NPCA

National Precast Concrete Association

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Wire Rope and Sling Rigging, Inspection and Removal

ASME B30.9 addresses;

Slings fabricated from alloy steel chain, wire rope, metal mesh, synthetic fiber rope, synthetic webbing, and polyester fiber yarns in a protective cover(s).

ASME B30.9 Standard requires that all rigging such as, wire rope and slings, be marked of the manufacturer, diameter or size, number of legs if more than one and the rated loads for the types of lifting.

The identification is done typically by the Manufacturer and be maintained by the end user so that it is legible during the entire life of the rigging.

Repair of the rigging must be done by the Manufacturer or qualified person.

Testing is not a requirement of the rigging if only replacing the identification.

Initial inspection shall be performed prior to using new, repaired, altered or modified rigging.

The inspection shall be done by qualified person to make sure that ASME B30.9 standards are followed.

Frequent visual inspections are an integral part of any safety program and shall be done daily or as the rigging is used.

Guidelines for Inspection Intervals

- Normal Service(Periodic) – shall be done yearly.
- Severe Service – Shall be done monthly or quarterly
- Special Service – As required by the Manufacturer or qualified person.

A written record shall be kept by the end user on any inspection time frame.

Any ASME B30.9 condition for removal from service shall govern the usage of the rigging.

The rigging shall not be returned to usage until approved and inspected by a qualified person.

Periodic or Normal Service inspections shall be done not to exceed one year interval.

This inspection shall include the entire rigging, splices, end attachments and any fittings, fittings meaning shackles, master links and alike.

This frequency of the Periodic inspections shall be determined by the usage of the rigging, severity of the usage and the site conditions.

Criteria for Rigging Removal

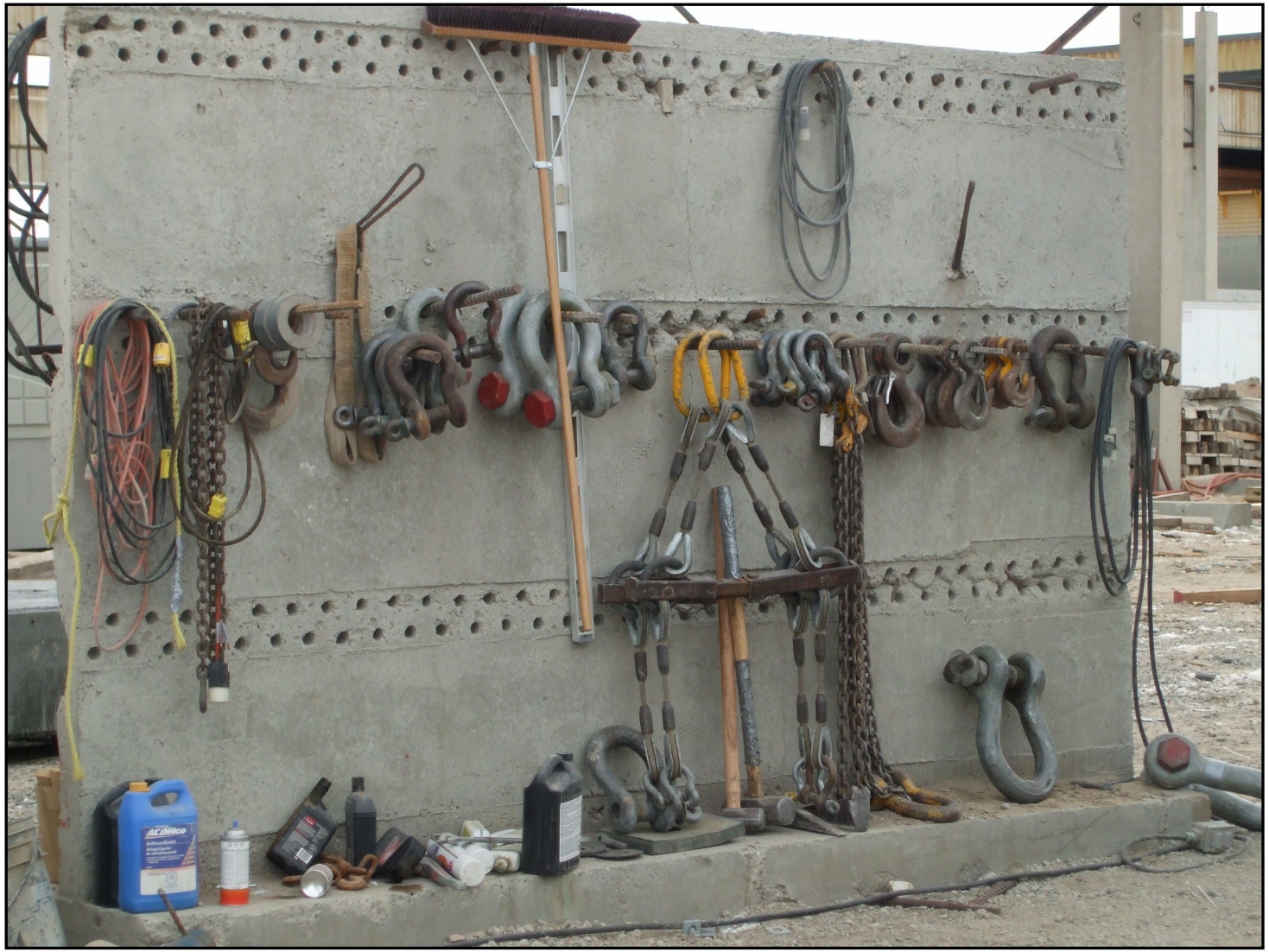
A sling shall be removed from service for the following list of conditions;

1. Missing or illegible identification.
2. Broken wires.
3. For wire strand or single part slings, 10 randomly broken wires in on rope lay, or 5 broken wire in one strand in one lay.
4. For cable laid slings, 20 broken wires per lay.
5. For six-part braided slings 20 broken wires per braid.
6. For eight-part braided slings 40 broken wires per braid.
7. Severe abrasion or scraping of the rigging.
8. Kinking, crushing, bird-caging or any other damage to the rigging structure.

9. Any heat damage.
10. End attachments that are cracked, deformed or worn to the extent that the strength of the rigging is compromised.
11. Severe corrosion including visible damage to compromise the strength or condition of the rigging.
12. Other unforeseen site conditions that visibly affect the rigging.

Hook Identification, Inspection and Removal is referenced in ASME B30.10.

Rigging Hardware Identification, Inspection and Removal is referenced in ASME B30.26.



A simple Rigging rack is a great way to organize your rigging and keep alike shackles, and slings at easy identification. This minimizes hunting for the right rigging, but is no replacement for inspection and verifying the capacity of the correct rigging for use.