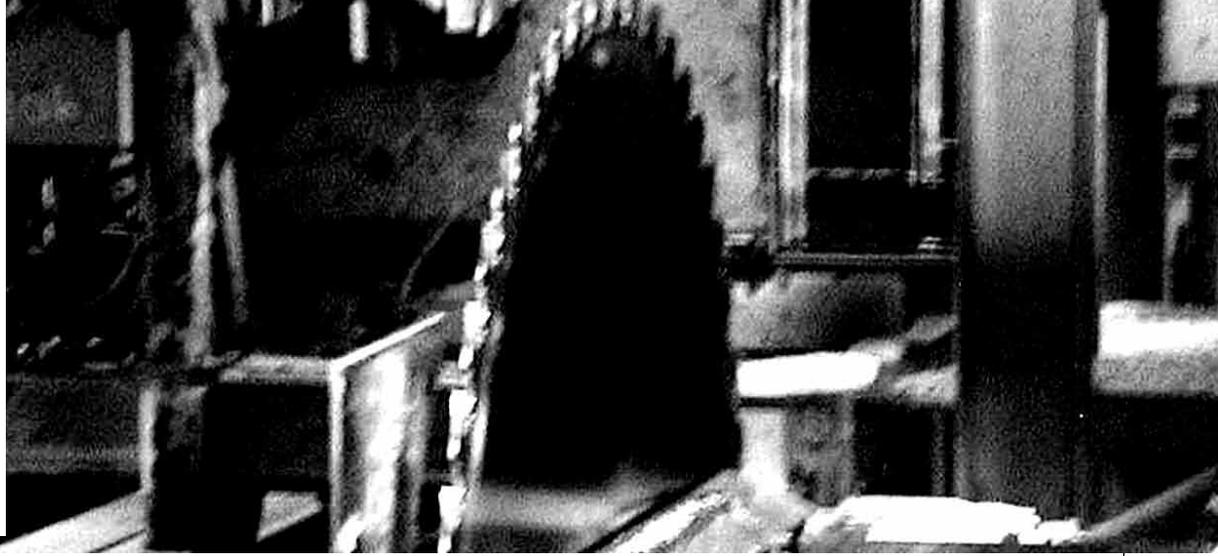


# SAWMILL FORUM

CASEY  
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DOCTOR



## I have a firewood processor with a big circular saw on it. Do they need to be hammered too?

Those particular circular saws are actually slasher saws. Whether they are on firewood processors, or machines that are designed to cut tree length logs into saw log lengths, they need to be maintained much in the same way that a circular rip saw (head saw) needs to be maintained.

First, just like anything else that cuts, slasher saws really should be sharpened before they are dull. True, a slasher saw doesn't have nearly as much need to cut a straight and true line as a head saw does, but if it isn't cutting a straight line, it will be working much harder than it has to. Like a head rig saw, the more you try to force it to do something it doesn't want to do (cut properly with dull teeth) the more restoration work it is going to need when you finally get it to your local saw smith.

One problem that is specific to slasher saws used on firewood processors is that many of them are powered by hydraulic motors that just don't seem to actually have enough torque or power to get the job done properly. So trying to run it when it is dull or badly bent will certainly rob much more of the power that you are already lacking. To get around this power deficit, some manufacturers design the machines so that the saw turns at about twice the speed actually needed for cross cutting logs, in the hope that the flywheel effect will compensate for the lack of power.

What happens is that when the saws are sharp and in good condition, their speed will get them through the cut before their RPM drops too low or even stops. Of course when the saws are in bad shape, the RPM drops much quicker because they require that much more power and the result is that they can tend to stall or come very close to stalling.

No matter what product you are cutting, frozen hardwood, unfrozen softwood, plastic, brass, or steel, there is a proper tooth speed or rim speed so that the tooth hits what you are cutting in a proper manner. And of course that speed is directly tied to the feed speed so that each tooth makes the



**Slasher blades and circular saw firewood processor saws are identical.**

right size chip for what it is cutting.

For rip sawing frozen and unfrozen hardwoods, the ideal tooth speed would be about 8,000 SFPM, while the ideal speed for softwoods is about 9,000 SFPM. For crosscutting I would up that speed about a thousand SFPM so that hardwoods would be at about 9,000 while softwoods come in at about 10,000.

Many of the 60" slasher saws run at 1200 RPM, which calculates out to 18,840 SFPM or about twice what they should be running. Of course by the end of the cut they are often

only running at about 300 or 400 RPM so everyone seems to think all is right with the world because they are still rotating.

As a saw doctor, which speed should I tension the saw for: 400 RPM, 1,200 RPM, or should I average it out at about 800 RPM? If I shoot for 800, then it will probably have a tension wobble when running free at 1200 and by the time it gets down to 400 or 500 it might also develop a tension wobble.

Of course when I look on the bright side I realize that a lot of these firewood processors are outside and running while being exposed to the sun which will of course heat one side of the blade, which will change the tension and levelness of the saw anyway.

To get back to answering your original question, yes slasher saws need to be leveled and tensioned like any other circular or band saw. The only problem is that they will be abused much more than any other type of saw that I can think of. They will be run duller, faster and slower, with the solar heat effect, and will be run way beyond the time when they should have been re-hammered. Other than that, they are perfect.

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**Questions about sawmills and their operation should be sent to Forum, The Northern Logger, P.O. Box 69, Old Forge, NY 13420, FAX #315-369-3736.**

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