Health and Safety
Forestry Bulletin
OCCUPATIONAL SAFETY & HEALTH SERVICE
DEPARTMENT OF LABOUR
No. 131 November 2001

Cable Hauler Tipped Over By Logging Truck

A skid worker suffered a broken leg when a cable hauler was pulled over by a loaded logging truck moving off the landing.

Background

Some haulers operate what is known as a 'floating tower'. This means that, during operation, the tower has the ability to move backward and forward, taking some of the rigidity away from the hauler and stabiliser legs.

When rigged for operation, the tower leans forward at approximately 6-8° from the vertical. It is only the operating and guy ropes that keep it in place.

During rigging and de-rigging a stabiliser ram is activated to hold the tower in place. Once operating, it is put into the float position allowing the tower to move.

What Happened

The logging crew was operating a TY 7O, which has a floating tower.

A logging truck with the trailer up reversed under guy ropes onto a log landing at the same time as the crew was de-rigging in preparation for a location shift. There was no problem with the truck and trailer making contact with the guy ropes at this point.

In the space of 30-40 minutes the truck and trailer was loaded and ready for departure.

While this was happening, the hauler crew was de-rigging the tower in preparation for a shift. The skyline (mainline with carriage still attached) and tailrope had all been pulled to the landing. There was still approximately 200 metres of skyline extension out in the cut over.

It would appear that there was still enough weight on the mainline due to the carriage being attached to keep the tower forward and maintain reasonable tension on the guy ropes.

In order to unbolt the carriage from the mainline the hauler operator released the brakes on the mainline drum.

The following is the sequence of events:

1. The mainline that was under tension became slack.
2. The 70ft tower came back to vertical position.
3. The guy ropes, whose only purpose on this type of tower is to prevent the tower falling forward, also became slack and dropped approximately 2-3 metres.
4. The hauler operator was descending from the cab to engage the stabilising ram.
5. The truck now loaded (40 tonne) began to move off the landing.
6. One guy rope now hanging much lower became entangled between the left front stanchion and a log on top of the loaded trailer.
7. The truck pulled the hauler over.

Most people working in and around the landing saw what was happening but could not attract the truck driver's attention in time. The skiddy who was finishing crosscutting also noticed what was happening and realised that the tower would fall in his direction. He began running in the

direction of the truck, as the tower hit the ground a guy rope came down across his leg resulting in severe fractures to his left leg.

Accident Causes

The main cause of the accident was a guyline becoming entangled in the stanchion extension pin of a loaded log trailer as it was being towed away from the landing.

Prevention

The operator's manual sets out the following steps:

1. Set throttle to low idle position.
2. At tower control, set tower stabiliser control lever in lock position.
3. Slack off all running lines.
4. Slack all guylines.
5. Extend tower stabiliser to set tower at vertical. Place stabiliser control in "lock".
6. Pull in all running lines, leave slack.
7. To retract inner tower, pull "tower telescope" valve lever up until cylinder stalls. Move "tower dog" lever to retract position, ensure that all dog "flags" are fully visible, move tower telescope valve lever to "down" position. Hold until tower is fully retracted. Return lever to neutral position.
8. Unhook guylines from stump and run in.
9. Stow bight of running lines and guylines behind line retainers at bottom of tower.
10. Remove Pin "A" (Fig. IV-3) from tower pivot. Retract raising cylinder until tower is in complete horizontal position and resting in cradle of tower support on carrier.

General

There is an issue with floating towers and that is when the tension comes off the working ropes, whether it be at de-rigging or making a line shift, that the tower can come back to the vertical (it is only the working ropes that hold the tower forward).

To prevent damage to the stabilising ram it is common practice to pull the gear including running blocks to the landing before engaging the stabilising ram.

Even when the tower is back to vertical and the stabiliser ram locked there is considerable slack in the guy ropes.

Any machine at this stage coming into contact with a slack guy rope would have the potential to pull that tower over.

It is advised in the operator's manual that when using high leading or gravity systems that one of the spare lines be used as a snap guy. Two other machines were observed doing this by the investigating inspector as a matter of course. This kept tension on the guy ropes at all times, even during line shifts.

Recommendations

1. Hauler operators should be aware of the potential of a similar accident occurring.
2. All machines should cease operating on the landing when line shifts or derigging are taking place.
3. As a matter of good operating procedures a snap guy is in place at all times especially when logs are being loaded either for final destination or to a super skid.