-7—10th International Power Transmission and Gearing Conference.

Rio All-Suite Hotel, Las Vegas, NV. The conference program is separated into 10 areas including gear design and analysis; gear strength and durability; gear dynamics and noise; gear diagnostics; gear manufacturing; gear lubrication and efficiency; engineered surfaces and tribology; transmissions; chains, belts and traction drives; couplings, clutches and bearings. Registration fees range from \$75-\$800. To date, there are 118 technical papers slated for presentation. For more information, contact the ASME online at www.asme.org.

September 12-14—Basic Gear Noise Short Course.

Department of Mechanical Engineering, Ohio State University, Columbus, OH. Offered for gear designers and noise specialists who encounter gear noise and transmission design problems. Attendees will learn how to design gears to minimize the major excitations of gear noise: transmission error, dynamic friction and shuttling forces. Fundamentals of gear noise generation and gear noise measurement will be covered along with topics on gear rattle, transmission dynamics and housing acoustics. Course includes extensive demonstrations of specialized gear analysis software in addition to the demonstrations of Ohio State gear test rigs. An interactive workshop session invites attendees to discuss specific gear and transmission noise concerns. \$1,550. For more information, contact the GearLab by telephone at (614) 292-5860 or by e-mail at harianto.1@osu.edu.

September 17-18—Advanced Gear Noise Short Course. Department of Mechanical Engineering,

Ohio State University, Columbus, OH. This advanced session is an extension of the Basic Gear Noise Short Course. This advanced course will be taught through lectures on selected topics coupled with a series of hands-on workshops. Based upon their interests, the attendees may select from the following topics:

- Analytical and computer modeling (prediction of gear whine excitations, general system dynamics, bearing/casing dynamics, gear rattle models).
- Experimental and computational approaches (modal analysis of casings, acoustic radiation, advanced signal processing, sound quality analysis, transmission error measurement).

This course is \$1,050 or \$2350 if both the basics and advanced course are taken together. For more information, contact the GearLab by telephone at (614) 292-5860 or on the Internet at www.gearlab.org.

September 17-20—Basics of Bevel and Hypoid Gears.

Zurich, Switzerland. This course is limited to 10 participants and conducted in German. Topics include gear cutting systems, gear geometry, offset and hand of spiral, ease off, load related deflections, bias and gear measurement and closed loop. 2,000€. For more information, visit the company's website at www.klingelberg.com.

September 17-22—EMO Hannover.

Hannover Fairgrounds, Hannover, Germany. Leading worldwide bi-annual trade fair for the metalworking technology sector. A special emphasis is placed on cutting, splitting, milling and metal forming machine tools, manufacturing systems, precision tools, automation components, computer technology, industrial electronics and accessories. Sponsored by the VDW (German Machine Tool Builders' Association). Day ticket is 27€, season ticket is 48€.

For more information, visit the official show website at www.emo-hannover.de.

October 7-10—Gear Expo 2007.

The only trade show completely devoted to the complete gear manufacturing process. Jointly sponsored by the American Gear Manufacturers Association and American Bearing Manufacturers Association. The Solutions Center will feature 22 free presentations on gear-related topics all day on October 8-9. Registration is \$25 in advance and \$50 on-site. For more information, visit the show's website at www.gearexpo.com or contact customer service at (301) 694-5243.

November 21-22—Gear Finishing Technology Seminar.

Aachen, at the Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Aachen, Germany. The seminar is for managers and experts for development, engineering, designing, researching, supplying, planning and manufacturing who deal with gear finishing. This conference will be offered with simultaneous translation into English. The topics covered are:

- Green Finishing and Heat Treatment of Gears
- Hard Finishing in Serial Production: Gear Grinding
- Hard Finishing in Serial Production: Gear Honing
- Hard Finishing of Large Module Gears
- Gear Quality Evaluation

The conference fee 795€; 20% rebate is available for participants from WZL Gear Research Circle member companies. For more information, contact the Aachen University of Technology by e-mail at K.Fausten@wzl.rwth.aachen.de or on the Internet at www.getriebekreis.de.



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Correction 1

In the May issue, *Gear Technology* reported the purchase of Lambert-Wahli with the headline "Monnier + Zahner buys Lambert-Wahli". As explained further on in the article, it is actually Monnier + Zahner's holding company, Mayco Holding, that purchased Lambert-Wahli. *Gear Technology* regrets any confusion this may have caused.

Correction 2

In the May *Gear Technology* feature on CIMT, the name and web address for AMT-The Association for Manufacturing Technology were incorrect. The web address is www.AMTonline.org. *Gear Technology* regrets the error.

— The Editors