Personal Protective Equipment

* Hearing protection while operating machine
* Hi-Vis clothing and hard hat when outside machine
* Substantial appropriate footwear at all times
* Gloves when doing maintenance or servicing

SAFE Procedures

**Please refer to and review the equipment manual prior to operating for safety features, instructions and manufactures information for the specific machine.**

* Inspect machine to ensure it is in safe operating condition before using.
* Wear seat-belts while operating machine.
* Keep doors closed so that guarding is effective when working.
* Ensure good housekeeping is maintained (no loose articles in cab).
* Operate at a safe speed.
* Exercise due caution while working on hillsides.
	+ Do not travel across a slope that is too steep for maintaining proper stability of the machine.
	+ Confine travel to up and down slope.
	+ When traveling across any slope, avoid running over logs, chunks, stumps, etc. which could cause the machine to become unstable.
* Ensure the tracks are adequately caulked with ice lugs for winter operations.
* Ensure a radio man-check system is established.
* If you leave the machine notify your co-workers by radio.
* If at any time the machine becomes unstable, shut it down, and request assistance.
* Always enter and leave the machine in a safe manner. Use 3 point mount/dismount. Use the handholds for stability.
* Beware of the slipping hazards that exist, particularly in the winter especially when standing on the deck refueling.
* Always service your machine in the clear of dangerous trees.
* Follow the lock-out procedures while conducting maintenance work on the machine (overleaf).
* Raised, booms or other equipment components shall be secured with blocking or approved safety supports during maintenance.
* When measuring logs be sure to have good footing and do not climb on logs that may potentially roll and cause injury.
* If possible have the supervisor or other worker assist in measuring.
* Always check the tension of the chain after replacing, tighten keeper bolt and tension bolt.
* Chain should be tightened to allow for 1/8 inch slack from the bar.
* Frequently clean any debris from the engine compartment.

**CHAIN SHOT**

When a saw chain breaks, it can scatter linkages into the surrounding area at high speeds. Most commonly the chain shot moves along the plane of the saw, which can cause a hazard to the operator if the saw is aligned with the cab or the body if using a chainsaw. Chain shot can happen on processing equipment or a manual saw. A chain breaks for a number of reasons including: Improper tension – chain too loose; Improper chain maintenance or repair (hammered rivets); Damaged sprocket, bar and/or chain; Linkages from a failed chain Improper bar and chain lubrication; Defective chain Excessive chain speed – new chainsaws can drive chains faster than their design; and harvesters can be adjusted to push chain to excessive limits. Keep in mind that many chains fail at the instant they are damaged so chain shot cannot be totally avoided.

There are a number of ways to protect yourself from being injured by chain shot including:

1. Follow Manufacturers Guidelines For Use
2. Installing proper guarding
3. Positioning & Training
4. Purchasing Decisions

**General Operational Recommendations**

* Never engage in a cut with the machine operator, ground personnel or bystanders

in the shot cone zone.

* Always engage in a cut as close to the ground as possible.
* Always use new parts when assembling and repairing saw chain.
* Maintain saw chain in agreement with your manufacturer’s recommendations.
* Never force a dull saw chain to cut. Sharp chain places less wear and tear on the

cutting system.

* Saw chain should be sharpened or replaced with a sharp chain at least once per

operational shift, or more if damaged.

* Depth gauges (rakers) must be maintained through the life of a saw chain.
* Never exceed your saw chain manufacturer’s operation recommendations.
* The risk of a chain shot event cannot be eliminated, but the risks can be reduced by following the recommendations provided by your equipment manufacturer, your cutting system manufacturer, and the operational recommendations presented here.

**Chain Shot Guarding should be installed where applicable, including belt guarding on snow holes. Contact the Manufacturer for specs and details for application.**

**More information regarding Chain Shot can be found at** [**www.bcforestsafe.org**](http://www.bcforestsafe.org) **and additional information on chain shot is available at** [**www.oregonchain.com/harvester**](http://www.oregonchain.com/harvester)

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| --- | --- | --- |
| **Log Processor****Lockout -Tagout****(If one person working on machine)** |  **Log Processor****Lockout -Tagout****(If more than one person working on machine)** |  **Log Processor****Tagout*****For processor without master switch*** |
| **CAUTION– THE HEAD IS ROBOTIC!** | **CAUTION– THE HEAD IS ROBOTIC!** | **CAUTION– THE HEAD IS ROBOTIC!** |
| **Shut down procedure:** | **Shut down procedure:** | **Shut down procedure:** |
| 1. Notify other affected employees.
2. Lower head to ground.
3. Shutdown computer (See manufacturer’s instructions).
4. Shut down engine.
5. Set hydraulic lockout lever.
6. Turn off master switch.
7. Put on personal lock and tag on master switch.
8. Test to verify zero energy (electrical-hydraulic-gravity)
 | 1. Notify other affected employees.
2. Lower head to ground.
3. Shutdown computer (See manufacturer’s instructions).
4. Shut down engine.
5. Set hydraulic lockout lever.
6. Turn off master switch.
7. Each worker attaches personal lock and tag to scissor lockout hasp on master switch.
8. Test to verify zero energy (electrical-hydraulic-gravity)
 | 1. Notify other affected employees.
2. Lower head to ground.
3. Shutdown computer (See manufacturer’s instructions).
4. Shut down engine.
5. Key out and in pocket.
6. Put lockout tag initialed by all workers on ignition switch.
7. Test to verify zero energy (electrical-hydraulic-gravity).
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| **Start-up procedure:** | **Start-up procedure:** | **Start-up procedure:** |
| 1. Remove personal lock from master switch.
2. Start machine.
 | 1. Employee removes own lock from scissor lockout hasp on master switch.
2. Start machine when all locks removed.
 | 1. Employee crosses off their initials on lockout tag when their work is completed.
2. Start machine when all initials on tag crossed off.
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