

Summary of Incident

A worker was using a hydraulic press (**Press**) to reassemble a Recoil Spring Assembly when a part of the assembly failed whilst under pressure and was ejected from the Press.

As a result of this incident the worker has had his index finger and the top of his thumb surgically amputated from his right hand. He also received a minor cut to his forehead.

Background

The dismantling of mechanical parts often involves the use of stored energy. The challenges workers face in working with stored energy are often unpredictable. It is important that PCBU's and workers understand these risks and are aware of the potentially devastating injuries that can be caused when the risks arising from working with stored energy are not identified.

Recoil Spring Assemblies are a component in earthmoving equipment such as bulldozers and excavators that act as shock absorbers for drive tracks. Recoil Spring Assemblies consist of four main components being the spring, nut, stem and yoke. In operation Recoil Spring Assemblies are exposed to frequent shock loads and occasionally the spring component fails and necessitates replacement. In order to reassemble a Recoil Spring Assembly it is necessary for the spring to be compressed to its default position when fitting replacement parts. This process creates stored energy.

The injured worker was involved in reassembling the Recoil Spring Assembly when the incident occurred. While the PCBU had SOPs in place for the general use of the Press, it did not specifically have in place a safe method of work for the performance of the specific task of assembling the Recoil Spring Assembly. Further, the assembly of the Recoil Spring Assembly was undertaken in breach of the general SOP for the use of the Press because that SOP required all workers to stand behind the mesh guard and keep hands, fingers and body clear when operating the machine. Due to the method of work implemented by the PCBU, the injured worker was not able to comply with this requirement. This system of work was inherently unsafe as it required the worker to access the spring while it was under pressure and

The incident was a breach of section 32 of the *Work Health & Safety Act*. Specifically, the PCBU failed to ensure the safe use of plant in that it operated the Press in an unsafe manner.

Probable Causes

- A failure to conduct an adequate hazard identification and risk assessment in relation to the task of assembling a Recoil Spring Assembly
- A failure to develop or implement a safe system of work for assembling a Recoil Spring Assembly

Action Required

- The Press should not have been used to undertake the assembly of the Recoil Spring Assembly because it could not have been operated in a manner that was safe to do so.
- Press equipment used in the performance of this task must feature safe guarding which includes stronger and extended mesh, hinged and lockable doors, two hand operational control system and clearly identifying directional controls.