MOBILE & CONSTRUCTION CRANE CHECKLIST

OSHA 29 CFR 1926.1412 / 1926.1413 • ASME B30.5 • NCCCO-CERTIFIED

For mobile and construction cranes — rough-terrain, all-terrain, truck-mounted, crawler, boom-truck, and carry-deck. Pre-shift, monthly, and annual checks in one document.

Crane / Unit ID: _____	**Make / Model:** _____	**Date:** _____	**Inspector:** _____

Pre-Shift / Daily Inspection Checklist

Competent person (often the operator), before or during each shift — OSHA 1926.1412(d). A quick visual and functional check.

Controls, Brakes & Safety Devices

- [ ] Control mechanisms — no maladjustment or excessive wear
- [ ] Service and holding brakes (hoist, swing, travel)
- [ ] Anti-two-block (ATB) and load-moment indicator (LMI)
- [ ] Boom-angle / length indicators and limit switches
- [ ] Horn, backup alarm, lights, and gauges

Wire Rope, Hook & Load Path

- [ ] Wire rope for obvious damage, kinks, or broken wires
- [ ] Rope spooling evenly on the drum
- [ ] Hook, latch, and load block — cracks, wear, latch closes

Powertrain, Hydraulics & Ground

- [ ] Air, hydraulic, and fuel lines for leaks; fluid levels
- [ ] Engine, cooling, and warning lights
- [ ] Tires / tracks and outrigger pads
- [ ] Ground and supporting surface under the setup

Setup (Before the Lift)

- [ ] Outriggers fully extended or set per the load chart; crane level
- [ ] Power-line clearance to the OSHA 1926.1408 minimum
- [ ] Correct load chart for the actual configuration

Documents in the Cab

- [ ] Load chart present and legible
- [ ] Crane log up to date
- [ ] Last annual inspection on file

Monthly Documented Inspection Checklist

Competent person — OSHA 1926.1412(e). Sign and date; keep the record at least 3 months.

Rope, Rigging & Hook

- [ ] Wire rope along its full length, including drum wraps

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- [ ] Rope at the hook block, equalizer, and drum anchor
- [ ] Hook measured for throat opening and wear

Brakes, Drive & Swing

- [ ] Hoist, swing, and travel brakes hold and release
- [ ] Swing gear / bearing for play; clutches and drum locks

Hydraulics & Structure

- [ ] Cylinders, valves, and lines for leaks
- [ ] Outrigger beams and pads
- [ ] Cracks at high-stress welds and pins

Record

- [ ] Date, crane ID, and inspector name
- [ ] Findings and any item pulled from service
- [ ] Signature on file

Annual / Comprehensive Inspection Checklist

Qualified person, at least every 12 months — OSHA 1926.1412(f). Full written report; keep at least 12 months. Work by component.

Structure & Boom

- [ ] Boom, jib, and lattice members — cracks or deformation
- [ ] Welds, gussets, and pin bores
- [ ] Turntable, mast, gantry, and counterweight mounts

Hoist, Drum & Reeving

- [ ] Drum grooves and flanges; sheaves and bearings
- [ ] Wire rope to ASME B30.5 / 1926.1413 removal criteria
- [ ] Hook and load block — throat and wear measured

Brakes, Hydraulics & Power

- [ ] Service and holding brakes, clutches, swing system
- [ ] Cylinders, valves, pumps, lines; cylinder drift test
- [ ] Engine, drivetrain, and cooling

Carrier, Outriggers & Tires

- [ ] Outrigger beams, jacks, floats, and pads
- [ ] Carrier frame, axles, steering, and travel gear
- [ ] Tires or tracks and rollers

Safety Devices & Documentation

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- [ ] ATB, LMI calibration, limit switches, level
- [ ] Lights, horn, alarms, gauges, boom indicators
- [ ] Load charts, capacity plates, crane log, prior reports
- [ ] Rated-capacity load test if new, repaired, or due

Wire-Rope Removal Criteria — ASME B30.30

Wire-Rope Condition	Running Rope	Standing / Pendant
Broken wires, randomly distributed	6 in one lay, or 3 in one strand	3 in one lay
Broken wire at an end connection	Remove or re-socket	1 or more — remove
Diameter loss, corrosion, heat	Past maker / ASME limit	Past maker / ASME limit
Kinking, crushing, birdcaging	Remove	Remove

Disclaimer: This checklist is a free educational field aid, not professional or legal advice. It does not replace the documented inspection by a qualified person that OSHA and ASME require, and it does not cover every condition on every machine — always follow the manufacturer's manual and the current OSHA / ASME standards. Use at your own risk; 3P Safety Inspections assumes no liability for its use. Take any crane with a safety defect out of service until a qualified person clears it.

Need a documented, qualified-person inspection? 3P Safety Inspections is an independent, third-party firm — we do not sell or rent cranes. NCCCO-certified inspectors, all 50 states, 24–72 hour scheduling, photo-documented reports. Call (252) 274-0583 or request a quote at 3psafetyinspections.com.