

FLEET COST & CARE

25 TIPS FOR TACKLING CRANE SAFETY

Cranes are powerful machines, capable of impressive feats that define the skylines of our cities and enable entire industries to function. Unfortunately, mistakes and negligence do occur when cranes are not treated with the respect and due diligence required. To promote safety in the crane & heavy lifting industry, we wanted to offer up a few tips that are always good to have top of mind when you are planning a job or in the seat.

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Start with a plan
Every lift is different. Every lift should have a lift plan. Load capacities, integrity of equipment and job site conditions are just a few factors that need to be reviewed prior to agreeing to doing any job.
- 2



Make Sure You Have the Proper Personnel
Is your crane operator NCCCO (National Commission for the Certification for Crane Operators) certified? Are all their necessary certifications up-to-date? Is the operator familiar with the chosen piece of equipment?
- 3



Use the Right Crane
When qualifying cranes, make sure it has the correct configurations needed to perform all the lifts and that the heaviest load does not exceed 75% of the crane's capacity according to the manufacturers load chart. Be certain the crane is up-to-date with all its necessary inspections and preventative maintenance.
- 4



Complete a Daily Inspection
Whether it is in accordance with your company, the equipment manufacturer, the customer, or all the above, make sure daily checklists are carried out thoroughly. Document your checklist digitally whenever possible.
- 5



Obtain proper authorizations
Obtain signatures from the foreman or job site supervisor prior to starting to work. This is considered proof of accepting terms and conditions of a rental agreement. This can be vital to reducing liability in a worst-case scenario.
- 6



Wear Personal Protective Equipment (PPE)
Determined by employer and job site. Make sure all necessary PPE from hard hats, high visibility shirts and vests, protective eyewear, gloves and fire-retardant gear are worn in designated areas. Make sure PPE is clean and not damaged.
- 7



Follow Fall Protection Procedures
In accordance with OSHA, follow all fall protection guidelines utilizing required equipment during all rigging work, crane assembly and disassembly operations.
- 8



Examine ground conditions
Will it support the crane? Is it firm and level? Do you have the correct size load distribution pads under your outriggers?
- 9



Check for Underground Obstacles
Are there any manholes or vaults around that may hint at buried lines? Ask the lift director to confirm before proceeding.
- 10



Check for Overhead Obstacles
Are there trees or power lines in the way? If there are power lines, know what is required by the power company and OSHA to stay in compliance.
- 11



Understand the Piece to be Lifted
What does it weigh? Is it obvious where the center of gravity is? Are there lifting points or eyes? Are the rigging points symmetrical and above the center of gravity? Stability during the lift is critical.
- 12



Handle Hazardous Materials Safely
Are there hazardous chemicals, vapors or substances that are a danger to the crane, people or the load? If so, are you following proper procedures to ensure safe transport of said materials?
- 13



Know the Weight of Load
What does the load weigh? Is that in writing anywhere? Is the load made of materials that the weight can be accurately calculated?
- 14



Understand the Total Lift Weight
What accessories must be added to the load? Hook block, rigging, load line, attached jib and other deductions. Are these items tagged for weight? Is there paperwork to prove this?
- 15



Know the Lift Radius
Is the radius known? Can it be measured and confirmed? Can a dummy test lift be performed to confirm crane configuration and radius?
- 16



Lift Visibility
Can the operator see the load at all points during the pick, swing and set? If not, what type of assistance has the lift director prepared for?
- 17



Examine the Lift Area
Is the lift area controlled? Are there people, valuable materials or equipment in vicinity of the swing radius? Is the area cordoned off with caution tape and are there signal persons prepared to keep people out of the area?
- 18



Watch the Weather
Is inclement weather going to prevent the lift? Do weather reports expect conditions to change? Does the load have a sail area that will further reduce the maximum possible wind allowed? Are extreme temperatures present that will affect the lift?
- 19



Know your Rigger
Is the rigger certified and competent to perform the work?
- 20



Obtain the Proper Rigging Equipment
Is the rigging equipment in good condition and tagged for capacity? Are there calculations that show rigging sufficient to handle the loads? Will the load be stable when picked as proposed? Are correct softeners used when required to protect the load and rigging?
- 21



Inspect Rigging Equipment Daily
Inspect all rigging equipment each day prior to use. Visual observations should be concerned with discovering gross damages which may be an immediate hazard. (Periodic inspections based on frequency of use should be scheduled by your safety director in addition to daily inspections.)
- 22



Use Cranes Properly
Cranes are engineered for vertical lifting. Do not think your situation is unique and that you and your crew can pull off side loading a crane. Any improper lifting puts extreme stress on the boom and other structural components making any such lift very dangerous.
- 23



Use Signal Persons When Necessary
Will signal persons use hand signals or verbal commands over radio? If radio, is there a dedicated channel to be used? Are batteries fully charged? Are the signal persons certified and competent to perform the job required?
- 24



Tag Lines
Will tag lines be used? Are they long enough and strong enough to control the load? Does the person holding the rope know how to control the load?
- 25



Pay Attention
This may seem obvious, but even during the downtime between lifts it is important that everyone associated with the crane stays alert and focused. Failure to do so can create potential danger for anyone at or around the job site.

If you're interested in learning more ways to keep your fleet safe, contact the Fleet Cost & Care team today.

800-281-9445 | fleetcostcare.com | sales@fleetcostcare.com