

## Cranes and Lifting – Mobile Crane Operations

### The lifting Team

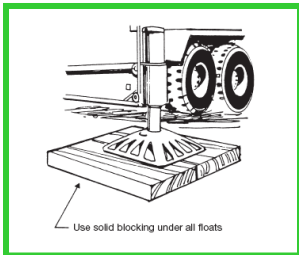


- The **crane driver** must be trained and have a written valid authorization to drive the crane.
- The **rigger** must be trained.
- A **signaler** is needed when the crane driver cannot see the load, the load landing area, the path of travel of the load or when the crane or is far enough away from the load to make the judgment of distance difficult. He must be trained.

### The lifting Equipment (crane)



- Each mobile crane coming from outside the site must have certificates ensuring it passed the required safety inspections.
- At the beginning of each shift the crane driver must conduct the crane pre-use inspection. The results must be documented in a checklist.
- The crane shouldn't be operated when a safety equipment has been identified as inoperable or defective.
- The ground must be level and capable to support the weight of the crane with the load and the outriggers must extended and blocked.
- The crane must be fitted with a audible and a visible travel alarm
- When a crane is operated outside, it can't be used in case of hazardous weather (excessive wind, fog...).



### The lifts

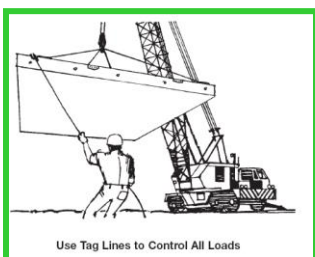
- The lift must have been categorized (high/abnormal or low risk lift).
- If it's a high risk lift, a lifting plan must had been written involving the crane operator and rigger.
- The path of the load must be clear of obstacles and people.

### Rigging



- The rigger must know approximately the weight of the load and the crane Working Load Limit and make sure the crane can carry the load.
- He must select the appropriate rigging devices:
  1. Their rating capacity must be sufficient to carry the load.
  2. The rigger must inspect them to make sure they are not damaged.
  3. Each rigging device must have its ID number and load rating capacity clearly marked.
- Hooks must be fitted with safety latches except where a Risk Assessment and Hazards Identification indicates otherwise.
- To make a level or stable lift, the crane or hook block must be directly above the load center of gravity before the load is lifted.

### People on the ground safety



- Whenever there is a danger of personnel being trapped or crushed when crane swings the area should be barricaded.
- The load must never be moved above or to close from people.
- People must never stand between the moving load and a fixed point where they can be crushed.

## Required checklist

- ★ ☒ ☐ NA Is the crane driver trained and does he have a written valid authorization to drive the crane?
- ★ ☒ ☐ NA Is the rigger trained?
- ★ ☒ ☐ NA Is the signaler trained?
- ★ ☒ ☐ NA Is the ground level and capable to support the weight of the crane with the load?
- ★ ☒ ☐ NA Are the outriggers extended and blocked?
- ★ ☒ ☐ NA Did the rigger inspect all the rigging devices and are they in a good shape?
- ★ ☒ ☐ NA Is the load rating capacity and the ID number marked on each rigging device?
- ★ ☒ ☐ NA Are all the hooks equipped with safety latches?
- ★ ☒ ☐ NA Does the rigger know the approximate weight of the load?
- ★ ☒ ☐ NA Is the rigging devices rating load capacity sufficient to carry the load?
- ★ ☒ ☐ NA If the rigger use a multiple legs rigging device are 2 legs strong enough to carry the load?
- ★ ☒ ☐ NA Are there electrical lines that can come in contact with a part of the crane?
- ★ ☒ ☐ NA Is the area around the crane where people on the floor could be trapped or crushed barricaded?
- ★ ☒ ☐ NA Is there a documented completed pre-use checklist in the cabin for the daily inspection of the crane?
- ★ ☒ ☐ NA Did the crane driver complete it properly at the beginning of the shift?
- ★ ☒ ☐ NA When a safety equipment of the crane is identified as defective or inoperable in the pre-use checklist, is the crane stopped till the problem is fixed?
- ★ ☒ ☐ NA Is the crane fitted with an audible or visible travel alarm that works?
- ★ ☒ ☐ NA Has the crane driver a good visibility of the load, the load path and its environment or does a signaler guide him/her?

**This document has to be used as a help before starting the work or performing a SFA**