Responsibilities of Crane Operators, Riggers, Lift Directors and Other Site Personnel

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Industry Standards

• Panel of a wide range of industry experts
• Industry consensus document
• Updated 3-5 years
• Responds to questions / inquiry
• Broad scope
Industry Standards

- B30-3 (2019) – Tower Cranes
- B30-4 (2020) – Portal and Pedestal
- B30-5 (2018) – Mobile
- B30-9 (2018) – Slings
- B30-10 (2019) – Hooks
- B30-20 (2018) – Below the Hook Devices
- B30-22 (2016) – Articulating
- B30-23 (2016) – Personnel Lifting
- B30-26 (2015) – Rigging Hardware
- B30-29 (2018) – Self-Erecting Tower Crane
Areas of Responsibility

- Controlling Entity
- Site Supervision
- Crane User
- Crane Owner
- Lift Director
- Crane Operator
- Signal Person
- Rigger
- Assembly/Disassembly Director
Areas of Responsibility

Controlling Entity
Site Supervision
Crane User
Crane Owner

Lift Director
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Definitions

- **Site Supervisor**
  - “Exercises supervisory control over the work site on which a crane is being used and over the work that is being performed on that site.”

- **Crane User**
  - “Arranges the crane’s presence on a worksite and controls its use there.”

- **Crane Owner**
  - “Has custodial control of a crane by virtue of a lease or ownership.”
Site Supervisor - Responsibilities

- Crane is inspected and is in good condition
- Determining if additional regulations are applicable
- Ensuring a qualified person is designated as the **LIFT DIRECTOR**
- Ensuring crane operations are coordinated with other jobsite activities.
- Ensuring that the area for the crane is adequately prepared.
  - Access, room, suitable ground, traffic control
- Ensuring Assembly/Disassembly supervised by a qualified person.
Site Supervisor – Responsibilities (continued)

- Ensuring crane operators meet the requirements
- Ensuring conditions that may adversely affect crane ops are addressed
- Allowing crane operations near powerlines only when requirements are met
- Special lifting operations
- Rigging crew is supervised by a qualified person.
- Ensuring crane maintenance is performed.
Crane User - Responsibilities

- Complying with regulations, standards, and manufacturer’s requirements.
- Using supervisors for crane activities that are qualified.
- Ensuring the crane is in proper operating condition
  - Verifying crane owner has provided the documentation and frequent inspections have been completed.
- Verifying that the crane has the necessary lifting capacity to perform the work.
- Using crane operators that meet the requirements.
Ensuring the assigned operator(s) have been notified of adjustments or repairs that have not yet been completed.

Designating personnel for maintenance, repair, transport, assembly and disassembly.

Ensuring all inspection, testing and maintenance programs specified are followed.

Informing crane owner if rope on the crane is replaced or shortened.
Crane Owner - Responsibilities

- Provide a crane that meets the requirements of the standards and the Crane User.
- Providing crane and all components specified by manufacturer to meet Crane Users requested configuration and capacity.
- Providing additional technical information when requested by Crane User.
- Providing assembly/disassembly, operation, maintenance and warning decals.
Crane Owner – Responsibilities (continued)

• Establishing an inspection, testing and maintenance program.

• Designating personnel for maintenance, repair, transport, assembly and disassembly.

• Maintaining rope information for the rope installed on each drum.
Areas of Responsibility

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Lift Director - Responsibilities

• ASME - **Qualified** Individual
  – Being present at the **jobsite** during lifting operations.
  – Ensuring the area needed for crane operations has been prepared before operations commence.
  – Ensuring personnel involved understand their responsibilities, assigned duties, and associated hazards.
  – Addressing safety concerns and being responsible if they overrule concerns and directs operations to continue.
Lift Director – Responsibilities (continued)

- **ASME - Qualified** Individual
  - Appointing the signal person(s) and ensuring they are qualified.
  - Ensuring compliance when working near power lines or lifting personnel.
  - Ensuring the load rigging is performed by a competent rigger.
  - Ensuring precautions are implemented in special lifting operations.
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Crane Operator - Responsibilities

• Reviewing requirements for the crane with the Lift Director
• Knowing what types of site conditions could adversely affect the operation of the crane and consulting with the Lift Director

• **Crane – Hook to Wheels / Hook to Foundation**
• Inspecting the crane
• Reporting needed adjustments or repairs to designated person
Crane Operator – Responsibilities (continued)

- Calculating or determining net capacity
- Considering all factors known that might effect crane capacity and reviewing with Lift Director
- Knowing standard signals
- Understand basic load rigging
Areas of Responsibility

Controlling Entity
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Crane Operator

Signal Person

Rigger

Assembly/Disassembly Director
Signal Person - Responsibilities

ASME – Qualified Person

Revised for 2021 + Responsibilities
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Rigger - Responsibilities

• ASME – Supervised by a qualified Person – 2021 Revision targeted area.
• ASME – Revised 2018
  – Ensuring the weight of the load and its approximate center of gravity have been obtained.
  – Selecting the proper rigging equipment, inspecting it, and complying with applicable ASME volumes.
  – Ensuring the rated load of the rigging equipment as configured is sufficient for the load based on number of legs, hitch and effects of angles.
  – Properly attaching the rigging equipment
Rigger – Responsibilities (continued)

• ASME – Revised 2018
  – Ensuring that rigging equipment is adequately protected from abrasion, cutting or other damage during load handling activities.
  – Rigging the load in a manner to ensure balance and stability
  – Knowing and understanding the applicable signals for equipment in use.
Areas of Responsibility

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Assembly/Disassembly Director

Lift Director
Assembly/Disassembly Director

- Responsibilities
  - Hold an assembly / disassembly safety meeting before work begins to check that crew members understand tasks and hazards.
  - Follow the manufacturer or employer procedures for assembly / disassembly
  - Follow manufacturer prohibitions
  - Mitigate 12 specific hazards ranging from blocking, center of gravity, assist crane loading, and winds.
  - Responsible for post assembly inspection
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THANK YOU FOR YOUR ATTENTION

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