

## **Clicking Sounds in the headstock?**

NO, it is probably not your bearings going bad. From time to time, users have experienced a problem with a clicking sound in the headstock. John C Campbell Folk School has PM3520b's and they are used 7 days a week 52 weeks a year. WMH has been providing free lathes and JCCFS generally keeps them three years and then sells them as they receive new ones. Marsha Barnes, who oversees the Willard Baxter Woodturning Studio, there says they **have never experienced a problem with bearings going bad.**

So the clicking sound is typically a common problem easily corrected. Here is a message thread

<http://www.aawforum.org/community/index.php?threads/clicking-in-head-3520b-stock.10763/>

## **Spindle Removal and reinstallation**

Joe Johnson provides this [document](#) on how to remove and reassemble the spindle on a 3520A. The instructions should also apply to a 3520b.

## **Spindle/Headstock**

**Spindle Lock - Holding the button in and freeing up your hands. Lots of solutions to this pesty problem**

- Peter Hyde 4/27/12 says: Saw the slot idea over on the WWI forum. Easy mod, a few holes drilled in a line and clean up with a small file. Bent 1/4" cold rolled as a captured bolt. See:

<http://www.woodcentral.com/woodworking/forum/turning.pl/page/1/md/read/id/453083/sbj/pm3520-spindle-lock-improvement/>



Unlocked

Push the button and it's locked

- WOW Doc Green 3/30/9 said: **Swivel the "U" Channel:** A method that is easy and requires no drilling.



Remove the bottom screw from the bracket, permanently.

Remove the top screw and the bracket temporarily. Insert washers under the bracket at the top screw until the bracket stands off from the surface enough to rotate sideways over the button when it is pressed in. (

Reinstall the top screw: Screw goes through bracket, through the washers, and into the body of the lathe. Leave the screw loose enough so that the bracket can be rotated.

And that's it! Simple and clever.

I would add that if the top screw tends to loosen over time, that a drop of blue Loctite on the screw threads would solve the problem. Or, maybe, just the smallest drop of CA. Or just a hint of silicone glue such as Goop or E6000.

I haven't done this, but I keep the method firmly in mind in case I decide to do so.

John Lucas adds:

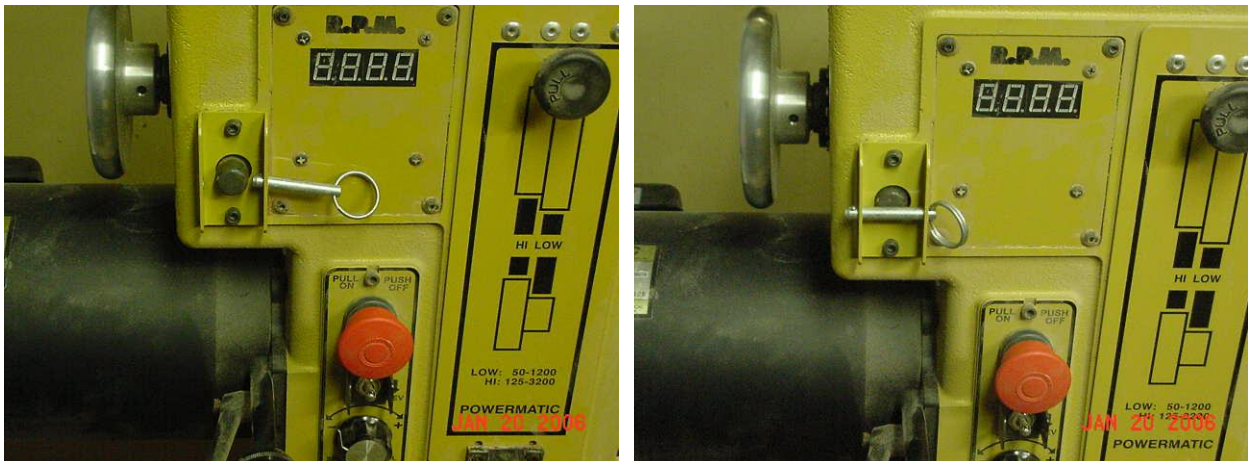
You don't even really have to go as far as Doc mentioned by using a longer bolt. Just remove the lower allen head bolt and loosen the upper bolt. Now you can swing the protective piece of metal over the button after you push it in. It couldn't possibly be any simpler and just as affective as any method I've seen. The addition of a longer bolt and washers makes it work more smoothly. You could even use a spring type lock washer to give it some friction so it doesn't move as freely.

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- Joesph O'Leary, 12/9/2007 via email Says: **Make a fixture and cover the Start Button** "To be honest, I think this is the best I've seen (humbly spoken :) ). It's simple and prevents starting the machine while locked , unless you are a complete idiot. Works for me- I'm only a partial idiot."



- Travis Stinson 1/19/2006 Sawmill Creek: "Just removed the lower bolt on the spindle lock cover and slide it over the button."
- Doug Jones 01-20-2006 Sawmill Creek: **Use a Clevis Pin** "Not sure to whom I need to give credit (*John Lucas?*) to for this little mod. So to who ever I saw this idea from, Thanks, the lack of a spindle lock is no longer an issue. ...I found that loosening the allen bolts left too much play in the spindle lock button. So in fear of the bolts threading themselves out from lack of tightening and the spindle lock bottom coming apart all over the floor, I opted for this method instead."



- Discussion: <http://www.aawforum.org/community/threads/792>
- Alternative per John Lucas that allows spindle to be locked in any position: "....**a wooden wedge** between the motor and handwheel. I find sanding with the lathe on it's too easy to make one edge too thin."
- Larry Komroff says: "I came up with an idea for a spindle lock on the Powermatic lathe. I got tired of trying to hold the button with my left hand, which I have limited use of, and doing everything else with my right. I decided to use a jig clamp Destaco #202TU. I added a spring on the plunger. Than made a plate using 0.125 aluminum plate. I mounted the plate between the headstock and the Spindle Lock Bracket. I mounted it with the clamp on the bottom so vibration would not allow the clamp to close while the lathe was running. "

### Spindle Nut

1-1/4 8TPI (use to make fixtures)

<http://www.mcmaster.com/> (Enter Find part # 90521A275)

<http://www.sawmillcreek.org/showthread.php?t=113841>

### **Make a face plate or other fixture using nut**

[Shop Made Face Plate Discussion](#)

### **Spindle Spacers/Washers**

- The 3530 has a long spindle which is prone to bottoming out with some fixtures. Make yourself some 1/4 washers. I use MDF drilled to 1-1/4 then turned round. Stack them up as needed.
- Even if the fixture doesn't bottom out the chuck or other fixture can become locked into the spindle shoulder. Use the washers above routinely, or make plastic ones out of coffee can lids. Or buy them from Craft Supply
- Discussion: [Plastic Spindle Washers](#)

### **Removing Stuck Fixtures:**

A large and small strap wrench is handy to have nearby.

### **Tap and Die**

1-1/4 8TPI (use to make threaded fixtures of wood)

- Die part

[http://www.jtsmach.com/jtswebshop/Taps\\_Dies/T126a.asp](http://www.jtsmach.com/jtswebshop/Taps_Dies/T126a.asp) # 1-368-27-8 Metal Die, works on wood

-Tap part

<http://www.leevalley.com/wood/page.aspx?c=2&p=57074&cat=1,330,49238>

<http://www.aawforum.org/community/threads/3392> re Wood Taps

[http://www.jtsmach.com/jtswebshop/Taps\\_Dies/T060.asp](http://www.jtsmach.com/jtswebshop/Taps_Dies/T060.asp) # 1-368-27-8 Metal Tap works on wood

### **Make fixtures using tap and die**

[http://www.woodcentral.com/cgi-](http://www.woodcentral.com/cgi-bin/archives_turning.pl?pro=search;pmd=sread;srchid=25439Ca2nKYhUayKmI2n1297745180;spage=4;sanc=58330;sbid=2105;md=read;id=58330#m_58330)

[bin/archives\\_turning.pl?pro=search;pmd=sread;srchid=25439Ca2nKYhUayKmI2n1297745180;spage=4;sanc=58330;sbid=2105;md=read;id=58330#m\\_58330](http://www.woodcentral.com/cgi-bin/archives_turning.pl?pro=search;pmd=sread;srchid=25439Ca2nKYhUayKmI2n1297745180;spage=4;sanc=58330;sbid=2105;md=read;id=58330#m_58330)

<http://www.davidreedsmith.com/Articles/WoodenFaceplate/WoodenFaceplates.htm>