RIGGING EQUIPMENT INSPECTION GUIDE

OSHA 1926

INSPECTION REQUIREMENTS

OSHA 1926.251 requires that rigging equipment be inspected before each use and removed from service if defective. Designate a competent person to perform inspections. Document findings and remove any equipment that does not meet the criteria in this guide. Never exceed rated capacity.

INSPECTION FREQUENCY REQUIREMENTS

Inspection Type	Frequency	Performed By
Visual Inspection	Before each use/shift	Operator/Rigger
Frequent Inspection	Daily to monthly (based on use)	Competent Person
Periodic Inspection	Monthly to annually	Qualified Person
Documented Inspection	Per manufacturer or annually	Qualified Inspector

WIRE ROPE SLINGS

Inspection Checklist

- ☐ Legible identification tag with rated capacity
- ☐ No broken wires — count broken wires per rope lay
- ☐ No kinking, crushing, bird-caging, or core protrusion
- ☐ No evidence of heat damage (discoloration, warping)
- ☐ No severe corrosion or pitting
- ☐ No excessive wear (diameter reduction)
- ☐ End fittings secure — no cracks, deformation, or wear
- ☐ Thimbles not cracked, distorted, or worn
- ☐ Swaged/pressed fittings not damaged or slipping

REJECTION CRITERIA — Remove from service if any condition exists:

- X 10 randomly distributed broken wires in one rope lay
- X 5 broken wires in one strand in one rope lay
- X Kinking, crushing, bird-caging, or main strand damage
- X Evidence of heat damage or arc strikes
- X End attachments cracked, deformed, or excessively worn
- X Severe corrosion or pitting of the rope or fittings
- X Any reduction in rope diameter exceeding manufacturer limits

SYNTHETIC WEB SLINGS (Nylon/Polyester)

Inspection Checklist

- ☐ Legible identification tag with rated capacity attached
- ☐ Material type identified (Nylon = Green tag, Polyester = Blue tag)
- ☐ No acid or caustic burns (Nylon sensitive to acids)
- ☐ No heat damage, melting, or charring
- ☐ No cuts, tears, snags, or holes in webbing
- ☐ No abrasive wear exposing core yarns
- ☐ No broken or worn stitching
- ☐ No knots in the sling body
- ☐ No excessive stretching or distortion
- ☐ Fittings not cracked, pitted, corroded, or deformed
- ☐ No UV degradation (fading, brittleness)

REJECTION CRITERIA — Remove from service if any condition exists:

- X Missing or illegible identification tag
- X Acid or caustic burns of any size
- X Melting, charring, or weld spatter damage
- X Cuts, tears, or snags exposing core yarns
- X Broken or worn stitching in load-bearing splices
- X Knots in any part of the sling
- X Fittings that are cracked, bent, or broken

SYNTHETIC ROUNDSLINGS

Inspection Checklist

- ☐ Legible identification tag with rated capacity
- ☐ Cover (jacket) intact — no holes, cuts, or abrasions
- ☐ No exposed core yarns visible through cover
- ☐ No lumps, bumps, or inconsistencies in body
- ☐ No evidence of heat damage or chemical exposure
- ☐ No excessive stretching or distortion
- ☐ Fittings secure and undamaged

REJECTION CRITERIA — Remove from service if any condition exists:

- X Missing or illegible identification tag
- X Cover damage exposing internal core yarns
- X Acid, caustic, or heat damage to cover or core
- X Hard or stiff spots indicating internal damage
- X Knots, twists, or snags in the body
- X Red core yarns visible (internal warning indicator)

ALLOY STEEL CHAIN SLINGS

IMPORTANT: Only Grade 80 or Grade 100 alloy steel chain may be used for overhead lifting.

Proof coil, BBB, or high-test chain is NOT rated for overhead lifting and must never be used.

Inspection Checklist

- ☐ Legible identification tag with grade (80 or 100) and rated capacity
- ☐ All links move freely — no binding or stiffness
- ☐ No stretched, bent, or twisted links
- ☐ No nicks, gouges, or weld spatter
- ☐ No excessive wear at contact points (link-on-link)
- ☐ No corrosion or pitting
- ☐ No evidence of heat damage (discoloration)
- ☐ Master links, coupling links in good condition
- ☐ Hooks not cracked, bent, or twisted
- ☐ Hook throat opening within tolerance (see chart)
- ☐ Safety latches operational (if equipped)
- ☐ All connecting hardware properly rated and marked

Chain Link Stretch Limits (Remove from service if exceeded):

Chain Size	Max Stretch per Link	Chain Size	Max Stretch per Link
1/4"	3/64" (1.2mm)	5/8"	3/32" (2.4mm)
3/8"	3/64" (1.2mm)	3/4"	7/64" (2.8mm)
1/2"	1/16" (1.6mm)	1"	1/8" (3.2mm)

REJECTION CRITERIA — Remove from service if any condition exists:

- X Missing or illegible identification tag
- X Any link stretched beyond limits shown above
- X Bent, twisted, or deformed links
- X Cracks, breaks, or severe nicks/gouges
- X Excessive wear (link cross-section reduced >10%)
- X Evidence of heat damage (bluish discoloration)
- X Weld repairs or unauthorized modifications
- X Hook throat opening increased >15% or twist >10 degrees

SHACKLES

Inspection Checklist

- ☐ Legible marking showing rated capacity (WLL)
- ☐ Correct pin for shackle body (matching marks)
- ☐ Pin fully engaged and secured (cotter pin if required)
- ☐ No visible cracks, nicks, or gouges
- ☐ No deformation, bending, or spreading of body
- ☐ No excessive wear at pin holes or pin
- ☐ No corrosion or pitting
- ☐ No evidence of overloading (stretched/elongated)

HOOKS

Inspection Checklist

- ☐ Legible marking showing rated capacity
- ☐ Safety latch present and operational (if equipped)
- ☐ No cracks visible (especially at the bend)
- ☐ No bending, twisting, or deformation
- ☐ Throat opening within tolerance (check with gauge)
- ☐ No excessive wear at load bearing points
- ☐ Swivel operates freely (if equipped)
- ☐ Attachment point secure and undamaged

Hook Rejection Limits:

X Throat opening increased more than 15% from original

X Twist exceeding 10 degrees from the plane of the unbent hook

X Any visible crack, nick, or gouge in load-bearing area

EYEBOLTS

Inspection Checklist

- ☐ Marked with manufacturer and rated capacity
- ☐ Correct type for application (shoulder vs. plain)
- ☐ Shoulder eyebolts seated flush against surface
- ☐ No cracks, especially at junction of eye and shank
- ☐ No thread damage or corrosion
- ☐ Eye plane aligned with direction of pull
- ☐ No bending or deformation of eye

ANGULAR LOADING REDUCES CAPACITY:

Shoulder eyebolts at 45 degrees angle = 30% capacity reduction

Plain (non-shoulder) eyebolts must only be loaded in-line with shank axis

TURNBUCKLES, LINKS & OTHER HARDWARE

Inspection Checklist

- ☐ Legible marking showing rated capacity
- ☐ No cracks, bending, or deformation
- ☐ Threads not damaged, stripped, or excessively worn
- ☐ Take-up (adjustment) adequate for application
- ☐ Locking nuts/clips in place (if required)
- ☐ No corrosion or pitting affecting strength
- ☐ Connecting pins secure with proper retention

GENERAL REJECTION CRITERIA — ALL RIGGING EQUIPMENT

REMOVE FROM SERVICE IMMEDIATELY IF:

- X Missing or illegible identification/capacity tag
- X Obvious visible damage (cuts, cracks, deformation)
- X Evidence of overloading or shock loading
- X Heat damage, arc strikes, or weld spatter
- X Unauthorized repairs or modifications
- X Corrosion or deterioration affecting safe operation
- X Any doubt about the safe condition of the equipment

INSPECTION LOG

Date	Equipment ID	Type	Condition	Action Taken	Inspector

RECORD RETENTION: Maintain inspection records for the service life of the equipment.

Document all deficiencies found and corrective actions taken.

Destroyed equipment should be documented.