

BRIDGE/GANTRY CRANE SOP

ACRONYMS

LOTO - Lockout/Tagout.
 PPE - Personal Protective Equipment.
 SOP - Safe Operating Procedure.
 FSWRS - Flexible steel wire rope slings.
 WLL - Workload Limit.
 T - Ton.

HAZARDS

What can cause harm?

- ▲ Moving/falling objects
- ▲ Manual Handling
- ▲ Poor housekeeping
- ▲ Falls

PRECAUTIONS

- All operators are trained and competent to operate Bridge/gantry Crane safely. Operator training should include:
 - Workplace induction
 - Safe operating procedures
 - Manufacturer's instructions
 - Nature of hazards
 - Fitting of PPE
 - Manual handling
 - Housekeeping
 - First Aid



MAINTENANCE

- Follow LOTO procedures, record service/repairs information in Maintenance Log
- Maintenance is conducted as per manufacturers' instructions and by qualified persons only
- When the machine is taken out of service for maintenance:
 - Shut off and isolate the power supply
 - The power supply is clearly labelled/tagged "do not use."



PPE



PRE-OPERATIONAL INSPECTION

- Follow the pre-operational checklist in the manufacturer's operational manual
- Inspect the crane, FSWRS, synthetic slings, hooks, block, and chains. Check:
 - WLL is clearly marked
 - Required maintenance undertaken
 - Safety devices present and working
 - Control labelled correctly and clearly
 - No hydraulic leaks
 - All parts are free from damage
 - End-stops are free from damage.

BRIDGE/GANTRY CRANE SOP

PLANNING THE LIFT

- Develop safe work instructions specific to the task (type of load)
- Weight of load must not exceed any part of overhead crane and lifting gear WLL

OPERATION

1. Operate in accordance with manufacturers' instructions
2. Wear prescribed PPE
3. Check overhead crane controls are functioning correctly before starting the first lift. Ensure:
 - a. Hoist rope is not wrapped around the load
 - b. Lifting gear securely seated on the hook.
 - c. (No twist that could cause the load to swing.)
 - d. When attaching Shackles, do not over-tighten. Finger tight and back off $\frac{1}{4}$ of a turn
 - e. Hooks on chain slings should always face outwards
 - f. Load is secured and balanced.
4. Doing the Lift. Overhead Crane Operators:
 - a. Never rush a lifting job
 - b. Maintain full attention to the task
 - c. Use control buttons smoothly throughout the lift
 - d. Position the hoist directly above where the load is to be placed
 - e. Remove any slack from the sling, chain, or cable slowly before lifting a load
 - f. Check load by lifted slightly. required
 - g. Do not pull the hoist by its pendant cable
 - h. Raise the load sufficiently to clear any obstructions
 - i. Do not push or pull on the load

WORK AREA



No trip or slip hazards



Adequate lighting



Never allow anyone to walk under or place any part of his or her body under a raised load at any time.

BRIDGE/GANTRY CRANE SOP

- j. The load should always hang vertically below the hoist
- k. Always keep the load as close to the ground as possible. Never raise the load any higher than necessary
- l. Avoid swinging the load
- m. If the load swings, correct it by moving the load in the direction of the swing when it is at the end of its arc – if it is safe to do so, i.e., no potential to hit people or equipment.
- n. Always keep the load in clear view. If this is not possible, the lift shall be carried out with the aid of another suitably trained and competent worker, working under the operator's instructions, e.g., Dogman
- o. Never leave a load suspended and unattended. If you need to leave a load, lower the load and chock at ground level, master switch in the off position.

5. Shutdown:

- a. Lower any raised load to ground level
- b. Chock load if necessary
- c. Disconnect the hook from the load
- d. Remove all lifting gear from the load (slings, shackles, etc.)
- e. Raise crane hook up to an almost maximum height
- f. Locate the crane to a safe position
- g. Ensure that pendant / remote control is in off position and place in a designated area – shackle box is ideal
- h. Turn the power off at main isolation switch
- i. Place all lifting gear in a designated area – this should be a rack that is off the ground, out of the weather and direct sunlight
- j. Lifting gear should be checked while storing
- k. Any defective equipment must be taken out of service immediately
- l. Any defects shall be reported to the supervisor soon as possible.

MANUAL HANDLING

