



Work Safety Alert Struck by a Falling Bored Pile Casing

- **1. Date of Accident :** December 2013
- 2. Place of Accident : A construction site
- 3. Summary :

A welder was struck to his death by a falling bored pile casing while it was being mistakenly lowered from a crawler-mounted crane.

4. Work Safety Alert for Contractors/Employers :

To prevent workers from being struck by falling objects during lifting operations, contractors/employers should:

- appoint a competent person to conduct risk assessments with due regard to the crane operation, the layout of the site and the work environment;
- formulate and implement an effective safe system of work which should include the following:
 - segregating workers from the operating zone of the crane by suitable barriers;
 - exercising strict access control measures with suitable warning notices in place to avoid unauthorized man-entry into the zone;
 - stationing a signaller to give effective signals to the crane operator who does not have a clear and unrestricted view of its vicinity; and
 - ensuring that an effective communication system, among all personnel involved in the lifting operation, is in place before the





commencement of operation;

- provide crane operators and workers with adequate information, training and instruction in respect of the safe system of work for lifting operations; and
- implement effective monitoring and supervision to ensure that the above safety measures are strictly followed.

5. Reference :

- <u>A Guide to the Factories and Industrial Undertakings (Lifting Appliances</u> and Lifting Gear) Regulations¹
- <u>Code of Practice for Safe Use of Mobile Cranes</u>¹
- <u>《地盤意外個案簡析系列 流動式起重機》</u>¹(Chinese Version Only)

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Work Safety Alert Struck by a Pile Casing

- 1. Date of Accident : February 2014
- 2. Place of Accident : A foundation site
- 3. Summary :

A welder was struck to death by a falling pile casing detached from the hook of a crawler-mounted crane while the casing was being lifted by the crane.

4. Work Safety Alert for Contractors/ Employers :

To prevent workers from being struck by objects during lifting operations with the use of cranes, contractors/ employers responsible for any lifting operations and the relevant sites should:

- appoint a competent person to conduct job specific risk assessments and prepare a lifting plan with due regard to the selection, position and operation of the crane, the slinging method and the work environment;
- formulate and implement an effective safe system of work which should include the following:
 - appointing a responsible person for the overall control of the lifting operation;
 - establishing a danger zone for the lifting operation and exercising strict access control measures with suitable warning notices in place to avoid unauthorized man-entry into the zone especially when the load is raised, lowered and traversed off the ground;
 - adopting a suitable slinging method for handling a load, with due regard to the weight, shape and nature of load as well as the





conditions of the danger zone;

- ensuring that every part of a load to be raised or lowered by the crane is adequately secured so as to prevent danger arising to persons as a result of its slipping or displacement;
- provision and maintenance of an effective safety latch on the hook of the crane to prevent detachment of lifting gear or loads;
- stationing a signaller to give effective signals to the crane operator who does not have a clear and unrestricted view of the vicinity; and
- ensuring that an effective communication system, among all personnel involved in the lifting operation, is in place before the commencement of the lifting operation;
- provide crane operators and workers with adequate information, training and instruction in respect of the safe system of work for lifting operations; and
- implement effective monitoring and supervision to ensure that the above safety measures are strictly followed.

5. Reference :

- A Guide to the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations¹
- <u>Code of Practice for Safe Use of Mobile Cranes</u>¹
- <u>《地盤意外個案簡析系列 流動式起重機》</u>¹ (Chinese version only)

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Work Safety Alert Struck by an I-Beam Structure

- **1. Date of Accident :** February 2014
- 2. Place of Accident : A building construction site
- 3. Summary :

A chain sling of two single-legs fractured while being used to raise an I-beam structure with the use of a mobile crane. A worker involved in the lifting operation was struck to his death by the falling I-beam.

4. Work Safety Alert for Contractors/ Employers :

To prevent workers from being struck by objects during lifting operations with the use of cranes, contractors/ employers responsible for the lifting operations and the relevant sites should:

- appoint a competent person to conduct job specific risk assessments and prepare a lifting plan with due regard to the selection, positioning and operation of the crane, the slinging method and the work environment;
- formulate and implement an effective safe system of work which should include the following:
 - appointing a responsible person for the overall control of the lifting operation;
 - establishing a danger zone for the lifting operation and exercising strict access control measures with suitable warning notices in place to avoid unauthorized man-entry into the zone especially when the load is being raised, lowered and traversed off the ground;





- ensuring that every chain, rope or other lifting gear to be used is tested, thoroughly examined and certified safe by a competent examiner;
- adopting a suitable slinging method for handling a load, with due regard to the weight, shape and nature of the load as well as the conditions of the danger zone;
- implementing measures to prevent the swing or rotation of the load while lifting;
- stationing a signaller to give effective signals to the crane operator who does not have a clear and unrestricted view of the vicinity; and
- ensuring that an effective communication system, among all personnel involved in the lifting operation, is in place before the commencement of the lifting operation;
- provide crane operators and workers with adequate information, training and instruction in respect of the safe system of work for lifting operations; and
- implement effective monitoring and supervision to ensure that the above safety measures are strictly followed.

5. Reference :

- <u>A Guide to the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations</u>¹
- <u>Code of Practice for Safe Use of Mobile Cranes</u>¹

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• <u>《地盤意外個案簡析系列 – 流動式起重機》</u>¹(Chinese Version Only)

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<u>Work Safety Alert</u> Struck by the Detached Telescopic Boom from a Truck-mounted Crane

- **1. Date of Accident :** February 2014
- 2. Place of Accident : A building construction site

3. Summary :

A worker working in the vicinity of a truck-mounted crane was struck to his death by its telescopic boom, which suddenly detached and dropped down.

4. Work Safety Alert for Owners/ Contractors :

The owner of a crane and the contractor responsible for any lifting operations and the relevant sites should:

- appoint a competent person to conduct job specific risk assessments and prepare a lifting plan with due regard to the selection, position and operation of the crane, the slinging method and the work environment;
- ensure that the crane is in safe working order through testing and thorough examination by a competent examiner periodically, and also regular inspection by a competent person;
- formulate and implement an effective safe system of work which should include the following:
 - appointing a responsible person for the overall control of the lifting operation;
 - ensuring that the crane should only be operated on uniform, level and firm ground, unless otherwise specified by the manufacturer;





- establishing a danger zone for the lifting operation and exercising strict access control measures with suitable warning notices in place to avoid unauthorized man-entry into the zone especially when the load is being raised, lowered and traversed off the ground;
- ensuring that all outrigger beams of the crane are fully extended as far as practicable;
- using suitable mats/timber blockings at least 3 times larger in area than the floats and to completely support the floats;
- maintaining a right angle between the cylinder and the float;
- forbidding to lift the boom beyond the working range as specified by the manufacturer;
- stationing a signaller to give effective signals to the crane operator who does not have a clear and unrestricted view of the vicinity; and
- ensuring that an effective communication system, among all personnel involved in multiple activities performed simultaneously on site, is in place before the commencement of the lifting operation;
- provide crane operators and workers with adequate information, training and instruction in respect of the safe system of work for lifting operations; and
- implement effective monitoring and supervision to ensure that the above safety measures are strictly followed.

5. Reference :

• <u>A Guide to the Factories and Industrial Undertakings (Lifting Appliances</u>





and Lifting Gear) Regulations¹

- <u>Code of Practice for Safe Use of Mobile Cranes</u>¹
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<u>Work Safety Alert</u> <u>Collapse of a Tower Working Platform leading to</u> <u>Fall of Persons from Height</u>

- 1. Date of Accident : March 2014
- 2. Place of Accident : A residential building under renovation

3. Summary :

Two workers undertaking external renovation works on a tower working platform at the upper floor level fell to death when it suddenly broke apart and collapsed onto the podium.

4. Work Safety Alert for Contractors/Employers :

Contractors/employers undertaking work-at-height involving the use of tower working platforms should develop and maintain a safe system of work to ensure the safety of workers. The tower working platform should not be used unless:

- a comprehensive job specific risk assessment is conducted by a competent person and relevant safe working procedures and precautionary measures are formulated;
- every person using the tower working platform is wearing a safety harness properly attached to an independent lifeline;
- relevant safety training, information, instruction and supervision are provided to the workers involved;
- an effective preventive maintenance program is established and fully implemented to ensure the mechanical integrity of all parts of the working platform, in particular the critical components thereof ;





- safety requirements under the Builders' Lifts and Tower Working Platforms (Safety) Ordinance and the relevant code of practice administered by the Electrical and Mechanical Services Department are complied with; and
- an effective monitoring and control system to ensure strict compliance with all the above safety measures and precautions is established and implemented.

5. Reference :

- <u>A Guide to the Factories and Industrial Undertakings Ordinance (Section</u> <u>6A) - General Duties of Proprietor</u>¹
- Five Steps to Risk Assessment¹
- <u>Safe Systems of Work</u>¹
- <u>A Guide to the Provisions for Safe Places of Work under Part VA of the</u> <u>Construction Sites (Safety) Regulations</u>¹
- <u>Guidance Notes on Classification and Use of Safety Belts and their</u> <u>Anchorage Systems</u>¹
- Five Steps to Information, Instruction and Training¹

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