Building Wooden Planing Forms

Mark Thurling

Why build a wooden planing form

- Cost: Under \$200 vs \$3500au
- For the experience, and the satisfaction of knowing you made the form that made your rods.
- No wait time for posting from the US.
- The ability to customise the forms for your own usage.
- Lighter than metal forms.



Selecting Timber and Hardware



Select the wood: Hard wood should be used. Maple is best. I used big box store pre planed 1 ¼" by 1 ¼" timber for convenience.

► Purchase hardware: To adjust the taper push-pull bolts are needed every 5". I decided to use threaded inserts and a metal dowl for location. An online store was the cheapest option. All my hardware was M6

Adjustment Holes





- Mark out three holes every 5". 1 push, 1 pull and 1 in the center for the metal dowel.
- To drill the holes, I clamped my two pieces of timber together. Then I set a fence on a pillar drill.
- Another method could be to use a doweling jig

Putting it all together

► I added some metal inserts for the push bolts to push against. If/when I make another, I would try roofing nails.

Soft wax paste was added on all the threads during assembly.

After assembly I spent some time making both planning surfaces level.





Setting the form.

Objective: To cut a v groove that slopes .001" every 1" Method: Open form 1/6" (.0625) it's entire length. Set dial indicator to "0" at butt end of rod. Progress to the tip setting each station .005" deeper than the last.

Cutting the groove.





You will need to make a cutting tool to cut the groove in your form.

The depth of cut must be adjustable.

I purchased a lathe tool and a marking tool. The marking tool ended up working best for me.

It is best to remove a small amount with each pass.

To achieve a .030" depth at the tip when the form is closed cut until your indicator reads .090" (1/16" = .0625" .0625 + .030 = .0929)

If the tip of the butt section is .090" continue on the butt side to .150" (.0625 + .090 = .1525)

Grooving the plane sole

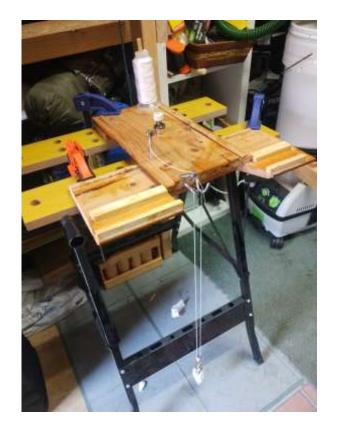
I decided to put a groove in the sole of my plane to protect the form.



Questions?







Homemade Lathe and Binding Jig