



24th Annual Crane Symposium

11-13 June 2017
Pittsburgh, Pa., USA
The Omni William Penn





About the Program

The symposium will deliver practical information and experiences from crane maintenance personnel, crane manufacturers, equipment manufacturers, and engineering consultants who strive to make electric overhead traveling (EOT) cranes and their runways the safest, most reliable, and most durable machinery and equipment in the industry. This two-day program will include presentations focused on safe work practices and ergonomics; electrical, mechanical and structural maintenance techniques; crane inspection technologies; and best practices in EOT crane modernizations. As part of the Crane Symposium program, the Crane Innovator of the Year Award winner will be announced, recognizing the individual who has brought forth the latest in technology, or increased efficiencies in operational and maintenance practices for the continuous improvement of heavy industrial cranes.

Who Should Attend

Plant maintenance staff; applications, electrical, mechanical, safety, service and design engineers; operations and maintenance personnel and management; and those people who supply parts, equipment and services to the industry. Anyone who has responsibility for cranes and crane service and is interested in improvements and incidents in this area should attend.



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YOUNG PROFESSIONAL

Visit AIST.org/byoyp for more information

Organized By

AIST's Cranes Technology Committee.

Event Sponsors



Schedule of Events

Sunday, 11 June 2017

4 p.m.
Registration

5 p.m.
Reception

Monday, 12 June 2017

7 a.m.
Registration and Continental Breakfast

8 a.m.
Introductions and Opening Remarks

8:15 a.m.
Crane Maintenance Inspection and Repair Guideline

Frank Petrek, Xtek Inc.
The presentation will serve as an introduction to this publication made available by AIST.

8:45 a.m.
Replacement Ladle Cranes
Todd Hauter, Steel Dynamics Inc. – Flat Roll Group
Butler

Items to consider when replacing ladle cranes without impacting production. New technology available for use on ladle cranes.

9:15 a.m.
A Review of Case Histories in Failure Analysis of Rails and Thermite Welds

Ehran Ulvan, Acuren Group Inc.
This paper summarizes the methodology of investigations, failure mechanisms and the remedies delivered to the transport sector in order to prevent similar failures.

9:45 a.m.
Break

10 a.m.
How to Approach a Crane Capacity Upgrade

Tim Bickel, CSD Structural Engineers
An upgrade in crane capacity is largely focused on the crane, but the crane runway structure must be considered as well. The aim of this presentation is to examine how to approach an upgrade with the runway structure in mind for the purpose of minimizing or eliminating reinforcement to the structure. This will include both general principles and case studies.

10:30 a.m.

It Really Is Not Magic: Eddy Current Testing for Crane Drum and Pinion Gears

Mick Foster, Sterling Steel Co. LLC
This paper tells a story of discovering new technology through one of the AIST conferences and the successful application of that technology in the field.

11 a.m.

Enclosed Crane Cab Air Quality

Bill Bennett, Steel Dynamics Inc. – Structural and Rail Division
Findings of air quality in ladle bay cranes and solution.

11:30 a.m.

Periodic Inspection and Testing of Lifting Magnets

Mike Kozminski, Walker Magnetics
Periodic and routine inspection of lifting magnets will result in increased magnet life and avoid unexpected magnet failures. This presentation will outline in-the-field electrical and mechanical inspection.

Noon
Lunch

1:15 p.m.

Application of AC Squirrel-Cage Motors to Traverse Drives on 250-vdc Cranes

Dan Klasel and Dave Cunningham, Hoist & Crane Service Group

Mills with cranes operating on 250-v systems have very limited choices for controls, all costly. It is now possible to use AC off-the-shelf motors on traverse drives and, very soon, hoists.

1:45 p.m.

Safety Windows

Jane MacPherson, MacPherson & Co.

2:15 p.m.

Break

2:30 p.m.

Crane Automation Oriented to Warehouse Management Systems and Safety

Edgardo LaBruna, Janus Automation LLC

3 p.m.

Is Your Crane Smart?

Casey Cummins and Pat Buehler, Magnetek
This presentation will explore how today's wireless and diagnostic smart technology can be integrated with your crane to provide instantaneous, detailed information about your crane's performance, allowing you to diagnose and troubleshoot from onboard the crane or remotely.

3:30 p.m.

Reducing Crane Accidents Through Training

James Lang, Konecranes Inc.
Proper training can reduce up to 70% of crane-related injuries and deaths. This presentation discusses how to prevent accidents involving overhead cranes, as well as recommended training.

4 p.m.

Panel Discussion

5:30 p.m.

Dinner on the Gateway Clipper

Tuesday, 13 June 2017

7 a.m.

Continental Breakfast

8 a.m.

Introduction and Opening Remarks

8:15 a.m.

Core of Lifting the Heart of the Machine

Randy Cantrell, Konecranes Inc.

8:45 a.m.

Material Handling: The Handling of Coils, Rolls and Slabs in the Steel Mill Environment

John Novak, Primetals Technologies USA LLC
This presentation is based on the handling of coils, rolls and slabs, and the types of devices best suited for the applications.

9:15 a.m.

Proper Grouting Techniques for Crane Runways

Dan Termunde, BASF Construction Chemicals, and Chip Miller, Molyneux Industries Inc.
This presentation will discuss precision grout fundamentals, different grout technologies — epoxy, cementitious and hybrid grout — key physical properties and design considerations. Crane rail project profiles will be highlighted.

9:45 a.m.

Break

10 a.m.

Meltshop Crane Maintenance and Reliability Practices – Sustained and Enhanced

Tom Stevely, Nucor Steel Gallatin

10:30 a.m.

Flash-Butt Rail Welding Update

Gene Adams, Delta Railroad Construction Inc.
The presentation will cover the maintenance benefits of flash-butt welding, safe work practices and different methods of flash-butt welding.

11 a.m.

Applying Lasers for Crane Safety

Rich Warriner, Foley Material Handling Co. Inc.
This presentation will explore the application of lasers for crane safety, load centering and overload warnings.

11:30 a.m.

The Evolution of the Crane Technology Committee, Ambitions, Membership and Collaboration

Charlie Totten, T&M Equipment Co.

Noon

Lunch

1:15 p.m.

Radio-Based Distance and Position Measurement for Cranes

Edgardo LaBruna, Janus Automation LLC

1:45 p.m.

Advancements in Lubrication Technology

Ricardo Escobedo, Shell Oil Co.
This presentation covers overhead electric cranes lubrication.

2:15 p.m.

Break

2:30 p.m.

Safety and Ergonomics for Crane Cabs and Cab Operators

Ajay Bajaj, Flow in Motion LLC, and Mark Barnhoon, Merford
This presentation covers how to make cranes safer through cab and chair design.

3 p.m.

Safety Requirements: Charge and Teeming Cranes

Alex Gomez, Grúas Jaso Cranes
Review of the main design characteristics of this type of cranes to improve their safety of operation.

3:30 p.m.

The Use of Drones for Crane Runway Inspections

Scott Sambuco and Rich Schutte, Orbital Engineering Inc.

4 p.m.

Panel Discussion

4:30 p.m.

Conference Adjourn

Registration

AIST Members

US\$795

by 1 May 2017

US\$895

after 1 May 2017

Non-Members

US\$1,010

by 1 May 2017

US\$1,110

after 1 May 2017

Registration Includes

Sunday reception; continental breakfasts, lunches and continuous breaks Monday and Tuesday; a dinner Monday evening; and a course workbook or flash drive including presentations.

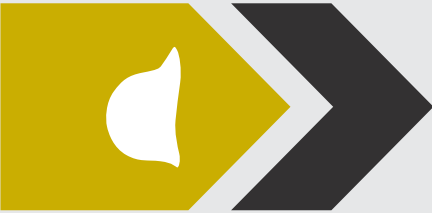
Hotel Accommodations

A block of rooms has been reserved at The Omni William Penn. Please call the hotel at +1.800.843.6664 by 17 May 2017 to secure the AIST discount rate of US\$169 per night for single/double occupancy.



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Upcoming Events

- > **Managing Technology — Big River Steel**
12–14 September 2017
Sheraton Memphis Downtown Hotel > Memphis, Tenn., USA
- > **Sheet Processing and Finishing Lines — A Practical Training Seminar**
17–21 September 2017
Ann Arbor Marriott Ypsilanti at Eagle Crest > Ypsilanti, Mich., USA
- > **Material Handling and Transportation Logistics — A Practical Training Seminar**
10–12 October 2017
The Seelbach Hilton > Louisville, Ky., USA
- > **Continuous Casting — A Practical Training Seminar**
16–19 October 2017
Courtyard by Marriott > Fort Wayne, Ind., USA