Signaling

WHAT'S AT STAKE?

Signaling is an important part of hoisting and rigging. You should be familiar with the internationally recognized system of standard hand signals. If you're going to rig a load, you also need to know the signals for lifting, moving and landing it. The operation may be a simple LIFT and LOWER, or it may require more complicated signals. In many cases, hand signals are the most efficient form of communication between riggers and crane operators.

WHAT'S THE DANGER?

Busy construction zones are incredibly noisy and busy. In the mix of this, the work of a crane operator and signal person have a lot to do with job site safety. For example, hand signals should never be used when distance and visibility prevent accurate communication to the crane operator.

There are ground rules for signaling that determine the safety of these important operations involving the operator and signal person.

They include:

- While only one person should signal the operator, anyone can give the STOP signal and it must be obeyed immediately.
- Signals should be clear and, wherever possible, barehanded.
- The load must be directed so that it never passes over anyone.
- Operators should not make a move until they receive and understand your signal. If contact between you and the operator is broken for any reason, the operation must stop.
- Some situations call for two signalers.
- For instance, during a concrete pour, one signaler may be needed to direct the lift while the other directs the drop.

- Where a difficult lift demands voice communication, use two-way radios instead of hand signals.

The importance of the signal person

As the eyes and the ears of a dedicated area or crane, a signal person carries many responsibilities. Before a person can direct the operation of a crane, they must first undergo formal training and complete a qualification in crane signaling. In training, a person will not only develop an understanding of standard hand signals, but they will also be required to become familiar with many different types of cranes, how each crane functions and any hand signals specific to particular equipment. The trainee signal person is required to grasp an understanding of the large library of signals without any memory prompts and show competence in recalling these during an examination by a third-party provider.

The signal person is also responsible for preventing injury and accidents to the best of their ability. This is done by following strict procedure during crane operation, for instance standing in clear view of the crane operator, ensuring the operating area is clear of people or hazardous objects and performing one signal at a time to avoid confusion.

Overview of signal person role

- Signal person is required, according to OSHA regulations, in the following situations:
- The operator does not have a full view of the point of operation.
- The operator’s view is obstructed in the direction that the equipment is moving.
- The operator or the person handling the load feels that a signal person is needed.
- Anytime there are site-specific safety concerns.

HOW TO PROTECT YOURSELF

1. Construction sites are loud. They produce a high level of noise from activities such as digging, piling, and drilling,

therefore it can be difficult to convey instruction in an accurate and time efficient way. There are also times when an operator's directional visibility is obstructed or the visibility of a load area is partially blocked. Conducting a lift within these types of conditions can put the operator and the workers around them at serious risk of injury.

2. How does an operator, with a load suspended in air, follow instructions from their team? **Using the simple but effective method of hand signals**. This age-old technique is used by crane operators across the world, aiding them to accurately receive unmistakable directions without the need for fancy equipment or even words!

3. Hand signals provide a simple solution for the communication issues faced by crane operators. Although radios can be used to relay messages across the site, there are some situations when an operator will need extra assistance.

4. Although it recommended to use hand signals during all lifts, it is in these situations when a signal person will definitely be called upon. Easy to understand, hand signals help the operator avoid any potential hazards, completing actions in a safe and timely manner.

5. Working in-sync with your team on the ground is not only crucial for safety but can help your project run smoothly and on schedule. Absolute precision and accuracy is needed and being able to clearly communicate direction is critical.

Safety First

Safety is the number one concern. A signal person performing the hand signals stands at a vantage point which allows one to view the load area from a perspective that is not visible to the crane operator. From this point, the signal person is able to confirm whether a maneuver is safe to perform and halt all activity if they observe a potential risk.

1. Stop signals are one the most important hand signals used on a construction site. When stop signals are used, operation of the

equipment must be halted.

- Emergency stop – A signal person will communicate an emergency stop by extending both arms horizontal of the body with palms faced down, from this position they will swing their arms back and forth.
- Stop – In order to pause or stop an action, the signal person will extend a single arm and face their palm down; they will then begin to swing the extended arm back and forth.
- Dog everything – This signal will stop all activity and is performed by clasping hands together and placing them at waist level.

2. Boom signals

Boom signals will inform the crane operator of which maneuver they should perform with the boom.

- Raise boom – To raise the boom, a signal person will extend an arm horizontally to the side of their body and signal thumbs up, with a closed fist.
- Lower boom – In order to lower the boom, the signal person will extend an arm horizontally and signal thumbs down, with a closed fist.
- Swing boom – To swing the boom, the signal person will extend an arm out horizontally, using their index finger to point in the direction the boom is to swing.
- Extend boom – To lengthen the boom, the signal person will place their hands at the front of their waist and point thumbs outwards with remaining fingers in a fist.

3. Load signals

Load signals will dictate what the operator should do with a load once it has been lifted by the crane.

- Hoist load – In order to lift the load upwards the signal person will extend their arm vertically towards the ceiling/sky, point with their index finger and make small circles with their hand and index finger.

- Lower load – To lower the load downward, the signal person will extend their arm horizontally, pointing their index finger towards the ground, once in this position they will make a circle motion with their finger.

4. Speed signals

The signal person can also control the pace of any movement using speed signals.

- Move slowly – In order to slow the rate of an action, the signal person will a place their hand above the hand which is giving the action signal.

FINAL WORD

The safety of the workplace particularly in construction zones is largely dependent on the seamless cooperation, understanding and training of both the crane operator and the signal person.