# **Lifting Operations**



## **Lifting Plan -** reduces the probability of unexpected incident

- Ground and surrounding site conditions
- Description of load to be lifted
- Risk Assessment for all lifts
- Crane selection and lifting gear
- Communication

### **Risk Assessment**

- What are the potential hazards and type of potential accident
- Could the hazards lead to injury / death?
- How can you avoid the accidents and injuries identified?

#### Hazards - how can this affect the lift

- Weather Rain / Wind / Lightening / Bright Sunlight
- Overhead obstruction cables / Trees
- Ground conditions

### Communication

- Pre-lift briefing
- Toobox meeting
- Discussions on complex and non-routine lift
- Communications walkie talkies
- Hand signal as form of communication method to crane operator from signal man

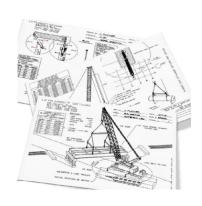
# **Equipment Inspection and Certification**

- The crane must be inspected and certified
- Inspection of Lifting Gear check certificates & do a visual inspection

	SLINGS IN GOOD CONDITION AND ADEQUATE FOR LOAD
	LOAD EQUALLY DISTRIBUTED
	A
	/ \ _
TAGLINE FOR CONTROL OF LOAD	
	PACKING TO PREVENT
The state of the s	DAMAGE
WORK AREA CLEAF	
	LOAD SHOULD BE
> ) )	RESTED ON TIMBER DUNNAGE
1 ( )	
1	

#### **Check List**

- What is the SWL safe working load it tells you how much the crane can lift
- Correct rigging to ensure the load is secure during lifting
- Crane hook latch to ensure the slings don't come off the hook
- Power cables the crane boom must keep a safe distance from the power cables
- Tag line this keeps the load steady during lifting
- Banksman/ Signaller provides directions to the crane operator
- Flag man useful for alerting passing vehicles
- Barricades and lights to ensure no unauthorised people come into the lifting zone
- Strong ground to take the weight of the crane
- Out riggers to keep the crane stable during lifting



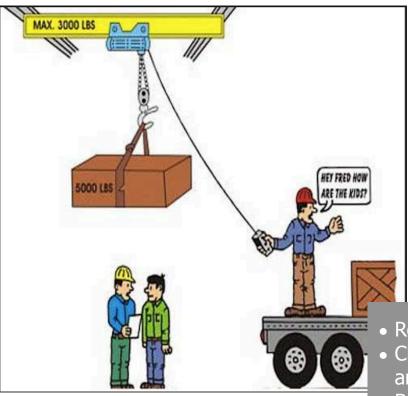
# **Lifting Operations**



## **Lifting Team**

## • Lifting Supervisors

- Coordination and supervision of all lifting activities as per plan
- Briefing team before start. Lifting Plan / Risk Assessment / Safe Lifting Procedure
- Ensuring registered crane operators, appointed riggers and signalmen
- Be present at all times
- Monitor equipment maintenance and inspection



## Crane Operators

- Perform crane inspection prior lifting
- Record operation log
- Ensure cranes are properly set up
- Follow instructions by Lifting Supervisor
- Check the load is correctly secured, rigged and sling before lifting
- Check the clearance of path to be taken by the load and any part crane
- Report any accident/incident/ dangerous occurrence and unsafe act/ conditions

Review the Lift Plan

- Check the SWL of both crane and load
- Barriers & lights around the lifting zone
- Stay focused at all times
- Only 1 person to give signals to the crane operator AVOID Confusion
- Remain in the SAFE area at all times
   never stand under the load
- Check colour codes BYGO

# Riggers and Signalmen

- Ensure lifting operations have suitable and sufficient risk assessment carried out
- Ensure full understanding of proposed lifting operations, safe systems of work, training, guidance and advise are followed at all times.
- Carry out pre-use checks of lifting equipment
- Report any damages to the equipment or any 24 accident/incident/dangerous occurrence and unsafe act/conditions to the Lifting Supervisor ASAP
- Ensure cranes are properly set up before lifting operation commences