Ontario

On-site Orientation

Slasher Operator

Ministry of Training, Colleges and Universities

On-Site Orientation

Slasher Operator

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This document is the property of the trainee/employee named inside and represents the official record of his/her training.

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PREFACE

The Workplace Training Branch of the Ministry of Training, Colleges and Universities (MTCU) developed this equipment-specific orientation/training document, in consultation with representatives from the logging industry. It is intended to be used by employers for on-site orientation/training of their workers/trainees before registration to the on-the job training or operating the machine related to their duties.

The care and maintenance of this document is the joint responsibility of the worker/trainee and the employer. The document is an official record of a worker's/trainee's orientation/training.

Employers or designates and workers/trainees are required to attest to successful on-site machine specific orientation/training by filling their names in the appropriate lines included at the end of each skill area.

NOTICE/DECLARATION FOR COLLECTION OF PERSONAL INFORMATION

1. This information is collected under the authority of the Order-In-Council Number 701/85.

2. The information is collected for the purpose of administering this modular training program within the Province of Ontario.

3. Questions regarding collection and use of this information may be directed to:

Director
Ministry of Training, Colleges and Universities
Service Delivery Branch
33 Bloor St. E 2nd Floor
Toronto, Ontario
M7A 2S3
416 326-5605

SLASHER OPERATOR

NOTE
This guide and checklist is designed to refer employers to the most obvious and critical component in each skill area. However, since machine model and make vary greatly, the primary reference material for specific machine safety related operating requirements should be the operator's manual supplied by the manufacturer of the particular machine in question.

Employer Information:

Company: _____

Address: _____

_____

Telephone: _____

Completed On-Site Orientation Checklist: Worker and Employer/Designate Verification:

Identify slasher components and terminology
Verify zero energy state
Conduct circle check
Recognize ground conditions
Position slasher
Observe machine limitation
Observe danger zone
Load trees on deck
Cut trees
Sort and pile trees
Maintain work area
Travel with slasher
Shut Down and Immobilize Slasher
Refuel Slasher
Perform Minor Maintenance and Adjustments

Worker Name (Please Print): _____

Worker Signature: _____

Date of Completion: _____

Employer/Designate Name (Please print): _____

Employer/Designate Signature: _____

IDENTIFY SLASHER COMPONENTS AND TERMINOLOGY

Performance Objective

Identify slasher components and terminology, visually and verbally, as described in the operator's manual, in order to ensure safe and efficient operation and maintenance. (Employer, supervisor or trainer refer to operator's manual to provide specifics regarding each component identified)

Guidelines for Performance Objective:

Having an understanding of the terminology used to describe major components is a vital part of using the manufacturer supplied owner's manual effectively and ensuring that such things as safety information, maintenance schedules, machine capacities and operating directions are understood and correctly applied. Review the major (key) components from the manufacturer supplied machine owner's manual that will assist the operator in identifying the key components, knowing their location on the machine and describing their purpose. (See appropriate pages in manufacturer supplied manual for specific terminology and diagrams).

Component Checklist:

- ❑ Booms, Clam and Hydraulic Cylinders
- ❑ Butt plate and Cylinder
- ❑ Saw and Saw Teeth
- ❑ Carriage and components (Tires and Tire Chains)
- ❑ Cab, Operator Controls and Escape Hatch
- ❑ Turntable
- ❑ Engine
- ❑ Hydraulic pumps
- ❑ Differential and Drive Train
- ❑ Trough and/or Roller Feed system
- ❑ Stabilizers and Cylinders
- ❑ Fire Suppression System

VERIFY ZERO ENERGY STATE

Performance Objective

Verify zero energy state, by lowering hydraulic components to the ground on rest position, turn electrical switches and engine off, according to legislative requirements and manufacturer's specifications and established lockout procedures, in order to protect self and others during inspection and maintenance.

Guidelines for Performance Objective:

The machine must be immobilized and all moving parts de-energized before an operator can begin to work close to the machine and its components. Most importantly all hydraulic implements must be lowered (or blocked), and all moving parts such as the high velocity rotation blade have come to a full stop. The master switch must be in the off position.

Component Checklist:

- ❑ Lower attachments to the rest position to manufacture's specifications
- ❑ Put engine in idle
- ❑ Turn engine off
- ❑ Turn master switch off
- ❑ Ensure all moving parts have come to a complete stop prior to approaching

CONDUCT CIRCLE CHECK

Performance Objective

Perform visual and operational checks of attachments and moving components, according to manufacturer's specifications, in order to ensure safe and efficient operation.

NOTE: Operators must have proper out-of-the-cab PPE e.g. - safety boots laced to the top, hard hat, high visibility vest or clothing, as well as hand, hearing and eye protection where required.

Guidelines for Performance Objective:

1. Cracks: Explain how to check and identify cracks and point out common locations where cracks may form (stress points). Explain that repairs must be done as soon as possible to prevent costly breakdown and to prevent even further damage or the potential of injury to the operator and others.

2. Leaks: Point out the locations where leaks (hydraulic fluid, brake fluid, fuel) can occur. Explain that leaks can lead to further more serious problems, cause fires or damage the environment. Leaks can also cause slip and fall injury to operator and others due to fluid on machine. Explain the danger of checking for leaks where fluid is under high pressure (e.g. hydraulic fluid) and the proper method for checking.

3. Grease fittings: Identify the location (including remote connections), condition and purpose of grease fittings as described in the routine maintenance section of the owner's manual. Check to ensure they are in good condition and connected properly. Excessive grease build-up should be cleaned away regularly to prevent the potential of slips and falls and fire.

4. Tires, wheels: Explain the requirements for correct pressure, adequate tread, no punctures or defects, rim in good condition, cap on valve stem. Follow the manufacturer's guidelines when inflating/deflating tires. Also check for loose or missing wheel lugs.

5. Check engine compartment and exhaust manifold/turbo for debris: Check and remove debris from engine compartment to reduce the potential for fire, paying particular attention to the exhaust manifold/turbo area

6. Pins and Bushings: Examine holding pins and bushings to ensure that they are not damaged and are properly engaged and in place.

7. Check fluid levels: Identify the location of site glass and/or dip stick/cap and filler location and examine each for proper levels. Keep these areas clean of debris, spilled fluids and grease build-up. Determine and confirm the type of fluid at each filling location. Follow the manufacturer's guidelines for proper checking procedures of pressurized systems and the hazards of hot fluids. No smoking during these procedures. NOTE: When checking and identifying hydraulic hose requirements, the operator must be familiar with the type of hose fittings. (three types - GIC, OFS and pipe thread.

8. Check brakes and air tank: Check brakes to ensure proper function. Ensure proper air pressure, leaks and tanks are not open.

9. Check butt plate: Check for cracks, bent plate, proper adjustment, debris build-up and leaking cylinder.

10. Check saw and teeth (cracks and general condition): Rotate saw to ensure all saw teeth are in place, tight and sharp. Check saw for obvious distortions, cracks, etc.

11. Condition of boom, clam, stabilizers and hydraulic cylinders: Check for cracks, condition of pins (locks), condition of cylinders, grease fittings, hoses, stakes, bolts and gears on turntable

12. Condition of guards, catwalks, handholds and steps: Examine all guards to ensure that they are properly installed and in good condition. Do not operate without guards installed. Check the condition of all handholds, steps and walkways to ensure that are not damaged and free from debris, ice, snow, grease and oil.

13. Check Stabilizers: Check Stabilizers for proper functioning. When setting up machine for operation ensure machine is level.

14. Fire extinguisher and fire suppression system: The operator must know how to access this equipment and how to use it. It should be checked daily to ensure a proper charge, maintenance tag updated, the pin is in place and the device is properly secured in the cab. A water pack full of water and in working condition is required for fire season. For machines equipped with fire suppression system, know the location(s) of activation plungers and ensure that they are in good condition, check outlets for good repair.

15. Escape hatch*:* The operator must know the location of the escape hatch and check to ensure that the hatch opens and the hatch itself, the latches, hinges, handles, and pins are in good condition.

16. Seat belt: Examine the seat belt to ensure that it is In good working condition (wear, anchors, frayed, buckle works freely).

17. Lights: Turn on all lights to check that they are in good working order. Make sure the guards are in place (if equipped), the lenses are cleaned and wiring harnesses are intact.

18. Check back-up alarm (where applicable): Check to ensure it is in good working order.

19. Windows/doors: Examine the windows to ensure they are clean and in good condition. Broken or missing windows must be reported and repaired. Make sure the wipers and wiper blades are in working order, and that window guards/screens (if equipped) are properly installed. Check the door to ensure that it opens and closes properly.

20. Housekeeping and loose equipment in cab: Keep all tools outside the cab or properly secured in the cab. No loose items in the cab. Keep floor clean and air conditioning/heater filters clear of materials. Aerosol containers should be secured and away from heat sources.

21. Radio communications: Check the radio to ensure that it is in good working order and equipped for channels used in your area.

22. First aid kit: Know the location, condition and required contents of the first aid kit. It should be easily accessible.

23. Spill Kit (where equipped): know the location, condition, how to use it, required contents of the spill kit. It should be easily accessible.

Component Checklist:

- ❑ Check for cracks and leaks
- ❑ Identify grease fittings
- ❑ Check Tire components condition
- ❑ Check engine compartment and manifold for debris
- ❑ Check condition of pins and bushings
- ❑ Check fluid levels
- ❑ Check brakes and air tank
- ❑ Check butt plate
- ❑ Check saw and teeth (cracks and general condition)
- ❑ Check condition of booms and hydraulic cylinders
- ❑ Check condition of guards, stakes, handholds and steps
- ❑ Check stabilizers
- ❑ Check condition of fire extinguisher and fire suppression system
- ❑ Check escape hatch
- ❑ Check condition of seat belt
- ❑ Check lights
- ❑ Check back-up alarm (where applicable)

- Check condition of windows and guards
- Check housekeeping and loose equipment in cab
- Check radio communication
- Check First Aid Kits
- Check Spill Kit

RECOGNIZE GROUND CONDITIONS

Performance Objective

Evaluate/recognize ground conditions by observing changes in terrain and weather conditions, in order to prevent equipment and environmental damage that affect efficient delimbing.

Guidelines for Performance Objective:

1. Seasonal concerns: Seasonal weather changes require extra caution to be exercised due to poor visibility and hidden hazards. Be aware of hidden hazards due to seasonal conditions (i.e. ditches along roadways frozen and covered with snow, culverts hidden by snow resulting in damage, hidden areas of concerns such as recently planted areas, hidden rock outcrops/cliffs, etc.) In summer conditions heavy underbrush results in poor visibility and hides hazards such as cliffs, mining holes, etc. Summer conditions pose a higher hazard of fire being ignited due to debris on machine. Operators must maintain the machine in a clean manner.

2. Confirm condition of roadway: Check to confirm the condition of the roadway to ensure machine stability and efficient production.

3. Avoid slashing on hills where possible in order to optimize machine stability and reduce the potential of machine rollover. Follow manufacturer's specifications to reduce the potential of rollover and increase machine efficiency.

Component Checklist:

- ❑ Seasonal concerns (winter/summer) require extra caution due to poor visibility and hidden hazards.
- ❑ Confirm condition of roadway
- ❑ Avoid slashing on hills where possible

POSITION SLASHER

Performance Objective

Position slasher, according to product requirements, safety standards and ground conditions, in order to ensure safe and efficient operation.

Guidelines for Performance Objective:

1. Place machine in stable position, as close to the loading or unloading point as possible, with stabilizers on the ground while loading or unloading product in order to reduce potential of rollover and ensures efficient operation.

2. Confirm condition of roadway: Check to confirm the condition of the roadway to ensure machine stability and efficient production.

3. Position stabilizers on solid ground: Prior to machine operation, check to ensure stabilizers are stable on roadway. Additional dunnage may be required to level the machine and to ensure proper operation of equipment and prevent equipment damage.

4. Seasonal concerns (winter/summer) require extra caution due to poor visibility and hidden hazards. Be aware of these hidden hazards due to seasonal conditions (i.e. ditches along roadways frozen and covered with snow, hidden areas of concerns such as recently planted areas, hidden rock outcrops/cliffs, etc.). Summer conditions pose a hazard of fire being ignited due to debris build-up on machine. Operators must be on the lookout for any ignition and maintain the machine in good order during these high hazard periods.

5. Be aware of standing timber and hazardous trees in the swing area: Check to ensure trees in clam will clear any standing timber at the skid way when swinging to complete the task of slashing. If hazards exist contact your immediate supervisor for assistance.

Component Checklist:

- ❑ Position machine in the best possible level and stable position
- ❑ Be aware of road conditions which may be unstable
- ❑ Position stabilizers on solid ground and prior to machine operation
- ❑ Seasonal conditions create additional hazards (icy condition pose a hazard of sliding)
- ❑ Be aware of standing timber and hazardous trees in boom swing area

OBSERVE MACHINE LIMITATIONS

Performance Objective

Observe machine limitations according to manufacturer's specifications by identifying equipment load chart, recognizing conditions that affect machine capabilities such as steep terrain, boom over extension in order to protect self and others and prevent equipment damage.

Guidelines for Performance Objective:

1. Understand the load limitations of the machine according to tree species and oversized wood in order to maintain full ground contact at all times. Be aware of load limitations of the machine as noted in the operator's manual. Various tree species require special consideration and knowledge of weight (i.e. oversized poplar), excessive branching, oversized butts and branches.

2. Minimize boom overextension to maximize machine power and efficiency. Move the machine to an appropriate location rather than over extending the boom when picking up wood. This will allow for maximum power and efficiency of the machine.

3. Limit boom usage to its intended purpose: Avoid using the boom for alternative jobs (i.e. moving rocks, moving stumps, pushing over standing timber etc.), which may cause damage to the machine.

4. Don't over feed your trough or over fill the clam: This may damage the saw and saw teeth, affect the quality wood and cause general damage to the machine. Overfilling the clam results in wood spillage and damage to machine.

Component Checklist:

- ❑ Understand the load limitation of the machine according to ground conditions and tree species and maintain full ground contact at all times
- ❑ Minimize boom over extension to maximize machine power and efficiency
- ❑ Limit boom usage to the intended purpose
- ❑ Don't over feed your trough or over fill the clam

OBSERVE DANGER ZONES

Performance Objective

Observe danger zone by keeping a safe distance between self, others and equipment, recognizing potential hazards from falling trees, flying debris from felling head, limited visibility and blind spots, according to manufacturer's specifications, legislative requirements and established procedures, in order to protect self and others and damage to equipment.

Guidelines for Performance Objective:

Review local company danger zone requirements and identify site-specific hazards. Discuss with your immediate supervisor company policies and procedures in relation to danger zone as it applies to other equipment and operating equipment near other workers. Consult your operator's manual for recommended danger zone for this equipment.

Component Checklist:

- Maintain a safe operating distance and good communications between neighbouring equipment and co-workers (review manufacturer's danger zone requirements and identify site specific hazards)
- Be aware of the blind spots on the machine and proceed with added caution
- When machinery is passing or operator out of the cab:
- Place boom in trough in the idle position
- Saw off and in the trough position.

LOAD TREES ON DECK

Performance Objective

Load trees in trough, using required attachments, according to manufacturer's specifications and product requirements, in order to ensure safe and efficient operations.

Guidelines for Performance Objective:

1. Ensure lift extension is in the working position prior to beginning the slashing process.

2. Maintain close attention to the saw when bringing wood over and onto trough. Accidental contact between the clam and the saw causes damage to the saw and/or clam.

3. Lay trees in trough correctly and even-up the butts by moving butt plate ahead to ensure a quality product and logs of the required length.

Component Checklist:

- ❑ Maintain close attention to saw when bringing wood over and onto trough
- ❑ Lay trees in trough when placing in position and even load by moving butt plate ahead
- ❑ Keep clam away from saw when loading wood in trough

CUT TREES

Performance Objective

Cut trees according to required length and size in order to meet product requirements.

Guidelines for Performance Objective:

1. Maintain and repair saw teeth in order to ensure smooth quality cuts, prevent damage to the equipment and maintain greater production. Replace any broken or damaged saw teeth.

2. Review product/legislative length requirements: Check with your immediate supervisor for product length requirements within your operation.

3. Ensure all traffic and co-workers are out of danger zone prior to initiating the cut. Check with your immediate supervisor for company danger zone standards for your operation. Check the danger zone and blind spots regularly to ensure the safety of co-workers.

4. Ensure clam has no tension on the wood when attempting to saw in order to prevent damage to the saw or creating a jam and the potential stalling of the saw.

5. Retract saw after each cut, prior to removing product from trough and when pulling trees up to butt plate in order to prevent damage to the saw and/or clam during product removal. Always check to ensure that the saw guard is secure and in place.

Component Checklist:

- ❑ Maintain sharp saw teeth
- ❑ Review product/legislative topping requirements
- ❑ Ensure all traffic and co-workers are out of danger zone prior to initiating the cut
- ❑ Ensure clam has no tension on wood when attempting to saw
- ❑ Retract saw after each cut, prior to removing product from trough and when pulling trees up to butt plate

SORT AND PILE TREES

Performance Objective

Sort and pile trees, according to species, diameter and internal piling standards, to ensure safe and efficient operations.

Guidelines for Performance Objective:

1. Review product requirements for appropriate sort: Check with your immediate supervisor to determine the sorting standards for your operation. Stop operations when others enter danger zone and lower boom to idle position. Pile, cut logs of similar length and species, allowing adequate spacing for efficient down piling and loading in order to optimize the efficiency of product loading and maximizing down piling space.

2. Be aware of danger zone: Ensure equipment is demobilized when others are in danger zone

3. Ensure equipment is immobilized when local traffic is passing and maintain good communication.

4. Place boom on the ground in idle position

5. Traffic should not proceed until signalled by operator**:** Operator must provide signal that it is safe for equipment to pass. Following danger zone rules prevents possible damage to equipment, other machinery and injury to operator or co-worker.

Component Checklist:

- ❑ Review product requirements for appropriate sort
- ❑ Be aware of danger zone and local traffic
- ❑ Ensure equipment is immobilized when local traffic is passing and maintain good communication.
- ❑ Place boom on the ground in idle position.
- ❑ Traffic should not proceed until signalled by operator.

MAINTAIN WORK AREA

Performance Objective

Maintain work area, by removing debris with required attachments, in order to ensure a safe and efficient workplace.

Guidelines for Performance Objective:

1. Use clam and boom to sweep debris from roadway, larger pieces can be picked up and removed. Pay particular attention to cleaning close to machine. Check to that ensure no workers or equipment are in the danger zone prior to starting this process. Hitting the machine with the clam can result in damage to the slasher and should be given added attention.

2. Keep stabilizers down when conducting cleaning process in order to ensure machine stability and prevent possible damage or injury to operator. Be aware of local traffic and others in the area.

3. Be aware of local traffic and co-workers in the immediate work area: Discuss with your immediate supervisor company policies and procedures in relation to danger zone as it applies to other equipment or workers operating nearby (i.e. appropriate signs or communication with other equipment and operators).

Component Checklist:

- ❑ Use clam and boom to sweep debris from roadway, larger pieces can be picked up and removed. Pay particular attention to cleaning close to machine.
- ❑ Keep stabilizers down when conducting cleaning process?
- ❑ Be aware of local traffic and co-workers in the immediate work area.

TRAVEL WITH SLASHER

Performance Objective

Travel with slasher, by placing attachments in the proper travel position and selecting appropriate speed, according to manufacturer's specifications, in order to protect self and others and prevent damage to equipment.

Guidelines for Performance Objective:

1. Place boom in the rest position for travel (follow manufacturer's specifications when traveling with machine)

2. Select a speed appropriate to ground conditions while maintaining control of machine: Maintain a speed and engine RPM which allows the operator to maintain full control of the machine at all times taking into consideration ground conditions, weather, etc.

3. Maintain control, travel at a safe speed and keep right while traveling on roadways or on route to landing to ensure public safety: Be aware of local traffic and observe warning/traffic signs posted within your work area. Keep speed appropriate to road conditions, weather, concentration of traffic and seasonal conditions (dust) and be aware of soft shoulders. Traveling on hills should be conducted in lowest gear when climbing or descending to maintain control of machine.

4. Maintain communication with other equipment operators: Check to ensure your radio is in good working order and proper channel is used. Monitor the local channel for traffic. Check with your immediate supervisor for communication protocol within your work area.

Component Checklist:

- ❑ Follow manufacturer's specifications when traveling with machine
- ❑ Select a speed appropriate to ground conditions while maintaining control of machine
- ❑ Maintain control, travel at a safe speed (first gear when climbing or descending a hill) and keep right while traveling on roadway or on route to and from work site while maintaining radio communication to ensure public safety
- ❑ Maintain communication with other equipment operators and give right of way to pedestrian traffic

SHUT DOWN AND IMMOBILIZE SLASHER

Performance Objective

Shut down slasher, according to manufacturer's specifications and requirements.

Guidelines for Performance Objective:

1. Turn off saw and stop rotation by placing saw on a log. Ensure danger zone with other workers and equipment is maintained.

2. Lower boom to the ground or onto deck. Park machine on level bare mineral soil and lower boom while positioning cab to facilitate safe and effective dismount. Shut off master switch when completing shutdown procedure. Maintain 3-point contact during dismount.

Component Checklist:

- ❑ Turn off saw and stop saw rotation by placing saw against a log
- ❑ Lower boom to the ground or onto deck
- ❑ Safe dismount, maintaining 3-point contact

REFUEL SLASHER

Performance Objective

Refuel slasher in a well ventilated area; shutting off engine; maintaining the area free of smoking; and preventing spills or damage to the environment; according to legislative requirements, manufacturer's specifications and recommendations.

Guidelines for Performance Objective:

1. Use caution when approaching fuel tank to prevent damage to the fuel tank.

2. Shutdown slasher: Follow previously noted shutdown procedures.

3. Fuelling procedures: Follow local fuelling procedures, no smoking, never leave the nozzle unattended, and properly store the hose after use.

4. Always use 3-point contact.

Component Checklist:

- Use caution when approaching fuel tank
- Shut down procedures
- Fuelling procedures
- Safe dismount, maintaining 3-point contact

PERFORM MINOR MAINTENANCE AND ADJUSTMENTS

Performance Objective

Perform minor maintenance and adjustment on the slasher, after immobilizing (locking out) machine, lubricating equipment and attachment, maintaining fluid levels, ensuring replacement of belts and hoses, and checking and completing maintenance and/or deficiencies report, according to legislative requirements, manufacturer's specifications and recommendations,

Guidelines for Performance Objective:

1. Shut down slasher: Immobilize machine, lower attachments to the ground, shut down engine, and follow lock out procedures.

2. Dismount using 3-point contact.

3. Lubricate/maintain fluid levels: following manufacturers' specifications for greasing. It is a good opportunity to check for cracks, leaks, wear in pins and bushings.

4. Report deficiencies: Complete report according to local procedures, perform repairs that you are qualified to do and/or report to the supervisor or mechanic or service person.

Component Checklist:

- ❑ Shut down slasher and lock out
- ❑ Safe dismount, maintaining 3-point contact
- ❑ Lubricate/maintain fluid levels
- ❑ Report deficiencies