



## **Generator & Chainsaw Safety**

The primary hazards to avoid when using a generator are carbon monoxide (CO) poisoning from the toxic engine exhaust, electric shock or electrocution, and fire. Follow the directions supplied with the generator.

- To avoid electrocution, keep the generator dry and do not use in rain or wet conditions. Operate it on a dry surface under an open canopy-like structure, such as under a tarp held up on poles. Do not touch the generator with wet hands.
- Be sure to turn the generator off and let it cool down before refueling. Gasoline spilled on hot engine parts could ignite.
- Store fuel for the generator in an approved safety can. Use the type of fuel recommended in the instructions or on the label on the generator.

- Store the fuel outside of living areas in a locked shed or other protected area. To guard against accidental fire, do not store it near a fuel-burning appliance, such as a natural gas water heater in a garage.
- Plug appliances directly into the generator, or use a heavy duty, outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads.
- Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.
- Never try to power the house wiring by plugging the generator into a wall outlet. Known as “back-feeding,” this practice puts utility workers, your neighbors, and your household at risk of electrocution.
- Remember, even a properly connected portable generator can become overloaded, resulting in overheating or generator failure. Be sure to read the instructions.
- If necessary, stagger the operating times for various equipment to prevent overloads.

### **Prevent Carbon Monoxide (CO) Poisoning**

- Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawl space or any partially enclosed area.
- Keep these devices outdoors, away from doors, windows and vents that could allow carbon monoxide to come indoors.
- Opening doors and windows or using fans will not prevent carbon monoxide buildup in the home. Although carbon monoxide cannot be seen or smelled, it can rapidly lead to full incapacitation and death. Even if you cannot smell exhaust fumes, you may still be exposed to carbon monoxide. If you start to feel sick, dizzy, or weak while using a generator, get to fresh air RIGHT AWAY - DO NOT DELAY.
- Install carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide. Test the batteries frequently and replace when needed.
- If the carbon monoxide alarm sounds, move quickly to a fresh air location outdoors or by an open window or door.

## **CHAINSAW SAFETY**

The chainsaw is the most dangerous hand tool that can be purchased on the open market. It requires no license and no training to own or operate it. An overall average of 40,000 injuries and deaths occur annually in the US.

If you place your hands on a chainsaw, you must keep in mind that it is like grabbing a hand grenade without a pin in it. It is very likely to go off in your face. From the moment that you take it out of storage to the time that it goes back to the same place, you can be hurt by either it, or by whatever you will be cutting.

### **PPE Selection and Use**

To minimize injury, you will need proper safety equipment to include gloves, hard hat, safety glasses, hearing protection, leg protection and safety footwear.

### **General Chain Saw Safety Precautions**

Before using a chain saw it is important to read the owner's manual and familiarize yourself with safe operation. Giving a chain saw to an inexperienced worker without proper training is an injury waiting to happen. Before each use, check that:

- chain saw is in good general condition (no leaks or damage)
- the throttle, safety throttle lock and stop switch operate correctly
- the chain brake works
- the chain is lubricated, sharp and tensioned correctly
- the sprocket and bar are in good condition
- the idle is properly adjusted

When starting a chain saw, it should always be started on the ground or a well-supported and stable surface. Drop starting a chain saw is dangerous. A drop start is done by thrusting the saw down with your left hand and pulling the starter cord up with your right hand.

When refueling a chain saw:

- avoid smoking
- be at least 10 ft (3m) from any open flame or other ignition source
- choose a clean area
- refuel only after the motor has cooled
- wipe off any fuel that spilled on to the saw
- use safety cans to store fuel
- keep a fire extinguisher or shovel nearby

The chain saw must be shut down whenever a saw is carried. Whenever possible use the bar cover. A saw should be carried by its front handle with the chain bar pointing to the rear. Do not carry the chain saw on your shoulder. If you lose your balance, you will not be able to use your arm to break your fall. After completing work, the following maintenance needs to be completed:

- clean the saw, especially the air filter, cooling inlets and sprocket
- reverse chain bar, top to bottom, to prevent wear and burring
- clean chain brake
- clean out chain bar groove
- sharpen saw chain

### **Chain Saw Kickback**

**Kickback** occurs when the upper portion of the tip contacts with another object or the chain is pinched in a cut. As a result, the chain saw will violently jump or kick back towards the operator. To prevent kickback injury the following precautions should be taken:

- buy chain saws with or install chain brake (preferably inertia activated)
- check brake mechanism before each use for effective operation
- use a low kickback chain (meets American National Standards Institute B175.1-1991 Safety Requirements for Gasoline Powered Saws)

- sharpen the saw chain frequently; a sharp saw chain is safer than a dull one (if wood shavings become dusty the chain is dull and needs to be sharpened)
- hold chain saw firmly
- check chain tension
- never bend over the saw, if you stand up straight and to the left of the bar any kickback should go over your right shoulder
- wear protective equipment -especially head protection and chain saw chaps or leggings
- do not cut above shoulder height
- never hold saw with one hand or by one handle
- always begin the cut at peak revs
- clear brush and debris from area