

PURPOSE/APPLICATION

To protect workers using chain saws from potential injuries.

Like any tool, a chain saw has the potential to cause direct injuries to the person using it, or to adjacent people by direct contact, or through a secondary event such as felling a tree or clearing brush.

PPE

- Strike minimum requirements
- Face screen or shield
- Ballistic nylon cutting pants or chaps
- Hearing protection
- Chain saw course or competency equivalent
- Personal injury, up to amputation/fatality
- Flying debris
- Struck by object
- Vibration

TRAINING

HAZARDS & CONCERNS



Responsibilities

Supervisor

- Ensure the chain saw is operated, adjusted, and maintained in accordance with the manufacturer's instructions and specifications
- Ensure that the worker is trained/competent in the use of a chain saw

Worker

- Perform pre-use inspection of saw
- Know the manufacturer's specifications and recommendations for safe use
- HIAC the task and work area for hazards; assess and implement controls

Chain Saw Use

DO'S

- DO** Review operator's manual for safe operation and maintenance of the saw
- DO** Maintain the saw in safe operating condition, and so the chain stops when the engine is at idle
- DO** Ensure that the chain brake activates in the case of kickback; if it doesn't, tag saw out of use
- DO** Perform a pre-use inspection of the saw
- DO** Fuel the saw at least 10 feet from any ignition sources
- DO** Prepare your work area. If you are felling tree(s), assess tree lean, wind, etc. for an appropriate fall zone, as well as overhead power lines, buildings, facilities, or people within the intended fall zone, as well as if the tree were to fall in an unintended direction
- DO** Maintain an escape route when felling a tree
- DO** Use extra caution if felling danger trees, snags, trees under tension, or trees that are hung up in other trees. These are extremely hazardous and require specific training
- DO** Keep the chain at the appropriate tension
- DO** Maintain a sharp chain – either by filing or replacing a dull chain
- DO** Engage the chain brake when starting saw and when not actively cutting, e.g. changing position
- DO** Start the saw by placing the saw on the ground; "drop-starting" is not recommended

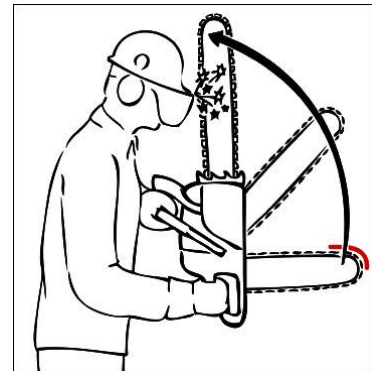
- DO** Keep two hands on the saw when operating, with fingers and thumbs firmly around the handles
- DO** Ensure you have firm, solid footing before starting to cut
- DO** Stand to the side of the cutting path of the saw – this will keep you out of the line of fire in case of kickback
- DO** Keep the chain oiled/lubricated
- DO** Use a scabbard/chain guard when the saw is not in use
- DO** Carry the saw with the bar to the rear, with the chain brake engaged or the saw off
- DO** Keep the work area clear of branches and debris that could cause the saw to kick back or negatively impact your footing
- DO** Cut with the engine at full throttle
- DO** Take extra care when cutting construction material such as shoring, decking or other used wood as it could contain nails or other hazards
- DO** Store and transport the saw in the upright position so that it cannot leak or spill fuel
- DO** Use pre-mixed fuel, or mix gas and oil according to the manufacturer's specifications

DON'Ts

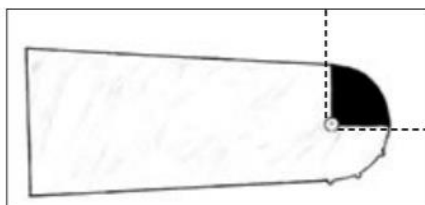
- DON'T** Adjust the chain of the saw while the saw's motor is idling
- DON'T** Work alone when using a chain saw
- DON'T** Cut above shoulder height
- DON'T** Use a chain saw from a ladder
- DON'T** Cut with the tip of the bar; this encourages kickback
- DON'T** Stand directly in line with the cut when bucking trees

Avoiding Kickback

Kickback is the term used to describe the unexpected, rapid upward motion of the guide bar. Kickback occurs when the end portion of the nose of the bar (the kickback zone) strikes an object and the chain momentarily snags or is pinched. Kickback can occur when the saw chain, near the nose (tip) of the top area of the guide bar, contacts an object such as a log or branch (rotational kickback), or the backward motion that can occur when the wood closes in and pinches the saw chain in the cut (pinch kickback). **To prevent kickback:**



- Watch the guide bar nose. Do not let it touch logs, branches, or the ground when saw is running
- Know where the bar tip is at all times
- Make sure the chain brake functions and adequately stops the chain. The stopping power of a chain brake can be greatly reduced by wear, or by oil, dirt or sawdust in the brake parts
- Cut only one piece at a time
- Run the saw at full power when cutting
- Position yourself so that you are not near the cutting attachment when the chain saw is running



Make sure to avoid contact in the kickback zone (shown in black).



The examples above show how kickback can occur.

REFERENCES / ADDITIONAL INFORMATION

SWP 18 – Tools, Equipment, Machinery

SWP 24 – Overhead Powerlines

SWP 31 – Fueling

SWP 42 – Mechanical Vibration Equipment/Tools

SWP 65 – Forestry/Logging Operations

Alberta OH&S Code Part 18 – Personal Protective Equipment

Alberta OH&S Code Part 25 – Tools, Equipment and Machinery (376 Chainsaws)

Alberta OH&S Code Part 34 – Forestry

Saskatchewan OH&S Regulation 146 - Chain Saws

British Columbia OH&S Regulation Part 12 – Tools, Machinery and Equipment (12.72 Chain Saws)

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