## Samuill Forum

BY CASEY CREAMER

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I was watching your How to Hammer a Circular Saw video on YouTube. I have an Armstrong Stretcher Roll. What is the "leveling position" that you used in that video? Mine just has one roller over the other. Is there something you add to level the saw?

That is an excellent question from a very observant person. Some of the faithful readers of this column might not really want to read about some of the finer points and minutia of what's involved in proper saw hammering. If that is the case, turn the page and look away now.

The standard Armstrong 3-10-C and 3-60-C Stretcher Rolls come with matching convex rolls, top and bottom. These rolls are just for the tensioning part of the saw hammering process. The 3-10-C is for small diameter saws while the 3-60-C is for the larger diameters saws and will easily handle 60" diameter head saws. You can do larger saws on this machine, but if you need to roll in fairly close to the eye, 60" saws are the limit.

As most of you know, tensioning is just one part of the leveling and tensioning process that we call saw hammering. It can all be done with a proper saw hammer and a saw maker's chilled face anvil. Using the stretcher roll for the tensioning part can be quite handy at times. It is quicker and easier than tensioning with a hammer and can add an element of accuracy too. That doesn't mean I always use the roll for the tensioning part though. One of the keys to saw hammering is that as you level a saw, you consider how that will affect the tension, and as you tension a saw, you should be considering how that will affect the levelness.

If you level a saw with a hammer, you will find a high area like a ridge with your straightedge and then you will hit it with your hammer. For the ridge to go down, the steel will have to stretch. If you are stretching the steel when you level the ridge, it means that you also added some tension to the area. If the saw happens to need more tension in the area that also has a ridge that I have to level, then I prefer to use the hammer because I am accomplishing two things at the same time: straightening the area and adding tension at the same time. So, in this particular instance, I would not need to use the stretcher roll to add tension to that area.

If on the other hand, I had a saw with a bend in the body that also happened to have just the right amount of tension, I will have two choices. I can go ahead and level with the hammer and then have to deal with the added tension by pulling some tension out with my stretcher roll or hammering out on the rim to relieve the added tension. Be aware that pulling the added tension out may result in a saw that needs more leveling since the process may have adversely affected the straightness of the saw slightly. Maybe that is another reason why they are called circular saws.

If I have a bent saw that has the right amount of tension in the right area, I have another way to fix it that will not affect the







Left to right: The original convex rolls that came with my 3-60-C Stretcher Roll; my special retrofit rolls: leveling position and tensioning position



tension at all. I can use a leveling roll on my stretcher roll. You can buy a number 7337 concave leveling roll from Armstrong Manufacturing and switch that out with the convex top roll on your machine. Now instead of squeezing the saw between two convex rolls to stretch the metal, you are bending the saw straight by squeezing it between a convex roll on the bottom and a concave roll on the top. With this method, you can literally spend all day leveling a saw without ever changing or affecting the tension in any way. When you use a hammer to straighten a saw the metal has to stretch for the lump to go down. But when you use a leveling roll, you are just simply bending the saw to straighten it so you haven't stretched anything at all.

In the case of my stretcher roll that you saw on the video, I actually came up with a retrofit of a different roller configuration with a mechanism to switch back and forth between the leveling function and the tensioning function. I use a set of doublewide rollers where the front part of the roller is concave and the back part of the roller is convex. When I want to tension, I have both rollers properly aligned with each other so that the only thing hitting the saw is both of the convex portions of each double roller. Then when I want to level. I use a mechanism to be able to shift the top roller so that the two rollers are now purposely misaligned so that the top convex part of the roller contacts the saw while the concave part of the bottom roller contacts the saw in the same place.

To answer your question, if you want to use your stretcher roll to level saws, you will have to purchase a 7337 leveling roll and remove four cap screws every time you want to change from tensioning to leveling on that machine. Armstrong also sells a leveling attachment number 6806 that props the saw up on either side of the bottom roll so it is being pushed down between those props by the convex tension rolls. I tried one years ago and I thought that it wasn't very good at being able to do any of the fine leveling that I like to do. It was, however, capable of moving an extremely bad bend. Interested to learn more from Casey Creamer? You can watch our video on how Casey hammers circular saws on The Northern Logger YouTube page. Just search for "The Northern Logger" on YouTube and click the video entitled "How to Hammer a Circular Saw with Casey Creamer." Please send future questions about sawmills and their operation to Casey Creamer, saw doctor and president of Seneca Saw Works, Inc., PO Box 681, Burdett, NY 14818, (607) 546-5887. You can also reach out by email: casey@ senecasaw.com.

