Rigging toolbox talk: slings, hitches and safe lifts

29 CFR 1926.251, 1910.184, 1926.1419, 1926.1425, 1926.1404

Date _____ Trainer _____ Location _____

Opening question

When did you last read the tag on a sling before you hooked it up?

Why it matters

Rigging is the gear and the work that connect a load to a crane or hoist: slings, shackles, hooks and the hitches you make with them. If the rigging fails or the load shifts, it can drop or swing without warning, and the riggers and signal people closest to it can be hit or crushed. Many rigging problems can be spotted on the ground, before the lift starts.

Key points

1. **Inspect every piece before you use it**
   Rigging equipment must be inspected before use on each shift and as needed during use, and defective gear must be removed from service (29 CFR 1926.251(a)(1)). On web slings, look for cuts, snags, burns, melted or charred spots, and broken or worn stitches. On wire rope, look for broken wires, kinks, crushing and corrosion. If you are not sure a piece is safe, take it out of service and tell your supervisor.
   29 CFR 1926.251(a)(1)

2. **Read the tag and know the weight**
   Rigging must carry legible markings showing its safe working load, and it must not be loaded beyond that load or used without the markings (29 CFR 1926.251(a)(2)). Find out what the load weighs before you rig it. The hitch and the sling angle change what a sling can hold: the flatter the angle, the more tension each leg carries.
   29 CFR 1926.251(a)(2)

3. **Rig it right**
   Pad or protect slings from the sharp edges of the load (29 CFR 1926.251(c)(9) and 1910.184(c)(7)). Balance loads in a basket hitch so they cannot slip, never shorten a sling with knots, bolts or other makeshift devices, and do not let sling legs kink (29 CFR 1926.251(c)(6) to (c)(8)). Use hooks with latches that close, and check that the load is secure before it leaves the ground.
   29 CFR 1926.251(c)(9)

ToolboxKits by ALC Media LLC. Not affiliated with OSHA or the U.S. Department of Labor. Not legal advice.

4 Keep your hands out of the pinch

Never put your hands or fingers between the sling and the load while the sling is being tightened (29 CFR 1926.251(c)(10)). Guide loads with a tag line instead of your hands. Do not pull a sling out from under a load that is resting on it (29 CFR 1926.251(c)(12)), and take up slack smoothly, because shock loading is prohibited (29 CFR 1926.251(c)(11)).

29 CFR 1926.251(c)(10)

5 Stay out from under the load

Never stand or walk under a suspended load, and keep your eyes on it the whole time it moves. In general industry, all employees must be kept clear of loads about to be lifted and of suspended loads (29 CFR 1910.184(c)(9)). On construction crane jobs, when workers hooking, unhooking or guiding a load are in the fall zone, the materials must be rigged by a qualified rigger (29 CFR 1926.1425(c)(3)).

29 CFR 1910.184(c)(9)

6 One signal person, and anyone can call stop

Agree on the signals before the lift starts. On construction jobs, only one person may give signals to a crane at a time (29 CFR 1926.1419(h)), but anyone who sees a safety problem must give the stop or emergency stop signal (29 CFR 1926.1419(j)). The operator must obey a stop signal no matter who gives it (29 CFR 1926.1417(y)).

29 CFR 1926.1419(j)

Scenario

Picture this: A crew is lifting a bundle of steel pipe with a nylon web sling in a basket hitch. Nobody padded the sharp ends of the pipe, the sling tag is worn and hard to read, and a laborer reaches in to straighten the sling just as the operator takes up the slack. Two people are giving the operator hand signals at the same time. What should the crew have done before this lift started?

Crew discussion

1. Who inspects our slings and shackles, and where does gear go when it fails?
2. How do we find out what a load weighs before we rig it?
3. Where are the sharp edges and pinch points on the loads we lift most?
4. Who gives signals on our lifts, and how does anyone call a stop?

Bottom line **Inspect the gear, know the weight, rig it right, and keep your hands and body out of the load's path.**

Free to share and adapt for non-commercial use under the CC BY-NC-SA 4.0 license (creativecommons.org/licenses/by-nc-sa/4.0). Credit: ToolboxKits, toolboxkits.com/topics/rigging/

Sign-in sheet / Hoja de asistencia

Topic / Tema Rigging safety / Seguridad en el aparejo de cargas (rigging) Date / Fecha _____

Trainer / Instructor _____ Location / Lugar _____ Company / Empresa _____

#	Name Nombre	Signature Firma	Company Empresa	Date Fecha
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Trainer signature / Firma del instructor _____ Time / Hora _____

ToolboxKits by ALC Media LLC. Not affiliated with OSHA or the U.S. Department of Labor. Not legal advice.