

## **FACE-96-13**

### **Logger Dies After Falling From Tractor--South Carolina**

#### **SUMMARY**

A 77-year-old male logger (the victim) died after he fell from the tractor with which he was dragging logs. The victim had purchased the timber rights to a 2-acre tract of land to cut pulpwood timber for sale to a local sawmill. The victim was last heard operating a chain saw at 9:30 a.m. the morning of the incident. At 1:00 p.m., a local resident stopped by the site to talk to the victim. The resident found the victim lying at the rear of the tractor, breathing but unresponsive, with a serious head wound. The resident flagged down a motorist who called the emergency medical service (EMS) from a car phone. The EMS arrived 22 minutes later and transported the victim to the local hospital. The victim was transferred to a major trauma center where he was pronounced dead 3 hours later. NIOSH investigators concluded that, in order to prevent similar occurrences, employers should:

- o ensure that seat belts and rollover protection are provided and used on mobile equipment.*

#### **INTRODUCTION**

On March 14, 1996, a 77-year-old logger died after falling from a tractor with which he was dragging logs to a landing. On April 3, 1996, officials of the South Carolina Occupational Safety and Health Administration (SCOSHA) notified the Division of Safety Research (DSR) of this fatality, and requested technical assistance. On April 9, 1996, a DSR safety specialist conducted an investigation of the incident. The incident was reviewed with SCOSHA officials and the county coroner. The site was photographed at the time of the incident, and photographs of the site immediately following the incident were reviewed with the county coroner. The coroner's report and the preliminary autopsy report were obtained during the investigation.

The victim in this incident was a self-employed logger who had been in operation for 3 years. The victim purchased small tracts of pulpwood timber to cut and sell to a local sawmill. The victim had no written safety policy or safety program. Training was performed on the job, when the victim hired other workers; however, the victim usually worked alone. He had not experienced any fatal injuries to his workers when additional labor was used.

#### **INVESTIGATION**

The victim had purchased the timber rights to a 2-acre tract of pulpwood timber; the harvested timber was to be sold to a local sawmill. The victim had been working on the tract of land by himself for several days. It was the victim's practice to fell and limb two trees, then drag the trees to a landing with an International Harvester FarmAll H-series tractor. The victim had

owned and operated the tractor for 20 years. The tractor was not equipped with seat belts or a rollover protection system (ROPS) when it was manufactured in 1942, nor had a retrofit ROPS kit been installed.

On the day of the incident, the victim was seen and heard operating a chain saw until 9:30 a.m. The victim's tractor was seen in the area where the victim was discovered by the owner of an adjacent lot, between 11:00 and 11:30 a.m. A passing motorist had noticed the victim lying behind the tractor at approximately 11:30 a.m., and assumed the victim was working on the tractor.

At approximately 1:00 p.m., a local resident stopped to ask the victim about cutting some of the timber on his property. The resident found the victim at the rear of the tractor (which was not running) immediately behind the right rear tractor tire. The victim had a head wound and his breathing was labored. The resident ran to the highway, flagged down a motorist, and told her to call the emergency medical squad (EMS), which she did from a car phone. The EMS received the call at 1:14 p.m., arrived at the scene at 1:36 p.m., and transported the victim to the local hospital. The victim was later transported to a trauma center where he was pronounced dead by the attending physician at 4:36 p.m.

Evidence at the scene suggests that, at the time of the incident, the victim was dragging two logs to the landing. The first log, which had been attached to the tractor hitch with wire rope, was pulled straight behind the tractor and measured 10¾ inches in diameter and 47 feet, 7 inches long. The second log, also attached to the tractor hitch, was perpendicular to the first and measured 7 inches in diameter and 13 feet, 4 inches in length.

The tricycle-type front tires of the tractor were against a tree. Immediately inside the left rear tractor tire was a 24-inch- diameter stump that protruded approximately 7 inches above ground.

The incident was unwitnessed; however, evidence at the scene indicates that the tractor either hit the stump causing the victim to lose his balance and fall forward from the tractor, or the tractor struck the tree and caused the victim to fall forward off the tractor. The disturbance of the ground behind the tractor indicated that the tractor had jumped slightly to the left after striking the tree and before stalling. The victim's internal injuries (skull fracture, twice lacerated liver, multiple rib fractures, and fracture of lumbar vertebrae) indicate that the victim was struck by the tractor's undercarriage, then run over, possibly by the right rear wheel of the tractor.

## **CAUSE OF DEATH**

The medical examiner listed intracranial hemorrhage with edema and herniation leading to impairment of vital brain functions as the cause of death.

## **RECOMMENDATIONS/DISCUSSION**

***Recommendation #1: Employers should ensure that seat belts and a rollover protection***

*system are provided and used on mobile equipment.*

Discussion: The International Harvester FarmAll H-series tractor involved in this incident was manufactured in 1942 and was not equipped with seat belts or other type of operator restraint system at the time of manufacture; however, retrofit ROPS kits are available for this particular machine. OSHA standard 29 CFR 1910.266 (d) (3) for pulpwood logging states that “seat belts shall be provided on mobile equipment.” Tractors used for this type of activity could be retrofitted with a ROPS kit that would decrease operator exposure to a fall from machinery or to crushing injuries due to a rollover.

## **REFERENCES**

29 CFR 1910.266 (d) (3) Code of Federal Regulations, Washington, D.C.: U.S. Government Printing Office, Office of the Federal Register.