

# **Effective Crane and Rigging Training Methods**



Presenter:

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ASME B30 Vice Chair (Cranes & Rigging)

ASME P30 Chair (Lift Planning)

The views expressed in this presentation are that of ITI and are not necessarily the views of the ASME or any of its committees



A World Leader in Crane & Rigging Training

We Rig it Right!

TRAINING FIELD SERVICES CERTIFICATION BOOKSTORE E-LEARNING

# WHO WE ARE

A world leader in crane and rigging training and consulting



We Rig It Right!





## WHO WE ARE

#### Serves a Variety of Industries

- Aerospace
- Chemicals
- Construction
- DOD
- DOE
- Electric Utility
- Hydro
- Manufacturing

- Maritime
- Mining
- Nuclear
- Oil & Gas
- Pulp & Paper
- Railroad
- Shipbuilding
- Wind Energy







## WHO WE ARE

#### Provided Services in Over 20 Countries Worldwide



## **OUR CUSTOMERS**

The World's Greatest
Organizations Trust
ITI's Expertise with
their Crane & Rigging
Operations



## MIKE PARNELL - ABOUT THE SPEAKER

Mr. Parnell has a wealth of knowledge regarding cranes, rigging, and lifting activities throughout a variety of industries. Mike currently sits as the Vice Chair of the ASME (American Society of Mechanical Engineers) B30 Main Committee which sets the standards in the US for cranes and rigging.



He is also the Chair of the ASME P30 Main Committee which sets the standards for lift planning. ASME standards are also adopted by many countries around the world, including Canada.

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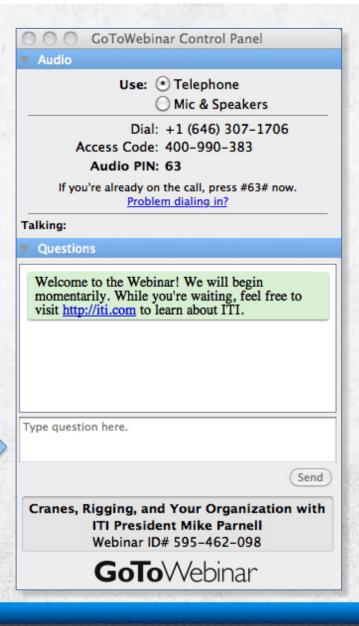
## **TODAY'S AGENDA**

- How to Build a Corporate Training Strategy
- What Should Your Employees be Learning According to You, OSHA, ASME?
- Train-the-Trainer Pros & Cons
- Mobile Crane Training: 5 Elements that Should be in Your Next Program
- Rigging Training: 5 Elements that Should be in Your Next Program
- Question & Answer



# **QUICK TIPS**

- Interactive Discussion
- Long-Term Mindset Think about Expansion, Consolidation, and Preparing for Tomorrow
- Questions are Welcomed
- Utilize the Control Panel to:
- Type Questions into the Chat Box
- Answer Poll Questions
- Q & A Session after Presentation





#### What and Why?

- Strategy, Approach, Methodology
- Benefits:
  - Cost Efficient Solutions
  - Cost-Efficient Time Spent by Employees
  - Effective Training Outcomes



#### **Potential Solutions**

- Expert Vendor Training On-Site
- Expert Vendor Training Off-Site
- Training & Certification Resources
- E-Learning Modules
- Train-the-Trainer
- On-Site, In-House Instruction
- Consulting Services



#### **Development Approach**

- 1. What do we do? What do we pay others to do?
- 2. Define your Tasks
- 3. Measure the Current Expertise
- 4. Find the Knowledge Gaps
- 5. Cross-training of Employees
- Measure the Results
- 7. Build the Pipeline for the Future
- 8. Now can we do what we pay others to do for less \$?



#### The Requirements and Standards

- 1. Have we met OSHA minimums?
- 2. People, Places and Things
- 3. Methods and Processes
- 4. Management Support
- 5. Small Investment in Equipment with Trained Employees
- 6. Best Practices / Use the Playbook
- 7. Certification or Qualification Required?



# **Employees Become Owners of the Process**

- 1. Exercise the New Muscles
- 2. Milestone Measuring
- 3. Find the Gaps
- 4. Target Specialized Training (laser beam, .30-06, surgical strike)
- 5. Measure the Results
- 6. Keep Supporting the People



## **SOURCES OF INFORMATION**

#### **Training Resources**

- On the Job
- Vendor (1-2 hr)
- In-house (2-4 hr)
- Manufacturer (2-4 hr)
- E-Learning (1-10 hr)
- Specialist (8-40 hr)



#### Should our company conduct in-house training on X?



**Full-Time Instructor** – Is there enough specific training that the training department personnel can afford a full-time corporate instructor for X?

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Curriculum & Dedicated Training Resources – Current curriculum, fresh presentation and dedicate training and hands-on environments?

#### **Qualified Training Provider**

The advantages of using a proven and reputable 3rd party training company:

- 1. Training sessions are generally succinct and properly paced
- 2. Well organized
- 3. Offer problem solving methods borrowed from other industry operations
- 4. More objective
- 5. The latest changes to crane and rigging regulations, standards and guidelines
- 6. The instructors are trained to overcome objections and resistance-to-change in an adult education setting
- 7. The instructors are generally more attuned to eliminating bad habits of the candidates using industry "best practices"





# **Basics**

- Set-up
- Controls / Functions
- Limitations
- Pre-op Inspections
- E-Learning Delivery





**Core Knowledge** 

Operating Practices

Load Charts

Manufacturer's Instructions

OSHA/ASME





# **Practical**

- Seat Time
- Seat Time
- Seat Time
- Try for 30% of Program





# Specialty

- Live Loads
- Signals, Tag lines
- Powerlines
- Obstructions
- Parking





# **Evaluation**

- Evaluate
  - Written and Verbal
  - Practical
- Target for Growth and Improvement



# **MOBILE CRANE TRAINING: THE NEXT LEVEL**

- Multiple Crane Lifts
- Two-Hook Picks
- Assembly / Disassembly Director
- Lift Director
- Critical Lift Planning





# Basics

- Rigging Gear by Type
- Capacities
- Hitch Configurations
- Limitations
- Protection
- E-Learning Delivery





# **Core Knowledge**

- Rigging Inspection
- OSHA/ASME
- Load Weight
- Center-of-Gravity
- Load Distribution





# 3 Applications

- Problem Solving Workshops
- Sling Tension
- Rigging to the Hook
- Procedures / Methods





# **Practical**

- Get Dirty
- Rig Loads and Use Info
- Implement Methods
- Perform with Knowledge





# **Evaluation**

- Evaluate
  - Written or Verbal
  - Practical
- Find the Gaps
- Target Areas for Improvement



## **RIGGING TRAINING: THE NEXT LEVEL**

- Jacking & Rolling
- Winches and Blocks
- Load Turning
- Load Drifting with Chain Hoists
- Complex Rigging
- Spreader Bars, BTHLD
- Lift Director / CLP





