

# WISCONSIN WOODLANDS:



## Protective Clothing for Chain Saw Operators



Tom Steele and Gordon Cunningham

Some 40,000 chain saw accidents occur in the United States each year – about one every 13 minutes. Injuries include broken limbs and severe lacerations. The sad thing is that chain saw operators could avoid most of these accidents by staying alert and using proper safety equipment. This publication covers the fundamentals of protective forestry clothing.

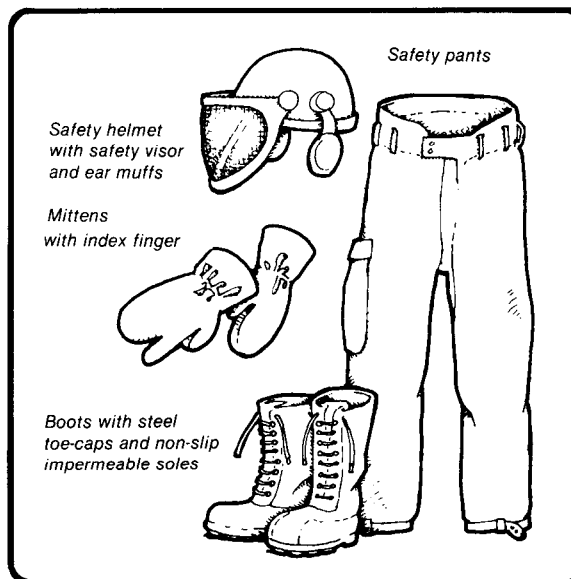
### Hard Hat with Ear and Eye Protection

The hard hat is a critical piece of equipment. It is designed to protect the operator's head from falling objects such as dead and broken tree tops ("widow-makers") and from kickbacks from saws and axes. Hard hats are usually brightly colored to make the operator visible in the forest. Most plastic hard hats have an expiration date after which they begin to lose their effectiveness as a result of being exposed to the elements. Consequently, they should be replaced every 5 to 7 years.

An important component of the hard hat is the suspension. It should be checked periodically to ensure that it fits properly and is in good working order. A broken suspension offers much less protection and should be replaced.



Loggers' hard hat with ear "muffs" and face screen



### Important items of clothing for chain saw operators

Most loggers' hard hats are equipped with protective ear "muffs" and a face screen for maximum head protection. Chain saw operators should *always* wear ear protection –either ear muffs or ear plugs. As little as 30 minutes of chain saw noise can permanently damage unprotected ears. The resultant hearing loss may not be noticeable at first, but the damage accumulates rapidly and, eventually, negligent operators can no longer hear birds sing, for example. Ear muffs and plugs must be kept clean to prevent ear infection. Ear plugs or the removable foam liners of ear muffs can be put in a shirt pocket and laundered along with the shirt.

The face screen protects the operator's eyes from flying chips while providing maximum visibility. When purchasing a face screen, make sure that it is black so that it will not reflect the sun's glare. Two types of face screens are on the market: nylon and aluminum. Nylon is preferable because the black color is impregnated in it. Aluminum screens are simply painted black. The paint wears away, exposing the shiny aluminum surface.

Some people may prefer to wear safety glasses in place of a face screen. Keep in mind that safety glasses have some disadvantages. They fog up in cold weather, get dirty with saw chips and perspiration, and fall off.

## Safety Gloves and Mitts

If your chain saw is not equipped with a chain brake, wear safety gloves or mitts to protect your hands from kickback. Chain saw gloves have a layer of ballistic nylon to protect the back of the hand. Some operators wear gloves even when using a saw equipped with a chain brake so they can handle wood more easily. When choosing a pair of gloves (or mitts), make sure they are comfortable and fit snugly around the wrists. Loose fitting gloves (or mitts) have an amazing tendency to collect saw chips. Avoid gloves or mitts with seams across the palms. The seams will interfere with gripping the saw handles.

## Leg Protection

The majority of chain saw injuries occur below the waist, so proper leg protection is especially important. Three types of leg protectors are now on the market. They vary in cost and effectiveness.

Chain saw pants provide the best leg protection. Such pants have pads of ballistic nylon sewn into each leg and protect the operator from the groin to the top of the foot. The front of the leg is always protected regardless of its position. Chain saw pants are made from a variety of materials, including denim, cotton, and nylon. Nylon is excellent for winter woodwork because snow does not stick to the material and the pants stay dry. Chain saw pants (and any other woods clothing) should fit closely, but not restrict freedom of movement. Loose-fitting clothing is apt to get snagged, increasing the risk of injury.

One alternative to purchasing chain saw pants is to purchase the pads of ballistic nylon and sew them into a pair of pants. Properly fitted and sewn-in pads offer excellent leg protection. But they must be fitted carefully and sewn securely (around the entire margin) to the pant. A loose and flopping pad provides little protection.

Another alternative is to wear a pair of protective chaps, which are slipped over pants and secured with straps and buckles. Chaps offer some protection, but they have numerous disadvantages: They protect the wearer only from the groin to the knee, leaving the shin area vulner-

able to injury. They cannot be secured tightly over pants, so they tend to shift (especially if they snag in undergrowth), leaving parts of the leg exposed. They tend to be bulky and less comfortable than pants. They are also warm; wearing chaps on a summer day is like wearing two pairs of pants.

## Safety Boots

Good boots are a must for working in the woods. We recommend safety boots with steel toes to protect feet from falling objects. Boots should also have strong ankle support – woodworkers encounter varied terrain. Boots with anti-slip soles are good for working on wet ground or in snow. Some safety boots have ballistic nylon inserts over the instep for added protection.

## First Aid Kit

Every chain saw operator should carry a small first aid kit. Because of the nature of chain saw injuries, quick remedial action is critical. A first aid kit left at home or in a vehicle is of little use to a person lying injured in the woods.

The minimum requirement for any first aid kit is a sterile 4-inch-square pressure bandage, which is made to be tied tightly over a wound. The bandage will absorb blood and help stop bleeding. Pressure bandages are available at drug stores and safety equipment stores.

We recommend that people working in the woods use the “buddy” system. If you must work at some distance from your buddy, consider carrying a police whistle in case you need to signal for help.

Harvesting timber is potentially dangerous, but proper safety equipment substantially reduces the risk of serious injury. But safety equipment is not a suit of armor—it does not completely eliminate the potential for injury. Besides wearing safety equipment, you should operate a chain saw only when alert and physically fit.

The safety equipment described in this publication can be purchased from safety supply stores and chain saw dealers.

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