**Hazards around the Industry**

**Chain Shot**

What is chain shot? This is a real serious risk faced by loggers each day. Basically, when a chain from a saw buck, or dangle head processor fails, the fragments are forcibly thrown at an extreme speed. The pieces are shot like a bullet and the danger lies in where or what these fragments hit. These chains are turning at high revolutions per minute (rpm) and can take out an eye in less time than you can react once you hear the distinct noise of the chain breaking.

In recent years, we have witnessed severe injuries such as broken jaws, eye damage and even a fatality when a chain fragment hit an individual.

Saw bucks and dangle heads can hurl fragments over 250 feet. If the saw buck is not set up facing away from the cab of the loader, you, the operator are in the direct line of fire. The fragments have been known to penetrate the Lexan side shields of loaders and still have enough force to fracture an operator’s jaw. When operating the processing head, when you grab a tree make sure the processor bar is not directly in line for you to see as you cut it. Process logs closer to the ground to reduce the distance chain shot fragments can travel.

Logging is an inherently dangerous business. When you do not inspect or maintain your equipment properly, complacency can lead to someone being injured or killed. Remember there is risk all around the logging site. Ground personnel are at the highest risk. They do not have the protection of the cabs but equipment operators are at risk too of flying projectiles.

**Precautions to reduce the risk of injury from chain shot**:

**General Safety** – all bar and chain assemblies

* Follow manufacturer’s specifications
  + Do not raise chain speed and rpms as it could cause trouble.
  + Maintain proper tension and lubrication
* If a chain breaks more than twice, take it out of service until you fix the problem.
* Inspect daily and repair worn bar and sprockets before use.
* Always use new parts. Do not put new chain on worn out sprockets.
* Make sure your chain catcher and chain guard, and shields are on.
* If the bar hangs up -check the chain.
* Do allow ground personnel within 250 ft. of the processor or saw buck.
* Position the saw buck so the bar and chain through chips away from the cab of the loader.
* Make sure the processing head is positioned to direct the plane of the bar from the cab
* Replace windows with the appropriate size of polycarbonate glass (lexan).

Make sure **EVERYONE** (operators, ground personnel, visitors, land owners, truck drivers, fuel delivery and mechanics) is aware of what chain shot is and that they must be vigilant at all times when on an active logging site. Tell them to stay out of the danger zone.