# **Power Saw Safety**

By HANK HARVEY, JR. Arborist Rutledge, Pennsylvania

LAST week my buddy bought a brand new light-weight power saw and was using it for the first time in a tree. Unfortunately, it slipped out of his hands. Fortunately, he had a power saw holdingstrap. Unfortunately, he hadn't installed it yet. The saw fell about thirty feet and hit the groundman on the head. Fortunately, he had just been issued his OSHA-approved safety hat. Unfortunately, it was still in the truck. Fortunately, this is just a story. Unfortunately, it could well be true.

While nearly everyone who uses or has used a power saw realizes they are a dangerous\*tool, it's doubtful that many realize just how very dangerous they actually are. In a tree or on the ground, running or not. The many dangers that power saws pose, present or potential, merit greater consideration than most saw operators give them.

#### ON THE GROUND

Overall, most power saw work is done on the ground. Therefore, just on the basis of manhours spent cutting, the greatest danger of a power saw accident exists to ground workers. What are the greatest hazards? There are many. But the following present the greatest danger to power saw users on the ground:

**SAW KICKBACK** — That is when saw jerks or kicks back suddenly or unexpectedly. It could also be

when the saw makes a branch or piece of wood kick back at the operator. Because kickback is sudden and unexpected, it can cause operator to lose his grip on the saw and either drop it or have it thrown towards him, in either case possibly causing serious injury or death. Kickback can be prevented by always paying careful attention to what you are cutting and what is behind it or under it. AND by having a good, firm grip on the power saw at all times. A loose, sloppy chain can also cause kickback, so it is wise to always keep it properly adjusted. TREE FELLING - This is the ac-

tual take-down or dropping of trees. It is nearly always done with a power saw. And it is very dangerous. An improperly felled tree can go the wrong way or spin off the stump, thus seriously hurting or killing the saw man. Tree felling should be learned by watching an expert do it and having him explain the procedure. But there are several booklets which explain the fundamentals. One is offered by Homelite at most of the dealers. Another is All About Using Chain Saws from Omark Industries and can be obtained where Oregon Chains are sold, for \$1. Another is Chain Saw Operation, available free from the Public Relations Department of McCulloch Corp., 6101 W. Century Blvd., Los Angeles, California 90045. Two essentials things to remember about safety when felling trees is 1) Always have a clear work area and escape route in the opposite direction of the tree (continued on page 30)



Exercise extreme care when cutting up in brush. Small twigs and branches make tripping dangerously easy.



Various publications on proper and safe use of power saws are available from saw and chain manufacturers.



Many accidents occur when first starting saw. Make sure you have a firm grip before pulling starter.



Chain that's too loose can cause saw to "kick back" dangerously. Check chain tension before each use.



When felling any trees, even small ones, make sure you have a clear work area, and a pre-determined "escape route."



"Just a touch" from a moving chain, even when saw is just idling can cause a vicious cut like this.

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It only takes a tiny nick into a climber's rope from a power saw to send him to "tree man's heaven."



The wise climber finishes all large cuts with a hand saw to avoid saw pinching. It also provides an extra measure of safety.

#### POWER SAW SAFETY (from page 11)

fall. 2) Never, ever cut tree all the way through hinge when making the final backcut.

CARRYING SAW -- Even short distance carrying with a saw can be dangerous. To start with, if the saw is warmed up and running at a high idle, the chain is probably moving. Even just a little nick from a moving chain can leave you with a nasty gash. More often than not you keep your saw from stalling and check your chain oil flow by revving the saw up a little between cuts and while walking from location to location. Ever think what would happen if you tripped and fell while you were walking along with your finger on the throttle? Think about it right now! And the next time you don't feel like taking the time or effort to shut off the saw and start it again when you're walking from one pile of brush to another or from one tree to the next, think about it then,

Be doubly cautious of wires when using power saws in trees.



too. If you must carry your saw while it's running, at least have a proper grip on it, have it and your own balance under complete control, and watch where you are going.

BYSTANDERS — Power saws create a double dose of danger to by standers and other workmen in the area because the noise they produce impairs the hearing of the operator to a degree that he cannot hear others working near him or for that matter, even calling to him. Anyone working near a chain saw operation should try to make his presence known by getting the operator's visual attention. Every power saw operator should always look around regularly to see who and what is near him.

REFUELING—"Gassing up" a saw is much more dangerous than many think. If you doubt that, just observe how many people keep right (continued on page 34)

"Bucking" heavy logs always presents a danger. Work "uphill" from wood to be cut. Always keep feet clear.





Proper protective clothing is a big part of power saf safety. Note the newer type of screen-style protectors (on right).



Foolishly hanging saw temporarily on stubs or crotches not only could smash your saw, but also could kill or injure workers below.

#### POWER SAW SAFETY (from page 30)

on smoking while they are pouring gasoline into the saw! Even without cigarettes, refueling a hot saw always creates a certain fire danger. Volatile gas spilled on a red hot muffler could make an instant emergency for you. Refueling should be done in an isolated clearing and a funnel or fuel filler hose should be used to prevent gas spillage. Gas cap should be screwed on tightly and saw removed from the fueling area before restarting.

**CLOTHES**—Proper clothes should be worn by every chain saw user. This would include safety shoes (with steel toes), a hard hat, safety goggles or eye screens (to keep chips out of your eyes) and clothing that is not so loose that it could easily snag in brush (and cause a fall), or even possibly catch on the chain. If it is very cold you should wear gloves to make sure your hands don't get cold or numb enough to weaken your firm grip on the saw.

BUCKING AND LIMBING—
These two operations actually make up the bulk of ground work with a power saw. In addition to the foregoing safety considerations, bucking and limbing operations require some additional care. Whenever cutting up logs it is important to prevent their accidental rolling over or dropping down, possibly on the saw man.

This can be done by careful "chocking" to hold log firmly in place even after it is cut. The operator should still take care to always be uphill from any possible roll the log could take. When using wedges for bucking, special care should be taken to use only wood, plastic or other "soft" wedges. Accidentally cutting into a steel "wood splitting" wedge could throw out dangerous metal "flack" or cause your saw to kick back. (In addition to damaging and dulling your chains.) Use extreme care in cutting limbs that are above shoulder level. They could fall on you or pull the saw down suddenly, possibly into your body. Or they could swing around and hit you. Even tiny branches could severely injure your eyes. Or when limbs hit the ground, the butt end could "bounce back" at you. Many chain saw manufacturers show overhead limbing in their ads. But don't be fooled. It's very dangerous, even for pros.

#### Power Saw Safety Checklist

- 1. Don't start a saw till you have checked it over carefully. Spark plug wire on properly? Fuel cap on tight? Chain properly adjusted?
- 2. Think ahead. Know what you're going to cut before you start saw. Look around before you start.
- 3. Hold saw firmly at all times. When your hands get numb from fatigue or cold, stop till you're o.k.
- 4. Wear protective clothing. Especially protect your eyes and feet at all times.
- Exercise care when refueling saw. No smoking! Move away from fueling area before restarting.
  - Keep work area clear at all times. Watch your step.
     Don't carry a running saw around while it's running.
- 8. LOOK . . . LOOK . . . LOOK Remember you have to compensate with your eyes for what you can't hear when cutting. Keep looking behind you and overhead. (Look down often if you're in a tree. You may get a signal from a groundman that could save your life.)

Remember there are no rules, tools, signs or designs that can prevent accidents. Only you can do that. Use all your equipment carefully . . . in good health!

#### SAFETY ALOFT

Nearly all professional tree men now use power saws while up in trees. They have been a great boon. But they do create an additional safety hazard (This topic was discussed at lenght in August issue's excellent article by Blair E. Caplinger.) The greatest of these dangers are:

CUTTING THE SAFETY LINE—
This danger can be reduced by exercising extreme care to "sight up"
your cut and make sure you know
where your ropes are. Also, never
pass a saw over or under any of
your ropes when it is running. Not
ever while idling. The slightest slip
of the finger throttle could blow the
last whistle for you. To be safe, any

saw operator in a tree should have two tie ins (one rope, one strap, etc.) when making power saw cuts.

MUFFLER BURNS - Not usually a cause for serious injury, but certainly worth avoiding. The few extra seconds it takes to let muffler cool are worth not getting burned for. Also, some saws are designed better than others in this department. Look for a better design on your next saw. Some climbers use a long saw holder strap to prevent getting burned. This is a bad move because then the saw can more easily get caught in branches and tangle in ropes. (Power saw teeth can cut rope even when not running.) Not only that, but the first thing you know the climber is hopping from limb to limb with the saw running, (yes, foremen, it's true)a death-defying practice if there ever was one. A hundred minor muffler burns aren't worth one serious fall and if climbers are carrying their saws close on their belt you can bet they won't leave them running.

KICKBACK, KICKOUT AND PINCHING - Even on small cuts kickback can occur because of knotty wood, small branches in the way. etc. The man in the tree is usually cutting horizontally too, which makes it harder to hold the saw as firmly as if his feet were flat on the ground. The best bet is to try to get yourself in the best, most comfortable position possible and use the firmest grip you can. Also, check in advance for causes for kickback. Be on guard especially when cutting hard, dead wood. Try to use saw at arm's length, especially if cut to be made is derectly in front of your face.

The smart climber finishes all of his cuts with his hand saw. (Preferably with the power saw back on the ground or at least safely tied in out of the way.) This gives him an extra margin of safety in case the top kicks out before expected or a limb pops off ahead of time. He can swing clear much more safely with just a hand saw-which he can drop if necessary—than he could with a buzzing chain saw in one hand. In addition, the thinness of a hand saw allows you more cutting before "the pinch," and it's safer and easier to work it out if it does get pinched. Some of the most dangerous scenes I have ever seen in tree work have been climbers frantically trying to work a pinched power saw out of a cut before a big top or limb snapped off.

Some Unexpected Hazards that not many saw operators think much

about until they happen are:

KICKBACK WHEN STARTING a cold saw . . . it can catch you off guard and cause a terrible cut.

faulty or loose ignition wires. This can cause you to lose your grip or drop a saw. Especially dangerous when you're up in a tree! Check to make sure spark plug wire is properly attached to avoid this shocking experience. Also watch for power wires whenever you're working in a tree.

CUTS FROM CHAIN while sharpening saw. Those teeth are viciously sharp even when they're standing still. Beware when filing cutters or drags and when pulling chain around bar by hand.

#### Am. Horticultural Society Receives \$5000 Federal Grant

The American Horticultural Society has announced receipt of a grant of \$5,000 from the U. S. Office of Education, Department of Health, Education and Welfare.

Society president David G. Leach said the grant would be used to enable the Society to host a conference that would look at the horticultural side of the environmental crisis. Anticipated date is fall 1973.

"The conference will call together key people active in horticulture, education, urban and highway planning, landscaping, communications, from national and civic organizations and other groups," Leach said. The invitees will be chosen because of their active involvement in environmental betterment activities, he added. Findings will be published and made available to the public.

Funding for the grant is made possible under the Environmental Education Act of 1970, administered by the U. S. Office of Environmental Education.

"It is our intention to apply the funds to develop better interrelation and coordination among environmental programs with a horticultural component," the Society's president affirmed.

"The AHS," Leach said, "expects a two-fold result from such a session: first, to help the non-horticulturists in an area where horticultural knowledge is of direct significance; second, to establish new priorities for horticulture by giving people in the field a more meaningful and relevant direction in the environmental area where the role of horticulture should be better understood and utilized."



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