



BY CASEY CREAMER

No matter how much lead I add, my saw still wants to run out of the log. What am I missing?

In short, everything. I am not surprised that, in spite of adding more and more lead, your saw continues to run out. If your pickup truck pulls to the right, over inflating the right side tires or letting some of the air out of the left side tires will only get you so far and will certainly not correct your alignment problem or fix the right front brake that is hung up.

When you have a problem with a saw not running properly you should first figure out the cause of the problem instead of just randomly misadjusting something that has nothing to do with your initial issue.

Even more important, before you start adjusting anything, you should fully understand what the lead is all about. Why do we need lead? What is it there for? Just for the fun of it, I often ask new customers what they think lead is for. Some of the answers just amaze me at how misunderstood sawmills can be. The

two most common answers I hear are that we need lead so that the log doesn't rub the body of the saw and the idea that lead is there to counteract the natural tendency of the saw to run out of the log.

The first thing to understand is that lead is not there to create clearance between the body of the saw and the log. That is what kerf is for. Next, saws don't have any natural tendencies. The saw is either hammered properly or not. The teeth are either sharpened accurately or not, and the collars either hold the saw in its original position, or if the collars need work, the rim of the saw will move off line when you go from hand tight to wrench tight.

Here is what lead is all about. We want the front of the saw to be cutting on the down stroke and we don't want the back of the saw to be cutting on the upstroke. And we definitely don't want the front of the saw and the back of the saw trying

to cut at the same time. That would draw twice as much power and create a tremendous amount of chatter. Have you ever seen a carpenter try to use what is called a holesaw? They are usually around four or six inches in diameter and in a cup shape and are attached to a drill. When you use them, they don't work very well and you end up rocking it back and forth to make it work. That rocking motion is basically inducing some form of lead into the process because when it is trying to cut 360 degrees at the same time it just chatters like crazy. Even the cup wheel on a planer knife grinder will have a few thousandths lead in it so it is only grinding with the leading edge of the wheel and not the trailing edge of the wheel at the same time. In the case of planer and chipper knife grinders they are usually set up so that the wheel is turning in the right direction so that the leading edge is grinding into the knife instead of away from it so that there is less of a heat issue while grinding.

The other important thing you need to know about lead is that it should not be used as a fine tuner for your mill. You should set your lead so that you have 1/32" to 1/16" and then forget about it. If you are having trouble, by all means go ahead and check your lead just to make sure that it hasn't moved and you still have 1/32" to 1/16". If your lead is the correct amount, don't start messing with it. At that point you have verified that the lead is okay and therefore not your problem. Now it's time to start looking elsewhere for the actual cause or causes of why your saw isn't running properly. And there are more than enough possibilities that you really don't need to keep trying to point to the lead as the source or solution to your problem.



Remember to line up the spreader with the blade after changing the lead.

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.