10 Points of Lift Plan Development

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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.
WHO WE ARE

A world leader in crane and rigging training and consulting.

We Rig It Right!
Serving a Variety of Industries

- Aerospace
- Chemicals
- Construction
- DOD
- DOE
- Electric Utility
- Hydro
- Manufacturing
- Maritime
- Mining
- Nuclear
- Oil & Gas
- Pulp & Paper
- Railroad
- Shipbuilding
- Wind Energy
Our Customers

The World's Greatest Organizations Trust their Crane & Rigging Operations to ITI's Expertise.
SHOWCASE WEBINAR SERIES

Past Presentations:
Cranes, Rigging & Your Organization
Effective Crane & Rigging Training Methods for Your Employees
10 Audit Points for Your Crane & Rigging Operations: An HSE Perspective
Tackling the Challenges of Training Site Supervisors, Lift Directors, and other Leaders
4 Major Lifting Considerations in Power Gen Environments
Rigging & Sling Failures: Case Studies & Solutions

Today's Presentation:
10 Points of Lift Plan Development

WEBINAR TRAINING COURSES

• Lift Director & Site Supervisor
• Critical Lift Planning
• Rigging Gear Inspection for Supervisors
• Advanced Rigging: Load Distribution & Center of Gravity
• Advanced Rigging: Multi-Crane Lifts & Load Turns
Mr. Parnell has a wealth of knowledge regarding cranes, rigging, and lifting activities throughout a variety of industries.

• 30+ years learning about wire rope, rigging, load handling, and lifting activities.

• Vice Chair of the ASME B30 Main Committee which sets the standards in the US for cranes and rigging

• 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.

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The Lift Plan
THE LOAD

- Weight, CG, dimensions and source
- Shifting components?
- Evaluate / verify the attachment points are suitable for load handling, while maintaining load integrity
LOAD HANDLING EQUIPMENT

- Identify LHE capacity and configuration
- Dynamics, environmental, load eccentricities
- LHE meets manufacturers', regulatory and site requirements
- Proper set-up, erection, installation and dismantle procedures
THE RIGGING

- Method
- Capacity
- Dynamic, environmental, CG-to-pick point
- Equipment meets regulations/site requirements
- Procedure to install and remove
- Rigging protection; consider temperature, chemical, D/d, edges, abrasion, load turning
LHE and LOAD MOVEMENT

- Load movement and travel paths
- Free from inadvertent contact
- Dynamics, environmental eccentricities
- Personnel positions; spotters, signalers, tag liners, blocking, cribbing or connecting crew
PERSONNEL TRAINING & QUALIFICATION

- Lift Director
- Site Supervisor
- LHE Owner
- LHE User
- Lift Engineer
- Lift Planner
- Soils Analyst
- LHE Operator
- Qualified Rigger
- Qualified Signaler
- Regulatory Representative
- Load Manufacturer Representative
- Rigging Equipment Representative
- Site Safety Officer
- LHE Spotters
- Load Spotters
Scope of work

Access, travel path, egress for LHE and load

Foundation; compaction tests, soils analysis, structures, vaults, voids, backfill

Load landing point
COMMUNICATION

- Suitable communication; hand / voice / video / horns / lights

- Backup plan
SITE CONTROL

- Vehicular traffic
- Potential interference from other activities
- Barricades, guards or physical measures to restrict interference
CONTINGENCY PLANS

- Response teams
- I.D. type of hazard
- Recommended action
- Contact and communication
EMERGENCY ACTION PLAN

- Site Plan
- Responders
- Ensure the rigging team understands
PRE-LIFT MEETING

- Review activity
- Handling sequence
- Personnel assignments
- Questions/solutions
- Review
- Sign-off
EXECUTING CLP

- LHE inspected
- Load inspected
- Rigging inspected
- Personnel ready
- Site inspected
Initiate the lift

During the lift proceed as planned or stop and adjust according to contingency or acceptable methods

If impossible to proceed, “all-stop” and secure load & LHE.
POST LIFT REVIEW

- After the lift review, inspect and update