Heads-Up: MOBILE PLANT STABILITY/CONTROL ISSUES

We’ve had a run of machine stability incidents reported since January start-up. Thanks for sharing!

Earlier this week a backline excavator rolled some distance down a slope resulting in a head knock and loss of consciousness to the operator. This and 8 other recent incidents are summarised over two pages. Please share and discuss as the CAUSES are varied.

If you operate Mobile plant on slopes/harvest tracks, then please review each event described in this alert for relevance to your business, and make any necessary adjustments to work practices to eliminate or reduce the likelihood of a repeat.

IMPORTANT - ONCE CONTROL IS LOST ON SLOPES, THE OUTCOME CAN BE A LOTTERY

- ENSURE SEAT BELTS ARE ALWAYS WORN & CAB DOORS ARE ALWAYS CLOSED
- WATCH FOR A CHANGE IN SOIL CONDITIONS (Many of these summer incidents were on wet soils)
- ENSURE THE MACHINE IS OPERATING WITHIN ITS SLOPE LIMIT CAPABILITY
- THE OPERATOR IS COMPETENT FOR THE SLOPE AND CIRCUMSTANCES
- THE PLAN FOR THE DAY CONSIDERS ROLLOVER RISK

Lost Time Injury: Tail hold excavator was manoeuvring around the backline. As the excavator walked downhill it became bellied on a stump. Soil conditions were quite wet. It appears the machine had lost traction and the operator has reached forward to grab slash to place under his tracks to recover. By reaching forward the machine has see-sawed on the stump rolling forward once then tipping on its side. The crew immediately dispatched people to assist the operator. The operator was still inside the machine in the seat with his seat belt on. He was in and out of consciousness. The crew assisted him out of the machine and waited with him in the cutover while an ambulance was dispatched to the site. He was stretchered up to the ambulance by the crew and taken to Whangarei Hospital.

Under Investigation: Backline Rollover – 19 March
| Near Hit | Winch assist anchor machine pulled over with the feller buncher. Machine was sitting on a wide track and fell on to its side. | Switch in feller buncher not turned back on after getting back in to the machine following changing the saw chain. Went to drive forward, putting pressure on the winch machine causing it to pull over. Feller buncher was situated at approximately 17 degrees (lead angle) from the winch machine, which was also on a slight slope (~8 degrees). Operator mentioned that he simply forgot to turn winch on to automatic feed after getting back in. | Further training in winch set up  
System change (engineering) to ensure winch setting in the harvester is turned back to automatic feed before moving. |
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| Contact - No Injury | Opening up an old track with skidder and put blade down to clear scrub. Rear wheel slipped over bank so reversed up slightly to drive back onto track forwards at a better angle. Machine rear left wheel slipped over edge, machine rolled 3 and a half times coming to rest upside down in a creek. Operator shaken but not injured. | Narrow track. Lack of vision with under growth to high growth to high | Improved planning and work method  
Choice of machine |
| Near Hit | Backline digger slid forward when pulling in a drag. Extraction stopped and slackened ropes, backline digger replanted. | Tight area to place position backline digger due to a back directly behind the machine. Lots of weight on ropes. | Cut some of the bank down for counter weight of digger to fit and be planted in a more stable position.  
Have someone monitor machine when in tight areas |
| Near Hit | Hauler back line shifted off the backline digger onto stumps on roadside due to not enough space for digger counter wait to sit in the desired position on road. Stump begin to wiggle shortly after and cracks appeared on road edge | Small stumps that were possibly compromized from earlier road construction/upgrade. No other stumps available to change to or twitch back on. | Light drags extracted only and shifted ropes back onto the backline machine as soon as operationally possible |
| Near Hit | Feller buncher operator was felling trees on side of hill. He felled a tree and slewed digger around with the tree in the head, to shovel it downhill. Digger lifted up in the counterweight, causing tracks to lift off the ground a bit. Machine slipped approx. 2 metres. | Steep terrain and shovelling downhill. | Fell steep ground by hand.  
Winch assist machine arrives soon |
| Near Hit | Felling and Shovelling wood on 26-28 degree slope. Machine skidded 3-4m downhill and stopped. It couldn't drive back up so we assisted it out with digger. | Loss of traction. Wet soil in particular part of slope, small amount of overnight rain. | Have easier wood available for wet ground conditions if possible.  
Walk areas to be felled/shovelled |
| Property Damage | Machine slipped downhill into a high stump, damaging step on excavator. | Wet area, and presence of high stumps. | Lower stumps. Take more care on wet slopes |
| Property Damage | Digger operator was tracking down a steeper part of skidder track to put in a cut-out. Digger started to slide downhill. Operator used track motors and slew together to straighten up and stay on track. Digger slewed a bit too much, punching stick through side door and piercing A/C condenser. | Moisture back in ground after long dry spell. Steep going at that point of skidder track. | Clear any obvious sticks or slash from tracks which could cause trouble later on |