CRANE & HOIST – PRE-USE INSPECTION CHECKLIST

- **General Damage**: Inspect chains, slings, wires hooks and other components of the crane/hoist for general damage, wear and tear.

- **Tagged**: Check that the crane or hoist is not tagged with an out-of-order sign.

- **Control Devices**: Test run each motion to ensure they are working properly.

- **Brakes**: Check for excessive drift in each motion of the crane and that stopping distance is normal.

- **Reeving**: Check that the wire rope is properly reeved and that rope parts are not twisted about each other.

- **Limit Switches**: Check that the upper limit device stops the lifting motion of the hoist load block before striking any part of the hoist or crane.

- **Oil Leakage**: Check for any sign of oil leakage on the crane and on the floor beneath the crane.

- **Unusual Sounds**: Check for any unusual sound from the crane or hoist mechanism while operating the crane or hoist.

- **Warning & Safety Labels**: Check that warning and other safety labels are not missing and are legible.

- **Housekeeping & Lighting**: Check area for accumulation of material to prevent tripping or slipping. Also ensure there is plenty of lighting in the area.

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**Hook and Chain Assembly - Monthly Inspection**

Once a month, complete the following tasks. When completed, initial and date the Crane/Hoist’s inspection tag.

- **Hook**: Check for damage, cracks, nicks, gouges, deformations of the throat opening, wear on the saddle or load bearing point, and twist. Refer to the manufacturer’s manual.

- **Hook Latch**: Check for proper operation. If there is a gap between the end of the latch and the hook, then check the hook for elongation.

- **Wire Rope**: Check for broken wires, broken strands, kinks, and any deformation or damage to the rope structure.

- **Hoist Chain**: Check for cracks, nicks, gouges, wear and stretch. Check that the chain is in the upper and lower sprockets and in the chain guide.
### HOOK DEFICIENCIES

- If hook throat opening has increased by 15%
- Load bearing point has been worn by 10%, the hook must be replaced.
- Inspect hook tip. If it is twisted by 10 degrees or more the hook must be replaced.
- Check for excessive damage from chemicals and for deformation and cracks.
- Check for and replace damaged, inoperative, or missing hook latches.

### WIRE ROPE DEFICIENCIES

**NOTE! TO AVOID INJURY, WEAR LEATHER GLOVES WHEN INSPECTING WIRE ROPES**

- Rope distortion such as kinking, crushing, unstranding, birdcaging, main strand displacement, or core protrusion.
- General corrosion, heat damage and broken or cut strands
- Number, distribution, and type of visible broken or cut wires.
- Reduction of rope diameter due to loss of core support, internal or external corrosion, or wear of outer wires.
- Corroded, cracked, bent, worn, damaged, or improperly applied end connections.
- Wire rope pull through of end connection.
- Clamps that recommend a specified torque on the clamp bolts.
- Rope lubrication, if recommended.

### CHAIN DEFICIENCIES

- Select an unworn and unstretched length of chain (e.g., at the slack end of the chain).
- The number of links selected must be an odd number and should be approximately 12 inches to 24 inches in length.
- Measure the gauge length of the **unworn and unstretched** length of chain selected by use of a caliper-type gauge.
- Measure the gauge length of the same number of links in a **used** section of the load chain.
• Replace the chain if the used gauge length is 2-1/2% longer than the unused gauge length for manually-operated hoists or is 1-1/2% longer than the unused guard length for power operated hoists.

• Conduct a link by link inspection for gouges, nicks, weld spatter, corrosion, and distorted links. If observed, replace load chain.