

CIC Safety Message No. 024 / 22

SERIOUS TOWER CRANE ACCIDENTS IN CONSTRUCTION SITES WITHIN A WEEK, A WORKER REQUIRED AMPUTATION ON LEFT FOOT

Two serious tower accidents occurred this month. A hook block of tower crane suspected of falling and hit a worker at Pak Shek Kok on 24 December 2022, resulting in amputation of his left leg. On 28 December, a jib of tower crane collapsed at a construction site in Tseung Kwan O.

The Construction Industry Council (CIC) would like to deliver this safety message for your attention. It would be much appreciated if you could distribute the message below to your fellow members, relevant personnel or other industry stakeholders where appropriate. Thank you very much.

Common Accidents

- 1. Failure to follow the manufacturer's instructions and manual for erection, dismantling, or alteration of the tower crane.
- 2. Insufficient consideration for the design of temporary structures of lifting appliance.
- 3. Failure to conduct regular inspection to the lifting appliance.
- 4. Failure to establish and implement the demarcation of fatal zone.
- 5. Failure to ensure the lifting work is carried out according to the maximum load.
- 6. Failure to acknowledge and handle the risks and hazards induced by the changes in the procedures or environment.

Critical Control Measures

- 1. Strictly follow the manufacturer's instructions and manual for erection, dismantling and alteration on tower crane.
- 2. The supervising engineer and his team should conduct pre-work checking for the critical parts of tower crane before the commencement of any erection, dismantling or alteration operation.
- 3. Temporary works e.g. structures and supports for the tower crane should have sufficient consideration and take health and safety into design and calculate with the adequate safe loading required.
- 4. Temporary structures must be inspected by a competent engineer after completion of installation process.
- 5. The registered professional engineer shall conduct regular inspection and examination before erection, dismantling or alteration of the tower crane.
- 6. Strictly monitor the lifting work and ensure that it is not overloaded.
- 7. Make use of dynamic risk assessment to manage the risks and hazards induced by the changes in process or site environment and establish the demarcation of fatal zone before the commencement of any erection, dismantling or alteration operation on tower crane.



Conduct pre-work briefing and dynamic risk assessment before works.



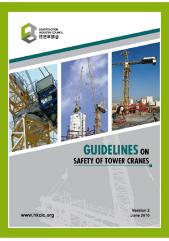
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SAFETY ROLES AND RESPONSIBILITIES OF KEY STAKEHOLDERS IN THE HONG KONG CONSTRUCTION INDUSTRY (PRACTICAL REFERENCE GUIDANCE ON LIFTING OPERATION)

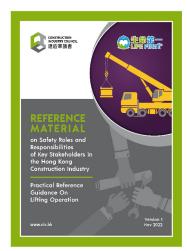
What if all stakeholders can act together and take one step further to fulfill their roles and responsibilities, can similar accident be avoided?

- In the design stage, the designer, the supervising engineer and the competent specialist contractor should consider the temporary works management system for erection, dismantling, or alteration of the tower crane, and establish the correct construction methods and relevant safety measures.
- During the construction stage, the supervising engineer and his team must strictly follow the approved design drawings, method statement and manufacturer's manual for erection, dismantling, or alteration of the tower crane, and also implement the demarcation of fatal zone.
- The construction team could strictly implement the Code of Practice for Safe Use of Tower Cranes by the Labour Department and the Guidelines on Safety of Tower Crane by the Constriction Industry Council, constantly identify the changes in the process or the environment through dynamic risk assessment, and apply control measures to eliminate the hazard.
- Workers can identify any changes in the construction process and report it to their supervisors and take action against
 it immediately.

Reference information for sharing



Guidelines on Safety of Tower Cranes



Reference Material on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry (Practical Reference Guidance On Lifting Operation)



Reference Material on Fatal Zone Management

