

Upgrading a Ridgid Jointer/Planer to a Spiral Cutter-head

For those who have been wondering how to or if they should upgrade to the spiral cutter-head on their Ridgid JP06101 Jointer/planer here is how I did it:

First off it's a fairly simple operation but it's not what I would call easy. This is by no stretch of the imagination an exhaustive "How To", but it might help someone decide if they want to upgrade or not. I bought the H7764 - 6" Byrd Shelix Cutter-head from Grizzly.com. It doesn't come with bearings, so you will either have to use the ones from your old cutter-head or order new ones from epartsnow.com. If you don't have a set of bearing pullers the latter choice would probably be easier and cheaper since the bearings don't cost that much. If you opt for using the old bearings and need a set of pullers. I bought a 3pc 3 jaw puller kit from Harbor Freight for less than \$20 that worked perfectly for this task.

Tools I used (Your mileage may vary):

Vise

Bearing puller

Wrench to remove blades (comes with Ridgid jointer)

Small hex key (size?) for removing belt pulley set screws

5/16" hex key to remove fence shelf

1/2" wrench

Hammer for installing bearings on new cutter-head (I used a 1 ½ lb., non marring, Dead blow)

2x4 block (from the new cutter-head box)

1. As always, unplug the machine. Duh!
2. Remove the fence assembly by unscrewing the fence lock knob all the way off. Be sure to catch the nut when it falls from the bottom, then just lift the entire assembly off. Be careful, it's very heavy. In fact there is not much on this machine that is not heavy.
3. Remove the shelf that the fence assembly mounts on. It is held on by two 5/16" hex screws. One of the screws is located underneath the shelf. You don't need to take them all the way out. Just loosen enough to lift the shelf off. When you re-install it be sure it is perfectly even with the bed.
4. Now is a good time to remove the cutter guard and the blades from the cutter-head. You don't want to have to handle this thing with three sharp blades still mounted in it. It's a good idea to wear leather gloves any time you are handling these blades/cutter-heads.
5. Now, you need to turn the machine upside down. You will need a couple of boards to keep the top off the floor while turned over and, again, be careful. This thing is HEAVY as well as top heavy. You may need some assistance with this part. Once inverted remove the side panels.
6. With the panels removed you can now reach the pulley on the end of the cutter-head shaft. Loosen the two set screws and coax the pulley off while being careful not to loose the key located in the slot between the pulley and the shaft. The pulley should come off without removing the belt before hand. If the belt won't allow this then you had it too tight. Now is a good time to see if the key will fit smoothly into the slot of the new spiral cutter-head. If not you will have to file the key and slot until the key fits into the slot and the pulley slides over the shaft and key easily.
7. Remove the old cutter-head. The cutter-head is held in by two long bolts from underneath the bed into the bottom of the bearing supports on each end of the cutter-head. The bolt on one side of the machine is easy to get to and can be removed completely, but the one on the opposite side you will have a little trouble getting to and you don't want to remove it completely. Just loosen it enough to release that ends bearing support. If you try to remove it completely you will

probably drop it into the dust chute and have a devil of a time retrieving it or end up having to dis-assemble the whole machine to get to it. Suffice to say just leave it in place. I didn't want to remove the motor (again, heavy) and dust chute just to get to one bolt.

8. Now the fun begins. Remove the bearing supports from each bearing (I just pried them off with a pry-bar/screw driver) and then remove the bearings from the old cutter-head. This is where I used the three jaw pullers. The bearings came off relatively easy with (luckily) no damage.
9. I need to make a point here. WEAR LEATHER GLOVES while handling the spiral cutter. That is unless you just want your hands and fingers to look like you have been sacking wild cats. The spiral cutter is heavy and, needless to say, very sharp. Make sure the shafts on the new cutter-head are clean and smooth (no burrs, etc) and install the bearings on the new cutter-head shafts. I placed the bearings into the supports before installing them on the shafts so as to use the supports for protection when hammering on them with a dead blow hammer. To me, this was the hardest part of the whole procedure. The short end shaft went on kinda easy but I had to use a 6" piece of $\frac{3}{4}$ pipe with a cap on it to install the long end. I used the 2x4 support blocks from the box the new head came in to keep from hammering directly on the bearing supports.
10. The rest is simply going in reverse order to install the new cutter-head. Just be very careful while inserting the new head. It is a tight fit and you don't want to be knocking chips out of the new cutters.
11. You will have to re-calibrate your out-feed and in-feed tables, which is no big deal, but now you won't have to go through the torture of resetting the blades every time you sharpen or replace them with a new \$60+ dollar set. The new blades will out last the old by a bunch and will pay for themselves by not having to replace the expensive blades all the time. If you get a nick in one of the new blades or it gets dull just unscrew the one blade and turn it $\frac{1}{4}$ turn and it's fixed. I haven't had a chance to use the spiral cutter-head enough to make a yea or nay report on them, but so far I am very happy with the results.

I hope this will be of some help to you.

George Moore