

# SAWMILL FORUM

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**Here is a question I am asked every now and then: “Do you believe in using a stretcher roll instead of a hammer?”**

Let me first say that whenever I hear that question, it soon becomes apparent that the potential customer is having problems with his mill and is trying to find out if his saws are being hammered correctly, or if there is a problem in the mill. Sometimes it's both.

I generally answer about the same way each time: Saw hammering is not an art or a religion; it's a science. Therefore, the word “belief” doesn't enter into the equation. If your saws are not being hammered correctly, it has nothing to do with the tools being used, assuming that your hammerman does possess at least proper straight edges and a real saw maker's hammer. Trying to use a carpenter's level or a yard stick for a straight edge, a ball peen hammer, and a farrier's anvil will not get the job done properly no matter who is hammering the saw.

Once you are using proper tools in an environment with the proper lighting, using a stretcher roll is just a luxury that some saw doctors have been willing to invest in. If I ask you to dig me a hole that is 3' X 3' X 3" with a tolerance of plus or minus one inch, it doesn't matter to me whether you dig it by hand with a shovel or a back hoe as long as you have the right instruments to measure the dimensions accurately. You could even dig the hole with a large excavator by digging a bigger hole and filling in to arrive at the required dimensions. No matter what you used, if the dimensions are verified as accurate, I am satisfied.

It's the same with hammering saws. If the saw is really flat on the log side with an acceptable amount of wobble and the right amount of tension in the right location, then what do I care how you went about getting the saw into that configuration?

The important thing is not what tools are being used, but how the saw is being checked to verify that it does actually meet those criteria. Are you checking the flatness with just a long straight edge with the saw standing on the floor? In that case, it is easy to pick up an inaccurate reading if you inadvertently lean the saw just a smidgeon one way or another.

But if you check for flatness with the saw on a test arbor that is leveled to a machinist's level, you can get a much more accurate reading. Is it necessary for the saw to be that flat?

The answer depends on the mill you are hammering the saw for. If it is a high production setup that is well maintained, it will make a difference in the mill's production and bottom line if the saws are truly flat on the log side. On the other hand, if we are talking about a high or low production mill that is in ill repair anyway, it might not make that much difference if the flatness of the saw is just a little off the mark. Still, I'd argue that even those mills deserve to have their saws done properly. In one sense, they almost need better saws than the properly-equipped and -maintained mills because they have so many obstacles they are trying to overcome. It sure is easier to just put up all saws to the proper specification so that you are doing your part in making your customer's mill run as well as it can. And if your saws are done properly, then as they adjust the rest of the mill, they will have to adjust the mill properly to be able to run a properly-hammered saw.

I should also tell you that anyone I know of who uses a stretcher roll also uses a hammer. There are some things that are better done with a hammer, while some work out better with a roll. There are places on a saw where the roll just won't reach, where a hammer is required to do the job. And then there are places on a saw that you shouldn't hit with a hammer. Hammer marks in the guideline do create an unwanted vibration that could have been avoided by using a roll instead.

Saws need to be leveled (straightened) and tensioned (stretched). The roll was originally designed to just do the tensioning part of the job, while leaving the leveling portion to be done with a hammer. Eventually some saw doctors figured out ways to use the stretcher roll do the leveling part of the job too. That is a big advantage in that any leveling done with a hammer tends to stretch the saw as a byproduct. That is great if the saw also needed to be stretched in that particular area that you are about to straighten. But if it didn't need more tension in that area, you will have to further adjust the tension after you do your leveling. And of course there is a good chance that during the tensioning process you will get the saw out of level a bit. So now you



have to go back and do some more leveling and then more tensioning to deal with what happened when you leveled. That must be where they got the name "circular saws."

Once you have learned how to use the stretcher roll to do the leveling portion, you find out that the stretcher roll is capable of leveling without changing the tension in the process. That makes the whole job a lot easier and as a result of being easier and less frustrating, it gives you the opportunity and willingness to more accurately finish the saw.

But regardless of what path you take to get there, if you are measuring the saw close enough, then flat is flat and acceptable wobble is measurable, as is the right amount of tension in the right location. At that point it doesn't matter how you got there as long as you got the saw to the right place.

So, if you think your hammerman is not doing the job properly, let me assure you that it is not because he uses a roll or doesn't use a roll. If the saws are not up to spec, it is either that your saw doctor isn't aiming for the right specs, or he just doesn't measure the specs accurately.

While you are routinely checking your mill, you should also be able to routinely check a few things on your saws. You won't be able to accurately check the tension of the saw while it is on the mandrel, but you can easily check the flatness and amount of wobble. All you need is a 48" saw maker's straight edge and a dial indicator and magnetic base. Forget about what method was used and look at the finished product.

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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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