



SAFETY UNLIMITED, INC.

Weekly Safety Meeting

Lifting and Rigging Safety

Many companies consider lifting and rigging work tasks to be high hazard. There are a lot of hazards that accompany lifting any loads with cranes or equipment. It is important to not only understand proper rigging techniques, but also the hazards that accompany this type of work task.

Annually about 50 riggers are killed when loads have slipped from the rigging or when the rigging has failed. To protect workers against accident, OSHA has a series of strict rigging requirements. These requirements call for you to maintain rigging equipment, properly train employees, and more.

Rigging and slinging should be considered a system, as each component (hook, shackle, cable or chain) makes up the system. Riggers should take care when using rigging and slings. The rating of the shackles utilized should be equal to or greater than the rating of the slings. Each shackle and sling should be individually load-stamped and certified. Only shackles and sling hooks that are load rated by their manufacturer, with a rating appropriate for the load, should be used.

Lifting and Rigging Incidents:

The first type of incident that often comes to mind regarding lifting and rigging is breakage of a sling, wire rope, or chain resulting in a dropped load. While these types of incidents usually have the most severe consequences, there are many other types of less severe incidents that cause the majority of injuries or property damage. Some of the other injuries and incidents that occur are sprains, falls, crush injuries, electrocutions, and struck-by incidents just to name a few. Hazards such as swinging loads, manual handling of heavy rigging, holding on to tag lines, moving equipment, pinch points, working on elevated surfaces, trip hazards, slippery surfaces, etc. can all be present during lifting operations.

Inspection:

Inspections of slings and related rigging hardware are to be done before each use. Any sling that is found unfit for use shall be "red tagged" and returned to the shop.

Some of the things to look for when inspecting slings:

- Missing or illegible sling identification;
- Melting or charring on any part of the sling;
- Holes, tears, cuts, snags, or elongation of the sling;
- Broken or worn stitching in load-bearing splices;
- Excessive abrasive wear;

- Knots in any part of the sling;
- Excessive pitting or corrosion, or cracked, distorted, or broken fittings;
- Distortion of chain links;
- Visible indications that cause doubt as to the strength of the sling, such as loss of color that may indicate the potential for ultraviolet light damage; and
- Distortion, kinking, bird caging, or other evidence of damage to the wire rope structure.
 - Wire rope shall not be used if, in any length of eight diameters, the total number of visible broken wires exceeds 10 percent of the total number of wires.

Lift:

During the lift, avoid shock loading by taking up the slack in the sling slowly. Apply power cautiously so as to prevent jerking at the beginning of the lift, and accelerate or decelerate slowly. Use taglines that are long enough to control the load, but still keep people out of the swing of the load.

When using a sling, there are several key points to keep in mind:

- Is the sling free of kinks or any other damage?
- Is the sling rated for the lift?
- Is the load balanced to prevent slipping?
- Is the sling securely attached to the load?
- Are the sling and the load protected from damage during the lift?
- Is there a clear path for the movement of the load?
- Are employees and other persons kept clear of the “danger zone” during the lift?

Remember:

There are good practices to follow to protect yourself while using slings to move materials. First, learn as much as you can about the materials with which you will be working. Slings come in many different types, one of which is right for your purpose. Second, analyze the load to be moved - in terms of size, weight, shape, temperature, and sensitivity - then choose the sling which best meets those needs. Third, always inspect all the equipment before and after a move. Fourth, use safe lifting practices. Use the proper lifting technique for the type of sling and the type of load.

GET 'HITCHED' TO SAFETY...KNOW HOW TO RIG LOADS PROPERLY!!

