



## Wire Rope Sling Inspection

A wire rope sling shall be removed from service if conditions such as the following are present:

- Missing or illegible sling identification.
- Broken wires:
  - For strand-laid and single-part slings, 10 randomly distributed broken wires in one rope lay, or 5 broken wires in one strand in one rope lay.
  - For cable-laid slings, 20 broken wires per lay.
  - For less than eight-part braided slings, 20 broken wires per braid.
  - For eight-part or more than eight braided slings, 40 broken wires per braid.
- Severe localized abrasion or scraping.
- Kinking, crushing, bird caging, or any other damage is noted.
- Corrosion of the rope or end attachments.
- Evidence of heat damage.
- End attachments are cracked, deformed or worn.
- Evidence of hook removal criteria as defined in
- Other conditions, including visible damage, that cause doubt as to the safety of continued use.

## Alloy Steel Chain Slings

An alloy steel chain sling shall be removed from service if conditions such as the following are present:

- Missing or illegible sling identification.
- Cracks or breaks
- Excessive wear, nicks, or gouges.
- Stretched chain links or components
- Bent, twisted, or deformed chain links or components.
- Evidence of heat damage.
- Excessive pitting or corrosion.
- Lack of ability of chain or components to hinge (articulate) freely.
- Weld splatter.
- Evidence of hook removal criteria as defined in
- Other conditions, including visible damage, that cause doubt as to the safety of continued use.

## Synthetic Web Sling Inspection (Typically Nylon or Polyester)

A synthetic web or round sling shall be removed from service if conditions such as the following are present:

- Missing or illegible sling identification.
- Acid or caustic burns.
- Melting or charring of any part of the sling.
- Holes, tears, cuts, or snags.
- Broken or worn stitching in load bearing splices.
- Weld splatter that exposes core yarns.
- Excessive abrasive wear.
- Knots in any part of the sling.



- Discoloration and brittle or stiff areas on any part of the sling, may mean chemical or ultraviolet/sunlight damage.
- Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.
- Evidence of hook removal criteria as defined in 5.8.2d.
- Other conditions, including visible damage, that cause doubt as to the safety of continued use.

### **Natural and Synthetic Fiber Rope Sling Inspection**

Each sling should be marked or coded to show the rated capacities for each type of hitch and type of material.

Fiber rope slings should not be spliced in any manner.

Natural and synthetic fiber rope slings shall be immediately removed from service if there is:

- Abnormal wear.
- Powdered fiber between strands.
- Variation in the size or roundness of strands.
- Discoloration or rotting.
- Distortion of hardware in the sling.
- Any other conditions, including visible damage, that cause doubt as to the safety of continued use.
- Only fiber rope slings made from new rope shall be used. Use of repaired or reconditioned fiber rope slings is prohibited.

### **Metal Mesh Sling Inspection**

A metal mesh sling shall be removed from service if any condition such as the following is present:

- Missing or illegible sling identification.
- Broken weld or a broken brazed joint along the sling edge.
- Broken wire in any part of the mesh.
- Reduction in wire diameter of 25% due to abrasion or 15% due to corrosion.
- Lack of flexibility due to distortion of the mesh.
- Distortion of the choker fitting so the depth of the slot is increased by more than 10%.
- Distortion of either end fitting so the width of the eye opening is decreased by more than 10%.
- A 15% reduction of the original cross-sectional area of any point around the hook opening of the end fitting.
- Visible distortion of either end fitting out of its plane.
- Cracked end fitting.
- Spirals that are locked or without free articulation.
- Fitting that are pitted, corroded, cracked, bent, twisted, gouged, or broken.
- Any other conditions, including visible damage, that cause doubt as to the safety of continued use.