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By Mandy Rij

Getting Serious About Sling Inspections

The world of rigging is full of excitement, but the excitement is not always good. Investigations involving a rigging accident that injured or killed someone are the worst kind of excitement in the industry.

We must all do everything we can to prevent rigging accidents. That means constantly reminding crew members to sharpen their knowledge of proper sling use, care, and inspection.

Some companies outsource inspections for lifting slings and equipment. This does not mean they are "off the hook" for having their own people inspecting the slings. Companies are responsible for ensuring that their riggers and operators are properly trained. Operators and riggers must exercise common sense when using and caring for lifting slings. There must be an inspection process in place that guarantees that all slings are inspected before each and every use.

It does not matter if a sling is lifting 1,600 pounds or a million pounds, they all must be visually inspected. A good idea is to use the serial number on the sling, and keep a logbook to keep track of who inspected the sling, and when it was last done. Some companies use inspection checklists. Another tip is to show pictures of damaged slings to employees to improve their understanding of what is not acceptable. All these ideas will improve your inspection process.

There are governing bodies, such as the Web Sling & Tie Down Association (WSTDA) and the American Society of Mechanical Engineers (ASME), that publish straightforward inspection criteria for lifting slings, offering easy guidelines to follow, which helps to reduce discrepancies for determining when to remove a sling from service.

I've seen many instances when one person deems a sling should be taken out of service, while another would consider the same sling acceptable for use. When on the jobsite, I've heard lots of reasons for leaving damaged slings in inventory. Often it's because workers want to save money, or they haven't had time to reorder, or they simply

believe that the damaged sling will support the load. All of these reasons are unacceptable.

Accidents are expensive and time-consuming. So if you really want to save money and time, make accident prevention a priority. A brief description of typical sling damage follows. These examples are a guide for when to remove slings from service.

Tagged out

Synthetic web slings should be removed from service if there is a missing or illegible sling tag; if there are snags, cuts, tears, or punctures; or if there are broken or worn stitches, acid or caustic burns, melting or charring. They should be removed if there are any knots in the sling. Chemical or UV damage is identified by discoloration or brittle areas. Destroy the sling if elongation exceeds the recommendation of the manufacturer. Likewise, don't use slings if the fittings are distorted, cracked, or corroded.

The same is true for **synthetic round slings**. Likewise, remove round slings if you can feel hard bunches of the core yarns or if the inner core yarns are exposed through the cover.

Chain slings should be removed from service if there is a missing or illegible sling tag or if the chain links are cracked, broken, stretched, have excessive wear, nicks, or gouges. Take them out of service if the links are bent or twisted; if the minimum chain thickness is below the recommended amount from the manufacturer; if there is excessive pitting, corrosion, weld splatter, or evidence of heat damage; or if any of the fittings are stretched or corroded.

Wire rope slings should be removed from service if there is a missing or illegible sling tag; if there are broken wires that exceed the recommended amount from the manufacturer; or if there is severe abrasion, scraping, kinking, crushing, birdcaging, or any other damage to the rope structure. Also look for evidence of heat damage or fittings that are cracked, deformed, or corroded.

All slings should be removed if there are any conditions, including visual damage, that cause doubt as to the continued use of the sling.



There are a variety of reasons to remove slings from service, including cuts in the eye or wear pad area of web slings, left and center, or an illegible tag, right.

Steps Toward Prevention

Most accidents can be prevented with proper care, use and inspection of slings.

A few things you should always do:

1. Take the time to ensure you are using the proper sling for the job.
2. Check that your angle reduction does not reduce your sling capacity below the weight of the load.
3. When using synthetic slings it is advised to always use wear pads when lifting anything with sharp or jagged surfaces. Today there are so many different wear pad options available that you are guaranteed to find one that fits your application and your budget.
4. Chain slings and high-strength round slings should be inspected and proof tested once a year by the manufacturer. This will give you documentation that the slings have been tested to twice their safe working load.

5. Ask your sling supplier to provide you with its own inspection criteria for its products. The supplier should be able to give you its standards for removal from service, as well as sample pictures. Make copies of them, and make certain that all employees involved in rigging have a copy.

We all need to do our best to make certain we are lifting safely! Ask the questions:

- Why are not enough people removing damaged slings from service?
- Why are there not enough inspection processes in place within companies?
- Where are the training records and the inspection logs?

Improper inspection and replacement, and misuse of slings can result in sling failure, which can lead to injuries and death. Get serious about sling inspections! ■

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