

Rigging Inspections

WHY THIS MATTERS

Rigging failure is one of the most deadly hazards on a job site. A review of 249 crane incidents found that 27% involved load drops — primarily from worn slings, improper hitches and overloaded hardware. An average of 44 workers die in crane-related accidents every year (BLS). OSHA 29 CFR 1926.251 requires that slings and all rigging be inspected daily by a competent person before use.

27%

Of crane incidents involve load drops from rigging failure

44

Average annual crane-related fatalities (BLS)

15%

Max hook throat opening before removal (OSHA)

5 Rules for Rigging Inspections

Every rigging operation must follow these inspection rules:

- 1 INSPECT DAILY BEFORE USE**
OSHA 1926.251 — a competent person must check all slings, shackles and hardware daily.
- 2 CHECK THE LOAD RATING TAG**
Every sling must have a legible tag showing rated capacity, hitch type and manufacturer.
- 3 REJECT DAMAGED EQUIPMENT**
Broken wires, cracked hooks, stretched chains or cut webbing = remove from service NOW.
- 4 MATCH THE RIGGING TO THE LOAD**
Never exceed rated capacity. Account for sling angle — capacity drops sharply below 60°.
- 5 STORE RIGGING PROPERLY**
Hang slings on racks, keep off the ground — dirt, moisture and UV degrade rigging fast.

Before You Start — Quick Checklist

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|--|---|
| <input type="checkbox"/> Do all slings have legible capacity tags? | <input type="checkbox"/> Are wire ropes free of broken wires and kinks? |
| <input type="checkbox"/> Are hooks free of cracks and throat distortion? | <input type="checkbox"/> Are chain links free of stretch and deformation? |
| <input type="checkbox"/> Are synthetic slings free of cuts, burns and UV damage? | <input type="checkbox"/> Are shackles properly rated and pins secured? |

What to Inspect — By Rigging Type

Wire Rope Slings: Reject if >10% of wires are broken in 8 diameters, or if kinked, crushed, corroded or bird-caged.

Chain Slings: Inspect for stretch, cracks, gouges, weld defects. Quarterly documented inspection required.

Synthetic Web Slings: Reject for cuts, burns, holes, acid/chemical damage, melted fibers or missing tags.

Hooks: Remove if cracked, throat opened >15% of normal, or twisted >10° from original plane.

Shackles & Hardware: Check for proper pin, cotter key, rated capacity marking. Never substitute a bolt for a pin.

Sling Angles: Below 30° from horizontal, sling capacity drops to 50%. Keep legs as vertical as possible.

Common Mistakes That Drop Loads

- ✗ Using a sling with no tag — if you can't read the capacity, you can't use it
- ✗ Shortening slings with knots or bolts — reduces strength by up to 50%
- ✗ Ignoring broken wires on rope — "just a few" can mean the rope is at failure point
- ✗ Overloading by ignoring sling angle — a 30° angle cuts rated capacity in half

Safety Tips to Remember

- ✓ No tag = no lift — if the rated capacity label is missing or illegible, remove from service
- ✓ Inspect the full length of every sling — damage hides in the middle, not just the ends
- ✓ Never stand under a suspended load — the rigging you didn't inspect is the one that fails
- ✓ Document chain inspections quarterly — OSHA requires a written record of the last inspection

Discussion Questions for Your Team

1. When was the last time you rejected a sling or piece of rigging hardware?
2. Do all our slings currently have legible capacity tags?
3. Where do we store our rigging — and is it off the ground and out of the weather?
4. Can you explain how sling angle affects rated capacity?
5. Who is our designated competent person for rigging inspections?

TOOLBOX TALK SIGN-OFF

Date: _____

Supervisor: _____

Project: _____

Location: _____

Attendance sheet attached: [] Yes