

SAWMILL FORUM

CASEY
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Here is a recent troubleshooting case I have been involved with on a somewhat ongoing basis for a number of months. I was first contacted because the mill was having some trouble and I had solved some problems for a neighboring mill in that area.

The major issue for the neighboring mill was that its saws were not being hammered properly. There were some other problems as well, like saw speed and saw configuration, but the problem, quite simply, was that the saws were not being hammered to be flat on the log side.

As I started to get involved in a back and forth conversation with the people at this mill, it became obvious that in addition to their saws not being hammered properly, they also had some collar trouble and track and carriage issues that they expected to quickly vanish because they had a new mill on order.

They were also running the RPM too high, but that was also being corrected with the new mill. The mill owner talked about ordering some new saws, but I advised him to wait and make sure that we could solve his problems with his existing saws, before introducing a new variable into the situation.

He did get the new mill up and running, but right from the start it didn't run right. Of course at this point, the improperly-hammered saws appeared to be the cause, based on what I had learned from his neighbor.

When his new mill didn't do much better than his old mill, you can understand why the owner was frustrated. Unfortunately, instead of going about the troubleshooting process in a nice methodical way, he immediately started throwing new variables into the mix. He bought a new saw from his local supplier and then had him rehammer it for the new and more reasonable RPM. But of course that was the same anvilman who was not hammering saws flat on the log side in the first place.

So let's look at all of the variables he now had to deal with. He had a new saw that had never been run on a mill before. Yes, I know that you would expect a new saw to be properly hammered and thus not an issue, but that is not the case. This is a saw that has not run on this mill or any other

mill, and as such it will be suspect until proven differently. It could have any number of problems. Add to it that it was rehammered by the person who purposely doesn't hammer saws to be flat on the log side.

We are also dealing with a new mill. You would think that for all of the money you spend on a new mill, it should be perfect. You all know what I think of the word "perfect." Aside from that, did you buy the mill from a company that cannot ever make any mistakes? And did that mill manufacturer buy all of the component parts from manufacturers who are also not capable of making any mistakes?

So now you can imagine how many variables we have to look at to figure why this new mill won't run properly.

I asked the mill owner to do the old tighten the nut trick on the collar to check the condition of the collars. He doesn't own a dial indicator, but he was able to do the test using a tape measure by measuring the distance between the saw and the guides.

Well, he tightened the nut and the saw moved slightly more than a 1/16" towards the board side. Next I had him do the same check on a few different saws just to rule out the possibility of one saw having some sort of problem in the eye that would cause it to move when the nut is tightened. It would have been better to get a reading from a dial indicator in thousandths, but I guess this mill owner was so busy losing money on a new mill that wouldn't run, he managed to save about \$150 by not bothering to buy a dial indicator.

When the saw moves over a 1/16" when you tighten the nut, it is easy to see on a tape measure. But as you start to think you are correcting the problem to where you can't measure the movement on a tape measure, then it is time to have the real numbers that come from a dial indicator. If it moves 15 thousandths, you probably won't be able to detect the movement on your tape measure, but you still have a real problem. Granted, it is a lot better, but it is still a problem that has to be corrected the rest of the way.

Or you can inefficiently waste time by using a set of feeler

gauges to measure in thousandths the exact amount of movement at the rim of the saw as a result of tightening the nut on the collars. Carpenter's measuring devices really don't work very well when trying to properly set up machinery.

After determining that the collars were definitely not machined properly, the mill owner contacted the mill manufacturer. Well, the mill manufacturer said that it can't be the collars because he has never turned out a bad set of collars. Here is where I draw the line. I refuse to buy anything from any company that doesn't ever make any mistakes.

If there is a problem with a saw that I hammered, I don't think there is anyone out there who can tell you that I have ever said it can't be the way I hammered the saw. It might be unlikely that I made a mistake hammering the saw, but it is certainly always possible that I did indeed make a mistake. And you will never hear me make a statement that it can't be the saw--or can't be anything else, for that matter. It can be just about anything or even a combination of things that are not quite right. I may say I don't think it is the saw, but that is not an absolute. Everything needs to be properly checked with an open mind. It is great to take pride in your workmanship and strive towards excellence, but anytime you think you can't make a mistake, you are not really keeping track properly and you are just fooling yourself.

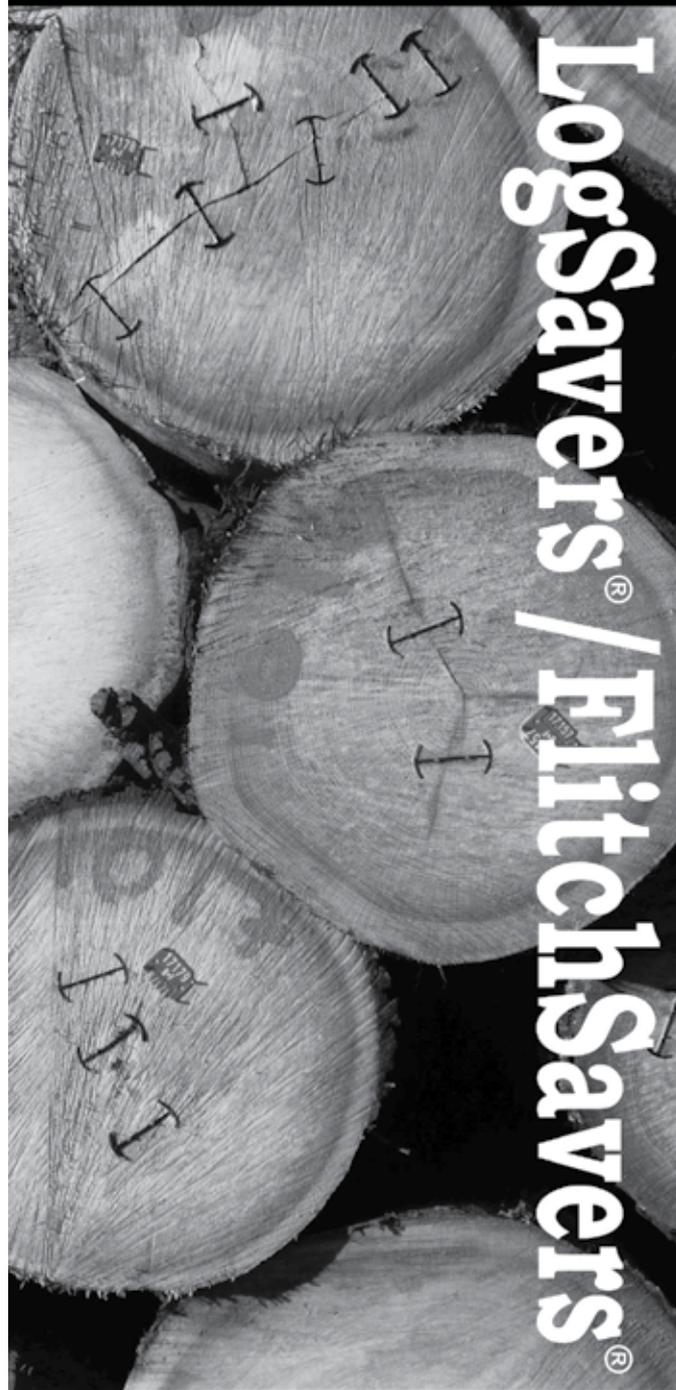
The mill manufacturer did replace the mandrel, although he blamed the customer for ruining it, even though he had not sheared the pins. And the new one is much better, but it sounds like it doesn't check out exactly right either, but it seems to be a lot closer. So most likely the mill will manage to misadjust something else to compensate for the collar trouble and the way the saws are being hammered and they will go back to making lumber, which is what they have to do to survive.

They would do a lot better if they got their collars machined properly and then got their saws hammered properly, but then then they would have to go back and unadjust everything they moved to try to make the saw run properly. I do understand there are times when you have to get by with what you have this week, to make some lumber so that you can fix what is wrong on the weekend. But sometimes I see mills where they adopt the policy that they are making saleable lumber now, why mess with that result? That is not a theory that I subscribe to, but I have seen many companies survive for a long time with that method.

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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