



## **Systemic Safety Alert** **Circular Saw Safety**

### **Major systemic safety problems**

Circular saws are common woodworking machine used on construction sites. However, unsafe use of circular saws would result in serious accidents like amputation of fingers. The following are the major systemic safety problems attributed to the occurrence of the relevant accidents:

- failure to conduct task-specific risk assessments and formulate safe work methods in accordance with the assessments;
- impropriety in using the saws beyond their intended purpose;
- failure to provide and use safety guards/ devices such as top guards, riving knives, push-sticks;
- failure to ensure that circular saws are operated by competent workers;
- failure to provide adequate safety information, instruction, training and supervision; and
- inadequate maintenance of circular saws.

### **Accident prevention measures**

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

- (i) appoint a competent person to conduct task-specific risk assessments to identify all potential hazards associated with the work;
- (ii) devise and implement safe work methods with appropriate safety precautions to be taken in detail to eliminate or mitigate the hazards identified. Safety measures to be taken include but not limited to the following:
  - use suitable tools for work, for example using vertical spindle moulding machine instead of circular saw for grooving;



- properly set the saw blade so that the teeth project through the surface of the material during cutting but not be set higher than necessary;
  - provide and maintain a strong and easily adjustable suitable top guard to prevent access to the saw blade above the bench table;
  - ensure the saw blade below the bench table is protected by suitable plates;
  - provide and maintain a strong, rigid and easily adjustable riving knife with a smooth surface at a suitable position;
  - ensure the worker keep his body on one side of the saw blade (not direct in line with the blade) when operating the circular saw to prevent the workpiece struck against the worker in case of a kickback;
  - ensure that a suitable push-stick is available and used to prevent the worker's hands from being too close to the saw blade;
  - ensure an efficient stopping and starting appliance is provided and positioned so that it could be readily and conveniently operated by the worker;
  - ensure the circular saw is placed in a good and level floor, and so far as practicable, free from chips and other loose materials. Sufficient clear and unobstructed space, adequate lighting and effective ventilation to control wood dust shall be maintained while the circular saw is in motion.
- (iii) use circular saws by competent workers only;
- (iv) provide all workers concerned with necessary safety information, instruction and training, and ensure that they are familiar with the safe working procedures and safety measures;
- (v) exercise adequate monitoring and effective supervision to ensure all safety measures are strictly implemented, followed and maintained; and
- (vi) properly maintain circular saws, and keep the blades clean, sharp and properly set so that they will cut freely without having to force workpieces against the blades.



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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