Crane Lift and Rigging Plan

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CENTENNIAL
A BILFINGER COMPANY

General Information

Plan Author: _____

Company Name: _____ Project Name & No: _____

Lift Date: _____ Point of Contact: _____ Contact Phone #: _____

Crane Operator Information

Name: _____ License #: _____ Expiration Date: _____

License Type: ☐ *NCCO/TLL (swing cab)* ☐ *NCCCO/TSS (fixed cab)* ☐ *Other* _____

Medical Physical Type: _____ Expiration Date: _____ (3 year)

Crane Information

Owner: _____ Make: _____ Model: _____ Gross: _____ Ton

Inspection/Certification Date: _____ ☐ *Decal on Crane (required)* ☐ *Periodic Report (required)*

Crane Configuration: ☐ *On Main Boom* ☐ *On Jib* ☐ *On Outriggers/Stabilizers*

Load Rating Chart Supplied: ☐ *Main Boom on Outriggers/Stabilizers* ☐ *Jib*

Hoist Line Class: ☐ *Standard* ☐ *Rot Res* Breaking Strength: _____ lbs SWL: _____ lbs

Winch: ☐ *Main* ☐ *Aux* Parts of Line Used: _____ Total Line Capacity: _____ lbs

Assembly/Disassembly Director *(fulfills role as Lift Director & Site Supervisor per ASME)*

Name: _____ Employer: _____ Phone #: _____

Competent Person: ☐ *Yes* ☐ *No* Qualified Person: ☐ *Yes* ☐ *No*

Set Up Procedures Implemented: ☐ *Crane Manufacturer's* ☐ *Company Specific (attach copy to this plan)*

Qualified Rigger

Name: _____ Employer: _____

Rigger Card Type: ☐ *Employer (provide documentation)* ☐ *3rd Party* ☐ *National Certification*

Card Expiration Date: _____ Qualified Person for Rigging Tasks: ☐ *Yes* ☐ *No*

Qualified Signalperson

Name: _____ Employer: _____

Signal Card Type: ☐ *Employer (provide documentation)* ☐ *3rd Party* ☐ *National Certification*

Card Expiration Date: _____ Qualified Person for Signal Tasks: ☐ *Yes* ☐ *No*

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Contact Information: Use this section to gather all contact information necessary. Make sure you have every section filled with all appropriate phone and cell phone numbers.

Crane Operator: Take information directly off the crane operator's Certification ID card. We recognize NCCCO, CIC, NCCER and OECP Certifications. If the operator provides another type of operator qualification card (internal company, US Military or other), take a copy of the card and consult with CSM as soon as possible. Operators must produce a current medical physical certification. Your state may also require seizures and mental capacity that will not be on a DOT physical.

Crane Information: Name and owner of the crane could be a subcontractor and/or a rental company.

- Monthly inspections require a competent person to perform them and records (includes 14 items) be provided of the most current prior month's inspection. Annual inspections require inspections by a qualified person which include issuing the annual inspection sticker and providing a copy of the annual inspection (21 items) per 1926.1412.
- Note the configuration the crane will be in during the lifts and secure a copy of the appropriate rating chart from the crane. Note the diameter and class of the wire rope along with the Breaking Strength. Divide breaking strength by 3.5 for standard cable or 5 for rotation resistant cable to arrive at the SWL. Note which winch is being utilized for the lift and how many parts of line will be used to make the pick. Multiply the SWL x parts of line used to get total line capacity.
- Note the stamped capacity of the load hook and check to see if the hook used has an installed safety latch (larger hooks will not have or require one).

Assembly/Disassembly Director (AD) (fulfills role as Lift Director and Site Supervisor per ASME):

- Procure the name and title. Can be the operator for simple lifts.
- Ensures all rigging is performed by a Qualified Person and load is stable before hoisting.
- Follows either a) manufacturer guidelines or b) company specific guidelines for setup (contact CSM).
- Ensures the crew understands tasks, hazards, hazardous positions and to notify if out of sight.
- Accounts for ground bearing pressure, identifies hazardous locations, cribbing, hazardous locations, verify assist crane rating and load, load COG, pinch point hazards, hoist brake testing, loss of stability, wind speed force and effect of weather.

Qualified Rigger Onsite

- Get the name of the certified rigger, his 3rd party Certification Card and Issuer. This certification card should be in the riggers name only with no company on it. –OR-
- Get the name of the qualified rigger, his 3rd party or Company Qualification Card and Issuer. This qualification card is company specific and is not portable from one company to another.

Qualified Signalperson Onsite

- Only Required when (1) The point of operation is not in full view of operator or (2) the operator's view is obstructed in the direction the equipment is traveling.
- Get the name of the qualified signalperson, his 3rd party or Company Qualification Card and Issuer. This qualification card is company specific, is not portable and documentation must be on site.
- They have been verified that they understand types, modes and meanings of the signals, crane dynamics, effects of signals on the crane, hazards associated with craning and signaling, the new regulations for working around energized power lines. They have passed a written and/or oral exam and demonstrated knowledge via practical evaluation.

Project Site Conditions

Overhead Hazards: ☐ No ☐ Yes *(if yes, identify controls):* _____

Underground Hazards: ☐ No ☐ Yes *(If yes, identify controls):* _____

Ground Conditions: ☐ Level / Firm / Supportive ☐ Poor *(explain):* _____

Cribbing: ☐ Yes *(must be implemented) (cribbing size recommended):* _____

Power Line Hazard *(<350kV line) (for >350kV, use 50 ft barrier boundary)*

Overhead Power Lines: ☐ No ☐ Yes *(voltage and document):* _____

Demarcation Boundary 20 ft: ☐ N/A ☐ 360 deg ☐ Limited area *(explain):* _____

20 ft Clearance Distance: ☐ Cannot reach w/crane ☐ Could reach w/crane ☐ will encroach w/crane

Proximity Decision: ☐ Maintain 20 ft clearance ☐ De-energize & ground ☐ Use table "A" clearance

Table Clearances: ☐ Voltage (utility) ☐ Warning lines w/proximity alarm ☐ Warning lines w/spotter

Lift and Rigging Plan

Load Description: _____ Load Weight: _____ lbs

Projected Measurements: Radius: _____ ft Boom Angle: _____ deg Boom Length: _____ ft

Chart Used: ☐ Main Boom ☐ Jib ☐ On Outriggers Load Rating Chart x 0.75 _____ lbs

Spreader Bar: ☐ N/A ☐ Mfg. ☐ Site Made (PE approval) Shackles: size _____ Rating _____ tons

Winch: ☐ Main ☐ Aux Parts of Line Used: _____ Total Line Capacity: _____ lbs

Slings: Type _____ Size _____ In-line Rating _____ Length _____

Horizontal Angle _____ Additional Stress _____% Hitch Configuration _____

Lift & Rigging Sketch

Approved By: Plan Author Signature: _____ Date: _____

Reviewed By (Signature): Crane Operator: _____ Date: _____

PSO/Superintendent: _____ Date: _____

SSR: _____ Date: _____

Instructions for Page 3

Site Conditions:

- Ensure the underground search has been conducted.
- Document any overhead encumbrances or hazards.
- Ground must be evaluated for crane and load support.
- If action is required, indicate who is going to take the appropriate action.
- All cranes on Centennial/JV jobsites need to be cribbed. Cribbing should be double the size of the float pad.

Power Line Hazard *(<350kV line= 20ft) (for greater >350kV line use 50ft barrier boundary)*

- You must identify the max radius utilized either as a limited use area or 360° via a demarcation line.
- If no part of the crane, line, rigging, load or accessories can reach to within 20 feet of an energized power line, then clearly mark the 20 foot barrier and no signal person is required.
- If the crane can come within 20 feet of the power line (in any direction), the lines must be de-energized and grounded -OR –
- Clearly mark the 20 foot boundary, utilize a qualified signal person/spotter and do not encroach inside the minimum safe distances outlined in the OSHA "A" Table.

Lift and Rigging Plan

- Known load weight and load configuration for appropriate rigging.
- #1 task is to rig for load stability and be level in rigging.
- Get projected set down measurements from the dry run with the crane.
- Identify all rigging hardware and spreader bars utilized and verify ratings are appropriate.
- Verify all rigging components are labeled or tagged with capacity ratings.
- Identify and verify all slings utilized capacity ratings are sufficient for the load weight and additional sling angle stress imposed on them.
- If any questions arise, consult the qualified rigger and CSM prior to elevating the load.

Lift or Rigging Sketch

Take time to draw out the position of the crane, height and radius in relation to set down area, distances from the load, buildings, distances from hazards, lines of demarcation and 20 foot power line barrier zone. You should also sketch the shape of the load, load weight, rigging hitches, lengths and types of slings and any other configurations utilized .

Required Documentation Checklist

- ☐ Copy of Operator's License
- ☐ Copy of Operator's Medical Cert.
- ☐ Copy of Riggers Card or Cert.
- ☐ Copy of Annual Crane Insp. Cert.
- ☐ Copy of Monthly Crane Insp Cert.
- ☐ Copy of Crane Load Rating Chart
- ☐ Sketch of Site Layout and Rigging
- ☐ Copy of Company Crane Setup
- ☐ Utility Owner Voltage Information
- ☐ PE spreader bar or custom rigging