

CHAINSAW SAFETY



Disclaimer

This publication may contain occupational health and safety and workers compensation information. It may include some of your obligations under the various legislations that WorkCover NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

Information on the latest laws can be checked by visiting the NSW legislation website (www.legislation.nsw.gov.au) or by contacting the free hotline service on 02 9321 3333.

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

Chainsaws can be dangerous

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

If you use a chainsaw often, there are also other health risks. The noise of the saw can lead to permanent hearing loss. Vibration can cause permanent damage to the hands.

The carbon monoxide exhaust gases from the saw 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.

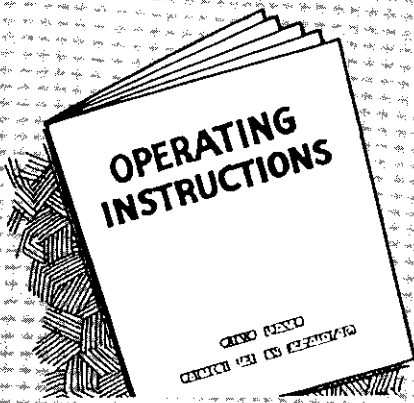
These hazards mean that chainsaws are potentially one of the most dangerous pieces of farm equipment.

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

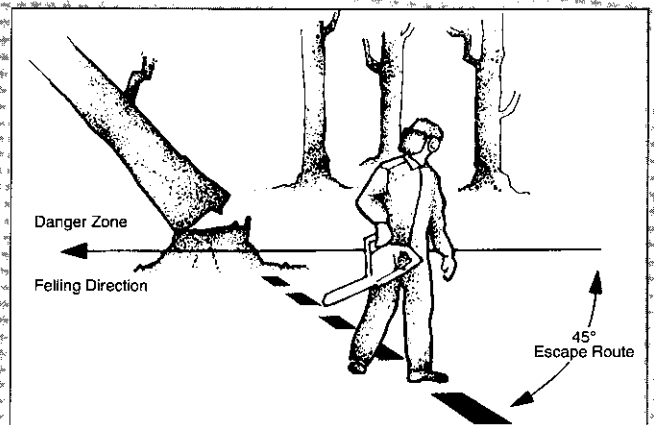
Over the next few pages you'll find plenty of information about operating a chainsaw safely. There is a checklist of the safety features on your saw. Tips on the protective clothing you should wear, and suggestions for safe work methods.

General safety precautions

- ✓ Read the owners manual for your saw 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.



- ✓ Make sure there is a second person within calling distance.
- ✓ Do not operate the saw beyond your ability.
- ✓ Use the saw only to cut wood.
- ✓ Do not become distracted. Stop the saw if somebody starts speaking to you.
- ✓ If tired, rest a little. Chainsaw operation requires constant attention. Tired operators have more accidents.

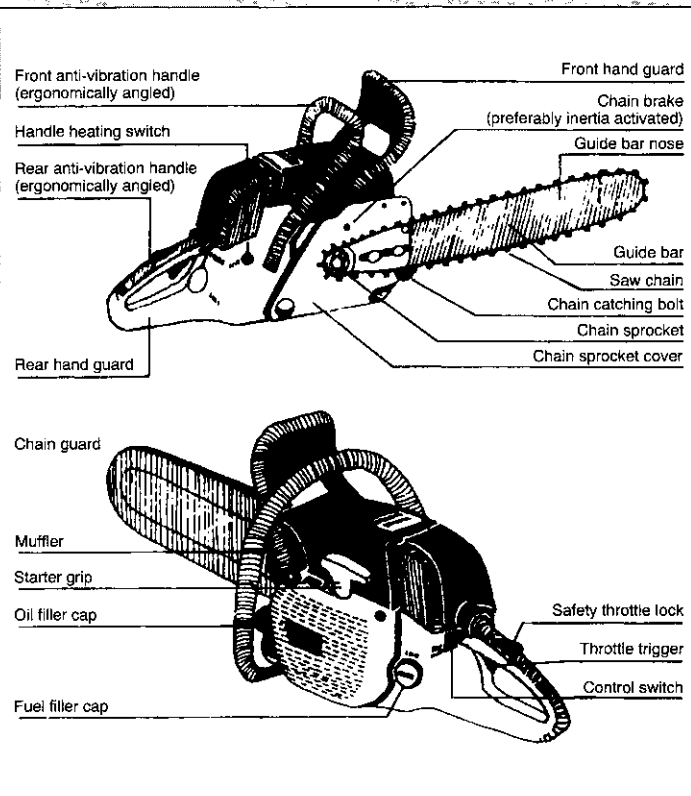


Maintaining your chainsaw

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

If possible, use a saw with all of these safety features, even if they may be 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 your 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).

Regularly

- ✓ Sharpen your saw chain;
- ✓ Check the guide bar for burring;
- ✓ Check the sprocket for wear;

- ✓ Clean the chainbrake mechanism (if it is mounted in the sprocket cover clean regularly during use, as they can clog up with oil and sawdust and may malfunction);
- ✓ Have your saw serviced

Preventing noise induced hearing loss

Most chainsaws emit noise levels which can cause permanent damage to your hearing if used for long periods at a time.

- ✓ Always use Australian Safety Standards approved ear muffs or plugs;
- ✓ Ensure your muffler is in good condition;
- ✓ Ensure your engine is tuned to manufacturers specifications.

Personal safety equipment

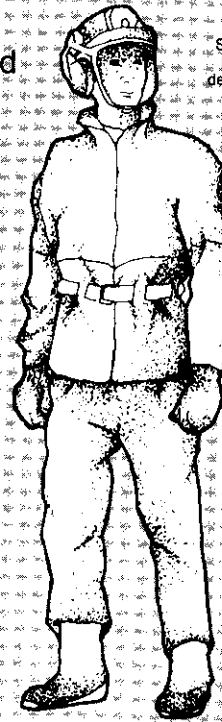
A safety helmet with visor or goggles, earmuffs, gloves, protective leggings and safety boots should be worn to protect you from chainsaw injury.

Preventing kickback

Kickback is a sudden upward and backward movement of the saw. It occurs when the tip of the bar nose contacts a log, branch or nail. It can cause serious injury.

To prevent injury from kickback:

- ✓ Ensure your machine is fitted with a chain brake (preferably inertia activated);
- ✓ Ensure the brake mechanism is clean and operates effectively;
- ✓ Use low kickback chain types and avoid lowering the depth gauges too much when sharpening;



Safety Helmet
Safety standards approved.
Replace every 3 to 5 years
depending on wear and tear.

Clothing
Close fitting. Avoid
loose garments, hair,
belts, scarves or
jewellery which can
be caught in the saw
chain.

Boots
Sturdy boots with non-
slip soles.

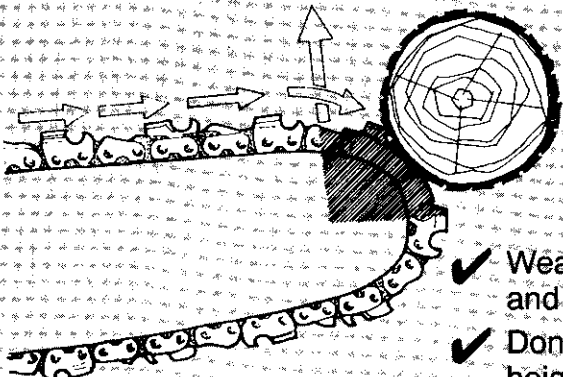
Ear Muffs or Plugs
Make sure they are
appropriate for your
saw's decibel (dB)
rating.

Eye Protection
Goggles or visor.

Gloves
High grip.

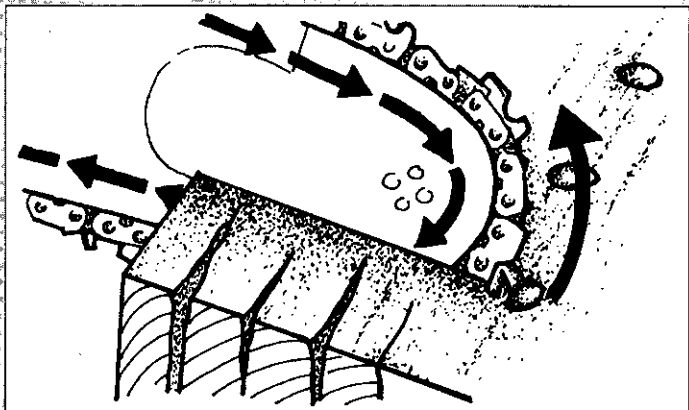
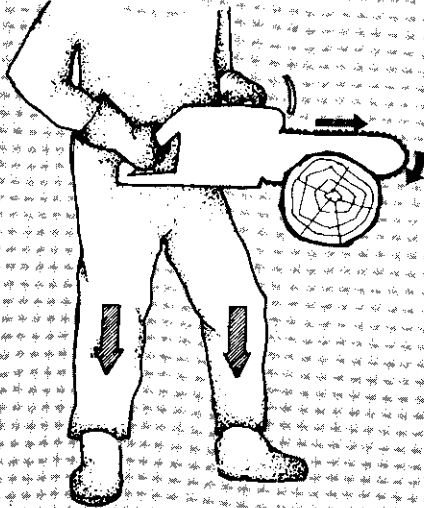
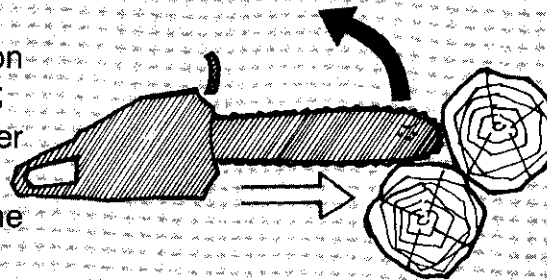
Protection for Legs
Safety pants or safety
chaps; with inserts of
cut-resistant ballistic
nylon.

First Aid Kit
Should be readily
available.



- ✓ 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 saw in one hand or by one handle only;
- ✓ Always begin your cut at peak rev's.



Preventing exhaust poisoning

The exhaust gases from your saw contain poisonous elements such as carbon monoxide.

- ✓ Ensure your muffler is in good condition;
- ✓ Do not work in confined spaces.

Preventing Raynaud's Disease and Occupational Overuse Syndrome

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

Raynauds Disease, or "whitefinger" produces numbness and burning sensations in the hand and may cause nerve tissue and circulation damage. Occupational Overuse Syndrome (O.O.S.) or Repetitive Strain Injury (R.S.I.) can involve persistent pain in the neck, shoulders and arms.

- ✓ Ensure your chainsaw has anti-vibration mountings which isolate handles from the engine;
- ✓ If possible use a saw 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 (it ensures smoother cutting and less vibration).

Preventing fires

- ✓ Don't smoke while filling or operating the saw;
- ✓ Refuel in a clean area;
- ✓ Refuel the saw 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;
- ✓ Only use safety approved fuel containers;
- ✓ Keep a fire extinguisher, knapsack, spray pump and shovel nearby.

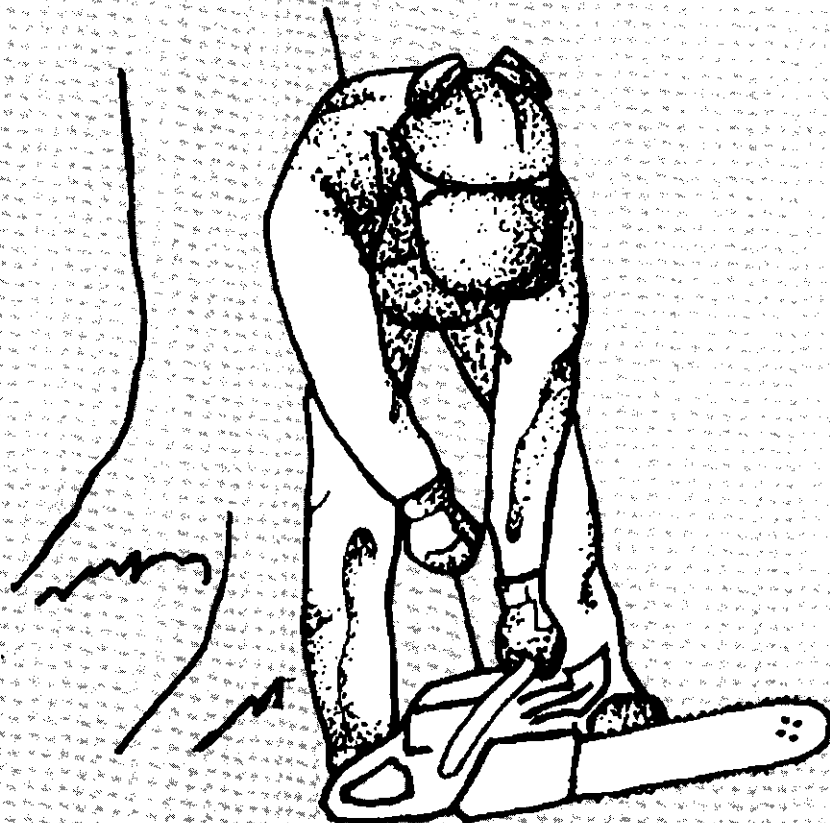
Training and supervision

Chainsaw operators should be properly trained. 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 and its controls, attachments and components, design, capacity, stability and limitations;
- ✓ Correct stopping and starting techniques;
- ✓ Cleaning and servicing;
- ✓ Being alert for the possibility of kickback;
- ✓ Chain sharpening techniques.

Less experienced operators should be carefully supervised.

Certain operations are extremely dangerous and should only be undertaken by professionals. These include the removal of branches from standing trees, the removal of trees hung up in wires, cutting trees thicker than the guide bar length, and working in windblown areas.



Legislation and regulations

Commonsense and a sound knowledge of chainsaw safety will prevent a lot of accidents happening. Under legislation, however, certain safety requirements must be met to prevent people being injured.

The *Occupational Health and Safety Act 1983 (NSW)* places a duty upon employers to ensure the health, safety and welfare at work of all employees. It requires them to provide such information, instruction, training and supervision as may be necessary to ensure a safe workplace.

Specific regulations applying to chainsaw use can be found in the *Timber Industry (Health and Safety) Regulation 1982*. Employers are obliged to make sure all power chainsaws are fitted with a chain brake of adequate size and power, a starting aid device, a double action throttle switch, a vibration minimising device and an effective exhaust mechanism. They must also maintain the saw in good condition.

The operator must place the saw firmly on the ground to start it, and hold it firmly with two hands while operating. Make sure, too, that the workplace is adequately cleared before felling and the saw is not carried about or left unattended while the saw chain is in motion.

A first aid chest and protective clothing should be provided by the employer. Operators should work within calling distance of one another and warning signs should be used if operations are likely to endanger any person.

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Photo: Trevor Ah Sam - Forest Industry Council Southern NSW

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