

# Fatality Assessment and Control Evaluation Project

Public Health

KY FACE #97KY110

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TO: Carl Spurlock, PhD, Director, Kentucky Injury Prevention and Research Center, and Epidemiologist, Kentucky Department for Health Services

FROM: Amy Scheerer, Field Investigator, Kentucky Fatality Assessment and Control Evaluation (KY FACE) Project

SUBJECT: Skidder Operator Thrown From Vehicle During Rollover

## SUMMARY

A 50-year-old full-time logger (the victim) was killed when the skidder he was operating rolled down a hillside. He and two other loggers were working as contracted help at the timber harvest operation site. They leased a Timberjack skidder model 450 to haul the logs. At the time of the incident, the victim was operating the skidder at the top of the hillside, winching a load of three logs up the hill. At the edge of the hillside the slope was approximately 27 percent and then dropped off sharply to 70 percent. The skidder was braced against a tree about 6 inches in diameter as the logs were pulled up the hill with a winch. Because of the weight of the skidder, the tree gave way and the skidder rolled downhill. The vehicle overturned 2-3 times before coming to rest against a group of trees approximately 200 feet downhill. As the vehicle overturned, the victim, who was not wearing a seatbelt, was ejected from the cab and thrown against a tree. He was killed instantly. Coworkers summoned Emergency Medical Services, but the victim was pronounced dead at the scene at 10:40 am. In order to prevent similar events from occurring, FACE investigators recommend that:



Heavy equipment operators should wear a seatbelt while in the vehicle

## INVESTIGATION

On October 2, 1997, KY FACE was informed of the death of a 50-year-old logger on October 1. A site visit was made on October 6, 1997. Interviews were conducted with the county coroner and one of the victim's coworkers. Copies were obtained of the coroner's report, death certificate and photographs. Measurements were taken of the site of the incident. The log skidder had been removed from the site and was unavailable for inspection. Information about this model of skidder was provided by the manufacturer.

The skidder leased by the loggers was a Timberjack model 450. The victim's coworker reported that the machine was in good condition. This model was manufactured during the early 1980s. It weighs 23,228 lbs, measures 255 inches from front to back, and has a maximum 174 hp turbo engine. Although this model was originally manufactured with a seatbelt installed, it is uncertain whether the seatbelt was still intact at the time of the incident because the vehicle was unavailable for inspection and the coworker who was interviewed could not recall. The skidder is equipped with a screened operator's cab which was enclosed on the front, top and back, but open on both sides according to the coworker who was interviewed.

The victim had been a self-employed, full-time logger all of his life. He was experienced in performing his job and operating a skidder. He was in generally good health.

## **INVESTIGATION**

On the day of the incident, the victim and two other loggers were working as contracted help at the timber harvest operation site. They had been working together for several months at the site, but began logging this new section on the morning of the incident. Weather was clear and pleasant and they started work early that morning as usual. They used a Timberjack skidder model 450 to haul the logs to a landing for transport to a mill. While the victim operated the skidder on the top of the hill, the other two loggers were working downhill cutting trees and setting chokers to prepare for winching.

At approximately 10:30 am, the victim was operating the skidder at the top of the hillside, pulling a load of three logs up the hill using the winch. At the edge of the hillside the slope was approximately 27 percent and then dropped off sharply to 70 percent. The skidder was parked at the top of the hill and was braced against a tree about 6-8 inches in diameter. As the logs were being winched uphill, the tree suddenly gave way causing the skidder to slide down the steep hillside and then roll downhill. The vehicle overturned 2-3 times before coming to rest against a group of trees approximately 200 feet downhill. As the vehicle overturned, the victim, who was not wearing a seatbelt, was ejected from the cab and thrown against a tree. He was killed instantly. Coworkers witnessed the incident and one left the scene to summon Emergency Medical Services. EMS was dispatched to the scene at 10:40 am and arrived in 10 minutes. The coroner was called at 10:50 am and pronounced the victim dead at the scene.

## **CAUSE OF DEATH**

Cause of death on the death certificate is crushed chest due to logging skidder accident.

## **RECOMMENDATIONS/DISCUSSION**

**Recommendation #1:** Heavy equipment operators should wear a seatbelt while in the vehicle.

**Discussion:** By wearing a seatbelt the operator is kept within the protected zone of the

cab or rollover protective structure. The skidder in this case was manufactured with a seatbelt, however it is not known for certain whether the vehicles's seatbelt was still intact at the time of the incident. It is likely that if the victim had been wearing a seatbelt while operating the skidder, the fatal injury would have been avoided because he would have remained in the cab rather than being ejected during the rollover.

## **REFERENCES**

American Pulpwood Association Inc. "Lack of Seat Belt Injures Skidder Operator" Safety Alert (94-S-5); 1994.

American Pulpwood Association Inc. "Skidder Rollover--Seatbelts Do Save Lives" Safety Alert (94-S-27); 1994.

Timberjack Inc., Woodstock, Ontario, Canada; phone 519-537-6271.