

SAFE WORK

S SPOT THE HAZARD
A ASSESS THE RISK
F FIND A SAFER WAY
E EVERYDAY

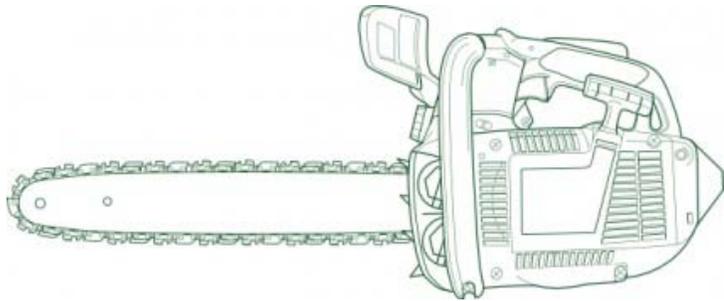
No. 272
September 2012

Chain Saw Safety

Potential Hazards

A chain saw is a power-driven tool designed to cut wood. The saw's cutting elements are on an endless chain, powered by a gasoline engine, electric motor or hydraulics. If not used safely by a person with appropriate training, very serious injuries can occur.

Cuts are the primary hazard associated with chain saw use and can be severe or even life threatening. Even when a chain saw is not running, contact with the chain can result in cuts. In addition, eye injuries can occur from flying chips/debris, and the noise generated by the saw can contribute to hearing loss.



Other safety hazards identified with chainsaw use include chains snapping / flying off of the unit and hitting the chainsaw operator; electric shock; motor exhaust, etc.

How to Control the Hazards

To help prevent injuries related to chain saw operation, employers and workers need to know these key things:

- The chain saw must meet certain requirements of the Canadian Standards Association (CSA) standard relating to chain saws.
- It must be used and maintained according to manufacturer's instructions.
- The saw must be equipped with specific safety devices.
- Use of appropriate personal protective equipment will help to reduce the risk of worker injury.
- Safe start-up procedures; safe work procedures

CSA standard

Employers must ensure that a chain saw used at the workplace is manufactured, used and maintained according to the most recent edition of CSA Standard Z62.1 *Chain Saws*.

Manufacturer's instructions

Chain saws must be operated and maintained according to the manufacturer's specifications. It is extremely important to read your operator's manual. This will provide

Safety devices

It is important that the chain saw is equipped with the following safety devices, and that these devices always work properly:

- Safety chain – uses side straps or drive links specially designed to reduce kickback. Depending on the manufacturer, either the drive link or the side strap has a high curve or rise that keeps the chain from catching in the wood.
- Chain brake - a device used to stop the saw chain.
- Throttle control trigger - part of the chain saw, usually a lever, activated by the operator's hand or finger, that controls the throttle control valve.
- Throttle trigger lock – prevents the saw from speeding up if the throttle trigger is touched unintentionally.
- Chain catcher – keeps the chain from hitting the operator in the event the chain breaks. Section 5.18 of CSA Z62.1 requires a chain saw to be equipped with a chain catcher.
- Rear hand guard – sometimes called a “rear handle guard,” protects the operator’s right hand if the chain breaks and flies back towards the operator. The rear handle shall be designed or positioned so that the operator's hand is protected if the chain breaks or degrooves.

Personal protective equipment

Appropriate safety clothing and equipment reduce the risk of worker injury. Ensure chain saw operators wear appropriate clothing for the job that is not damaged, baggy or loose-fitting. The personal protective clothing must meet requirements outlined in the applicable standards.

Personal protective equipment required for chain saw operators, includes:

- Protective headwear –that meets CSA Standard Z94.1, *Industrial Protective Headwear - Performance, Selection, Care, and Use*
- High-Visibility Safety Apparel – that meets CSA Standard Z96, *High-Visibility Safety Apparel*.
- Hearing protection –that meets CSA Standard Z94.2, *Hearing Protection Devices- Performance, Selection, Care and Use*.
- Eye protection – that meets CSA Standard Z94.3, *Industrial Eye and Face Protectors*.
- Leg protection – safety pants lined with chainsaw resistant material is recommended.
- Protective footwear – CSA Grade 1 safety footwear with non-slip soles must be worn, that meets CSA Standard Z195, *Protective Footwear*, and CSA Standard Z195.1, *Guideline on Selection, Care and Use of Protective Footwear*.
- Gloves or Mitts – recommended to be worn when operating a chain saw. Those with double palms and lined with ballistic nylon offer the most protection.
- First Aid – recommended that operators carry a 4-inch compress for the control of heavy bleeding. An appropriate first aid kit must be available at the work site. Refer to Part 5 of the workplace safety and health regulation (M.R. 217/2006) for complete first aid requirements.

Safe start-up procedures; safe work procedures

If a worker will be using a chain saw while on an elevated work platform or inside a personnel basket, the employer must ensure that appropriate safe start-up procedures are developed and put in place to protect the chain saw operator.

In addition to the key items above, employers must develop and implement safe work procedures; train workers in the safe work procedures, and ensure workers can apply the training received to protect themselves and others.