

Skidder Tipped Over By Runaway Tree Stem

Compiled from Carter Holt Harvey Forests' Northern Region accident report.

A skidder was pulled around and tipped over by a large stem that slid downhill past the machine after breakout.

What happened

The skidder was breaking out in a clearfell operation.

A large stem was stropped up and when the breakouts were clear, the skidder, with the winch drum in free spool, was driven forward to a position about 20 metres downhill and 10 metres to the left of the butt. The winch was engaged and the butt pulled down and across towards the skidder.

Once the stem started to move, it accelerated rapidly, sliding on a mat of scrub and shot past the skidder. At this point, the operator flicked the winch into free spool to allow the log to continue as he could see it would stop where the slope flattened out some 20 metres below the skidder.

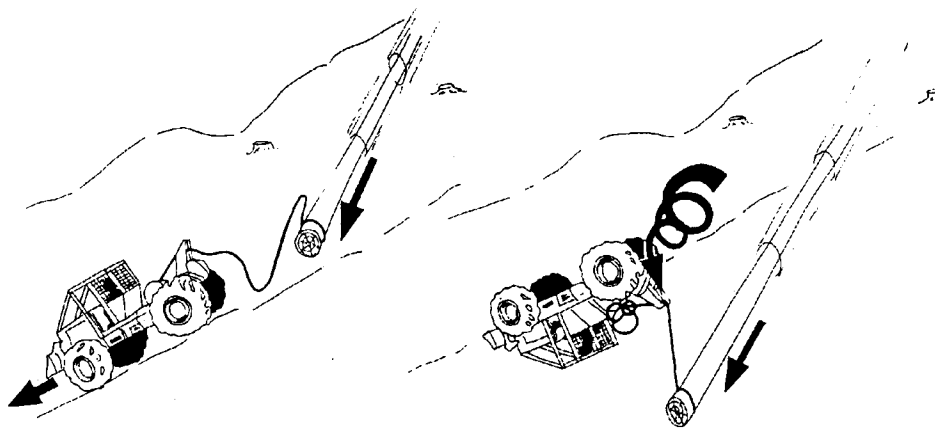
Unfortunately, the rope bird nested and bound. The momentum the stem had gained pulled the rear of the skidder around and the machine tipped over.

The operator unbuckled his seat restraint after the sideways roll to exit the machine. However, it appears that the machine then rolled end for end and he may have hurt his neck in this roll.

The ROPS cab with doors prevented debris entering or the operator's limbs going out of the cab. Helmet and earmuffs prevented serious injury as they absorbed several heavy blows.

Accident cause

The operator misjudged both the size of the stem and the best location to position the skidder for maintaining control over the drag during breakout.



Lack of control over the drag during breakout enabled the stem to gain speed rapidly and it was of sufficient size (15.1 tonnes) to pull the skidder over when the winch rope bird nested and tightened.

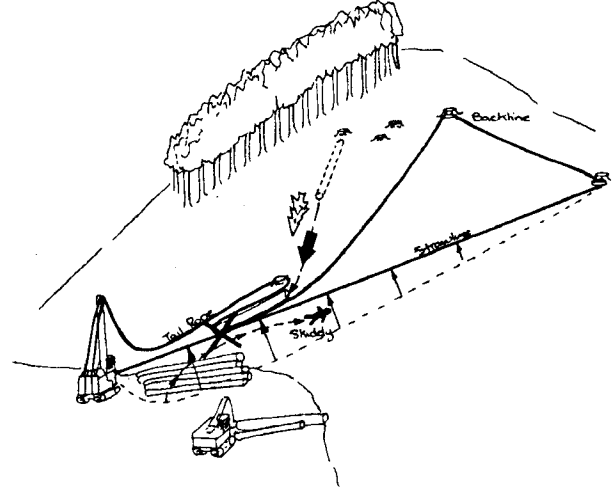
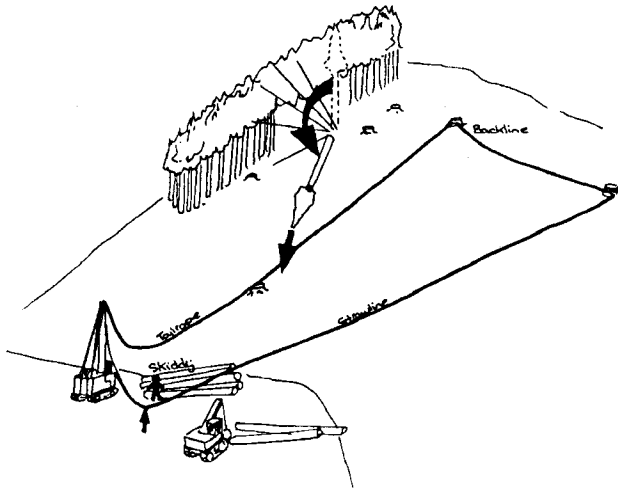
Recommendations

The company recommended the following:

- Formal debrief between the company and contractor.
- Review of circumstances surrounding this incident with emphasis on hazard awareness.
- The ongoing development of safety management systems within the contractor's firm.
- The pre-emptive cutting of large stems prior to extraction in this block.
- The completion of training and the attainment of the relevant FIRS module for this type of work by the skidder operator. (Work experience 5 years and 10,000 hours.)
- If someone suffers a heavy head blow, the helmet should be taken to the doctor to inspect as this may help with the diagnosis i.e. indicate force and direction of blows.

Skiddy Caught in Sudden Tension on Strawline

Contributed by Dennis Bomford, Manager, Harvesting Operations, Carter Holt Harvey, Kinleith.



A skid worker was caught and thrown a considerable distance by the strawline as sudden tension occurred.

What happened

The strawline was set out to allow a block change on a downhill extraction setting. The hauler stopped and lowered all ropes.

A faller was still felling in the same setting, beyond two tree lengths and uphill and to the left of where the ropes lay. While the tailrope and strawline were on the ground, another tree was felled. The head broke off the tree and the log started to slide downhill. The log was deflected across the slope towards where the tailrope lay.

The broken end of the log became entangled in the tailrope and pulled it downhill at increasing speed. The tailrope then caught around a stump which acted as a double purchase and suddenly tightened the attached strawline.

The skiddy was working over the strawline on the landing and was thrown 40 metres away in an uphill direction as the strawline suddenly tightened. He suffered a fractured jaw, collarbone, rib and arm as well as a punctured lung and lacerations.

Accident cause

The accident was caused by the felling and subsequent downhill slide of the felled tree. The employer had identified logs sliding downhill towards

the landing as being a hazard to the skiddies but it would be hard to foresee the chain of events that led to this accident. However, some precautions to prevent a repeat of this accident are contained in the recommendations below.

Recommendations

The company recommended the following:

- On a downhill setting where there is no barrier between the stand and the landing (e.g. gully around the edge of the landing), all felling should take place before setting up the hauler.
- Where it is not practicable as above, no activities shall be undertaken while felling is in progress and all workers not involved in the felling process shall move to a pre-identified safety zone and maintain a watch for log movement.
- On an uphill extraction setting, no felling should take place within two tree lengths of any ropes, whether suspended or on the ground, moving or stationary, or while the breakerouts are below the line of the felling face. Hauler ropes will be stationary and all personnel in a predetermined safety zone before felling commences.
- Workers should not leave the designated safety zone until the faller signals it is safe to do so.