

2007 Fall Technical Meeting Schedule of Events

Sunday, October 7

9 a.m.–5 p.m.

Registration

1 p.m.–5 p.m.

Technical Session I: Alternative Materials and Designs

- “Estimation of a Lifetime of Plastic Gears,” by Stefan Beerman of KISSsoft AG
- “Study of the Correlation Between Theoretical and Actual Gear Fatigue Test Data on a Polyamide,” by Steve Wasson of DSM Engineered Plastics
- “Material Integrity in Molded Plastic Gears and Its Dependence on Molding Practices,” by Tim Vale of ABA-PGT
- “Applying Elemental Gear Measurement to Processing of Molded Plastic Gears,” by Glenn Ellis of ABA-PGT
- “Vacuum Carburizing Technology for Powder Metal Gears and Parts,” by Janusz Kowalewski and Karol Kucharski of SECO/Warwick Corp.

7 p.m. – 8:30 p.m.

Welcoming Reception (Held at the Detroit Marriott Renaissance Center. All other events will be at the Cobo Center.)

Monday, October 8

7:00a.m.–12:00p.m.

Registration

7:00 a.m.–8:00 a.m.

Continental Breakfast

8 a.m.–12 p.m.

Technical Session II—Current Updates

- “Using Barkhausen Noise Analysis for Process and Quality Control in the Production of Gears,” by Stephen Kendrish, Theo Rickert and Robert Fix of AmericanStress Technologies
- “Grinding Induced Changes in Residual Stress of Carburized Gears,” by Robert LeMaster, Bryan Boggs, Jeffrey Bunn of the University of Tennessee at Martin and Camden Hubbard and Thomas Wilkins of Oak Ridge National Laboratory
- “Manufacturing Net Shaped Cold Formed Gears,” by Dennis Engelmann of Milwaukee Wire Products
- “The Ikona Clutch and the Differential,” by John Colbourne, Vladimir Scekcic and Sasha Tesic of Ikona Gear

- “The Gear Dynamic Factor: Modern and Historical Perspective,” by Donald Houser and David Talbot of the Ohio State University

12 p.m.

Annual Awards Luncheon

Monday afternoon is open time to visit Gear

Expo. Attendance is free for Fall

Technical Meeting Participants.

Tuesday, October 9

7 a.m.–12 p.m.

Registration

7 a.m.–8 a.m.

Continental Breakfast

8 a.m.–12 p.m.

Technical Session III: Load Capacity and Micropitting

- “Helicopter Accessory Gear Failure Analysis Involving Wear and Bending Fatigue,” by Gregory Blake and Doug Schwerin of Rolls-Royce Corp.
- “The Effect of Start-Up Conditions on Gear Performance and Life—Failure Analysis and Case Study,” by Raymond Drago of Drive Systems Technology
- “The Influence of Grinding Burn on the Load Carrying Capacity of Parts Under Rolling Stress,” by Fritz Klocke, Tobias Schröder, and Christof Gorgels of RWTH Aachen University of Technology
- “Roughness and Lubricant Chemistry Effects in Micropitting,” by A. Olver, D. Dini, E. Laine of Imperial College and D. Hua and T. Beveridge of Caterpillar Inc.
- “Experience with Disc Rig Micropitting Test,” by M. Talks and W. Bennett of QinetiQ Fuels and Lubricant Center

1 p.m.–5 p.m.

Technical Session IV: Bevel Gear Design and Manufacture

- “Straight Bevel Gear Cutting and Grinding on CNC Free Form Machines,” by Hermann Stadtfeld of The Gleason Works
- “Simulation Model for the Emulation of the Dynamic Behavior of Bevel Gears,” by Christian Brecher, Tobias Schröder and Adam Gacka of the RWTH Aachen University of Technology
- “Bevel Gear Model,” by Ted Krenzer, Consultant
- “How to Determine the MTBF of Gearboxes,” by Gerhard Antony of Neugart USA LP