

# Mobile Equipment Fire Self-Suppression System Does Its Job

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:

It is always good to hear positive news when a safety device or system does its job, whether

preventing a possible personal injury or property loss. In this case, preventing a mobile equipment property loss was

accomplished, as well as preventing a personal injury, because proper emergency response protocol was in place. The following information comes from a personal interview with the owner, a review of the involved mobile equipment, and a discussion with the employees at the work site.

This large logging and trucking company operates both conventional and cut-to-length logging mobile equipment. This summertime incident occurred on a remote logging road, approximately 15 road miles from the nearest town. The equipment involved was a forwarder on a cut-to-length operation. This mobile equipment was setup with an on-board fire self-suppression system and two hand-held multi-purpose fire extinguishers, one inside the cab and another outside the cab.

Maintenance and housekeeping had been very good on this equipment, and it had been recently pressure washed and inspected, with no major

maintenance problems noted.

## Incident:

As this mobile equipment was being driven on a logging road between logging job sites, flames were noted near the hood top. Immediately the mobile equipment was stopped and shut down, but the flames continued. Based on this, the manual control button was activated for the on-board fire self-suppression system. This system worked and appeared to control the fire.

As the operator dismounted the cab with the hand-held fire extinguisher, the electrical disconnect was shut off, and the fire appeared to be extinguished. The engine hood was opened, and a fire was still noted in the fire wall area between the engine compartment and the operator cab. Using the hand-held fire extinguisher, the fire was extinguished.

Another employee in the immediate area was summoned and assisted in removing the belly pans and lifting the operator cab to be sure the fire was completely extinguished. The machine was checked by a mechanic, who found very little damage. This was a very

serious fire situation that ended on a good note. The fire safety protection worked well and had done its job. Afterward, the on-board fire self-suppression system and the hand-held fire extinguisher were serviced and/or replaced.

## Unsafe Act and/or Condition:

As the mechanic checked over this equipment, trying to determine the root cause of this fire situation, an exhaust leak was noted between the exhaust pipe and the manifold/turbo. This hot exhaust leak was blowing directly into the fire wall between the engine compartment and the operator cab. The constant road driving may have helped create this situation. However, the root cause was the bolt failures (broken and missing) that fastened the exhaust pipe to the manifold/turbo. These bolts were replaced, correcting this exhaust leak.

Being prepared in a fire emergency will make all the difference in the end. Other fire situations occurred this last year involving mechanical failures (alternators, damage to pre-heaters, etc.) where this fire protection (minimum 10lb multi-purpose fire extinguishers) was used and successfully extinguished the fire.

## Lessons from Losses



The manual control button for a fire self-suppression system.

Be prepared for emergency action by putting in place a documented plan. Communicating this to your work force is a must!

#### **PREVENTATIVE MEASURES:**

1. Maintain a documented emergency response plan for your logging operation. The level of completeness will depend on your company size. Some points to consider, in putting this program together include;
  - Emergency phone numbers and communication method
  - Location of operations (directions to job sites)
  - Emergency response training for each piece of mobile equipment and/or operation
  - Operation of the on board fire self-suppression systems if available
  - Operation of the hand-held multi-purpose fire extinguishers
  - Refresher training and discussion
2. Complete thorough self-inspections to uncover problem areas before an emergency situation occurs, and make corrections as necessary. This is especially important before a change in operating conditions like long skids, traveling an extended distance between job sites, etc.
3. Workers must be alert and recognize changes that take place when operating mobile equipment. Your sense of smell, sound of operation, and vision of equipment/gauges are all important factors when operating equipment and preventing a fire emergency. Quick response and persistent safe corrective action is the plan.

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