

Safe Work Procedure – Feller Buncher

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

General Procedures:

This safe work procedure provides general bunching procedures and considerations. Refer to the specific machine manual for detailed operating / maintenance procedures and schedules.

- All operators will be trained on the specific machine before commencing work and their work assessed on a regular basis (e.g. weekly, monthly).
- Inspect machine to ensure it is in safe operating condition before using. Wear seat-belts while operating machine.
- Ensure a radio man-check system is established.
- If you leave the machine notify your co-workers by radio and confirm when back. Look for overhead hazards; and avoid getting out of the machine at the timberline or fall line, because there could be more unstable branches and trees that could fall from above.
- 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.
- Ensure track pads are not loose and are adequately caulked with ice lugs for winter operations.
- Replace missing, loose, or damaged teeth immediately.
- If at any time the machine becomes unstable, shut it down, and request assistance.
- Always look behind you before backing up.
- Always enter and leave the machine in a safe manner. Use 3 point mount/dismount. Use the handholds for stability. If there are not enough foot and handholds, request more from the supervisor.
- Position cab door over the tracks for easier dismount.
- Beware of the slipping hazards, particularly in the winter when standing on the deck refueling or walking on the tracks.

Pre-Work and Work Plan Considerations:

- Check fire hazard, weather (e.g. ice and snow; wind; rain, fog) and site conditions before commencing any operations, and identify and mark on the map any site hazards including soil conditions (mud, thin soils or rock); unstable slopes; water and overland flow; riparian areas; debris; high stumps and overhead hazards (danger trees).
- Be familiar with the cut block or harvesting unit, and cutting prescription by reviewing the harvesting plan and maps, workplan, danger tree assessment, terrain stability assessment and steep slope assessment with the supervisor before commencing falling operations. If using digital

mapping (Avenza Maps), ensure you have the correct maps and the GPS unit is working properly.

- Traffic control must be set up when falling trees within two tree lengths of roadways. The roadway must be positively blocked with “Active Falling” signs in place unless traffic control persons are employed.
- Pre-work meeting with supervisor and all workers on the crew to communicate the work plan/harvesting plan and coordination of operations to avoid congestion and optimize production.

Falling Procedures and Considerations:

- The operator should visually assess all trees for stability (top and stem, excessive rot, limb tied, etc.) before commencing falling operations.
- Be mindful of the spinning saw when travelling and working close to the tracks.
- Maintain at least two tree lengths from other work and equipment at all times while cutting.
- Never direct the chip discharge towards other workers, equipment,...etc.
- If full access is not possible, the operator must first fall those trees that are preventing access before any cuts are made in the initial tree.
- If the operator cannot access any trees because of hazards or steep slopes, the operator should contact the supervisor about leaving the trees or using hand fallers. Any danger trees that feller buncher cannot fall safely, should be identified by flagging and the location communicated to the supervisor and other workers.
- If during falling, the operator become unsure about the tree stability, cut block boundary, cutting specifications, ground conditions, slope stability or location, the operator should properly shutdown the machine, get out of the cab and check the ground, specifications and location. Inform other workers that you are getting out of the machine to check.
- Maintaining directional control over the tree through the falling process and in a manner that ensures the stability of the machine and the protection of the operator at all times and other workers in the area.
- Do not try to fell trees which are larger than what the machine is designed for. (Section 26.12.1 Reg)

Operating on Slopes and Steep Slope Procedures

- Exercise due caution while working on hillsides including:
 - 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.
 - Avoid operating the boom too far from the center of the machine, causing instability.
 - Stop working and contact supervisor if any conditions are unsafe or concerning.
 - Review and follow the safe work procedures for operating machinery on steep slopes. The on-site supervisor will review with the operator, the steep slopes assessments and procedures before falling operations commence on the slopes over 40%.

- If steep slope procedures unavailable do not operate machine on slopes greater than 40% as per WorkSafeBC Reg G26.16. (See Steep Slope Logging Resource Package for more information.)

Considerations for multiple cuts:

- An assessment by the operator of the hazards associated with multiple falling cuts, such as stability of the tree (top and stem, excessive rot, limb tied, etc.) should be completed before commencing any multiple cut operations to ensure they are stable enough to support multiple cuts. This assessment should consider the likelihood of the trunk collapsing due to decay or other defect (taking into account and the possibility of the top of the tree breaking off and striking the machine)
- Multiple cuts should only be used to directionally fall a tree.
- The equipment must have sufficient pushing power to direct the tree against its lean.
- Another piece of equipment (e.g. excavator) in coordination with the feller buncher may be required to fall a large leaning tree in control.
- Sufficient holding wood should be maintained until the machine(s) are in positioned to make the final cut.
- The steps that will be taken to ensure the health and safety of all workers who may be exposed to the hazard of the tree during the multiple cutting process.

Site-specific hazards to consider:

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- Topography (slope, broken rock, loose shale, stable or slippery snow pack, etc.)
- Accumulation of debris against the butt of standing trees if a hand feller or other worker will later be at the base of the tree for other types of work
- Brushing of standing timber and damage to adjacent trees.
- Whether falling is upslope
- Wind and weather conditions, including an assessment of visibility and ability to clearly see the tree from ground to top.
- Fire hazards including checking current conditions before commencing falling operations and regularly checking for slash and woody debris build-up on the machine and engine compartment.
- Slope limitations that may affect harvester stability while making cuts or pushing the tree over
- Congestion and other operations taking place at the falling location.
- Always fuel and service your machine in the clear of dangerous trees.
- Follow the lock-out/tagout procedures while conducting maintenance work on the machine.(overleaf).

LOCKOUT PROCEDURES

Please note the following:

These are example lockout procedures and that detailed, equipment specific lockout procedures can be found in the equipment manuals.

When two people are working on the feller buncher, ensure that the locking bar is in place before doing maintenance on the saw or cutting head.

<p>Feller Buncher Lockout - Tagout (If one person working on machine)</p> <p>Shut down procedure:</p> <ol style="list-style-type: none">1. Notify other affected employees.2. Power off head.3. Wait for saw to stop or stop against stump.4. Lower head to the ground.5. Shut down engine.6. Set hydraulic lockout lever.7. Turn off master switch.8. Put tag on master switch.9. Test to verify zero energy (electrical, hydraulic, & gravity). <p>Start-up procedure:</p> <ol style="list-style-type: none">1. Turn on master switch and remove tag from master switch.2. Start machine.	<p>Feller Buncher Lockout - Tagout (If two or more persons working on machine)</p> <p>Shut down procedure:</p> <ol style="list-style-type: none">1. Notify other affected employees.2. Power off head.3. Wait for saw to stop or stop against stump.4. Lower head to the ground.5. Shut down engine.6. Set hydraulic lockout lever.7. Turn off master switch.8. Put tag on master switch.9. Test to verify zero energy (electrical, hydraulic, & gravity). <p>Start-up procedure:</p> <ol style="list-style-type: none">1. Turn on master switch and remove tag from master switch2. Start machine	<p>Feller Buncher Tagout <i>For buncher without master switch</i></p> <p>Shut down procedure:</p> <ol style="list-style-type: none">1. Notify other affected employees.2. Power off head.3. Wait for saw to stop or stop against stump.4. Lower head to ground.5. Shut down engine.6. Key out and in pocket.7. Put lockout tag initialed by all workers on ignition switch.8. Test to verify zero energy (electrical, hydraulic, & gravity). <p>Start-up procedure:</p> <ol style="list-style-type: none">1. Each 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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ADDITIONAL SWP NOTES

DISCLAIMER: Information contained in this document does not necessarily provide the only correct way to address machine risks. While this SWP will help operators conform to industry best practices and the intent of current Regulations and Guidelines, it may not identify all requirements or actions that will be appropriate and necessary in various situations. It does not reduce or replace users' responsibilities under applicable legislation - individual organizations (companies, employers) are responsible to ensure application of suitable processes and practices. The information provided is subject to review in light of changing government requirements and regulations. Every effort has been made to ensure the reliability of the information herein and to avoid errors and omissions.
