

Feller Buncher Burns in Late Winter While Being Operated

by Dave Amundson

Lumbermen's Underwriting Alliance

To 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.

Background:

This case study compiles information from personal interviews with the owner of the logging business and the operator,

as well as a review of the damaged equipment. This mid to small size logging and trucking company operates one conventional

logging and trucking operation on a seasonal basis.

While this loss occurred in mid to late winter, the weather was very mild for the time of year, with a temperature in the range of 40 degrees F. On a sunny and very windy day, this loss took place at a

remote spruce logging site.

Just before this fire emergency, the feller buncher had undergone the replacement of the secondary fuel pump and the o-rings in the injector pump. The secondary pump was replaced in the woods, but the machine was hauled to the shop to complete the work on the injector pump. The machine was blown down with air (but not power washed), and was returned to the woods just 3-1/2 days before this mishap.

Operator:

The operator in question was considered fully trained in the operation and maintenance of a feller buncher. This individual had operated logging equipment for over 20 years, with over 18 months with this company. He had attended Log Safe, and also works for a construction employer as an equipment operator during the summer months (off-season), where he received appropriate training.

Accident and/or Injury:

During lunch break about two hours before this fire occurred, the operator completed a general maintenance check and noted no problems, leaks, etc. (including a visual of the injector pump). All

electrical and controls were working well.

Sometime late in the afternoon, a fire broke out in the engine compartment. The operator glanced over the engine compartment and saw flames coming from the bottom rear of the engine area. The operator opened the rear engine panel and was able to knock down the blaze with a 5 lb. multi-purpose fire extinguisher. However, the fire quickly returned, and the windy conditions blew the fire (smoke, heat, etc.) further into the engine and cab compartments. It is speculated that the larger extinguisher was never used due to the excess heat and smoke. The operator attempted to use a cellular telephone to call for help, but no service was available and no other operators were in sight.

The feller buncher was a total loss. No injuries occurred and salvage value consisted of the felling head, tracks and associated equipment.

Unsafe Act and/or Condition:

It is uncertain what ignited the blaze. Due to the sudden ignition with no initial smell of smoke, this fast-moving fire ended in total loss. After the fact, it was found that the engine blow-by drain hose had

Lessons from Losses



This picture shows where daily housekeeping would improve fire and personnel safety as well as being able to uncover maintenance needs.



This picture demonstrates the need for improved daily housekeeping and a routine power wash.

leaked into the rear of the engine/hydraulic area. This was noted during the repair of the fuel problem, but no follow-up was taken. This may have been a contributing factor in the growth of the fire.

LATE IN THE WINTER IS NORMALLY A HIGH STRESS TIME IN THE LOGGING INDUSTRY AND NOT THE TIME TO LET YOUR GUARD DOWN IN COMPLETING PROPER MAINTENANCE AND GOOD HOUSEKEEPING. AS THE WEATHER WARMS INTO SPRING, DAILY HOUSEKEEPING AND FREQUENT POWER WASHING IS A MUST!!

Preventative Measures:

1. Implement an emergency response plan for all pieces of mobile equipment, and train all operators to follow these emergency procedures when operating. This includes, but is not limited to;
 - Utilizing the operators' manual for each piece of equipment.
 - Enforcing proper shutdown in

an emergency, as well as during shut down (use of the master switch).

- Understanding the use of the fire protection access port holes, which access doors to open and/or not to open, and the maintenance of quick-opening fasteners on the engine/hydraulic access doors.
 - Training in the proper use of portable multi-purpose fire extinguishers. Always maintain a minimum of either one 10 lb. or two 5 lb. extinguishers in all mobile equipment when operating. In high hazard mobile equipment, two 10 lb. extinguishers are recommended.
 - Setting-up an emergency call number list with directions to the logging site location. Practice good communication.
2. Complete a high standard of housekeeping on all mobile equipment. This includes daily cleaning during equipment checks, power washing during

maintenance times (especially when fuel, hydraulic/engine oil, etc. is leaked), and as needed throughout the year.

3. Practice good maintenance and inspect special concerns involving electrical wiring/harnesses, electrical components, possible damage to hydraulic lines and fuel lines, as well as other trouble spots. One area where excess use is the norm during the winter months is the electrical connections between the starter and the battery, where a loose connection could spark.