

# Lessons from Losses

**T***o help TPA members avoid accidents resulting in injury or damage to property, The Timber Bulletin, in association with Lumbermen's Underwriting Alliance, will publish details of actual incidents and what can be done to avoid such occurrences in the future. By sharing this information, TPA and LUA hope to make our industry as safe as possible.*

**Incident:** As the winter logging season was reaching its last month of work before spring break-up, a track feller buncher abruptly tipped over when the operator tried to fell a large white pine. Due to the position of this equipment the machine completely rolled on one side and partially on its top. The tracks were in the air and the side panels were blocked.

It was mid-morning and the full crew was working the site spread out over a ¼ to ½ mile distance, approximately 10 miles from the nearest town. The feller buncher was over 300 yards off the access logging road. The operator was not injured in the roll-over and was able to escape through the entrance door. Immediately this individual called the owner's son to report what occurred. In the conversation the owner's son double-checked to be sure the key was shut off along with the electrical master switch; it was shut down correctly. Within 3-5 minutes the equipment started to smoke from the engine compartment and the side panels/doors could not be opened due to the position of the roll-over. As the smoke intensified, the owner, owner's son, other employees and a logging crew working close by responded with extra multi-purpose fire extinguishers, equipment (skidders, shovels, etc.), and also with the use of the surrounding snow. As hard as they worked to extinguish the fire, they could not get to the base of the fire or inside the engine compartment. Soon the limited protection that was available was exhausted. The fire could not be stopped from spreading through the engine/hydraulic compartments

and cab areas.

At the beginning of this serious accident the fire department was called. However, due to the time to respond and the inability to reach the equipment that was on fire with

their fire trucks there was nothing they could do to save this equipment. Fire fighters did respond with two hand-held extinguishers, but the fire was too large for this protection. By this

time, the fire had already spread to the cab and the machine was a complete loss. All that could be done is contain the fire to the equipment involved, be sure the fire did not spread to the surrounding area, and prevent possible personal injury. There is some salvage value with the felling head.

It is believed that the probable cause of this loss is operator error and training in the limits of this equipment during operation. The sudden tip-over that created this situation led to this fire situation. The actual ignition cause is uncertain (oil, fuel, debris, etc.). Some other problems that added to this situation were the on-board self-suppression system failed in the automatic mode, the manual activation could not be reached after the fire started, and the side panels/doors could not be opened to address the base of the fire with fire extinguishers.

**Other Factors:** There were no immediate maintenance problems needed or completed prior to this fire emergency. This equipment was last power-washed in the fall before freeze-up. Daily housekeeping does occur.

The employee involved is a seasonal employee and was employed for approximately six months. He was first trained to run the skidder and then the feller buncher in both operation and maintenance. The feller buncher had been operated for approximately 4 ½ months. Over two years of prior operator experience in logging equipment had occurred (skidders, feller bunchers, etc.).

Radio communication between equipment was in place and cell phones were operable at this location.

The day of this occurrence the weather was normal; temperatures reached 15 degrees F, low humidity, sunny and no wind.

#### **LUA Suggested Preventative Measures Include:**

1. Complete initial and refresher employee training for proper operation, service, emergency response, etc. for new and existing employees. These training needs change with each job site. Weekly tool box safety meetings work well in reviewing all equipment (limits of equipment,



etc.). Cross training all employees is also very beneficial.

2. Review all equipment for the placement of fire port holes to assist in extinguishing a fire in an emergency situation. The placement of these fire port holes need to be in high fire hazard areas on all equipment (manifold turbo/area, starter/alternator area, battery area, etc.). Fast access is very important in an emergency.
3. Frequent operator self-inspections for housekeeping and maintenance, especially in dirty timber.
4. Always shut down the electrical disconnect (master switch) on your mobile equipment in an emergency situation. Refresher

training for all employees must be reviewed regularly.

5. Train employees on proper use of fire extinguishers in an emergency situation. Utilizing the extinguisher hose to direct the flow to the base of the fire and not wasting the extinguisher in a panic situation.
6. Install an on-board fixed self-suppression system on all mobile equipment. Additional protection is always very beneficial in a fire emergency situation. Always follow the owner's manual maintenance required for regular maintenance. Also self inspection is crucial to the performance of this protection.