**Basic Rigging Information**

**Chain Slings:**

* Use only Grade 80 or Grade 100 for lifting operations
* Inspect that there is a tag & that all the information is legible, manufacture, capacity, angle, size, reach or length, type, grade, serial number, number of legs
* Inspect for damage such as; nicks or gouges, inner link wear, stretch or elongation, heat damage such as weld spatter, bends or twists

**Synthetic Slings:**

* Inspect that there is a tag & that all the information is legible, manufacturer, manufacturer’s code or stock number, rated capacity for hitch type, angle, material the web sling is made of, core material for round slings, cover material for round slings (if different then core material), number of legs, reach or length
* Inspect for damage such as; discoloration, brittleness or stiff areas, this could be a sign of UV damage, chemical or heat damage, cuts, snags, punctures or tears, abrasion damage, broken or worn stitching, missing or illegible tag, exposed core yarns in round slings, knots in the core yarns

**Synthetic Rope Slings:**

* Inspect that there is a tag & that all the information is legible
* Name of the manufacturer or trademark, if repaired the entity that preformed the repairs.
* Manufacture’s code or stock number, rated capacity for the hitch type, angle, type of fiber material, number of legs
* Cuts, gouges, areas of extensive fiber breakage along the length, & abraded areas on the rope.
* Damage that is estimated to have reduced the effective dia. Of the rope by more than 10%
* Uniform fiber breakage along the major part of the length of the rope in the sling such that the entire rope appears covered with fuzz or whiskers.
* Inside the rope, fiber breakage, fused or melted fiber involving damage estimated at 10% of the fiber in any strand or the rope as a whole.
* Discoloration, brittle fibers, & hard or stiff areas that may indicate chemical, ultraviolet or heat damage.
* Dirt, grit or foreign material in the interior of the rope structure that is deemed excessive & makes it difficult to handle.
* Kinks or distortion in the rope structure, particularly if caused forcibly pulling on the loops. (AKA hockles)
* Melted, hard or charred areas that affect more than 10% of the dia. Of the rope or affect several adjacent strands along the length that affect more than 10% of strand dia.
* Poor condition of thimbles or other components like corrosion, cracks, distortion, sharp edges or localized wear.

**Wire Rope Slings:**

* Inspect that there is a tag & that all the information is legible, manufacture, rated capacity for hitch type, angle, number of legs, wire rope diameter or size
* Inspect for damage such as; kinking, crushing, bird caging, any damage to the rope structure, abrasion or scraping or wear reduction of 1/3 diameter of the original dimension, heat damage, weld spatter, burn, corrosion of the rope or attachments, end attachments for damage
* Remove from service if you find ten (10) randomly distributed broken wires in one wire rope lay or five (5) broken wires in one strand in one wire rope lay

**Master Links & Rings:**

* Identification requirements: trademark or name of manufacture, capacity or size, grade if required to identify capacity
* Inspect for damage such as; missing or illegible identification, heat damage weld spatter, field modifications, corrosion, 10% wear or reduction of original diameter, bends, twists, cracks, distortion, stretch, nick or gouges

**Hooks:**

Hooks having any of the following conditions shall be removed from service:

* Deformation, any visibly apparent bend or twist from the plane of the unbent hook
* Throat opening, any distortion causing an increase in throat opening of 5%, not to exceed ¼” (or as recommended by the manufacturer).
* Inoperative latch, any latch that does not close the hooks throat opening.
* Wear, any wear exceeding 10% (or as recommended by the manufacturer) of the original section dimension of the hook or its load pin
* Markings, manufactures logo or trademark must be identifiable

**Shackles:**

DISCARD SHACKLES IF:

* Any parts worn more than 10% of original dimensions
* Bent, twisted, distorted, stretched, elongated, cracked, or broken load bearing components
* Excessive pitting or corrosion, nicks or gouges
* Indication of heat damage
* Missing or illegible manufacture’s name or trademark or rated load identification or size
* Body spread
* Makeshift or sub-standard pins not supplied by original manufacturer.
* Any field modification is evident

**Wire Rope Clips:**

Rejection Criteria:

* Missing or illegible identification
* Heat damage
* Unauthorized weld or modification (weld splatter)
* Corrosion or excessive pitting
* 10% wear or reduction of original diameter
* Bends, twists crack, distortion, stretch
* Nicks gouges
* Incorrect number of clips
* Improper torque or tightening
* Unauthorized replacement components
* Damage to Wire rope
* Signs of Wire rope slippage
* Not assembled properly

**Eyebolts:**

Rejection Criteria:

* Trademark or Name of Manufacturer
* Size or Rated Load
* Grade for alloy eyebolts
* Illegible or missing identification
* Any Distortion, bends, twists, stretching, elongation, cracking.
* Nicks & gouges
* Heat damage
* Thread damage
* Wear 10% of original diameter
* Corrosion or pitting
* Modifications

**Swivel Hoist Rings:**

Rejection Criteria:

* Trademark or Name of Manufacturer
* Rated Load
* Torque Value
* Illegible or missing identification
* Any Distortion, bends, twists, stretching, elongation, cracking.
* Nicks & gouges
* Heat damage
* Thread damage
* Wear 10% of original diameter
* Corrosion or pitting
* Lack of ability to swivel freely, rotate or pivot.

**Below the Hook Lifting Equipment:**

Rejection Criteria:

* Name of Manufacturer
* Serial number
* Capacity (if the lifting device is made up of several lifters, each detachable from the group, these lifters shall all be marked with their individual capacities)
* Lifter weight (if above 100 pounds)
* Design Category
* Service class
* Cold Current (if applicable)
* Rated Voltage (if applicable)

**Below the Hook Lifting Equipment Electro-Magnets:**

Rejection Criteria:

* Name of Manufacturer
* Serial number
* Rated load markings
* Controls (voltage & current indicators)
* Master link, chain & pins
* Conductors & connectors
* Signal lights
* Warning labels
* Magnet face (condition & debris)
* Hooking/attachment gear
* Loose or missing hardware

**Below the Hook Lifting Equipment Permanent Magnets:**

Rejection Criteria:

* Name of Manufacturer
* Serial number
* Rated load markings
* Controls (voltage & current indicators)
* Lift switch guard (*Permanent magnets: The control handle of a manually controlled permanent magnet shall include a device that will hold the magnet circuit in either the “Load” or “Release” position to prevent inadvertent changes)*
* Battery charge
* Locks
* Warning labels
* Magnet face (condition & debris)
* Hooking/attachment gear

**The three basic sling hitches, vertical or straight, choke & basket hitch.**

   