What is Your Rigging Aptitude?

Here are a few key items to think about in the development of your Rigging Aptitude!

RISE ABOVE RISK

COMPETENCY

Competency combines three key components:

1. ***Knowledge*** → ***What type of knowledge does my worker require?***
2. ***Training (to utilize the knowledge)*** → ***What type of training do my workers require to make them successful?***
3. ***Experience (to develop the skill to use the knowledge and training)*** → ***How much experience do my workers require before they have the skills required to work independently or with minimal supervision?***

What is our process for determining competency of our workers in our organization?

Policies and Procedures

Are our workers aware of our Hoisting and Rigging Policy?

Do they know where and how to access it?

How often do we review it with them?

How often do we review the Policies and Procedures for accuracy?

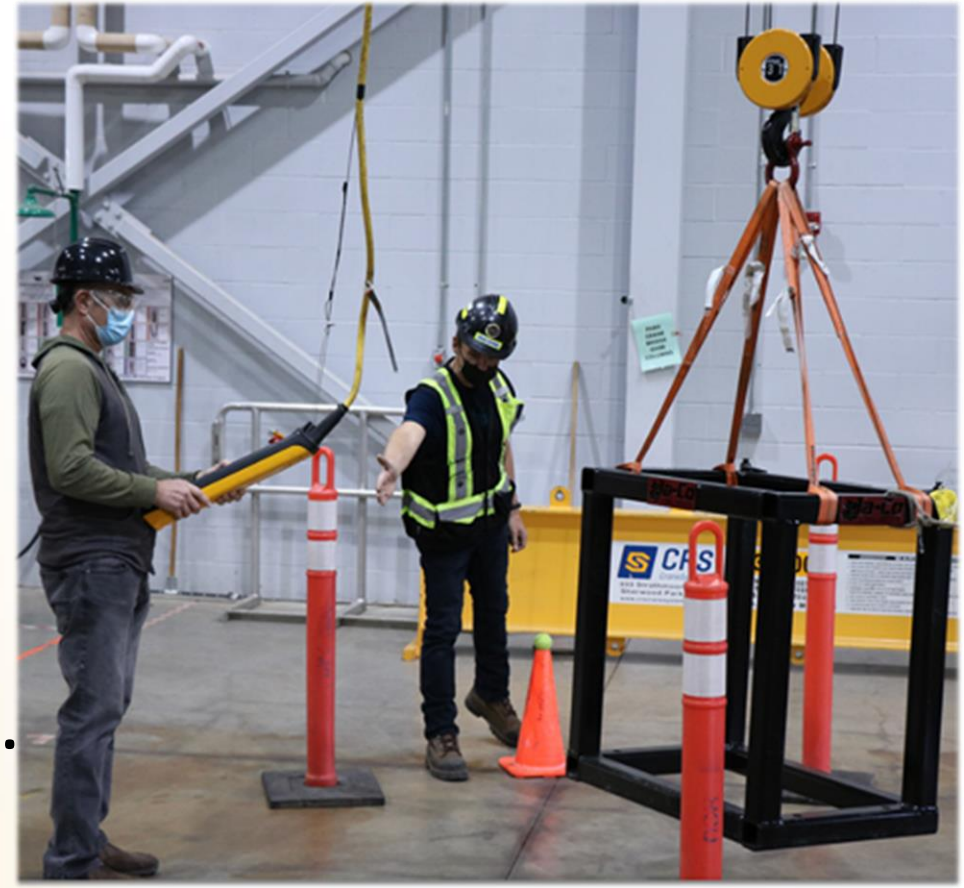
For example, what is the worker supposed to do with this sling?

Mentoring our Workers

Do we continually mentor our workers in a positive and motivating manner?

What tools do we have as an organization to assist in mentoring?

Having tools and resources at our disposal makes it easy to keep the motivation going in having a positive rigging culture. For example, this month we are going to bring in an industry expert to provide a Safety talk to our workers.



Does our Rigging Products meet the ASME Standard?

It is important to verify the rigging products that our workers are using everyday, comply to the ASME standard. This is important to verify on every level of our organization.

- Purchasers – Does this product I am purchasing conform to the ASME standard?
- Tool Crib Workers – What documentation comes with this rigging product?
- Workers – Is this a new product I have never used before or is this a new brand I have never used before? Where do I find out if this product meets the ASME specifications?

All YOKE Lifting points meet or exceed all the requirements of ASME B30.26.

CM shackles meet or exceed the performance requirements of the specs listed below:

- ASME B30.26
- EN 13889
- ANSI B18
- ISO 2415

Crosby products meet or exceed all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, Crosby products meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

Green Pin® Bow Shackle SC

Standard bow shackle with screw collar pin

• **Material:**	bow and pin high tensile steel, grade 6, quenched and tempered
• **Safety Factor:**	MBL equals 6 x WLL
• **Standard:**	EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 2, grade A, from 2 t and upward these shackles comply with ASME B30.26

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Does our Company have any of these Products? Do we know the limitations of them?

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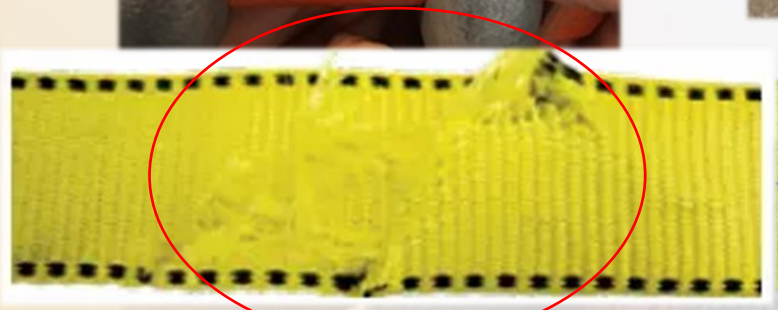
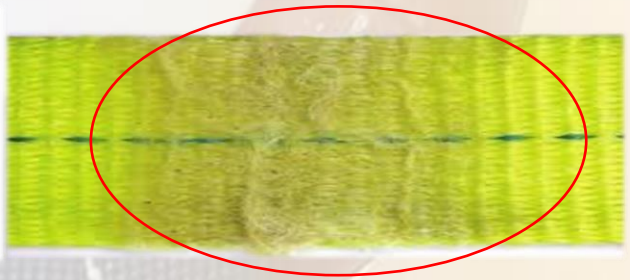
INSPECTION REQUIREMENTS





When do inspections have to be completed?

Initial – When the rigging is first brought into our facility, an initial inspection is required to be completed to ensure the product we are bringing in is compliant to the ASME standard. (Purchaser, Tool Crib, Shipping/Receiving, Workers).

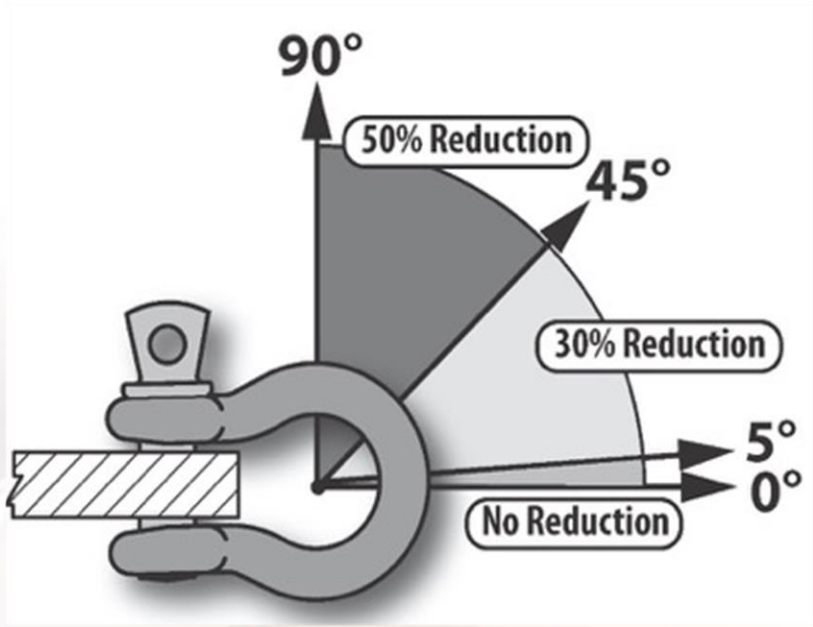
Frequent – This inspection is to be be completed by the end user before every use, and after every use. This is an ongoing inspection. (Workers, Users, Supervisors).

Periodic – responsibility of the employer to have completed at a minimum annually. Typically completed by a third-party company but can be completed internally with a program put in place. (Managers, Supervisors).

What are some of the limitations of our Rigging Products?

TEMPERATURE RATINGS

Where would our workers find out what are temperature ratings of our rigging products?



ANGULAR LOADING

Are my workers aware of the effects angular loading?

OPERATION

Does our workers know how much they are allowed to pull on the handle of a lever hoist?

RISE ABOVE RISK

Importance of Owner's Manuals

Owner's manuals are vital to the safe operation of our lifting products. Here are just some of the items that you may find in an Owner's Manual:

- Temperature ratings
- Inspection requirements
- Limitations of the product
- Safe operation instructions
- Maintenance requirements
- Environment restrictions
- Load Ratings and limitations
- Angular loading instruction
- Markings
- Standard Compliance
- Installation Instruction
- Etc.

Example Owners Manual Below

2. Safety precautions

- Proper instruction for the personnel is of vital importance. This will contribute to maximum reliability in the working environment.
- IPTKA clamps may be applied per piece, per set or with several clamps simultaneously used as temporary tackle eye or for the lifting of steel beams and profiles. Ensure that each clamp receives its proportionate share of the load. When using two clamps or more, a spreader beam is recommended.
- Temperature: The standard lifting clamps may be used with temperatures between –40 °C (–40 °F) and 100 °C (212 °F). For other temperatures contact your CrosbyIP Customer Service Centre.
- There are restrictions for operation in special atmospheres (e.g. high humidity, explosive, saline, acid, alkaline).
- Loads: For proper application of the clamp consult the load diagrams 1.
- Ensure that all attachments between lifting eye and crane are properly fitted, secured and coupled.
- Remark: when handling the load, one should ensure that the load and or clamp does not encounter obstacles which could release the load on the clamps prematurely.
- A clamp is a device that must be clean when used. Dirt has an adverse effect on the operation and also on the reliability of the clamp. When the clamp is dirty and greasy it can be cleaned with diesel oil or petroleum. Then blow dry with air or dry with a cloth and apply a little lubricant. It is important to ensure that the gripping surfaces are clean at all times. Regular cleaning will enhance the life and reliability of the clamps.

PRE-JOB PLANNING

Questions to be considered when rigging a load:

1) Who is responsible for the rigging?
2) Have communications been established?
3) Is the rigging in acceptable condition?
4) Is the rigging appropriate for lifting?
5) Does the rigging have proper identification?
6) Does all gear have known working load limits?
7) What is the weight of load?
8) Where is the centre of gravity?
9) What is the sling angle?
10) Will there be any side or angular loading?
11) Are the slings padded against sharp corners?
12) Are the working load limits adequate?
13) Is the load rigged to the centre of gravity?
14) Is the hitch appropriate for the load?
15) Is a tag line needed to control the load?
16) Will personnel be clear of suspended loads?
17) Is there any possibility of fouling?
18) Will the load lift level and be stable?
19) Any unusual environmental concerns?
20) Any special requirements?

PERSONNEL REQUIRED FOR LIFT

Y☐ N☐ **Crane Operator(s)** _____

Y☐ N☐ **Signal People** _____

Y☐ N☐ **Spotter(s)** _____

Y☐ N☐ **Tag Line(s)** _____

Y☐ N☐ **Riggers(s)** _____

Y☐ N☐ **Lift Director** _____

Y☐ N☐ **Lift Planner** _____

Y☐ N☐ **Safety Officer** _____

Y☐ N☐ **All personnel are competent for the tasks at hand**

List any other position required with names: _____

_____

Above Confirmed By: Print: _____ **Sign:** _____

RIGGING EQUIPMENT BEING UTILIZED

Rigging Complies With: ☐ASME ☐ Legislative Requirements ☐ Other: Specify _____

Hardware: ☐ Shackle ☐Eyebolts ☐Swivel Ring

Slings: ☐ Synthetic Web ☐Polyester Round ☐Chain ☐ Wire Rope

Below the Hook Lifting Devices: ☐ Spreader Bar ☐Plate Clamps ☐Magnets ☐ Other ☐ Pre-lift tests required:

Specify _____

_____

What are the Restrictions for the Rigging: ☐ D:d Ratios ☐ Edge Radius ☐ Diameter restriction (Web/wire rope)

☐ Temperature ☐ Environmental ☐ Angles ☐ Minimum Ratings ☐ N/A

Homemade Devices: ☐ N/A ☐ Engineering Confirmed Type: _____

Weight of Rigging if Applicable : _____

Periodic Inspections Confirmed: Y☐ N☐

Pre-Use Inspections Completed: Y☐ N☐

RISE ABOVE RISK

Hand Signals – Mobile Cranes

Hoist Up

Hoist Down

Slow Speed

Boom Down

Boom Up

Boom Up
Hoist Down

Boom Down
Hoist Up

Swing

Extend Boom

Retract Boom

Extend Boom
One Hand

Retract Boom
One Hand

Auxiliary Hoist

Main Hoist

Stop

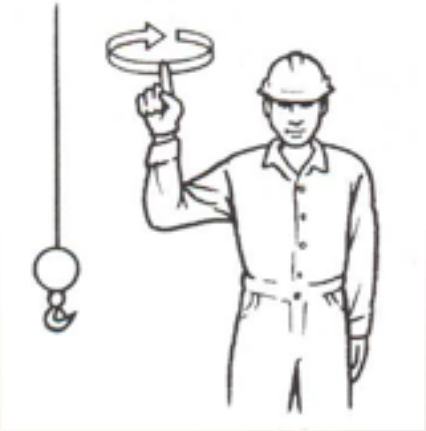
Emergency Stop

Dog Everything

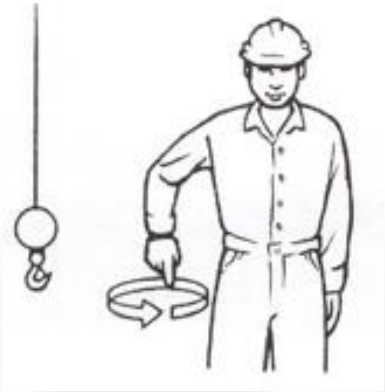
Travel One Track

Travel Both Tracks

Hand Signals – Overhead Cranes

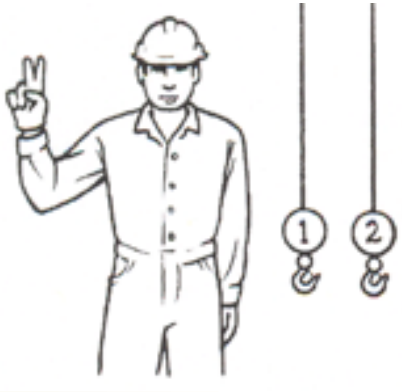


Hoist Up



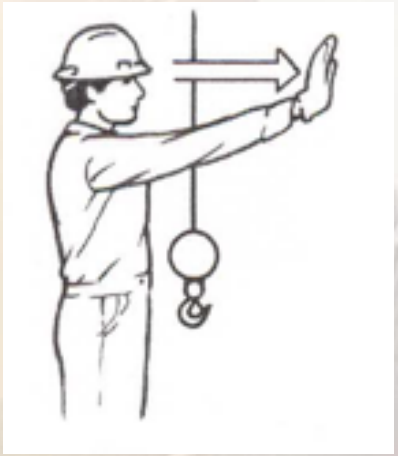
Hoist Down

Up Slow



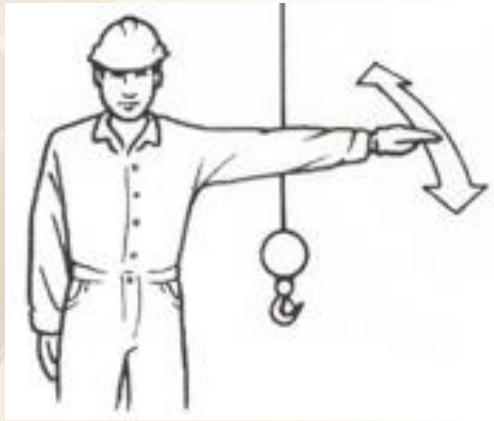
Multiple Hoists

Trolley Travel

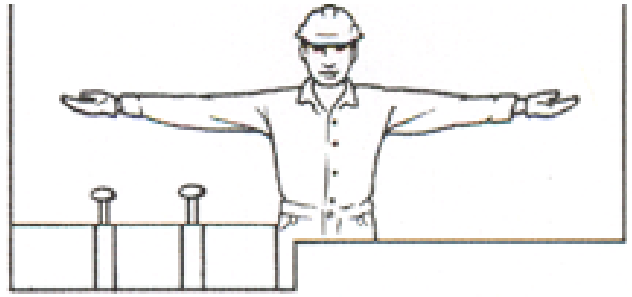


Bridge Travel

Stop



Emergency Stop



Magnet Disconnected

Line of Fire

DEFINITION

"Line of Fire" hazards refer to situations where workers are put in the direct path of a powerful force. This force could be a moving object, releasing energy, or other situations where being in the wrong place at the wrong time can result in injury or fatality.

- Loads never fall straight down. They are going to fall North, South, East , or West.
- Do everything reasonably practical to keep your hand off the load.
- The higher the load goes up into the air, the greater the fall zone becomes.
- Even the smallest loads can cause serious injury, damage, or fatalities.
- Always plan for the worst-case scenario!

RISE ABOVE RISK

NO TOUCH TOOLS

- A tagline is the most common item used to separate the worker from the load and to assist in guiding the load. The main limitation of the tagline is it allows you to “pull” the load but not “push”.

- Taglines cause entanglement and can cause the worker to get “stuck” to the load. No Touch Tools gives you better control of the load, while still allowing the worker to be separated.

- Can be applied to any object and there are tools specific for every application. No Touch Tools act like an extension of your arm.

- Worker no longer has the chance of getting entangled and “stuck” to the load.

- Workers are more likely to grab a No Touch Tool quickly to assist in load control then to carry rope and tie it to the load.

RISE ABOVE RISK

NO TOUCH TOOLS AVAILABLE

SHOVE IT

MAGNA-GRAB ANCHOR

GRAB IT

SAFE-T-STICK MAGNET

SNARE IT

RISE ABOVE RISK

Let’s Rise Above Risk everyday, question what we do daily, and keep the motivation going with our rigging practices!

CRANEMASTERS

RISE ABOVE RISK

For more information or sample documents please Call
Rick at 780-271-0097 or Rick@cranemasters.ca