

LIFE SAVING RULES

08

SAFE MECHANICAL LIFTING



The major causes of incidents involving lifting equipment (Including aerial lifts) include:

- Contact with overhead power cables:
 - Accounts for approximately 45% of all crane incidents
- Instability due to:
 - Crane (e.g., failure to use outriggers or overloading) leading to toppling
 - Load (e.g., security or potential for dropped objects); or
 - Ground conditions (e.g., too soft or not level)
- Inadequate:
 - Training and communications
 - Inspection and maintenance

Life Saving Rule:

- When working with mechanical lifting equipment **YOU MUST:**
 - Confirm that the equipment and load have been inspected and suitable and fit for purpose
 - Only operate equipment that you are qualified to use
 - Establish and obey barriers and exclusion zones
 - Never walk under a suspended load
 - Be aware of the potential for dropped objects; and
 - Use taglines or hand-off load tools



LIFE SAVING RULES 08: SAFE MECHANICAL LIFTING

Mechanical lifting operations need to be:

- Properly:
 - Planned by a Competent Person; and
 - Supervised by a designed Lift Supervisor
- Carried out safely

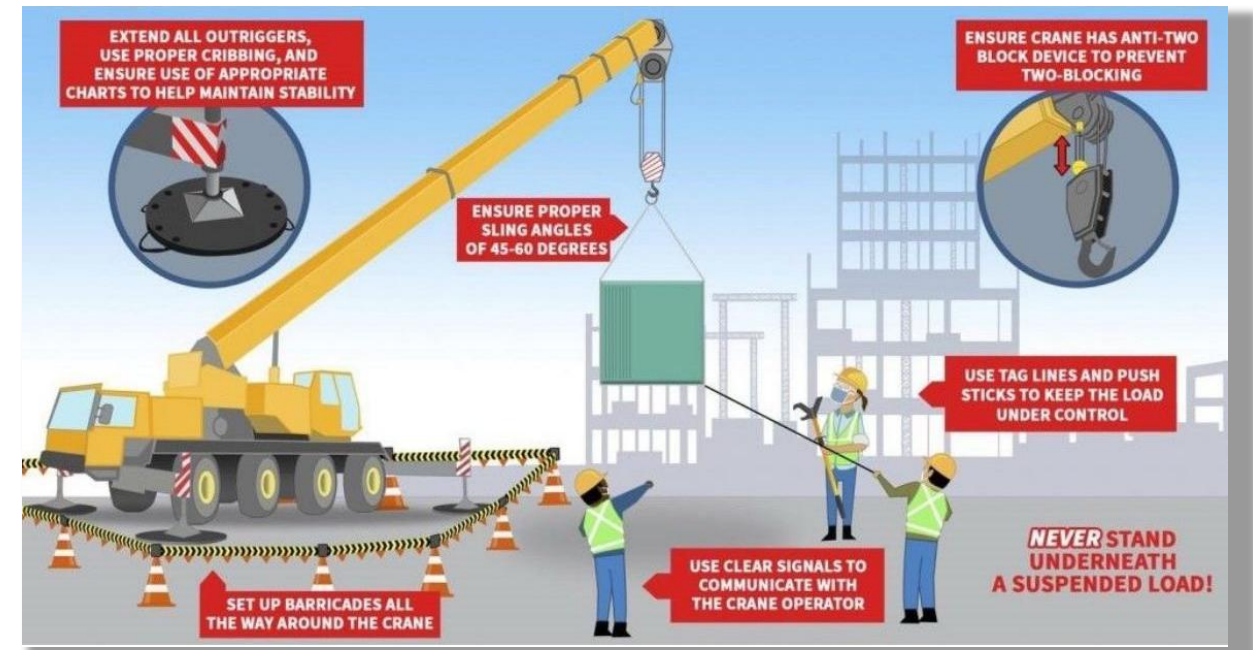
Factors to be considered when performing mechanical lifting operations, include:

- What type of lifting equipment is to be used, for example:
 - Cranes and Forklifts
 - Hoists
 - Excavator
 - Cranes or Hoists fitted to vehicles
 - Mobile Elevated Work Platform
 - Lifting accessories (e.g., chains, slings, shackles, etc.)
- How can the related risks be safely managed, for example:
 - Damage or deterioration of the equipment caused by wet, abrasive or corrosive environments
 - Trying to move weights that are too heavy and exceed the load limit of the machine
 - Equipment failure
 - Untrained workers planning the lift or using the equipment; and
 - Being struck by moving parts of the machinery or dropped objects
- Has the lifting equipment been properly:
 - Designed

- Manufactured
- Maintained; and
- Tested

Lift planning considerations:

- What is to be lifted?
- How heavy is the load?
- Where is its center of gravity?
- How will be load be attached to the lifting machinery?
- Who is in control of the lift?
- What are the safe limits of the lifting equipment?



Safe use of lifting machinery:

- To operate lifting machinery safely:
 - Only use certified lifting equipment, for example:
 - Marked with its safe working load; and
 - Not overdue for examination
 - Retain the reports of:
 - Thorough examination; and
 - Any declarations of conformity or test certificates
 - Ensure the load is properly attached to the lifting equipment
 - If necessary, securely bind the load to prevent it slipping or falling off
 - Before lifting an unbalanced load:
 - Find out its center of gravity
 - Raise it a few inches off the ground; and
 - Pause, there should be little harm if it drops
 - Use packaging to prevent sharp edges of the load from damaging slings and do not allow tackle to be damaged by:
 - Being dropped
 - Dragged from under loads; or
 - Subjected to sudden loads
 - When using jib cranes, make sure any indicators for safe loads are working properly and set correctly for the job and the way the machine is configured
 - Use outriggers where necessary
 - When using multi-slings make sure the sling angle is accounted for
 - have a responsible slinger or banksman and use a recognised signaling system

