

Hazard Alert

Three point linkage connections



Government
of South Australia

SafeWork SA

Summary of incident

A worker was injured while clearing a log from beneath a slasher attached to a tractor via a three point linkage.

A chain and two D-shackles were used as the top link between the tractor and slasher to provide a flexible connection for rough terrain. A pin had fallen out of a D-shackle and the slasher dropped onto the worker as he removed the obstruction.

Three point linkages are commonly used to fit attachments behind tractors. The D-shackle pins had not been secured with a split pin or similar fastening device but had remained secure due to the distortion of the pin caused by the load.



A three point linkage is a standardised mechanism consisting of an adjustable top link centred above two lower lifting links.

Possible causes

- The D-shackle pin worked loose during normal machine operation as there was no secondary fastening system in place.

Action required

- Never work or stand under suspended machinery unless it is supported by suitably designed props or stands. Do not use wood to support the machinery.
- Also consider the following:
 - Ensure all persons are aware that they are not to position themselves under suspended loads.
 - Replace chain connections with an adjustable bar or some other method where possible.
 - If a chain must be used secure all D-shackle pins with a secondary fastening device.

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