



➤ Overhead Crane/Hoist Inspections

When working with or around cranes and hoists, employees could be seriously injured if the proper safety inspections are not being conducted. This Safety Talk will review best practices for conducting inspections of overhead cranes and hoists commonly used by SDRMA members.

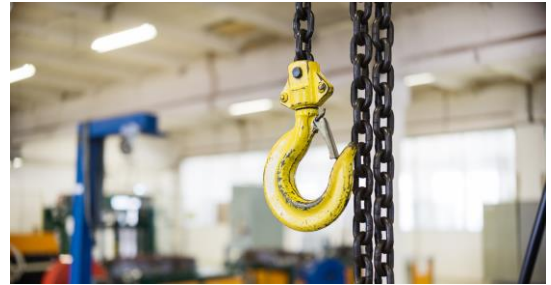
INSPECTIONS

Cal/OSHA requires different types of inspections at different times of the year. The most thorough type occurs annually and must be conducted by an accredited crane inspector. Annual inspections focus on critical electrical, mechanical and structural components.

Quarterly inspections are less thorough than annual inspections and can be completed by anyone qualified to recognize and mitigate hazards either by experience or training.

As an operator, you are required to conduct a daily crane/hoist inspection (or prior to use) To begin, inspect the following :

- All functional mechanisms for excessive wear or maladjustments interfering with proper operation
- Any pneumatic or hydraulic lines/equipment ensuring no leaks or deterioration
- The hydraulic system's fluid level
- The electrical apparatus for signs of excessive deterioration, dirt/moisture accumulation or any type of malfunction
- Ground conditions around the crane/hoist support system for ground settling

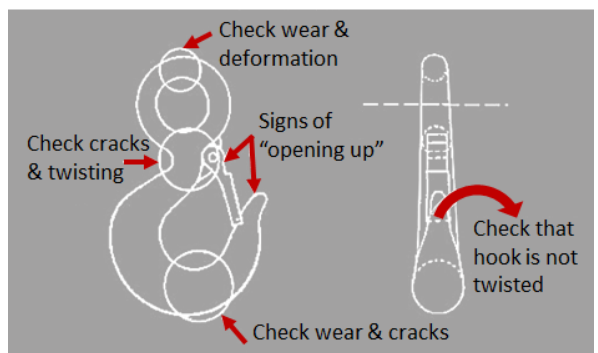


Next, inspect the hook, latch, chain, and sling for cracks, deformation, or excessive damage that could result in the load becoming unsecured and falling.

Hooks

Remove the hook from service if any of the following are observed:

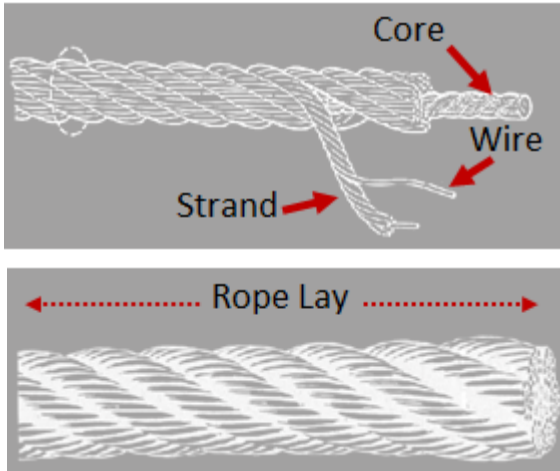
- Missing/illegible load rating info
- Excessive pitting or corrosion
- Deformation – any visible bends or twists from the original plane of hook
- Any distortion causing an increase in throat opening of 5% not to exceed ¼" (or as recommended by manufacturer)
- Damaged or missing self closing latch/lock
- Evidence of welding, drilling, machining, grinding, or other modifications



Overhead Crane/Hoist Inspections

Wire Rope Slings

Inspect the wire rope for broken strands of wire. Immediately remove from service any wire rope with six randomly distributed broken wires in one rope lay, **or** three broken wires in one strand in one rope lay.



A rope lay is the distance it takes for an individual strand to make a complete wrap around the core.

Other conditions that warrant removal of wire rope slings from service include:

- Kinking, crushing, bird caging, rope fatigue, or any other damage resulting in distortion of the wire rope structure



Synthetic Web Slings

Inspect synthetic web slings for the following:

- Manufacturer tag/markings indicating name, type of sling, and load rating
- Signs of acid or caustic burns
- Stitching that is unraveling or cut
- Web should not have holes, tears, snags or be discolored
- Knots in webbing



Remove the synthetic web sling from service if any of the above-mentioned issues are observed.

ADDITIONAL BEST PRACTICES

- Know the weight of the load being lifted, and do not exceed the load ratings for the sling, hook, or the crane
- Hoist from directly over the load. If not centered, the load may swing when lifted
- Never lift loads over people
- Do not raise loads higher than necessary to clear objects
- Never leave suspended loads unattended

More Resources:

- Cal/OSHA [§4880](#), Cranes and Hoisting Equip.
- [Cal/OSHA Crane Unit](#)
- [SDRMA Risk Control Team](#)

This *Safety Talk* provides awareness level training on Cranes and Hoists Safety. If this information is unclear or if you have any additional questions, please talk to your supervisor.