Logging Death Occurs During Shut Down of Grinder Unit

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.

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Background:

The mobile equipment involved in this tragic accident was a 2004 Horizontal Grinder. Maintenance and housekeeping would be rated as very good. Most maintenance is completed in-house with the large scale maintenance completed by the appropriate equipment dealership. This equipment had no major maintenance problems or housekeeping issues. The mobility of this equipment and the use of a wood pole system allowed the loader operator to scrape away debris from under this equipment without leaving his cab position. In cold weather this equipment was pulled back to the shop daily to help prevent freeze-up of the hydraulics and plugging. Necessary daily cleaning and maintenance is completed. During the warm weather season the pre-plan is to power wash every two-to-four weeks or as needed. Also, this equipment was operated by remote control from the loader operator position.

Lessons from Losses

The grinder work site was in a hardwood stand of mixed wood species in mostly level terrain. The involved equipment was parked on a log landing along with the loader unit with the skidder pulling wood to this site. The temperature at the time of this accident was approximately 15F to 20F degrees. The sky was clear with a light breeze. The nearest town to this logging work site was approximately 15 miles away. Also, the distance from this operation's home base to the logging work site was approximately 12 miles.

Operators:

The involved individual was considered fully trained in operation of all logging equipment, including this grinder unit, with over 14 years working experience with this operation. In addition, past experience included operating both construction and farm equipment. This individual was one of the primary operators of the grinder unit.

Incident and/or Injury:

The grinder operation was preparing to shut down for the day when a tragic personal injury accident occurred at approximately 6:00 p.m.

Two logging workers were on site, the involved individual (skidder operator) and the loader operator that was feeding the grinder unit. The skidder operator had parked the skidder at the log landing, shut down his skidder, had removed his lunch cooler from the skidder and set those items down on the ground on the back side of the grinder unit from where the loader operator was positioned. The grinder unit was shut down and with this particular type of equipment, it continues to coast to a stop over a period of a few minutes before the grinding head and first output belt comes to a complete stop. The output belt and rollers are protected and/or shielded by location and accessible from under this equipment. The involved individual, on the side that was out of sight from the loader operator, crawled under the grinder unit between two of the axles. It is uncertain why the involved individual decided to crawl under the grinder unit before the grinding head and first output belt had come to a complete stop. Within a very short time the loader operator discovered this accident situation, immediately called 911 and the owner with his cell phone. The owner, first responders, and law enforcement rushed to the site. It is speculated that while the involved individual was under the grinder unit he reached up to one of the rollers on the first output belt system (still moving), either with a stick or with his gloved hand and was suddenly grabbed by the belt/roller system. This belt/roller

The grinder involved in this accident, including a look at the spacing between the axles.

The grinder's belt/roller system looking up from the ground.

system violently pulled him and his arm into the roller up to his shoulder, striking his head against the roller causing severe head trauma and death.

Unsafe act and/or condition:

It is uncertain why this individual made the decision to take the risk in crawling under this unit and reaching into a moving pinch point. With that being said, the most likely probable cause of this tragic logging accident is the failure to follow proper lockout/tagout safety procedures.

The following suggestions may help prevent a problem of this severity when working around mobile equipment and/or other hazardous machines.

Preventative Measures:

1. Always follow safe lockout/tagout procedures on all mobile equipment and machines before any maintenance, service and/or repair is completed. Do not take short-cuts and excess risk when working on the job and/or even away from your employment. Remember, sometimes you have to slow down to go faster!
2. Complete safety lockout/tagout refresher training on a regular basis. Tool box refresher training and enforcement in proper work procedures can not be overlooked.
3. Be alert to loose clothing and enforce all employees to restrict the use of this type of clothing while working around moving hazards. Belts/pulleys, chain/sprockets, rotating shafts, slow moving pinch points, etc. are just some of the high hazard examples. Every work location may and can present a different safety concern or situation.
4. Put in place an emergency response plan for both personal injury and property loss. All logging operations need to maintain written directions to the logging job sites, and safety training in safe equipment operation so the operator understands how to address a fire and/or shut down in an emergency. Regular refresher training and practice are just some of the items that are very necessary. The panic factor is what you're preparing for in an emergency situation.