

Small Shop - Big Results



Pinblock Panel Installation in Grands Using Paper Patterns – Part 2

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Last month the process of installing panels in a complicated grand pinblock was begun. With the description of the initial cut with the offset router made in the Weber pinblock, it is now time to finish out the process of routing the cavity prior to cutting and fitting the pinblock panels.



Photo 1: Problem with the outermost cut.

As I used my two other routers to begin taking passes through the field of pin holes, another complication shortly became apparent. The distance between the edge of the stringer that the routers were being butted up against, and the outer edge of the pinblock was not the same from the treble to the bass end of the piano. The problem was that the outermost cut made with the big router, when set correctly on the bass end, was not removing enough material on the treble (Photo 1). Notice that the pinholes in the lower portion of the photograph above have not been completely cut out, while those in the upper portion have. Since I wanted to end up with a smooth flowing cut from one end to the other, and not a complicated staircase type cut, using the stringer alone to act as the guide for the router was not going to work.



Photo 2: Adjustment strip marked for cutting.

The solution, I decided, was to alter the path that the router would follow by tacking an adjustment strip to the inner wall of the stringer. Taking measurements from the stringer to the outer edge of the pinblock every 3", I found that between 21" and 30" from the extreme treble end of the scale, the distance gradually increased. For the overall thickness of the adjustment strip, I used the difference in distance between the stringer and the outer edge of the pinblock on either end of the scale. I cut a strip of pine at that thickness, then mark the diminishing taper I had found between the 21" and 30" markers along its length (Photo 2). This was then cut freehand on the table saw (Photo 2 insert). The blade was also set at a slight bevel, with the top wider than the bottom, to account for the fact that the wall of the stringer was not exactly perpendicular to the pinblock, but rather leaned back from it at an angle.

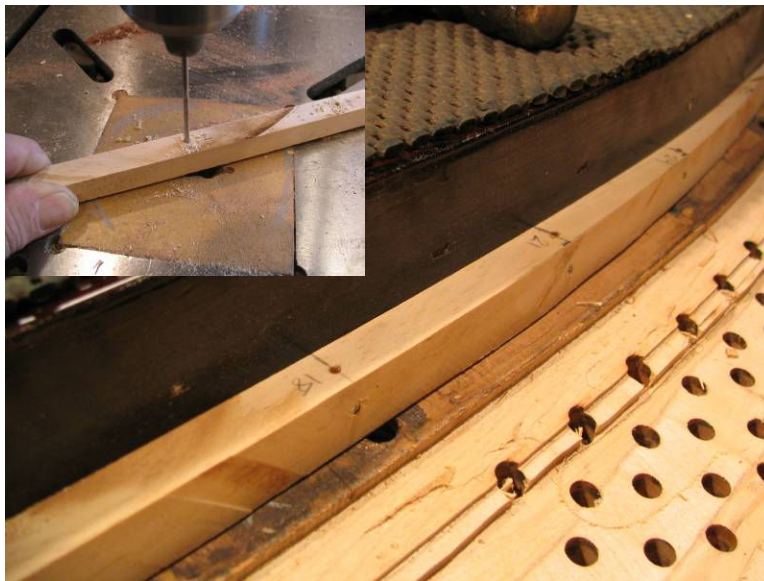


Photo 3: Adjustment strip placement.

With the adjustment strip cut to measure, I tacked to the inside of the stringer (Photo 3), using small pilot holes drilled at every measurement line along its length (Photo 3 insert). It tapered off and ended slightly after the 30 inch line. Now, using the big router and 1/2" straight bit, the outermost cut on the pinblock produced an even wall of remaining pinblock material from one side to the other (Photo 4). This remaining wall of pinblock, the leveling bead, is absolutely necessary for the fitting of the pinblock panels. Having it uniform in thickness would greatly simplify the cutting of the panels.



Photo 4: Making the outermost cut.

With the innermost cut done with the offset router, and the outermost cut done with the big plunge router, I turned my attention to the pinblock material in between the two extremes. With the depth of the inner and outer cut set by using an improvised depth gauge (Photo 5), everything in the middle needed to be routed out to the same level.



Photo 5: Depth gauge.

To finish out the routing process, a third router was needed that could work in closer to the stringer than the big plunge router, but that was higher power than the offset router. A small Bosch router proved to be the perfect tool for the job (Photo 6). Although not a plunge router, it had an adjustable depth setting, so the system I used with the offset router wasn't necessary as deeper and deeper cuts were being made.



Photo 6: Small Bosch router with added base plate.

Owing to the fact that the base plate for this router is square, I added an improvised round base plate. With a round plate, maintaining an even distance between the stringer and the cut along the curves was easier. Also, the wider stance that the added base provided allowed me to keep the router firmly planted on both the inner and outer fitting beads as I ran it from one end of the cut to the other.



Photo 7: Finishing work.

The only area I couldn't router out was a small strip between the innermost cut and the closest in that the smaller Bosch router would go. This strip of pinblock material was removed with a chisel (Photo 7)



Photo 8: Completed excavation.

With the excavation of pinblock material using a combination of routers and a chisel, I was able to produce a suitable cavity ready for the new pinblock panels (Photo 8). The cutting and fitting of the panels will be the subject of next month's installment. Until then, we'll keep the coffee pot on. Stop by anytime.

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