Chain Saw Afterthoughts

An “Appendix” to our Saturday Demos September 19, 2020

Some Advice from Roy and Wells

Little bits of wisdom that some of our members may have missed in breakout groups:

Hard Start

Roy: Don’t turn off your saw immediately after you’ve been running it at full throttle. Let it idle...or purr...for a while, and then switch it off. Otherwise they can be a dickens to re-start.

Wells: Hard-start saws are not only a nuisance, but they are a Murphy’s Law set up when you really need it to run. Hints from the good guys at B&B:

1. Is your **gas old and tired?** That means 4-6 months since it left the pump. If so, it has been losing octane, and that’s the number one problem when people bring a seldom-used saw to the repair shop. *“SOB won’t start.”*

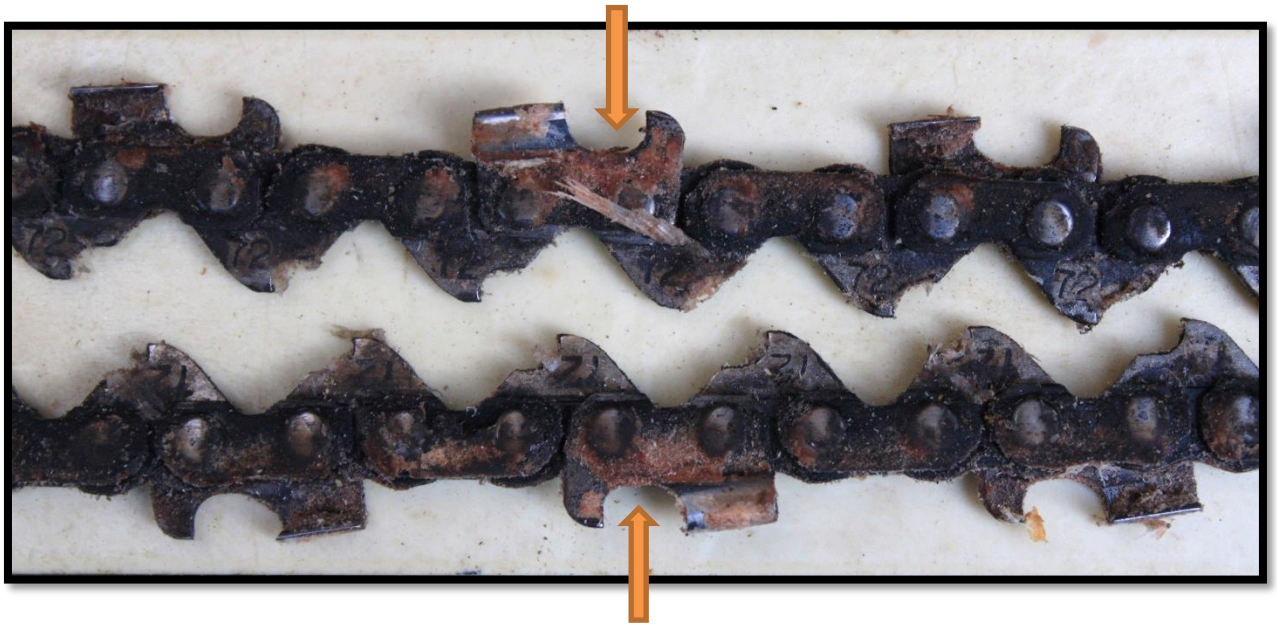
   If you’re not using a gallon of chain saw fuel in 4-6 months, either get some fresh gas, preferably premium (91 octane), or consider buying stabilized fuel which really makes sense for the infrequent user. Expensive ($12-15/gal), but readily available at Ace and all saw dealers. They come in convenient metal containers with stable flat bottoms, too, in quart and gallon size.

2. How to get going again:
   a. If you have flooded the cylinders (100% of sawyers have done that), change the switch from full choke to regular run. Pull 5-10 times, sometimes more, and that will usually clear the cylinders and give you that welcome little “pop,” followed by a gush of embarrassing smoke...but you’ll be roaring back in business.
   b. You can pull the plug, clean the points, and air out the cylinder, but that’s a lot of work.

c. You can also leave it overnight and probably start it, but, naah.
d. Ether has been used to goose a sluggish 2 cycle engine. Not much now. It usually doesn't work anyway, but at least it's stinky and dangerous.
e. There is a good reason to bring 2 saws if you're working far from home.

Sugar and the Frozen Chain

Wells: Everybody knows that maple sap is full of sugar, but guess what...that's true to some degree for *every* healthy tree. Coast live oak is notorious in the late winter. The sugar heats up on the chain and caramelizes into a gummy glaze which will sooner or later completely freeze up the joints in the chain. The chain below froze after cutting wet avocado for less than 30 minutes. If you give your saw throttle and it doesn't respond, that's probably what's happening. Resistance is a fact. Persistence is futile. If your blade is merely dull, it won't cut well, but the RPMs will be humming along.



a. If you're working with green wood in Feb-April, take 3 chains. Strip off the frozen one, and strap on a fresh one. No way can you fix that in the field.
b. The caramel gum is water soluble. You don't need petrochemical solvents. Hedge clipper solvent won't help much. Put the afflicted chain in the bottom of a plastic bucket, cover with Simple Green mixed with water, rather concentrated, about 1:3.
c. Within an hour, that gum can be blasted off with a strong hose. A pressure washer might be overkill, but it's fun.
d. Dry the chain, and then swish it around in a shallow baking pan with a thin layer of any kind of oil so the exposed metal won't rust, then hang it up inside a plastic bag (a used newspaper bag is perfect) so it won't collect dust, and stash it back in your kit.
e. "S" hooks work great for hanging chains.

Bar Oil: The choice... and a word about leaks

Wells: Commercial bar oil is more expensive than plain motor oil, and it's worth every penny. It's viscous, so it rides around with the chain as opposed to flying off onto the concrete, the redwood siding, or your spouse's car. It's easy to forget to top it up, but an un-oiled chain will heat up and accelerate the degradation of both the chain and your bar. Smoke is a hint. Take a peek at the oil reservoir at least every other fuel up.

Used crank case oil (does anybody still change their oil at home anymore?) is not only inferior for the job, but it gets less viscous with heat and will likely to spray all over. If the oil was dirty, you'll be running abrasive grit into your chain and bar. Not a great money saver.

Roy: If your chain saw isn't using bar oil very fast, that's not necessarily good news. When you do your maintenance after a day's work, use a slender screw driver to clean debris out of the chain groove in your bar and make sure the outlet for oil to the groove is not obstructed with gunge. Not sure? Run a fine wire through there. It takes an extra 30 seconds, but can save you $50 for a new bar and $30 for a new chain.

Wells: If you are transporting a chain saw in a family sedan instead of the bed of an old pickup truck...they leak oil. Saws seem to know when they're resting on upholstery instead of a battered bed...and the smell lasts forever. Wrap the body of your saw in an old towel and stuff it into a heavy duty garbage bag. Keep harmony at home.

Sharpening

Wells & Roy: Most of us should sharpen the chain we used "today" so that it's ready for tomorrow. A dull chain is a buzz kill, meaning your ears are going to be hammered for much longer than they need to suffer, and you'll be inhaling exhaust much longer than necessary.

However, after 3-4 home sharpenings, if you're not expert at it, take it in to a shop for a pro-sharpening. They'll file the guide nibs as well as sharpen the teeth. While you're there, buy a new chain, and use the sharpened one for back up. Seriously, $30 is a lot of money, but you can't even get a pizza for that. The joy of efficient cutting is better than cold pizza.

Also, buy your **files** by the box. When they get tired—rubbing and burnishing instead of cutting steel—you can rotate to fresh abrasive a few times. After that, it's game over for that file. Don't save pennies and waste hours when you're staring at your own finite life expectancy. Grab a new file and stay sharp. Ask the dealer to make sure you have the right size...it makes a difference!

Use a file guide, too, so you can use the whole length of the file instead of chucking up on a naked file and meanwhile wearing a hole in the palm of the expensive leather glove on your dominant hand. Getting the angles right is easy with a guide that's marked with 30 and 10 degree lines (30 for crosscut, 10 for rip).

Nuts

Commander Anthony McAuliffe's 101rst Airborne troops were charged with defending Bastogne when they were encircled by Nazi's in the Battle of the Bulge. The German commander demanded the Americans surrender or be slaughtered. McAuliffe responded famously: *"Nuts."*

Chain saws depend upon two nuts that hold the bar in place. They need to be loosened to tighten a chain and removed to change it. They have an oversized ¾" hex contour and a fine 5/16 x 24 TPI thread. They get lost all too easily, usually because you don't notice when the first one vibrates off. It's not safe to use the saw when one is missing. When you go to your dealer, buy 2 or 3 of those, stash them in a baggie, and keep them in your kit. Maybe string them together with colorful twine...just make them easy to find. While you're at it, toss one in the glove compartment of your truck, too.

In a pinch, a fine thread 5/16 x 24 TPI hardware store nut will work with a washer. The coarser thread, common construction 5/16" nuts (18 TPI) will not, and you definitely don't want to damage the threads on your saw.

Wrenches

New saws typically come with a flimsy, stamped metal combination screwdriver and ¾" wrench for the nuts described above and spark plugs. They are handy, especially for backup, but there's a reason they don't charge you for it. If you are doing lots of heavy work, which means tightening and changing chains, use a substantial "L" shaped socket wrench (like the one in the middle), and you'll be able to handle your nuts more professionally.

For super efficiency, put a ¾" socket on both ends, and you'll break the land speed record for blade adjustments and changes.

Five Gallon Bucket

It's hard to find metal things in an environment 8" deep in shavings, even if you have an industrial magnet handy.

Stash your tools in a deep bucket, and they'll stay put. The handle helps. Leaks won't wreck your floor mats, either.

Don't trust a cardboard box or a bag.

Really good website for chain work: https://burlybeaver.com/chainsaw-chain/

Your Commentators

Roy

Wells

That's it. Quit when you're tired.

Thanks,

Wells