



Small Shop - Big Results
Grand Action Reconstruction – Part 4
(Installation of Risers)
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By the end of the last installment, everything was set to install a set of risers on the keysticks of the Weber grand in order to compensate for the difference in height between the old rocker / sticker assembly, and the new capstan / wippen heel arrangement. An adequate supply of yellow pine stock had been milled down to the correct thickness, and sawn into strips for gluing on the keysticks.



Photo 1: Spaces provided for the saw blade.

To prepare for gang-gluing the risers to the tops of the keysticks, felt punchings were placed in between each key (Photo 1), so that they could be cut apart once the glue had dried without scarring the edges of the keysticks.

The appearance of these original keys as seen above brings up a topic I think is important to consider – that of where to draw the line when working on an elderly piano such as this one. Obviously, the keys are showing their age, all 125 years. The as-of-yet unplugged screw-holes left behind from the removal of the rockers of course don't help. I'm sure there are technicians who would take one look at this photo and say that it would be best to make an entirely new keyset.

At some point, however, it is only practical to say “enough is enough.” After all, if the customer wanted a new piano there are new pianos for sale. In the case of this instrument, I have based my decisions as to what to replace on the benefits to be derived. In the case of action parts which were literally falling apart, I am certain that replacement will be of a significant benefit. Replacing the keyset entirely, while certainly possible, would not seem to me to be beneficial enough to warrant the time or expense involve.

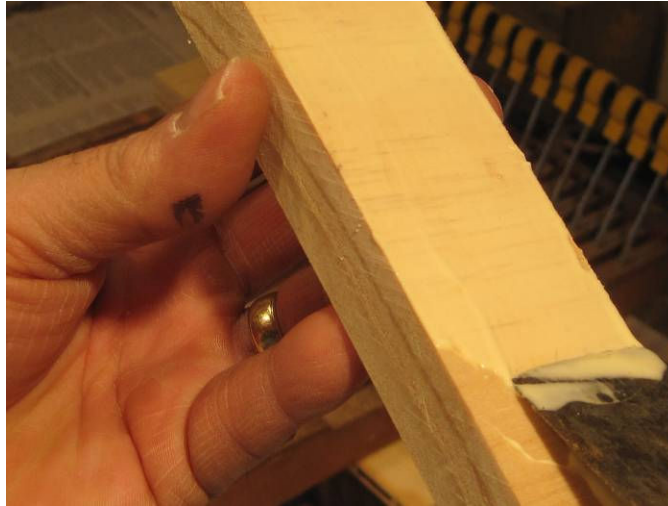


Photo 2: Application of Titebond to riser stock.

From my point of view, how much work is done on a piano is not as important as how well the work is done. In the case of the project at hand (installation of risers) my intention was to do the work as professionally as possible.

To that end, instead of gluing the risers on individually, I glued them on in sections (Photos 2 and 3), so that they could be separated and sanded flush with the keysticks once the glue was dry.

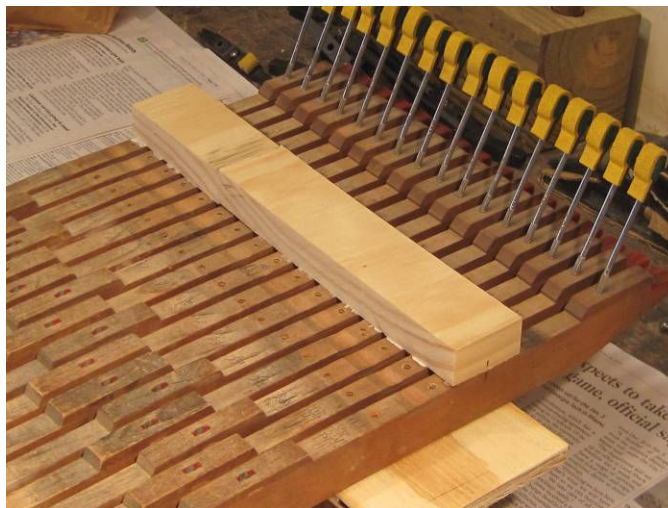


Photo 3: Riser stock positioned from side to side on section of keys.

The center of the riser stock from front to back was aligned to coordinate with where the heel of the wippens would make contact with the capstans. The grain of the wood of the risers was aligned with the grain of the keysticks themselves. (Note the new backchecks shown in Photo 3. I'll discuss their installation in a later segment.)

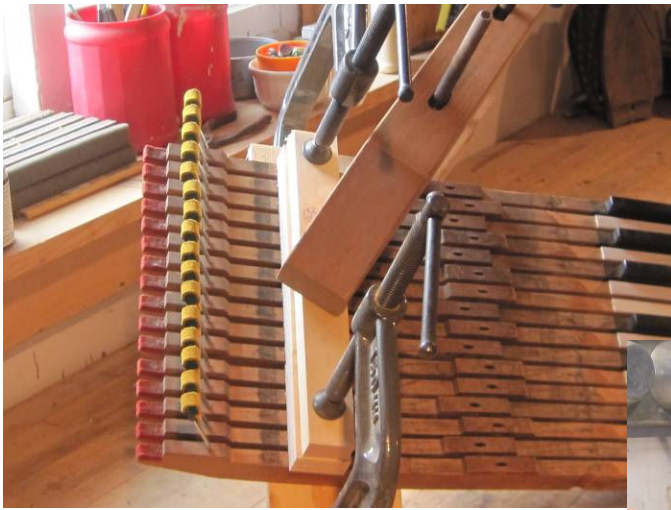


Photo 4: Clamping pressure applied



Photo 5: Pressure released.

With glue applied, and the riser stock positioned, clamps were applied (Photo 4). Scrap material was used above and below keys to prevent damage from clamps and to even out pressure. C-clamps on the edges and a traditional wood clamp in the center gave adequate clamping force for a bit of glue squeeze out. The clamps were left on overnight, and removed the next day (Photo 5). Once the clamps were off, the keys were cut apart on the table saw (Photo 6). With the separation between the keysticks give by the insertion of the felt punchings, the blade never touched the keystick material.

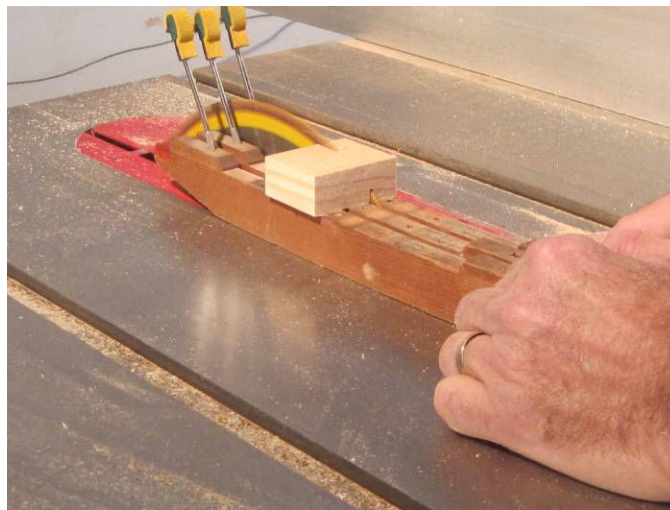


Photo 6: Cutting the keystick apart.



Photo 7: Sanding the sides flush.

To finish the risers, I used a stationary belt sander to smooth the sides down flush with the sides of the keysticks (Photo 7). The joint between the riser and the keystick is extremely strong when this method is employed (Photo 8). Allowing the glue to dry and cure overnight is the key to a successful glue joint.



Photo 8: Rough sanding completed.

After the rough sanding with the belt sander (Photo 8), a light sanding with a sanding block fitted with 150 grit paper will remove the scratches seen in the above photo.



Photo 9: Risers complete.

With the new risers completed, only the installation of the capstans remains to be done before the wippens rail with new wippens are put back into place. Things at this point seem to be progressing nicely.

Stop by the shop in Boone if you're ever in the area for a visit. The coffee pot's always on.

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