Ductile Iron News

Issue #1 - April 2017

Please stop by and visit the Ductile Iron Society Booth #455 at the 121st Metalcasting Congress in Milwaukee, WI from 10am to 6pm on Wednesday April 26th and 9am to 3pm on Thursday April 27, 2017.

CONEXPO-CON/AGG & IFPE - Las Vegas, NV:

In March, the Ductile Iron Society booth was on the road again. We once again with the help of the DIMG were exhibiting at the CONEXPO-CON/AGG & IFPE at the Las Vegas Convention in Las Vegas.
As in previous shows, there was a huge group of attendees. They were expecting well over 125,000 people. This is a great opportunity for the DIS and DIMG to talk one on one with design engineers, OEMs, and other users of ductile iron castings.
As always, there were a few folks that stopped by looking for producers of Ductile Iron and technical questions about Ductile Iron and CGI. We always have a poster in the booth with all the DIS members.

Also we handed out a small wallet size brochure that lists all the members.
Thanks to the following volunteers and companies that helped work the booth during this show. They were Dave Gilson of SinterCast, Dylan Bruins and Mark Mundell of Lethbridge Iron, Vadim Pikhovich of Magma, Mark Fields of Glidewell Foundry, Matt Schindle of Dotson Foundry, Kirk McCullough of Seneca Foundry and Bob O'Rourke of H-Bar.

2016 FEF Conference - Chicago, IL.

The 2016 College Industry Conference (CIC) for the FEF was held on November 17th and 18th in Chicago, Illinois at the Westin-Michigan Avenue. The DIS did have a tabletop display during the Career Information Session on Thursday evening.

We handed out this year's T-Shirts with the logo "Ductile Iron - Born in the USA". Once again THANKS to those sponsors who paid for the T-Shirts. They were Dura-Bar, Superior Graphite, Elkem, Cat, RMP, Applied Process, Inductotherm, Rex Heat Treat, Green Packaging, OmniSource, Foseco, Hickman, Williams & Company, ASI International, St. Mary's Foundry, ACC, Midvale, Buck Company, Neenah, ASK Chemicals & Allied Mineral Products.

Thanks also to our Treasurer Pete Guidi for his assistance in the booth. On Friday during the awards luncheon, the FEF handed out 4-$3000 scholarships to the following deserving students. They were,
Mattie LaPrade of Virginia Tech University

Gabrielle Martin of the University of Alabama Birmingham
Nathan Peplinski of the University of Wisconsin Platteville

Connor Rittman of the University of Michigan
2016 World ADI Conference - Atlanta, GA:

The Ductile Iron Society held the 2016 World Conference on Austempered Ductile Iron (ADI) at the Westin Peachtree Hotel in Atlanta, GA from October 27-28, 2016. The turnout was not what the organizing group wanted to see, however it still was a great Conference. The attendees were presented with the top technical presentations in the field of ADI.

A big THANKS goes to Kathy Hayrynen of Applied Process for being the Technical Chairperson for the event. She work hard over the past year to make this the best ADI Conference ever. We were just hit with a bad economic downturn in the foundry business. Also, the election of a new President for the USA was about to happen and many businesses were unsure of the future. Following is a copy of the Program for that Conference.

The DIS would like to thank all the Speakers for their presentations and travel to Atlanta. We also wish to thank the Technical Chair persons and all other volunteers. Also there were a few DIS Members we wish to thank for their generous contributions to the Conference as Sponsors. They were Rex Heat Treat, THORS, Farrar Corporation, Applied Process, Magma, Larpen Metallurgical, Prohimsa Mexico, Hoosier Pattern, Capital Refractories, Lethbridge Iron, Joyworks, LLC, FasCast Incorporated, Allied Mineral and Hunter Foundry Machinery Corporation.
2016 World Conference on Austempered Ductile Iron
The Westin Peachtree Plaza – Atlanta, GA, USA
October 27-28, 2016

Thursday, October 27

Session I Chair: Kathy Hayrynen

8:00 – 9:00 am
KEYNOTE ADDRESS
The Machinability of Cast Irons: From Gray Irons to Austempered Ductile Irons
Dr. Robert Voigt, Pennsylvania State University, State College, PA

9:00 – 10:00 am
Assessment of Chip Formation of Austempered Ductile Iron (ADI)
Dr. S. Lung, Laboratory for Machine Tools and Production Engineering (WZL), Aachen, Germany

10:00 – 10:15 am
Break

10:15 – 11:00 am
Machining of ADI – Interpreting Tool Life
Dr. Dika Hardayani, Pennsylvania State University, State College, PA

11:00 – 11:45 am
Structure and Impact Energy – Temperature Transition Behaviour of Engineering Grade Ductile Iron Castings Austempered at 250, 300, 350 and 400°C
Dr. S. E. Kisa, Istanbul University, Istanbul, Turkey

Session II Chair: Jim Csonka

1:00 – 1:45 pm
The Hardenability of Austemitted for Intersectively Austempered Ductile Iron
Dr. Alan Druschitz, Virginia Tech University

1:45 – 2:15 pm
Austempered Ductile Iron (ADI) – An Alternative Material for High Performance Applications
Dr. Arton Rimmer, ADI Treatments, West Bromwich, United Kingdom

2:15 – 2:45 pm
Thin Wall ADI
Dr. Paul Sanders, Michigan Technological University, Houghton, MI

2:45 – 3:00 pm
Break

Friday, October 28

Session III Chair: Mike Gahlin

8:30 – 9:00 am
Application of ADI in a Crushed Coal Delivery and Filtering System
Dr. Arton Rimmer, ADI Treatments, West Bromwich, United Kingdom

9:00 – 9:30 am
ADI for Lightweight Suspension Components in Light Commercial Vehicles
Dr. Fabio Zanardi, Zanardi Foundry S.P.A., Minerbe, Italy

9:30 – 10:00 am
Application of ADI for Suspension Components in Off-Road Vehicles
Dr. Andy Chen, Austemper Suzhou, Suzhou City, Jiangsu, PRC

10:00 – 10:15 am
Break

10:15 – 11:00 am
Why ADI? Four Applications Where ADI is the Material of Choice and Process Considerations
Dr. Arton Rimmer, ADI Treatments, West Bromwich, United Kingdom

11:00 – 11:30 am
An ADI Renailer – A Story of Lightweighting in the Railroad Industry
Zac Brok, Penske Corporation, Westchester, PA

11:30 AM – 12:00 pm
Application of Differential Scanning Calorimetry for the Determination of ADI Service Temperature Limits
Karl Warinschi, St. Marys Foundry Inc, St. Marys, OH
Should any DIS member want a memory stick copy of the presentations, please drop a line to Jim Wood at jwood@ductile.org. If not a DIS member they are for sale for $100.00 each. They are only available until the inventory is gone.

Jim Wood
DIS Executive Director
4/12/2017

Links to ADI Presentations not included on memory stick.

- **ADI - A North American Perspective in 2016 - Dr. Kathy Hayrynen**
- **Application of Differential Scanning Calorimetry for the Determination of ADI Service Temperature Limits - Karl Warsinski**
- **Austempering of Thin Wall Ductile Iron - Dr. Paul Sanders**
U.S. Manufacturing Technology Orders on Path for Strong Recovery

U.S. manufacturing technology orders increased more than expected in February, up 19.6 percent from January, according to the latest U.S. Manufacturing Technology Orders report from AMT – The Association For Manufacturing Technology. Orders were up 1.7 percent year over year.

“We anticipated an increase in orders after a soft January, but we are surprised by the strength of the February numbers,” said AMT President Douglas K. Woods. “What’s even more encouraging is the pickup wasn’t a spike related to any specific industry or region, but rather was broad-based – from Northeast to West as well as everything from aerospace to consumer products. This activity reinforces our projections for a full recovery in manufacturing technology orders by the end of the second quarter.”

While all regions reported growth, the Northeast grew by 41 percent led by the small arms and aerospace industries. Nationally, aerospace had the largest growth rate, more than doubling January’s total. There was also surprising strength reported in appliances; medical devices; and off-road and highway equipment. The February data is aligned with other key indicators of the manufacturing sector’s health. For example, every component of the March Purchasing Managers Index was up; the Federal Reserve’s manufacturing output data had its best back-to-back monthly increases in three years; and durable goods orders and housing starts climbed in February.

(link to more info)

AMT – The Association For Manufacturing Technology 7901 Jones Branch Drive, Suite 900, McLean, VA 22102 703-893-2900 • 703-893-1151 fax • www.AMTonline.org
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NEWS BRIEFS

For Release: April 12th, 2017

U.S. Cutting Tool 2017 YTD Consumption up 4.5% in February

February U.S. cutting tool consumption totaled $174.98 million according to the U.S. Cutting Tool Institute (USCTI) and AMT – The Association For Manufacturing Technology. This total, as reported by companies participating in the Cutting Tool Market Report (CTMR) collaboration, was up 1.1% from January’s $173.05 million and up 0.6% when compared with the total of $173.88 million reported for February 2016. With a year-to-date total of $348.02 million, 2017 is up 4.5% when compared with 2016.

These numbers and all data in this report are based on the totals reported by the companies participating in the CTMR program. The totals here represent the majority of the U.S. market for cutting tools.

“There is a feeling of optimism in the air that is backed up by the positive growth the cutting tool market data shows after the first 2 months of the year,” says Steve Stokey, President of USCTI. “Manufacturing continues to be a hot topic and continues to have a seat at the table in the new Trump administration. The strong dollar will continue to challenge our ability to export but with the US automotive and aerospace markets remaining steady, it should provide a firm foundation for growth as the other industrial sectors rebound from a weak 2016. This should bode well for cutting tool manufacturers.”

Scott Hazelton, Managing Director of Economics & Country Risk at IHS Markit adds that “The economy is enjoying improved business and consumer confidence, resulting in strong momentum in employment growth and single
family housing as well as a rebound in nondefense capital spending, including the important energy sector. Consumption of cutting tools is forecasted to respond with increasing growth over the year. Acceleration of growth in 2018 is expected as tax reform and infrastructure investment enhance the investment outlook.”

The Cutting Tool Market Report is jointly compiled by AMT and USCTI, two trade associations representing the development, production and distribution of cutting tool technology and products. It provides a monthly statement on U.S. manufacturers’ consumption of the primary consumable in the manufacturing process – the cutting tool. Analysis of cutting tool consumption is a leading indicator of both upturns and downturns in U.S. manufacturing activity, as it is a true measure of actual production levels.

Historical data for the Cutting Tool Market Report is available dating back to January 2012. This collaboration of AMT and USCTI is the first step in the two associations working together to promote and support U.S.-based manufacturers of cutting tool technology.

(CTMR data is also available at www.AMTonline.org.)

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AMT – The Association For Manufacturing Technology represents and promotes U.S.-based manufacturing technology and its members—those who design, build, sell, and service the continuously evolving technology that lies at the heart of manufacturing. Founded in 1902 and based in Virginia, the association specializes in providing targeted business assistance, extensive global support, and business intelligence systems and analysis. AMT is the voice that communicates the importance of policies and programs that encourage research and innovation, and the development of educational initiatives to create tomorrow’s Smartforce. AMT owns and manages IMTS – The International Manufacturing Technology Show, which is the premier manufacturing technology event in North America. The CTPG report is compiled by AMT and all data in the report is based on the totals of actual data reported by companies participating in the CTPG program.

The United States Cutting Tool Institute (USCTI) was formed in 1988 and resulted from a merger of two national associations representing the cutting tool manufacturing industry. The Institute works to represent, promote, and expand the U.S. cutting tool industry and to promote the benefits of buying American-made cutting tools manufactured by its members. Membership includes North American manufacturers and/or remanufacturers of cutting tools, as well as tool surface treatment providers. Members, which number over 70, belong to ten product divisions: Carbide Tooling, Drill & Reamer, Metal Cutting Saw Blades, Milling Cutter, Polycrystalline Diamond & Polycrystalline Cubic Born Nitride, Substrate Materials, Surface Coating, Tap & Die, Tool Holder and All Other Tooling. A wide range of activities include a comprehensive statistics program, human resources surveys, development of product specifications and standards, and semi-annual meetings to share ideas and receive information on key industry trends.
NEWS BRIEFS

UNDERGROUND CORROSION TRAINING
OFFERED AT AUCSC 2017

(Morgantown, WV) ... The 62nd annual Appalachian Underground Corrosion Short Course (AUCSC 2017) will take place May 9-11, 2017 in Morgantown, WV. Detailed information and on-line registration is available at www.aucsc.com.

AUCSC offers over 100 hours of basic, intermediate, and advanced training providing attendees with technical information about the causes and prevention of corrosion on underground structures. Licensed professional engineers (P.E.’s) may earn professional development hours (PDH’s) for attending AUCSC; P.E.’s should submit proof of their completion of AUCSC courses to their state’s engineering licensing board. A NACE Technician Review Course is also offered, and AUCSC course hours may be applied towards NACE recertification requirements. NACE will offer its NACE Corrosion Exam during AUCSC 2016; please contact NACE directly for additional information regarding the exam at (281) 228-6211.

The pre-registration fee for the entire AUCSC 2017 program is $150.00 before May 1, and on-site registration is $200.00. Please visit www.aucsc.com for pre-registration and additional information, or contact AUCSC at info@aucsc.com or (304) 293-4307.

If you would consider listing or linking our website address, www.aucsc.com, on your website it would be appreciated.

Thank you for your consideration.

Frank Rampton, AUCSC Publicity Chairman
NEWS BRIEFS

Look to the Future...Hire Your Intern(s) TODAY!

According to a recent National Association of Colleges and Employers (NACE) survey, the conversion rate of graduates accepting full-time positions with their internship companies is at a 13 year high.

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