Gear Technology

HOSTS TECHNICAL DINNER DURING GEAR EXPO

Randall Publications LLC Publisher and Editor-in-Chief Michael Goldstein and the editing team at *Gear Technology* hosted a technical dinner at Lorenzo's Ristorante (Indianapolis), an authentic Italian restaurant a few blocks from Gear Expo 2013. The dinner included *Gear Technology* technical editors Robert Errichello (also Geartech president and long-

time AGMA training instructor), AGMA and industry veterans Octave Labath, Chuck Shultz and Robert Smith, as well as many key international gear authors and educators: Alex Kapelevich (AK Gears), Dr. Ulrich Kissling (KISSsoft), Frank Uherek, (Rexnord), Dr. Karsten Stahl (FZG), Dr. Michael Otto (FZG), Dr. Carlo Gorla (Politecnico di Milano), Jannik Henser (WZL), Dr. Carlos Wink (Eaton) and Jane Muller (Geartech). The evening provided an excellent opportunity to discuss the past, present and future of the gear industry as well as share dinner with old and new friends. *Gear Technology* thanks everyone for joining us, and we look forward to hosting our next industry event in Detroit.

GEAR AND GEAR DRIVE MARKETING

Power Transmission Engineering sponsored a free breakfast seminar on Wednesday September 18th during Gear Expo 2013. Dave Friedman, associate publisher and advertising sales manager, discussed how to build brand identity, print vs. online advertising and how to best use the tools *Power Transmission Engineering* has to offer the industrial marketplace. Randall Publications would like to thank the 50+ attendees who joined us for the breakfast seminar.

Holroyd Precision

INVESTS IN LOCAL WORKFORCE

When the latest cohort of craft apprentices joins Rochdale, U.K.-based Holroyd Precision Limited in September 2013, the individuals concerned will be continuing a tradition that goes back for almost as long as the 150-plus years that Holroyd has been in the region. "As a company, we are committed to investing in the local workforce," comments Don Whittle, human resource director. "Indeed, as part of our strategy to maintain the exacting engineering standards that we have become renowned for, every year we look to take on a number of young people; developing their skills through a strong, engineering-based modern apprenticeship program that typically takes up to four years to complete. This is in addition to offering summer placement opportunities to promising engineering degree students."

Very real career opportunities

"Perhaps most importantly," Whittle continues, "when interviewing for each year's apprentices, we look very carefully at where future skills gaps may exist in our business. This not only ensures solid succession planning by developing the core skills essential for the future of Holroyd, but also gives each apprentice a very real career opportunity to work towards."

Apprentices joining Holroyd only a few years ago would have completed their first year of training at the company's onsite training school. However, today's apprentices spend twelve months with the teaching partner to Holroyd, Rochdale Training Association. Having worked with Rochdale Training Association for many years, Whittle decided to move Holroyd's first year apprenticeship learning program off-site to the training provider in 2006. "We decided that it made good sense to pool our resources," he says. "As a result, Holroyd apprentices continue to receive the highest standards of initial training, Rochdale Training Association benefits from the government funding that our apprentices attract, while other apprentices are now able to see and experience the Holroyd way of doing things."

Developing key skills from day one

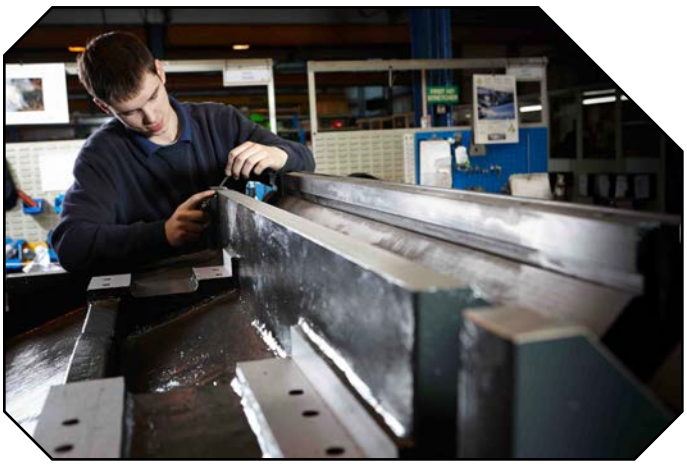
During year one, Holroyd apprentices learn a range of key engineering skills at Rochdale Training. This is in addition to attending college for one day each week to study towards the BTEC Ordinary National Certificate. With their first year completed, they then return to Holroyd's headquarters for on-the-job training. Ultimately working towards the NVQ Level 3, they continue with day release, progressing to the BTEC Higher National Certificate award.

Providing first-class progression

"Industry-recognized qualifications and a career with plenty of opportunities for progression, however, aren't necessarily where the story ends," adds Whittle. "Whenever we feel that an apprentice has the necessary ability and aptitude, we'll continue to support them through degree-level study – and beyond – if that's a route they're happy to pursue. We really do aim to provide our employees with the best opportunities available."

Long and successful careers

It's a testament to the quality of Holroyd's selection process and training that the majority of those awarded an apprenticeship with the company not only stay the course, but typically go on to enjoy long and successful careers with the machine tools and precision components specialist.

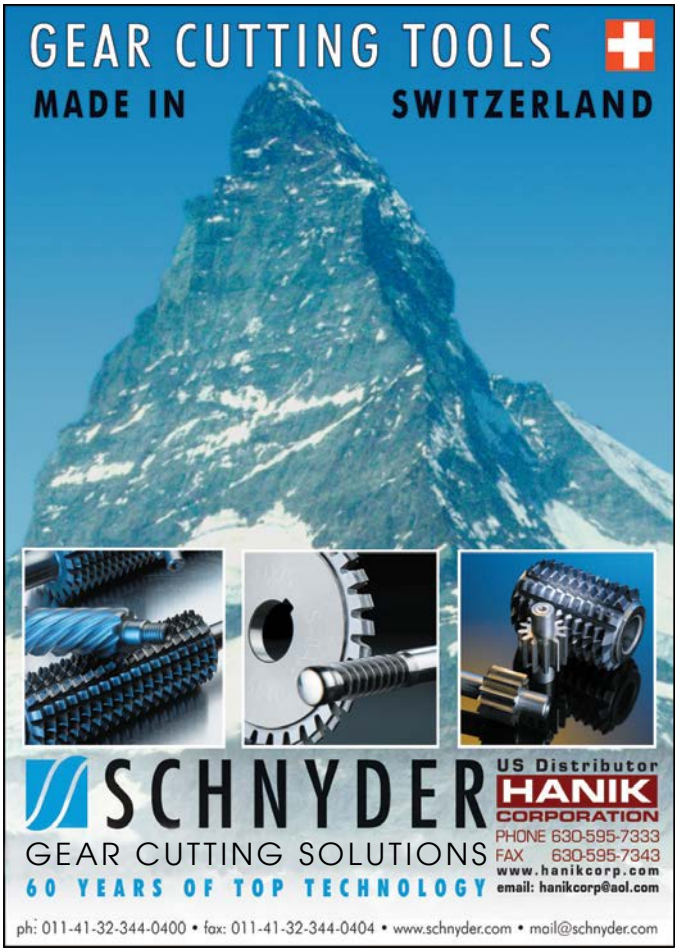


Former apprentice, Philip Hart, 32, is a perfect example of Holroyd's commitment to staff development. It was while Hart was working through his NVQ Level 3 in 1998 that it was decided to "fast track" him onto a university course instead. He went on to secure an honors degree in engineering at Salford University. Now a research and development engineer with Holroyd, Hart has recently achieved full membership of the Institute of Mechanical Engineers (IMechE) – quite possibly the highest accolade to his technical expertise so far.

Another example of Holroyd's commitment to employee development is Production Foreman, Steve Greenwood. After completing his apprenticeship in 1988, he gained experience across several areas of the business, including time working on multi-axis rotor grinding machines and a specialist supercharger production cell, before being promoted to the role of production foreman in the Precision Components Division.

Currently responsible for a team of 30 staff, Greenwood heads a department with an annual turnover of £6.5 million. He says: "The apprenticeship program at Holroyd is the best you can get. It provides first-rate training, incredible levels of support and encourages a real work ethos."

Perhaps the best person to ask about the opportunities provided by Holroyd, however, is current apprentice, Josh Mills. "I'm thoroughly enjoying what I'm doing and I'm getting paid for it," says Mills, 20, who began his engineering apprenticeship in 2011 after previously working in a car body shop. "I'm



learning cutting-edge skills that will put me in good stead for the future."

Commenting on her organization's relationship with Holroyd Precision Limited, Rochdale Training Association's Chief Executive, Jill Nagy, adds:

"We have worked with Holroyd for over 25 years and immensely value the partnership we have developed. During this time we have helped recruit, develop and train their apprentices, many of whom are from the local community. "Only recently, Holroyd recruited a young person from one of our employability courses. That person not only completed an apprenticeship, but also progressed into higher education. Holroyd provides outstanding opportunities for local residents and young people. HR Director, Don Whittle, was also a board member of Rochdale Training for many years. As a result, we greatly benefited from Holroyd's advice and guidance, which enabled us to deliver our Apprenticeship Program according to employers' needs."

Eaton Corp.

BRINGS FORGING OPERATION IN-HOUSE

Diversified industrial manufacturer Eaton has announced that its South Bend, Indiana, facility has added a $1.9 million cross-wedge-rolling machine for use in the production of transmission shafts for heavy-duty trucks. The new machine improves manufacturing efficiency by completing a forging process in South Bend with the cross-wedge-rolling system. It replaces a hammering press operation that previously was outsourced. In a traditional hammering press, brute force is used to forge a hot piece of steel into the size and shape required by customers. With Eaton's new cross-wedge-rolling machine, steel is heated to 2,200 degrees Fahrenheit and rolled – rather than pressed – to form the transmission shafts.

Built in Belarus, Eaton's cross-wedge-rolling machine is one of fewer than 10 such systems in the world – and one of only a few in the United States. The South Bend plant currently is completing tests of the new machine, which is expected to be fully operational by mid-September.

"This is a unique process that will significantly improve our manufacturing efficiency," said David Larkins, South Bend plant manager. "We're very excited to have it here in South Bend."

The South Bend plant supplies gear forgings to three Eaton facilities – in Kings Mountain, North Carolina; Shenandoah, Iowa; and San Luis Potosi, Mexico – which assemble them into transmissions for leading global truck manufacturers. South Bend also supplies precision gear forgings for use in off-road and watercraft recreational vehicles.

In 1989, Eaton acquired the South Bend plant, which is part of the company's Vehicle Group business, and employs more than 110 people. The facility contributes nearly $200 million to the local economy through taxes, wages and supplier impact. In addition, Eaton South Bend and its employees donated $41,000 in 2012 to local community organizations such as the United Way of St. Joseph County, La Casa de Amistad Hispanic Community Center and the St. Margaret's House center for women and children.

Inductoheat

PROMOTES TARPINIAN TO PROCESS METALLURGIST/LABORATORY SUPERVISOR

Inductoheat, Inc. is pleased to announce the promotion of **Sean Tarpinian** to the new position of process metallurgist/laboratory supervisor. Tarpinian is a graduate of Schoolcraft College, where he earned his associate degree in metallurgy and welding technology. He most recently earned a Bachelor of Science in Applied Technologies from Eastern Michigan University. He is a native Michigander and has been employed at Inductoheat for two years as a process metallurgist. Tarpinian will supervise the lab personnel and allocate laboratory equipment as required to meet customer expectations. This position reports directly to the lab manager. "We are pleased to have Sean in this new role. He brings a wealth of technical, organizational and leadership skills that will continue to improve customer satisfaction," said Robert Madeira, vice president of heat treating at Inductoheat Inc.

Arrow Gear

ANNOUNCES NEW CHIEF FINANCIAL OFFICER

Arrow Gear is pleased to announce the appointment of **Andrew Mazzarella** as the company's new chief financial officer (CFO). Mazzarella joined Arrow Gear in mid-August. He has an extensive background in executive level finance for the manufacturing sector. A graduate of the University of Illinois in accounting, Mazzarella began his career working for a Fortune 200 company in the automotive replacement parts industry; eventually achieving the position of CFO. After moving on to CFO positions at several middle-market

companies, he later became part of an ownership team that operated a manufacturing company which supplied products to the automotive industry. Here he performed the dual role of CFO and vice president of manufacturing; heading up the company's main manufacturing facility in Carson City, Nevada. Mazzarella's diverse experience in the financial requirements of manufacturing is a valued addition to the Arrow Gear executive team.

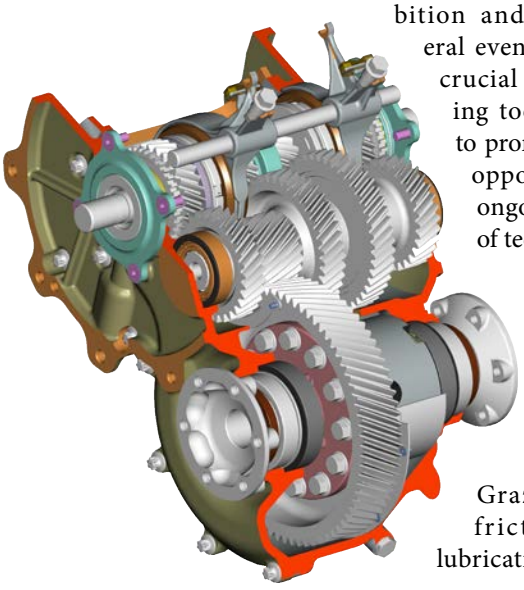
Oerlikon Graziano

DISCUSSES MEASUREMENT OF FRICTION COEFFICIENT

High-performance transmission specialist Oerlikon Graziano shared its extensive knowledge and innovative research techniques at the World Tribology Congress 2013, in Turin, from September 8-13, stand 56. The event, organized by the Italian Tribology Association (AIT), occurs every four years and provides a unique opportunity for discussion of recent developments in tribology and to strengthen the link between research organizations and industry.

"Creating low friction surfaces is a crucial factor in Oerlikon Graziano's development of market-leading transmission systems, and we intend to share our methods for measurement of the friction coefficient involved in cylindrical gear teeth meshing," says Oerlikon Graziano Chairman and Managing Director, Paolo Ramadori. "The effects of gear mesh on transmission efficiency have been estimated with an analytical approach that requires a suitable corrective coefficient calibration: using prototype development, intensive testing and statistical approach — DOE methodology — we are able to deliver a more accurate, proven efficiency model to predict the power losses of transmission systems."

Vincenzo Solimine, Oerlikon Graziano virtual validation engineer and Davide Crivello, Oerlikon Graziano testing engineer, delivered a speech on "Measurement of friction coefficient involved in cylindrical gear teeth meshing," at the Congress, which offered diverse scientific sessions on specific tribology-related topics, a broad exhibition and various collateral events. It is seen as a crucial knowledge sharing tool that continues to promote collaborative opportunities for the ongoing development of technologies.



Eco-tribology and sustainability were the primary focus in this year's Congress, and Oerlikon Graziano's study of friction, wear and lubrication in cylindrical

Fabco

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Since 1918 Fabco Automotive Corporation has formed a reputation based upon innovative engineering, sophisticated manufacturing and responsive customer service. Today, we are a UL Certified TS16949 tier 1 transportation industry supplier that designs and builds a broad range of Steer Drive Axles, Transfer Cases, Split Shaft Power Take Offs, Specialty Gearboxes and other industry leading products and services. We are located in Livermore, California, with operations in Livonia, Michigan and Steyr, Austria.

We are seeking an energetic and experienced person to become our Account Manager. This position has a product focus of selling power transmission components (gearboxes, transmissions and powertrain drives) to specialty markets such as oil and gas, mining, industrial, marine and specialty vehicle. Extensive experience is required in sales management and technical sales support for such products and industries. This can be a home-office based position with up to 75% travel required.

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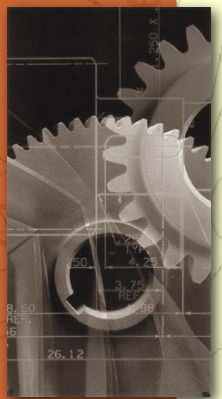

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gear teeth meshing has been crucial to its development of gearboxes and drive systems for EVs and HEVs. Due to efficiency requirements and NVH expectations, this emerging market is the most demanding in terms of maximizing the operation of driveline components.

"Oerlikon Graziano's calculation code for the efficiency model is all-encompassing and considers both load dependent and load-independent contributions to power losses," explains Solimine. The activity is focused on the experimental evaluation of power losses due to cylindrical gears meshing to obtain a mathematical expression of the friction coefficient. In particular, the parameters under investigation are oil viscosity, the most important gear geometry sizes and working conditions."

Complete Heat Treating

ACQUIRES WISCONSIN STEEL INDUSTRIES, INC.

Complete Heat Treating, LLC announced the completion of its acquisition of all assets and equipment of the former Wisconsin Steel Industries, Inc. Complete co-owners Jake and TJ Dolhun made the announcement. The combined companies boast 75 years of service to the metalworking industry, with substantial heat treating and related capabilities. The purchase of Wisconsin Steel was made by Complete in 2011, with the relocation of all equipment and key personnel having now concluded.

All equipment from both companies has been consolidated at the 65,000 square foot Complete facility in Milwaukee, where the highlight is a gas-fired car bottom furnace with a 53'×22'×14' workspace, powered by 40,000,000 BTUs with a 1,000,000-pound load capacity and operating temperatures to 2,150°F max.

The equipment and services now offered include five car bottom furnaces, five box furnaces, heavy-duty polymer and water quench tanks, stress relieving, sand blasting, prime and finish painting, annealing, normalizing, BHN inspection, straightening, saw cutting of test specimens, tractor/trailer fleet and full compliance with ISO 9001 certification standards. Workpieces to 50 tons are routinely processed, using existing and new crane equipment recently installed.

Dana

EXPANDS GEAR MANUFACTURING CAPABILITIES IN THAILAND

Dana Holding Corporation recently announced it will construct a state-of-the-art gear manufacturing operation in Rayong, Thailand, to support growing customer demand for Spicer axles in the region. The new Dana facility, scheduled to open next year, will have the capacity to deliver 600,000 gear sets to the region. "Dana is committed to delivering differentiated innovations for growth markets such as Thailand," said Mark Wallace, president of Dana Light Vehicle Driveline Technologies. "By expanding our gear development and manufacturing capabilities in the region, Dana will deliver programs more efficiently, and be equipped to handle projected market growth." For more than two decades, Dana has supported major automakers in Thailand and the region with the production of axles and drive shafts. Major customers include Ford, Mazda, Nissan, Suzuki, and Tata. Dana currently employees 650 people at three facilities in the country. Approximately 125 new jobs will be created to support the expansion.

Gleason

ACQUIRES SAIKUNI MACHINERY

Gleason Corporation announced that it has acquired Saikuni Machinery Co., Ltd., located in Niigata City, Japan. Saikuni is a manufacturer of gear cutting tool sharpening equipment, cutting tool inspection equipment, rack milling machines and other metal cutting and finishing equipment. Saikuni has manufactured certain Gleason products, including Gleason's BPG Blade Profile Grinding Machine, for sale both in Japan and abroad, and Gleason has worked with Saikuni in selling certain of its products as well.

John J. Perrotti, president and CEO of Gleason Corporation, said "Given Gleason's strategic partnership with Saikuni since 1997, the significance of the Japanese market and our large customer base within Japan, the acquisition strengthens our ability to provide our customers in Japan and the broader region with effective local solutions and support."

Gleason has a long-standing presence in the Japanese market through its Gleason Asia Co., Ltd. subsidiary, with sales and service operations located in Tokyo, Nagoya and Osaka. Gleason will operate the Saikuni business with the current management team and approximately 25 employees under the name Gleason-Saikuni Co., Ltd.