

Safety Lessons I've Learned

Workshop safety is one of those things that just seems to go into one ear and out the other with many people. Sometimes, the best deterrent comes when you hear about the consequences someone else has had to pay for not paying attention.

From time-to-time, we receive letters and phone calls from Shopsmith customers who have had such experiences. When that happens, we'll be sharing them with you – right here.

Ask Smitty question prompts an interesting safety story

Doctor Mike Lyon of Aberdeen, Scotland recently submitted this “Smitty” question...

I am planning to buy a Shopsmith MARK V and would like to be able to turn heavy pieces of wood. What is the maximum weight of wood that the MARK V will handle?

Here is “Smitty’s” response...

“There really is no maximum weight for a workpiece. You're limited primarily by the Lathe's *swing* over the way tubes and the maximum distance between the centers. In the MARK V's case, those dimensions are 16-1/2” (theoretically, allowing you to turn stock up to about 16” in diameter) and 34” long, respectively.

There are a couple of cautions, however: First, the MARK V only weighs a little over 200 lbs...so it doesn't qualify as a true *heavyweight* lathe like many of the commercial, European lathes available today. Some of these are made entirely of cast iron and weigh as much as the Titanic! With all of this weight and a straight tapered, 60-degree cone-shaped dead center, huge workpieces are easy to turn.

As a result of the MARK V's relatively light weight (and the small, sharp points on both our Dead and Live Centers), it is very important that you be certain any large, heavy workpieces be “balanced” before attempting to turn them on your MARK V. Here's a little story from a customer that will bring this to light for you.

“About 20 years ago (when I was a novice wood-turner), I bought a 100-year-old oak timber that was about 30” long by 8” wide by 7” thick. I took it home and promptly mounted it to my MARK V lathe set-up...turned the speed dial all the way down and turned-on the machine.

It immediately started vibrating violently, tore out of the dead center and flew across my basement shop like an F-16 Tomcat off the flight deck of an aircraft carrier.

On its way, it killed three neighbors, my goldfish Humphrey, 16 horse flies and a 500 lb gorilla I was babysitting for the Zoo (just kidding). It was scary!

After regaining my composure, I re-mounted it and braced a couple of 2" x 4"s between the MARK V and my basement ceiling joists. I stood waaaaaaaaaaaaay back, leaned in and flipped the switch ...only to see a repeat of the previous scene.

After an hour or so of messing around with it, I came to my senses and realized that this was a dumb idea. Why? It became apparent to me that this timber had been laying outdoors on the ground for many years. I could tell this because one side of the timber was damp (a fact that had escaped me in my excitement to get started).

This dampness on one side caused the timber to be highly un-balanced....and that created my problem.”

An interesting story that should help you understand a bit more about capacities. Situations can vary significantly, and capacities alone are not always the ideal determining factor for maximum (or minimum) workpiece sizes.

Make no mistake about it...the MARK V will easily turn large diameter bowls and spindles...but you'll have to use your common sense when doing so. First, be certain your workpiece isn't wet on one side and dry on the other (like the above example). Next, the larger the workpiece, the more important it is for you to bring your stock as close to round as you can before mounting it on the lathe...by sawing or jointing it to an octagonal shape before getting started.