

22ND ANNUAL CRANE SYMPOSIUM



7-9 JUNE 2015
PITTSBURGH, PA., USA
OMNI WILLIAM PENN HOTEL

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, 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.

SCHEDULE OF EVENTS

SUNDAY, 7 JUNE 2015

4 p.m.
Registration

5 p.m.
Reception

MONDAY, 8 JUNE 2015

7 a.m.
Registration and Continental Breakfast

8 a.m.
Introduction and Opening Remarks

MORE INFORMATION AT
AIST.ORG/TECHNOLOGYTRAINING

8:15 a.m.

CRANE RAIL SPECIFICATIONS AND RELEVANCE TO PROJECT WORK

FRED KASTER, ATLANTIC TRACK & TURNOUT CO.

ASTM specifications for ASCE and heavy crane rails, along with DIN 536 specifications for A-Section crane rails, will be discussed, with focus on hardness requirements and contributions to life-cycle performance of rails.

8:45 a.m.

CAB DESIGN CONSIDERATION

RICHARD WARRINER, FLOW IN-MOTION LLC

This paper offers a review of key elements to consider when specifying an operator cab. Emphasis will be on ergonomics and subsequent safety benefits for the operator and fellow workers.

9:15 a.m.

ADVANCED SAFETY TECHNIQUES FOR HOT METAL CRANES

JON WALTERS, MAGNETEK

This presentation explores the technological advancements available to ensure maximum safety for hot metal crane operation. Safe brake operation techniques are presented, such as no-load brake hoist motions, snapped shaft detection and alternating brake checks. The presentation delves into the functions of remote monitoring systems for safe crane operation and diagnostics. Also discussed are the operation and benefits of collision avoidance systems and the effects of power outage on crane controls.

9:45 a.m.

Break

10 a.m.

CRANES ACTIVE ANTI-SWAY TECHNOLOGY

RANDY CANTRELL AND JUERGEN GIESKE, KONECRANES INC.

Advances in crane safety and efficiency through active anti-sway.

10:30 a.m.

ENGINEERING WINDOW PLACEMENT FOR SAFETY

DANIEL MACPHERSON, MACPHERSON & CO.

Examines the safety requirements of good vision versus impact protection and outlines critical aspects of both while reaching the best outcome for both.

11 a.m.

INSTALLATION OF COMPUTERS IN STEELMAKING DC CRANE CABS FOR DATA COLLECTION AND IMPROVED COMMUNICATIONS

BRAD HEBERT, ARCELORMITTAL BURNS HARBOR

Inverters and touch-screen computers have been installed in each of our cab operated cranes during the past four years. The computers are linked wirelessly to networked PLCs and display critical data related to hoist weights, positions and an accurate production schedule to the crane operator. Computers also allow operators to enter pre-shift inspections via a virtual keyboard. Inspections are then distributed electronically to management personnel so that problems identified can be resolved.

11:30 a.m.

EMERGENCY BRAKES ON CRANES

JOEL COX, PINTSCH BUBENZER USA

To provide general information on safety brakes with emergency brakes and application awareness for saving lives and equipment

Noon

Lunch

1:15 p.m.

MOTION ANALYSIS FOR DETERMINING BEHAVIOR OF AUTOMATED AND MANUAL OPERATED CRANES

TOM ANDERSON, PSI TECHNICS LTD.

Repeated positioning of a bridge crane with high accuracy and minimal stress on crane components is a goal and a challenge for any operator or fully automated crane. The motion analysis service is a tool that will identify positioning disturbances that lead to lower throughput and system wear and will allow you to compare how your operators position cranes so that you can provide training where it's needed. Your cranes do have issues — now you can know what they are.

1:45 p.m.

OPTIMAL CRANE MAINTENANCE FUNCTIONAL STRUCTURE

CHARLES TOTTEN, T&M EQUIPMENT CO.

One steel plant's crane repair department managed to improve safety, reduce breakdowns, increase service life of the components like gearing, hoist drums, blocks and wheel assemblies, and re-rail the entire plant runways with flash butt-welded joints and reduce cost of the plant's cranes. This led to increased crane reliability and availability to very high levels by the simple method of keeping accurate records, learning failure modes, getting information from the data and continuously improving.

MORE INFORMATION AT
AIST.ORG/TECHNOLOGYTRAINING

2:15 p.m.

Break

2:30 p.m.

NEW INNOVATIVE GIRDER OVERVIEW

MARK BERNARDINI AND TIM WALSH, TEREX SERVICES

3 p.m.

STATIC STEPLESS PROS AND CONS

TOM SAWYER, CHARTER STEEL - CLEVELAND

Discussion of obstacles and lessons learned having four newer cranes with static stepless control. Covering the upside and downside of having static control.

3:30 p.m.

WHAT YOU NEED TO KNOW ABOUT THE BELOW HOOK LIFTING DEVICES

BRIAN PORTER, MAX SLANINA AND ROSS MUHLEMAN, SIMMERS CRANE DESIGN & SERVICES CO.

4 p.m.

Panel Discussion

5:30 p.m.

Dinner

TUESDAY, 9 JUNE 2015

7 a.m.

Continental Breakfast

8 a.m.

Introductions and Opening Remarks

8:15 a.m.

ADDRESSING CRANE GEARBOX OIL LEAKS

BILL SCHIERENBECK, XTEK INC., AND BOBBY ASKEW, NUCOR HERTFORD

Presentation on leaking crane gearboxes and ways to address them.

8:45 a.m.

AC REPLACEMENT MOTORS FOR DC MILL MOTORS

RICHARD WARRINER, FLOW IN-MOTION, LLC

Discusses considerations and advantages of custom built AC motors that are a "drop-in replacement" for old-style DC mill motors with cost reduction of installation being key.

9:15 a.m.

FUTURE OF DC CRANE CONTROLS

LUCIEN RAINVILLE, HUBBELL INDUSTRIAL CONTROLS INC.

9:45 a.m.

Break

10 a.m.

STATE-OF-THE-ART ANTI-COLLISION AND POSITIONING SYSTEMS FOR THE METALS INDUSTRY

EDGARDO LABRUNA, JANUS AUTOMATION

The steelmaking industry environment presents harsh conditions like dust, heat or vibration, the implementation of reliable anti-collision, and positioning system have been a challenge. This presentation will discuss several successful implementation in this area.

10:30 a.m.

ACCIDENT PREVENTION AND HUMAN FACTORS ANALYSIS CLASSIFICATION SYSTEM (HFACS)

MICHAEL JOHNSON, NAVY CRANE CENTER

Provide the Navy's definition of crane accident. Discuss techniques to reduce significant accidents/events. Discuss the benefit of using Human Factors of Analysis Classification System for performing root cause analysis and development of corrective actions.

11 a.m.

SINGLE-FAILURE-PROOF HOIST DESIGN

BRYAN BARBER, NAVY CRANE CENTER, AND GREG FITZPATRICK, ADVANCED CRANE TECHNOLOGIES

Description of a Navy project where single-failure-proof features were used to enhance safety of critical loads. Presentation by the Navy and the crane designer.

11:30 a.m.

CRANE INNOVATOR OF THE YEAR AWARD PRESENTATION

JOE BAVUSO, U.S. STEEL - GARY WORKS

Noon

Lunch

1:15 p.m.

WIRE ROPE FOR CRANES – PART I

TONY FASTUCA, ASC INDUSTRIES LTD., AND JUSTIN BROWN, WDI-GMBH PYTHON WIRE ROPE

This presentation will explain the wide variety of wire rope product technology that is available on the market and the application of each technology.

1:45 p.m.

WIRE ROPE FOR CRANES – PART II

JUSTIN BROWN, WDI-GMBH PYTHON WIRE ROPE

2:15 p.m.

Break

MORE INFORMATION AT
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2:30 p.m.

HOW TO CREATE A WORLD-CLASS BEHAVIOR-BASED SAFETY PROGRAM

DAVID CUNNINGHAM, HOIST & CRANE SERVICE GROUP

Like many corporations, most of us had a misconception: business is what we do and safety can be a nagging problem that can keep us from doing it if we are not careful. Developing a behavior-based culture starts with us, as a company.

3 p.m.

PROPER SELECTION OF STEEL MILL CRANE AIR CONDITIONING SYSTEM

JOHANNES KARCHER, FRIGORTEC LP

Crane operators and crane electronics are exposed to increased requirements. Well-designed air conditioning units are a major key of efficient and reliable crane operation. How to select a proper HVAC system based on: (1) technical designed and operation reliability and (2) investment and cost optimization will be discussed.

3:30 p.m.

HEADS UP FOR TAPERED TREAD CRANE WHEEL USERS

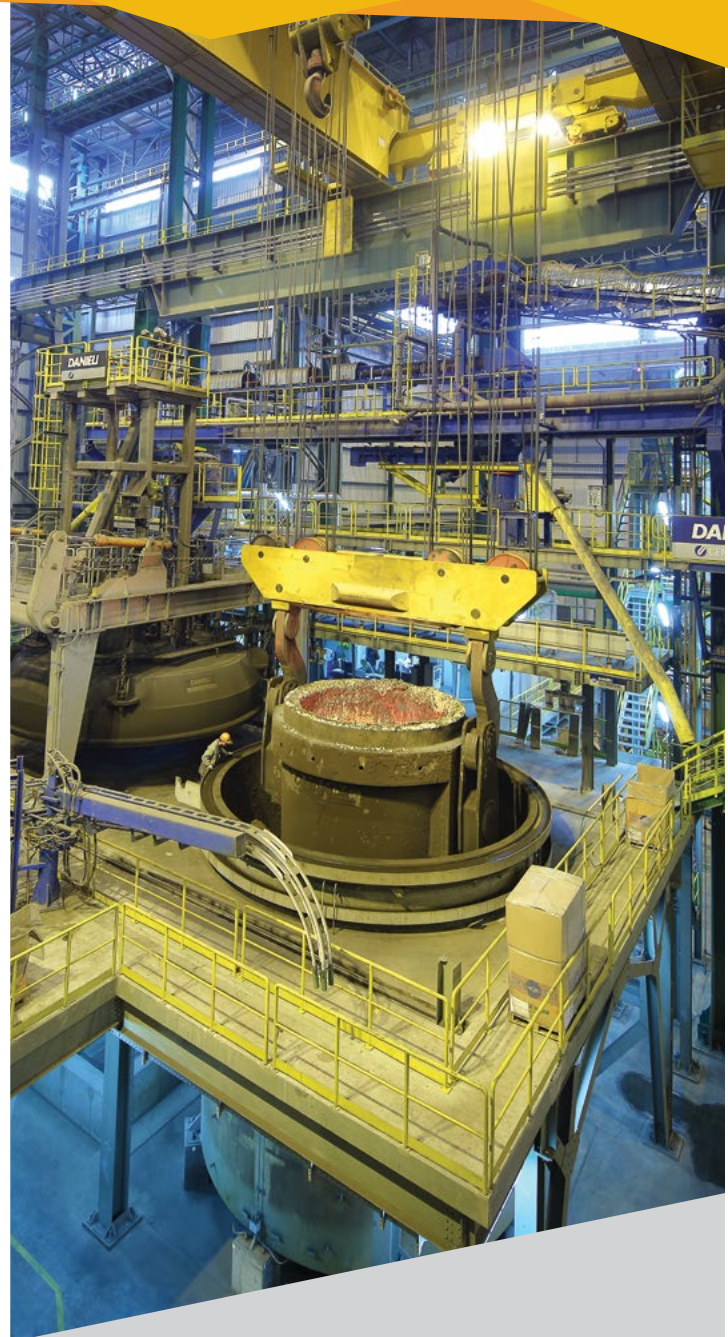
MIKE URBASSIK, HUBBELL INDUSTRIAL CONTROLS INC.

4 p.m.

Panel Discussion

4:30 p.m.

Conference Adjourn



REGISTRATION FEES

Advance registration by 28 April 2015: Member US\$795, Non-member US\$1,010. Registration fee after 28 April 2015: Member US\$895, Non-member US\$1,110. 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.

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REGISTER NOW