**Mobile Crane Safety**

Inspection Guidelines for OSHA Compliance Officers

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| **Description** |
| 1. Operator Qualifications: Observe operator in action and ask a few questions concerning the cranes’ capacity and restrictions imposed, either due to activity involved in or functional limitations.
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| 1. Inspection Records: Ask for inspection and maintenance records, operator’s manual, and load charts for that particular crane.
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| 1. Crane Setup: Crane is level (< 1 degree off), outriggers extended, stability (load weight, angle of boom, radius to the center of gravity), structural integrity, and proximity to power lines.
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| 1. Electrical Hazards: Minimum clearance of 10 feet. De-energized by power company, lines visibly grounded, warning signs posted at operator’s station and on the outside of the crane indicating clearance requirements, and a qualified representative of the power company is on the job site to verify that the power lines have been de-energized and properly grounded.
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| 1. Load Charts: Operator has a set of load charts for the crane and for the loads being lifted. Operator can show adequate understanding and proficient use of charts.
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| 1. Safe Operating Precautions: Safety Plan developed and explained to all personnel involved in the lift. Walk-around inspection conducted prior to use. Qualified and properly designated people operating the crane. Regular inspections of the crane and a preventative maintenance program.
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| 1. Inspection:
2. All exposed moving parts guarded.
3. Boom in good condition (no visible defects).
4. Wire rope in good condition.
5. Hook not deformed or cracked (< 15% throat opening, < 10 degrees twist).
6. Swivels rotate freely.
7. Boom and jib straight, no evidence of physical damage (cracking, bending, etc.), no corrosion under any attachments connected to chords and lacing, no cracking or flaking of paint (indicates metal fatigue preceding failure), no bent lacing on lattice booms
8. Tires properly inflated and free of cuts, tears, and breaks.
9. No evidence of air or hydraulic leaks.
10. Fuel, lubricating oil, coolant, and hydraulic reservoirs filled to proper levels.
11. PFE (minimum 5 lb.) present, charged, and ready to use.
12. Sheaves, drums, brakes, locking mechanisms, hooks, boom, jib, hook roller brackets, outrigger components, limit switches, safety devices, hydraulic cylinders, instruments, and lights functioning properly.
13. No weld cracks, loose or missing bolts on turntable connections.
14. All brakes and clutches properly adjusted and operating properly.
15. Anti-two-block devices and load moment indicators calibrated and operating properly.
16. All gauges and warning lights reading appropriately (while engine running).
17. All controls functioning properly.
18. No broken or cracked glass that may affect operator’s view.
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| 1. Monthly Inspection of Critical Items (brakes, hook, ropes): Record of monthly inspection (based on manufacturer’s maintenance and inspection items or equivalent) with date, signature of person performing, and serial number readily available for review.
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