



## Breaker-out crushed under tree root plate



### INCIDENT

A breaker-out was killed when he fell into the crater of an anchor stump that pulled.

### CIRCUMSTANCES

Two forestry workers (breaker-outs) undertaking log extraction were standing approximately 3 metres above and to the side of a live, single anchor stump, observing a drag being hauled to the landing.

They noticed the stump moving as the drag came into lead of the tail hold anchor stump and the yarder, over a gully. The stop signal was given but the suspended logs over the gully caused a pendulum effect, as the drag dropped into the gully. The anchor stump continued to move and ripped from the ground, knocking one breaker-out over. As the ground under his feet crumbled, he fell into the crater left by the stump and its root plate.

Then, as the stump became horizontal the block strop sliced off the notched stump, and the whole stump and root plate snapped back into the crater fatally crushing the worker.

### INVESTIGATION

The investigation determined that:

- The stump utilised as an anchor was 64cm diameter, was well notched, and met recognised industry methods for anchoring systems.
- The investigation identified that the stump had no “main tap root” and only lateral root support. This would not have been visible when assessing the suitability of the stump as an anchor.
- The victim was qualified to NZQA standards for the tasks he performed, and was regularly assessed
- The logging company had comprehensive hazard management systems in place for this process

### DEPARTMENT OF LABOUR ADVICE

Utilise secondary anchors unless anchored to a mobile anchor or when two blocks are used to share loading forces.

Implement an exclusion zone of 6m around any live anchor. Only approach closer when the yarder operator has stopped the winching process and confirms it is safe to move in.

In the case of a stump pulling, investigate the incident to determine whether an alternative anchoring system could have prevented it. The information gathered on soil structure, can help when selecting future anchor stumps on the site. Road batters and landing construction can also give an indication of soil composition in the particular area.

### WHICH INDUSTRIES/SECTORS OR MATTERS WILL THIS INFORMATION BE RELEVANT TO?

Forest Industry

*Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.*

