

RIGGING HARDWARE Inspection

Rigging is only as strong as its weakest link.

No matter what safe working load is stamped on a hook, if this one is cracked, twisted or opening up at the throat, it can't deliver its full rated capacity.

That's why inspection is vital in rigging and hoisting. Although an important task of the rigger/signaller is to check all ropes, chains, slings or other attachments before the lift, a more thorough inspection must be performed before use at the start of each shift.

Rigging hardware must have enough capacity for the job. Only load-rated hardware of forged alloy steel should be used for overhead lifting. Load-rated hardware is stamped with its safe working load (SWL).

Once the right hardware has been chosen for a job, it has to be inspected regularly as long as it is in service.

There are warning signs that hardware has been weakened and should be replaced.

Cracks	Inspect closely – some cracks are very fine.
Missing parts	Make sure that parts such as catches on hooks, nuts on cable clips and cotter pins in shackle pins are still in place.
Stretching	Check hooks, shackles, and chain links for signs of opening up, elongation and distortion.
Stripped threads	Inspect turnbuckles, shackles and cable clips.

Inspect the different parts of rigging hardware carefully:

[Using samples of hardware on site, instructor to review the following points.]

Cable Clips

- Check for wear on saddle.
- Check that original parts are in place and in good condition.
- Check for cracks
- Check for proper size of the wire rope.

Shackles

- Check for wear and cracks on saddle and pin.
- Check that pin is straight and properly seated.
- Check that legs of shackle are not opening up.

Hooks

- Check for wear, twisting and cracks.
- Make sure hook is not opening up.

Turnbuckles

- Check for cracks and bends.
- Check rods for straightness and damage to threads.

[With the crew, instructor to inspect rigging hardware in use or stored on site and arrange for repairs or replacement.]

In New Brunswick, the main provisions on hoisting apparatus and mobile cranes can be found in *General Regulation 91-191* under the *Occupational Health and Safety Act*, sections 207 – 215.

You can find more information on WHSCC's programs and services on the internet at <www.whscc.nb.ca>.

Issued December 2000

ACKNOWLEDGMENT

With special thanks to the *Construction Safety Association of Ontario* for granting permission to reprint.