

CIC Safety Message No. 38/23

TWO LIFTING INCIDENTS - FALLING OF STEEL BARS AND TOPPLING OF SEDIMENTATION TANK DURING LIFTING

On 11 November 2023, steel bars suddenly fell during lifting by a mobile crane in a construction site at Yau Ma Tei, four workers were injured and one of them was in critical condition; on the same day in a construction at University Drive, a sedimentation tank tilted while lifting by a crane. The Construction Industry Council (CIC) would like to deliver this safety message for your attention. It would be appreciated if you could distribute the message below to your fellow members, relevant personnel or other industry stakeholders where appropriate. Thank you very much.

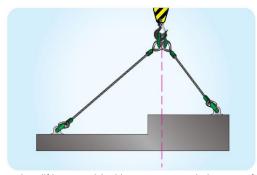
Common Accidents

- 1. The workers do not stay away from the lifting path or lifting zone during the lifting operation.
- 2. Improper rigging methods, failure to secure the loads or unbalance of the loads.
- 3. The weight of the loads exceeds the maximum safe working load (SWL) of the crane.
- 4. Failure to inspect, repair and maintain the lifting appliances and lifting gears properly.
- 5. Failure to provide necessary safety information, instructions, training and supervision to the workers concerned.

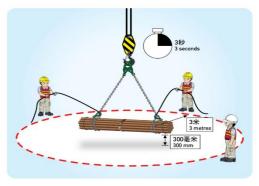
Critical Control Measures

- 1. Prior to the commencement of lifting operation, construction team should develop and implement a lifting plan with due consideration to the size, shape, centre of gravity and weight of all loads to be lifted, the wind condition and the rigging methods for preventing any unintended movements of the loads.
- 2. Ensure every part of the loads should be balanced and securely fastened. For example, double wrap choker hitch method, straps and taglines should be used for lifting materials such as steel bars, wooden blocks, etc. for rigging stabilisation.
- 3. Implement Safe Lifting "3, 3, 3" as a hold point of lifting procedures before lifting, which can effectively improve the safety of lifting operation:
 - Keep 3m away from materials being lifted;
 - Lift up the materials 300mm from ground; and
 - Wait for 3 seconds for stabilising the lifting object before lifting operation.
- 4. Ensure the crane is regularly tested, thoroughly examined and inspected by a competent examiner and a competent person respectively.
- 5. Ensure each lifting gear is inspected before use on each occasion by a competent person and is free from any abnormal wear and tear, visual cracks, elongation or slackening, etc.
- 6. Provide all workers concerned with the necessary safety information, instructions and training, and ensure that they are familiar with the safe work procedures of the lifting operation.





When lifting material with a non-symmetrical centre of gravity, evaluation should be conducted before the lifting operation



Safe Lifting "3, 3, 3" is a hold point of lifting procedure before lifting



SAFETY ROLES AND RESPONSIBILITIES OF KEY STAKEHOLDERS IN THE HONG KONG CONSTRUCTION INDUSTRY



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, designers and engineers should consider the working environment of the operation zone and the risks nearby, and select appropriate lifting appliances and lifting gears, as well as the crane operation location and the lifting routes prior to the commencement of lifting works.
- During the construction stage, construction team should establish and implement an effective monitoring and management system, and appoint competent and experienced lifting supervisors to oversee the lifting operation in accordance with the lifting plan.
- The work team shall ensure the lifting zone is properly fenced off with barriers and prominent notices are provided to ensure no unauthorised entry into the zone.
- Workers can identify any changes in the construction process, report it to their supervisors and take action against it immediately.

Reference information for sharing



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



Lifting Safety Handbook



Poster - Lifting Safety

