

THE SAFE USE OF CHAINSAWS



Chainsaws can be dangerous

Each year many people are injured through chainsaw accidents. Most of these injuries could have been avoided. The hands, knees, feet and head are most vulnerable to being cut by the chainsaw chain.

If you use a chainsaw often, there are also other health risks. For example the noise of the chainsaw can lead to permanent hearing loss. Vibration can cause permanent damage to the hands. The carbon monoxide exhaust gases from the chainsaw can cause poisoning if it is used in enclosed spaces. And the fire risk from fuel spillage or hot sparks can cause burns to chainsaw operators.

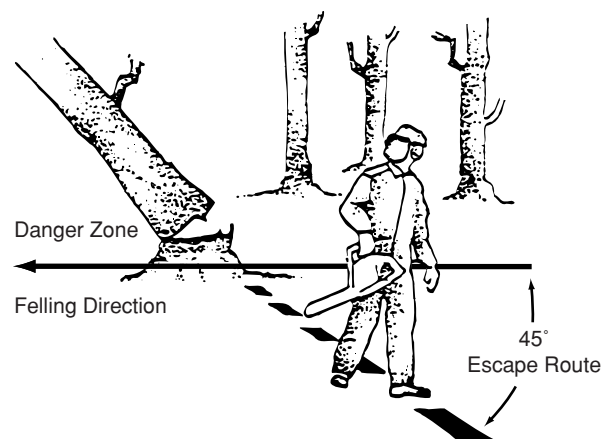
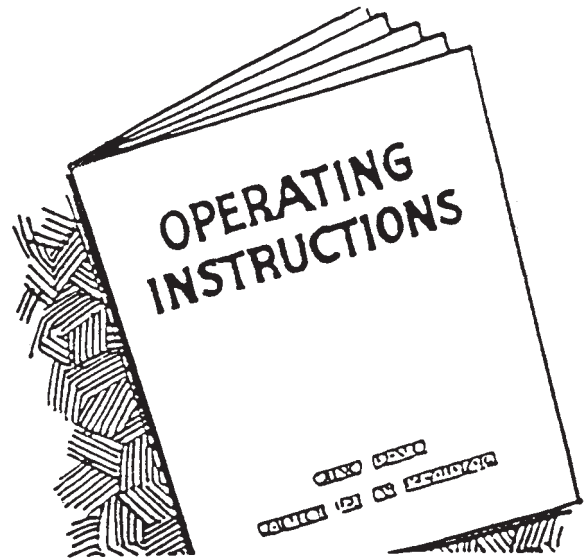
These hazards mean that chainsaws are potentially one of the most dangerous pieces of equipment.

However, with the use of modern equipment, correct personal protective equipment, and proper work practices, they can be used safely.

This guide contains information about operating a chainsaw safely; personal protective equipment you must use; and ways to prevent a chainsaw injury.

General safety precautions

- Read the owner's manual for your particular model. It will tell you the safety features of your chainsaw and the correct way of operating it.
- Check your chainsaw thoroughly before use. Make sure that your bar, chain and sprocket are in top condition and that all safety devices are working.
- Regularly service your chainsaw.
- Always wear suitable protective clothing.
- Do not start cutting until you have a clear work area, secure footing, and a planned retreat path from the operating area.
- Keep other people and animals well away from the working area.
- Do not operate the chainsaw beyond your ability.
- Use the chainsaw to cut wood only.
- Do not become distracted. Stop the chainsaw if somebody starts speaking to you.
- If tired, take time to rest. Operating a chainsaw requires your constant attention. Tired operators have more accidents.

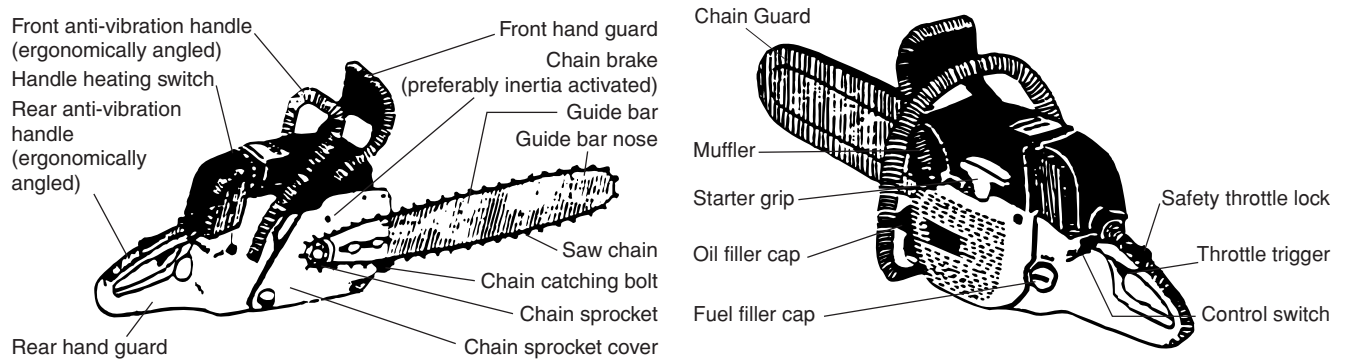


Maintaining your chainsaw

A chainsaw is designed to meet various safety requirements. Use the diagrams below to check and understand the safety features of your chainsaw.

Use a chainsaw with all of these safety features, even if they are optional extras when you buy it.

Never operate a chainsaw that is damaged, not properly adjusted or wrongly assembled. Your chainsaw requires



regular maintenance.

Before you start work, check that:

- the machine is in good repair (no leaks, wear or damage)
- the throttle trigger, safety throttle lock and stop switch operate correctly
- the chain brake works properly
- the chain is lubricated, sharp and the tension is correct
- the carburettor idle adjustment is correct.

After finishing work, or daily:

- clean the chainsaw, particularly the air filter, cooling inlets, and sprocket cover.

Make sure you regularly:

- sharpen the chain
- check the guide bar for burring
- check the sprocket for wear
- check the chain brake mechanism. If it is mounted in the sprocket cover, clean regularly during use, as it can clog up with oil and chainsaw dust and may malfunction
- have your chainsaw serviced.

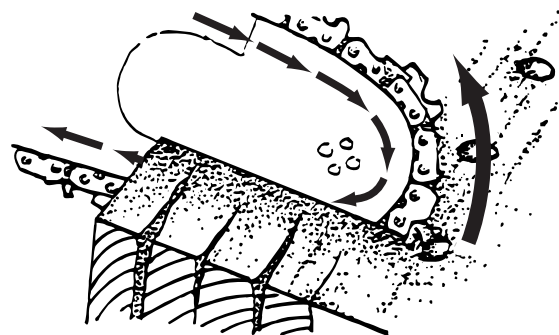
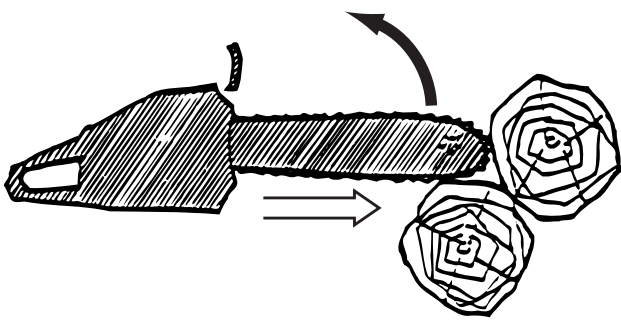
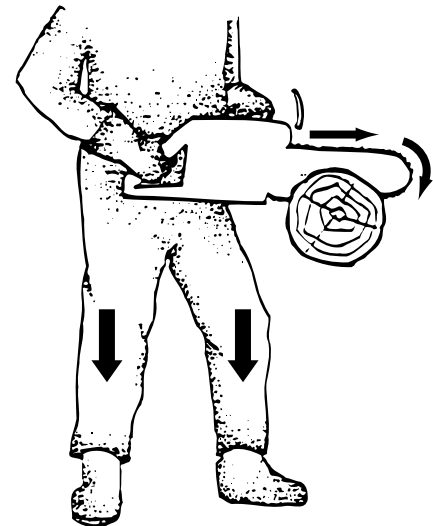
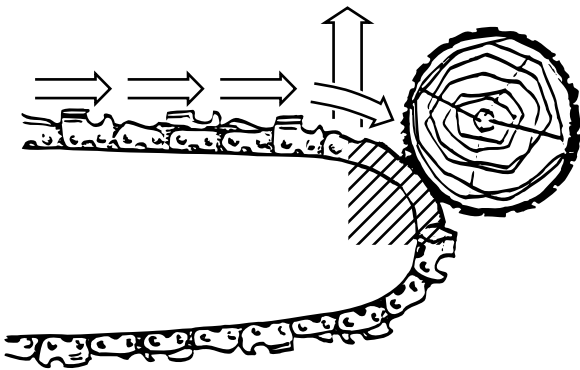
Personal protective equipment

Approved safety helmet with visor or goggles, ear muffs, protective leggings and steel capped safety boots must be worn to protect you from chainsaw injury. Gloves should also be worn.

Preventing kick back

Kick back is a sudden upward and backward movement of the chainsaw. It occurs when the tip of the bar nose contacts a log, branch or nail. It can cause serious injury. To prevent injury from kick back:

- ensure your machine is fitted with a chain brake (preferably inertia activated)
- ensure the brake mechanism is clean and operates effectively
- use low kick back types and avoid lowering the depth gauges too much when sharpening



- hold the chainsaw firmly, making sure that the left hand encircles the top handle with the thumb underneath
- avoid bringing the upper quadrant of the guide bar into contact with any foreign object
- wear correct head protection and safety pants at all times
- don't cut above shoulder height
- never hold the chainsaw in one hand or by one handle only
- always begin your cut at peak revs.

Preventing Raynaud's Disease and occupational overuse syndrome

The vibration from chainsaws can cause damage to the hands if they are used for long periods at a time.

Raynaud's disease produces numbness and burning sensations in the hand and may cause nerve tissue and circulation damage. Occupational Overuse Syndrome (OOS) can involve persistent pain in the neck, shoulders and arms. To prevent these injuries:

- make sure your chainsaw has anti-vibration mountings that isolate handles from the engine
- if possible use a chainsaw with ergonomically angled handles. These greatly reduce uneven and undue pressure on the hands
- take regular rest breaks from continuous operations
- wear gloves, especially in cold weather
- sharpen your chain regularly to ensure smoother cutting and less vibration.

Preventing noise-induced hearing loss

Most chainsaws emit noise levels that can cause permanent damage to your hearing if used for long periods at a time. To prevent this kind of injury:

- always use Australian Safety Standards approved ear muffs or plugs
- make sure your muffler is in good condition
- make sure your engine is tuned to manufacturers specifications.

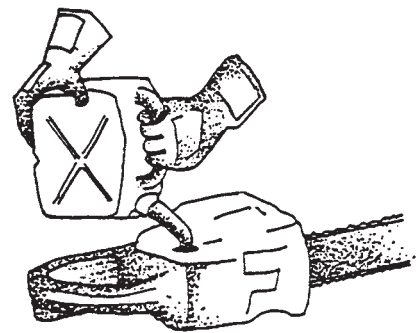
Preventing exhaust poisoning

The exhaust gases from your chainsaw contain poisonous elements such as carbon monoxide. To prevent this kind of injury:

- make sure your muffler is in good condition
- do not work in confined spaces.

Preventing fires

- Don't smoke while filling or operating the chainsaw.
- Refuel in a clean area.
- Refuel the chainsaw only after the engine has cooled down.
- Make sure fuel caps are screwed on tightly and any fuel spillage is wiped off.
- Move at least 3 metres away from the refuelling area before starting work.
- Only use safety approved fuel containers.
- Keep a fire extinguisher, knapsack, spray pump and shovel nearby.



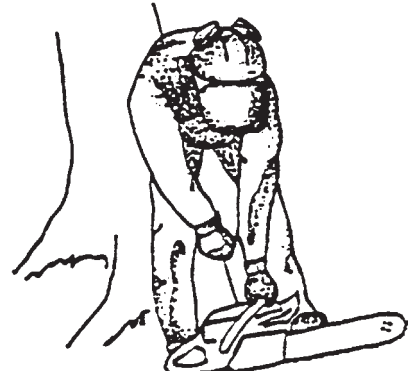
Training and supervision

You must be properly trained to operate a chainsaw. Training may be on-the-job or through a recognised training course. It should contain instruction on:

- safe working techniques
- operating conditions, including unusual or dangerous conditions
- basic information about the chainsaw including its control, attachments and components, design, capacity, stability and limitations
- correct stopping and starting techniques
- cleaning and servicing
- being alert for the possibility of kick back
- chain sharpening techniques.

Certain operations are extremely dangerous and should only be done by professionals. These include removing branches from standing trees, removing trees hung up in wires, cutting trees thicker than the guide bar length, and working in wind-blown areas.

Less experienced operators should be carefully supervised.



Legislation

Common sense and a sound knowledge of chainsaw safety will prevent a lot of accidents happening. Legislation, however, outlines certain safety requirements to be met to prevent people being injured.

The *Workplace Health and Safety Act 1995* requires employers to ensure the health and safety at work of all workers. Employers must provide any information, instruction, training and supervision necessary to make sure workers are healthy and safe at work.

Workplace Standards acknowledges the use of material prepared by WorkCover NSW and Standards Australia in this guide.

Disclaimer

This information is for guidance only and is not to be taken as an expression of the law. It should be read in conjunction with the *Workplace Health and Safety Act 1995*, the *Workplace Health and Safety Regulations 1998* and any other relevant legislation. Copies of the legislation can be purchased from the Printing Authority of Tasmania Bookshop: call (03) 6233 3289 or freecall 1800 030 940. It is also available on the Internet at www.thelaw.tas.gov.au

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SB027
October 2007

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