

Event Type: Feller/Buncher Rollover

Date: August 7, 2021

Location: Elbow Creek Fire
Wallowa, Oregon

Standing at the top of the hill from where the Feller/Buncher rolled down the steep hillside, it is amazing that the operator was not seriously injured or worse. Both times the machine rolled, it hit the ground cab-side down. And even though the machine smashed into the rock ledge, the cab was not dented or crushed.

Feller/Buncher Operator Walks Away from this Rollover Incident Without Injuries

On the Elbow Creek Fire on August 5 at approximately 4:20 pm, a contract logger (part of the Contingency Group on the fire) operating a tracked Timberpro Feller/Buncher was involved in a rollover accident. The operator was engaged in hazard tree removal on Forest Road 6212 of the Walla Walla Ranger District, Umatilla National Forest. The topography adjacent to the road was a narrow bench averaging approximately 100 feet wide, then sloping steeply 150-200 feet downhill.

The area had been burned at a high intensity. Soils were a mixture of loose fine soil and loose small rock.

The operator reached a curve in the road where the ground sloped gently to steeply away from the road into a gully bordered by two 20-foot tall rock cliffs. The area below the small cliffs sloped steeply 100 feet down to a flat area.

The operator first cut two 14-inch DBH (diameter breast height) pine trees, carrying them one at a time up to the road and dropping them into a log deck on the road's other side. The operator then moved the machine about 15 feet downslope off the road to cut the third tree. With tracks pointed downhill, he pivoted the machine's body and cutting head slightly uphill and cut this 20-inch DBH pine tree.

The operator said that when he cut this third tree, the tracks started sliding downhill on the loose rock. When he released the tree from the cutter head, the machine started sliding faster downhill. Next, the machine hit and uprooted a stump, which caused the machine to roll the first time with the operator cab section of the machine hitting the top of a rock ledge.

The machine then rolled over the rock ledge, landing approximately 30 feet downhill, rolled one more time, knocking over a pine tree and coming to rest cab-side down approximately 150 feet downhill from the start of the slide.

Task Force Leader Contacted for Help

The only actual witness to the accident was the operator's cousin who was the chase truck driver. He ran a short distance down the road to a Task Force



Top Photo – Path of rollover, showing the tree knocked over by the machine as it fell. The person above is standing where the cab first hit the rock ledge. Bottom Photo – Machine resting cab-side down after rolling down the cliff.



Leader (TFLD), acting as road guard, and told him that the machine had rolled down the hill and to call 911. The TFLD immediately contacted the Contingency Group supervisor and the Rapid Extraction Module Support (REMS) medical team was called to come to the accident site.

The TFLD said that once the dust from the rollover cleared, the operator exited the machine cab and told them that he was fine and did not need medical attention.

Recovering the Feller/Buncher

The next morning, the Feller/Buncher was pulled upright by two other Feller/Bunchers. Damage to the machine was assessed by the owner. There was damage to the engine compartment, the batteries had been pushed in, the cowling was damaged, as well as various other engine damage.

In addition, a hydraulic hose on the boom broke during the fall over the rock ledge and fluid was observed on the rock face (estimated to be less than one gallon).

To accomplish moving the damaged machine back up to the road, trees were cleared by a Feller/Buncher to create a path up the hill. A dozer cut the slope to make a level road.

Then a large Feller/Buncher was chained to the damaged machine, a large Skidder was chained to the front of Feller/Buncher, and another Feller/Buncher was positioned behind the damaged machine that was lifting up the boom. All four machines slowly and successfully proceeded together to the road at the top of the hill. The damaged machine was then pushed onto a lowboy transport and taken off of the fire.

Lessons

Heavy Equipment Boss

Both of the IMT Safety Officers discussed how a lack of a qualified Heavy Equipment Boss (HEQB) working with the Feller/Buncher—who could have noticed the danger of cutting at the top of the rocky gully—might have prevented this accident.

The Contingency Group had 32 pieces of heavy equipment and only one qualified HEQB and two TFLD for supervision. The lack of HEQB is not isolated to this fire. It has been a common occurrence at most fires this year and has been a problem for many past years.

Cutting Trees with the Feller/Buncher at the Top of a Steep, Rocky Gully

The operator of the machine was experienced and well qualified to operate the Feller/Buncher. These machines are designed to be used on sloping ground with a self-leveling feature. At the accident site, the Feller/Buncher operator said that he had felt comfortable cutting the first two trees on the slope, thus he had attempted to cut the third tree—when the machine slid.

After the rollover, the operator and the incident's Safety Officer had a conversation about how the first two passes to cut the trees had disturbed the ground, exposing numerous rocks. These rocks most likely acted like marbles under the tracks—initiating the machine's slide. They therefore discussed how—in hindsight—it was not a good idea to cut trees at the top of a steep, rocky gully.



Top Photo – The rollover site. The stump/tree in foreground is the third tree the operator was cutting when the machine starting to slide in loose rock. Bottom Photo – Shows how the operator's cab remained intact.



**Design of Cab and Lap/Shoulder Seat Belt System
Most Likely Saved the Operator's Life**

The quality of design and strength of the cab most likely saved the operator's life. In addition, the machine's cab had a high-quality form-fitting seat with a four-point lap/shoulder seat belt system which the operator said he used—and always kept it tight.



Damage to the engine compartment.

Two More Recent Heavy Equipment Rollover Incidents

[East Troublesome Fire Excavator Tip Over \(2021\)](#)

[Neals Hill Fire Skidgine Rollover \(2020\)](#)

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