



## CHAINSAW BEST PRACTICES

A chainsaw is a very productive and efficient tool when used correctly. However, operating a chainsaw is dangerous. Proper training, OSHA and ANSI Z-133 safety standards, and the manufacturer's user manuals must be followed at all times.

### Before Each Use

Before using a chainsaw, read and understand the owner's manual. Inspect the saw thoroughly, check the bar and chain for proper tension, and ensure the chain is sharp. **A sharp chain is much safer than a dull chain and allows the saw to perform its job efficiently and with less effort from the operator!**

Ensure all bolts and handles are tight and in place, and test the chain brake to ensure it is functioning correctly. Make sure the starting and throttle controls are all working correctly according to the manufacturer's specifications. Also, look for any noticeable damage and debris lodged in the saw from previous use, which may affect safe operation.

### Starting the Saw

Fuel the saw at least 10 feet away from ignition sources, and always remember to fill up the bar oil reservoir each time you fuel the saw.



Start the chainsaw on the ground with the chain brake engaged. Place the right foot inside the rear handle and the left hand firmly on top of the handlebar. Follow the manufacturer's throttle and choke positioning recommendations, pull the starter rope hard, and straight up to start the saw. The starter rope may take several sharp pulls to start the saw when the engine is cold. The other acceptable method is to secure the saw between the legs, just above the knees, and follow the same starting procedure. Drop-starting a chainsaw is prohibited by OSHA and ANSI Z-133 standards. The two methods above are generally accepted best practices, but always follow the startup instructions in the user manual.

### Personal Protective Equipment (PPE)

OSHA and ANSI Z-133 standards state that the following protective equipment must be used when operating a chainsaw on the ground:

- Hard hat
- Hearing protection sufficient to reduce noise exposure to 90 decibels or less
- Eye Protection, such as safety glasses and a face shield (A face shield alone is not sufficient)
- Appropriate protective footwear per OSHA standards
- Leg protection, such as chainsaw pants or Kevlar® or ballistic nylon chaps
- Work gloves are recommended

Many chainsaw injuries occur on the left leg, making the use of chaps or chainsaw pants extremely important and mandatory. It is recommended that your agency have one pair of chaps for each chainsaw, so that every chainsaw operator is protected.

## Operation

- All chainsaws are right-handed; the operator's right hand is on the rear handle, and the left hand is on the forward handlebar.
- Know where the tip of the bar is at all times and maintain sound footing. Steady yourself physically to control the saw's movements and reactions.
- Keep your body positioned just to the left of the bar and chain. Do not center your body over the material you are cutting.
- Have a second person to observe at a safe location. They may see potential dangers you can't and give you a warning.
- **Stay Alert and Situationally Aware.** Be attentive to where other people, structures, power lines, and other obstacles are.
- Avoid striking the ground, rocks, sand, or any foreign objects while cutting. It is dangerous for the operator, and the chain will dull immediately.
- Do not saw from the downhill side, and always watch for tension and compression in the wood you are cutting. Never operate a chainsaw above shoulder height.
- Do not carry a running chainsaw for a long distance. When moving more than two steps, make sure the chain brake is engaged. When carrying a non-running saw to the work area, ensure the bar is facing the rear.
- Take breaks as needed, as fatigue increases the risk of accidents and injuries.
- Clean and properly maintain the saw after use, then store it for the next operator.

## Kickback

One of the most dangerous occurrences associated with chainsaw use is 'kickback.' Each year, there are approximately 36,000 chainsaw-related injuries, and over 7,500 are related to kickbacks. Kickback occurs when the upper tip of the bar comes in contact with a solid object and jerks upwards suddenly, potentially causing injuries to the face, neck, shoulder, and hand. A chainsaw operating at full throttle often runs over 12,000 RPM. When kickback occurs, it typically happens much faster than the operator can react. The saw's chain brake is designed to stop the chain from moving in the event of kickback, either from inertia or by the top of the operator's left hand striking the chain brake.

## Proper Grip

Always wrap the left thumb around the handlebar when operating a chainsaw. Not only is it mandatory per existing standards, but your grip is much more substantial. In the event of a kickback, the saw will rotate inside your grip on the handlebar to engage the chain brake. Resting the left thumb on top of the handlebar is unsafe, as the saw is more likely to break free during a kickback. The operator may lose control of the saw, and the chain brake may not engage properly.



## Key Takeaways

- You must be properly trained before using a chainsaw and have read and understood the owner's manual.
- Inspect the saw thoroughly before each use.
- Maintain proper chain tension and keep the chain sharp!
- Start the saw on the ground or between the upper legs and wear proper PPE.
- **ALWAYS** wrap the left thumb completely around the forward handlebar.
- Know where the tip of the bar is to avoid kickback.
- Control the saw, don't let it control you.
- Stay alert and have a second person observing at a safe distance.

A properly maintained chainsaw is a valuable and essential power tool that is dangerous to operate. However, when used safely and responsibly, it can complete tasks that would be nearly impossible to do by hand.