## SAWMILL FORUM

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# How hard is it to teach someone how to hammer circular saws?

The answer to your question really depends on which method is being taught. Just as there is more than one way to skin a sawmill, there are also many different ways to go about hammering circular saws and of course benching wide band saws is no different in that respect.

Because saw hammering used to be such a well kept secret, resourceful would-be anvilmen had to resort to being completely self-taught which in turn resulted in many more improper methods than good ones. Once you get past the improper hammering methods, you find that there are still many slightly different methods that are acceptable in today's world of sawmilling.

Within the range of what I consider to be acceptable methods there are some that are technically correct, but that I don't think actually go far enough. Then there are some that go far enough and will get the saw to exactly the same place that my method gets the saw to. But in my opinion they are possibly less efficient and more operator dependant. This means that the method works, but you have to be a better hammerman to make it work properly.

Methods such as mine rely more on real numerical data such as dial indicator readings, while some of the more old school methods tend to rely heavily on the hammerman's intuition and ability to perceive data that is much less tangible. In those cases, if the anvilman is good enough the end result will be that the saw will look exactly the same when it is done as it would have if it had been done by using my method.

Because my method relies more on measurable and verifiable data it leaves a lot less up to subjective determination and puts a lot of the job into more of a black and white go/no-go situation. When you are using a method that doesn't have such measurable data, you are relying much more heavily on the skill and the experience of the anvilman. That means that it takes many years to get good at saw hammering doing it that way. Fifteen thousandths will always be fifteen thousandths and if that is the particular number you are shooting for, the number you are reading is either 15 thousandths or above or below that. It is that simple.

When you use the old school method, you have to look at what you see with your straight edges and make some sort of well educated determination as to whether what you are seeing is within your running tolerance or not. Sure, if the straight edge rocks, it is a high spot and it needs to come down. But how do you read wobble in the saw? You slowly rotate the saw and watch your straightedge for changes. Well, there will be some changes no matter what, because every saw wobbles some. The question is how much wobble is allowable? And then the next question is what does the running tolerance look like? How do you measure how much difference you see under the straight edge as you rotate the saw?

Now when it comes to teaching, it is a lot easier for me to explain to you that this is the number we are looking for and if it is beyond that number the saw isn't ready yet. There is no creative interpretation involved. Go or no-go. But with the old school method of saw hammering it is not all that easy to be able to show the student the exact difference between within a running tolerance and not quite there yet. A good hammerman knows how to interpret what he sees, but that doesn't mean you can easily show a student how to make those same interpretations. That comes with years of practice. But it takes about two minutes to teach someone how to read a dial indicator and what numbers to look for.

When I first started learning how to hammer saws (I haven't stopped learning yet, by the way) I found that the toughest part of the whole job was learning when to stop, i.e., deciding exactly what is good enough, or within a running tolerance. As a result, part of my continual learning process was to look for ways to simplify what I thought was the hardest part. That was being able to determine when the saw was good enough and ready to run without problems. I was looking for ways to verify that condition and to be able to document it as well so that I could keep records on each saw I hammered in case that saw's condition needed to be correlated with any problems they might be having at the mill.

Of course when you first inspect the saw, part of the process is to look for any evidence of something at the mill that would have caused the saw to need hammering. Sometimes that evidence suggests they had a particular accident, or maybe just some hard use. But it is also important to look for evidence of what might still be wrong with the mill. For example, when you examine an incoming saw you might notice a wide-looking collar line, which would suggest that they might still be having trouble with their collars. So you contact the people at the mill and ask if they have recently repaired their collars or let them know they should check their collars because of what you have seen in the saw.

I also want to be able to document what exactly the saw looked like when I was finished with it. For example let's say the saw went out with +/- .010" runout (wobble) and the mill reports that the saw has a bad wobble when turning it by hand. At that point you know for sure that what they have is an arbor-generated wobble and you can inform them of that and get them on the right track to solving the problem.

Getting back to your original question, I find it quite easy to teach saw hammering because I use a method that utilizes a lot of real data collection and a lot less subjective judgment. The old school method is fine, but it takes a lot more experience to get the hang of it and that makes it that much harder to get started.

Of course that answer also assumes that I have a good student to work with. That student needs to be able to understand the mechanics of how saws work along with a good understanding of what makes a sawmill work properly. They need both because part of the job of any good hammerman has always been sawmill troubleshooting, because no matter how well we hammer a saw, there will always be many things lurking in every mill that will give it a chance to perform unsatisfactorily.

Beyond that, the prospective student must posses plenty of patience and an attitude that makes them want to get things right, not just close.

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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