Case study 1: Worker's thumb severed by circular saw

Description of accident

A worker was using a circular saw to cut timbers to the required size. He was holding onto the timber piece using his right hand and holding the handle of the machine with his left hand. During the process of cutting, his right hand's thumb was cut off (see picture 1).

Investigation Findings

The accident happened when the injured worker was holding onto the shorter side of the timber piece while cutting using the circular saw machine. His right hand's thumb was placed directly below the blade of the circular saw and was consequently severed off.



Pic 1: Injured's right thumb during the accident



Pic 2: Re-enactment of cutting process during the accident

Case study 1: Worker's thumb severed by circular saw

Lesson learnt

- The method adopted by the injured worker of using the circular saw machine to cut the timber into the desired size by placing one's hand directly below the rotating saw blade of the circular saw was an unsafe practice
- The company should conduct Risk Assessment to identify hazards and implement appropriate control measures for all work activities and operation of machineries in the workplace
- Workers should not hold the timber piece (especially the short side of the timber) during the cutting process; and the hand must be kept away from the cutting blade at all times. For thicker and heavier timber pieces, the workers would need to secure them using the F-clamp or appropriate clamp(s) before cutting is carried out
- The company should use appropriate machine, equipment or tool when carrying out special task

Case study 2: Worker's fingers severed by table saw

Description of accident

The injured worker was cutting a wooden plank using table saw when his left fingers came into contact with the saw-blade. He informed the company director that he had cut his fingers. The carpenter suffered amputations of his left thumb, index and middle fingers, and nail bed grafting on the left ring finger.

Investigation Findings

The carpenter was using the table-saw machine to cut the plank into the desired size, where he hold and push the material towards the rotating saw-blade with his hands that resulted in having his fingers severed by the exposed rotating saw blade.



Pic 1: The table saw that was involved in the accident



Pic 3: Table saw guard was available but was removed prior to the accident



Pic 2: Guard was not installed during the day of accident

Case study 2: Worker's fingers severed by table saw

Lesson learnt

- The worker was operating the table saw with exposed rotating saw-blade without the safety guard installed
- There was no risk assessment conducted for the table saw activities and safe work procedures were also not established for the use of table saw
- The company should conduct a risk assessment to identify hazards and implement appropriate control measures for all work activities and operation of machineries in workplaces; such as provision of safety features or devices (i.e. guards) to prevent its accidental removal and to maintain its effectiveness
- The method adopted by the injured worker of using the table saw machine to cut the plank into the
 desired size, where he hold and push the material towards the rotating saw-blade with his hands was an
 unsafe practice
- The company should use safety means or tools for safe handling of the work piece, and in this case, such as
 a push stick to push the material to the saw blade and prevent the injured's hands from coming into
 contact with the rotating saw-blade

Case study 3: Worker's fingers severed by table saw

Description of accident

The injured worker used the table saw for cutting the groove on the bottom panel of timber door frame (see pic 3) as he had seen his senior did it. In the process of doing that, he used his hands instead of a push stick; the injured's fingers came into contact with the rotating saw blade of the table saw which resulted in amputation.



Pic 1: The table saw that was involved in the accident



Pic 2: Injured worker's fingers after the accident

Investigation Findings

It was also the occupier practice to use the table saw to cut the groove on timber or wooden plank.

In carrying out such operation, the safe guard hood for the rotating saw blade must be removed as it would obstruct the timber from being pushed forward.



Pic 3: To cut the groove (highlighted in red) for installing bottom panel of timber door frames.



Pic 4: Table saw guard was available but was removed prior to the accident.

Case study 3: Worker's fingers severed by table saw

Lesson learnt

- Safe work procedures on cutting of groove on timber or wooden plank using table saw were not established
- The method adopted by the company to remove the safety guard to cut the groove on timber or wooden plank using the table saw machine, where he hold and push the material towards the exposed rotating saw-blade with his hands was an unsafe practice
- The company should adopt a safer method to cut the groove for the bottom panel of the timber door frames with an appropriate equipment (router) solution which was available in the market currently, instead of using the table saw