



## Systemic Safety Alert Power-operated Elevating Work Platforms Safety

### Major systemic safety problems

Power-operated Elevating work platforms (“EWP”) are widely used to carry workers for working at height, such as repairing or cleaning external facilities of buildings, repairing of ceilings, tree pruning and repairing of street lights, etc. Unsafe transport, operation or use of EWP can lead to serious injuries or even fatalities. The following are the major systemic safety problems attributed to the occurrence of the relevant accidents:

- failure to conduct task-specific risk assessments;
- failure to formulate detailed safe work methods in accordance with the results of the risk assessments;
- failure to ensure that the EWP are operated by competent workers;
- inadequate repairing and maintenance of the EWP; and
- failure to provide adequate safety information, instruction, training and supervision to all personnel concerned.

### Accident prevention measures

Registered Safety Officers (RSOs) should advise their employers/ clients to:

- (i) appoint a competent person to conduct task-specific and thorough risk assessments regarding the use of EWP, including the assessments on the workplaces’ conditions, such as gradients and width of the ground, existence of nearby overhead power lines or other structures, etc. to identify all potential hazards;
- (ii) devise safe work methods with detailed appropriate safety precautions to be taken to eliminate or mitigate the hazards identified in accordance with the results of the risk assessments. Safety precautions should include:
  - selecting suitable EWP to ensure that its safe working capacity, height and specifications are appropriate for the work;



- using suitable mechanical aids to transport the EWP to minimize manual handling operation as far as practicable;
  - ensuring that the EWP should not be operated on slopes with gradient exceeding the recommended limit in the manufacturer's manual;
  - after considering the working conditions of individual workplaces, limiting the height of the EWP appropriately to ensure that workers can stand on the platform of EPW to work safely;
  - ensuring that every worker working on the EWP must wear a suitable safety harness with its lanyard anchored to a specified anchorage point of the EWP;
  - setting up barricades and warning signs to ensure that the EWP would not be hit by nearby vehicles and unauthorized persons do not pass under or near the EWP;
  - closely monitoring the weather conditions of the workplace and any changes, such as lightning, heavy rain and excessive wind speed, etc., and stopping the work when the conditions are likely to endanger the EWP's operation;
  - ensuring that the platform of EWP is lowered to the cradle and no workers staying on the platform before moving the EWP; and
  - parking the EWP in a level and designated area with its boom lowered or retracted, switching off the engine, taking away and returning the ignition key to relevant personnel for safe custody after work.
- (iii) strictly implement the safe work methods;
- (iv) ensure that the EWP is of good construction, made of sound material and provided with suitable guard-rails and toe-boards;
- (v) ensure that the EWP is fitted with an emergency control to enable cutting off all power to the system and an effective lock-on brake or other devices that is capable to allow the EWP staying on the maximum designed slope while being loaded with its safe working load;



- (vi) provide all workers/ employees concerned with the necessary safety information, instruction and training, and ensure that they are familiar with the safe working procedures including emergency procedures and relevant safety measures;
- (vii) implement adequate and effective monitoring to ensure all safety measures are strictly implemented, compiled with and maintained;
- (viii) regularly inspect, test and properly maintain in accordance with the manufacturer’s manual and examine and test thoroughly by a competent examiner not less than once per year to ensure that the EWP is in safe working condition; and
- (ix) formulate suitable repair and maintenance plan and stipulate the following to ensure relevant components of the EWP are of good construction:
  - considering engaging a registered professional engineer to conduct non-destructive tests (“NDT”) on critical load bearing components of the EWP that have been put into use for 5 to under 10 years; and
  - engaging a registered professional engineer to conduct NDT on critical load bearing components of the EWP that have been put into use for 10 years or more.

Registered Safety Auditors (RSAs) should take into account these systemic safety problems and accident prevention measures in executing safety audit functions.

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