

Chainsaw Maintenance

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A chainsaw is the ultimate macho tool. It can fell mighty trees and makes really butch noises – rmm, Rmm, RMM! And size does count! (The picture shows Butch with his big one.)

However with authority comes responsibility. It can remove your limbs just as fast as those of the tree. It also needs looking after. A chainsaw is a high maintenance tool. (Like a spouse – it needs lots of maintenance.) At the 2005 AWSA conference there was a talk on chainsaws. (Douw Coetzee from Reef Chainsaw Services who sell Husquavarna chainsaws) I was surprised by the amount of maintenance required to keep a chainsaw in good order. This should all be shown in your owner's manual. (You did read the manual...). To remind you, here are some of the jobs:



Chain oil – check and refill the chain oil tank every time you refuel your saw. Use the correct oil – it is environmentally friendly and has the correct amount of stickiness to properly lubricate the chain, bar and sprockets. Old engine oil spoils the environment and does not lubricate properly. Check that oil is coming out onto the chain – you can see where it emerges and on the chain. Lack of chain oil lubrication is a quick way to ruin the chain, bar and sprocket.

Sharpen the chain. How often you sharpen will depend on the usage and wood you are cutting. If the chain contacts the ground, it will need sharpening. If you are cutting cross grain and only see fine powder, then the chain may be blunt. A sharp chain will produce larger chips. In severe conditions, you may need to sharpen after each tank of fuel. This is a light sharpening, and with practise should not take more than a few minutes. Stihl recommend that you have the dealer sharpen the chain after you have sharpened it five times yourself. This is to restore the correct angles and correct any unevenness that can cause it cut skew. Use the correct file for your chain size with a proper jig, and follow the guide in the instructions. Check the depth gauges for height and even these out to get consistent cutting. (These are the little ramps ahead of each tooth that control the depth of cut.)

Inspect the chain after every five tanks of fuel. Look for damaged teeth and abnormal wear. If the chain is sharpened past the wear limit marks, it is probably worn out. It makes sense to have a spare chain ready for when it needs replacing. Check where the chain runs in the guide and the dogs that engage the drive sprocket. Check the tension when cool and tension the chain according to the instructions. If you tension it when it is hot, it may contract and bind when it cools down. Clean out the guide bar, and check the condition of the sprocket.

Inspect the sprocket every time you fit a chain. Check the sprocket for wear. Don't fit a new chain onto a badly worn sprocket. A rough guide is that the sprocket will last for only 2 chains, before replacement of both is needed.

Inspect the guide bar as per the instructions. The guide bar probably needs replacing for every two sprockets that need replacing! (Or every four chains!) If the bar is reversible, it can be turned over to equalise the wear – make sure that the oil holes are clear.

(These replacement intervals depend on the service conditions – use your judgement.)

Daily. Before each day's work, remove and clean the air filter. Once a week (every 50 hours of use), inspect the spark plug and check the gap, and clean or replace if required – typically every 100 hours of use. If the machine is to remain unused for any length of time, drain the fuel tank – this prevents the fuel attacking the seals in the carburettor and is safer in the event of leaks.

For more info, see:

(links from http://www.woodcentral.com/cgi-bin/readarticle.pl?dir=powertools&file=articles_602.shtml)

[.oregonchain.com](http://www.oregonchain.com)

[.stihllibrary.com](http://www.stihllibrary.com) (PDF file)

[.kadcousa.com](http://www.kadcousa.com)

[.oregonchain.com](http://www.oregonchain.com) (PDF file)

Lastly, a chain saw can be extremely dangerous when used incorrectly. You must know how to use a chainsaw and the dangers. This story outlines just how dangerous they can be:

Somebody I know used to run a tree felling business. One day, when taking down trees in a garden, one of the workers climbed a large pine tree with a small chain saw to remove the limbs and take off the top. There was an accident and he severed his femoral artery while up the tree. It took them 20 minutes to get him down from the top of the tree, by which time he had bled to death.

Be careful! Wear all the protective clothing you have, including a face mask and hearing protection and make sure you are fully aware of the risks of what you are doing when you use a chainsaw. Read the manual and heed the warnings.