

SAWHORSE

Carpenters never cease to amaze me. I have been working with them for nearly 50 years and I learn something every time I go to every job.

The carpentry business is a rough profession. I personally believe that carpenters are the most hardheaded bunch of people that God ever made. I don't know why he made us the way he did, but if anybody knows how to make a carpenter, it's him. He made one that was perfect, but it wasn't any of us. Carpenters for the most part are really good people, but I never understood why they will take a bunch of scrap 2x's and throw together a sawhorse in 10 minutes (that weighs 60 pounds) and that one day they would have to depend on this sawhorse to keep them from falling or to keep a bunch of lumber from falling on some child. I take pride in my work, especially in my tools and a sawhorse is one of them.



The first step in building a good strong 18# sawhorse is to cut you a $\frac{3}{4}$ "x8"x42" plywood top and then a 1x4x38". Center-center the 1x4 on the 1x8 and apply Titebond 3 exterior glue and staple it with $1\frac{1}{4}$ " deck staples.

Next step is to cut out the legs using 1x6"s, or rip a 1x8 with 2 11° parallel ends and make two legs at a time.



I have a template for the legs; it is 11° at both ends and has a 5" to a $2\frac{1}{4}$ " taper cut off the back side, use the front side to mark your angles. The legs measure $34\frac{1}{2}$ " on the front side. When you build an $11\frac{1}{4}^\circ$ sawhorse, whatever length your leg is on the front will be the height of the sawhorse after you add on the $\frac{3}{4}$ " top.

Almost all windmill towers are $5\frac{1}{2}^\circ$ - $8\frac{1}{4}^\circ$. Some have stood for over 100 years. I would say these carpenters knew the maximum and minimum angle to use to hold the horizontal wind loads. I can remember $11\frac{1}{4}^\circ$ because of a 1x12 and it is half of $22\frac{1}{2}$.

I had some carpenters load over 2000 pounds of wet treated 2x6 on two of these horses and they held. In the carpenter book I tell about the importance of remembering 5½, 1 1¼, 2 2½ and 45 degrees.



Next measure back 8" from each end and this is where the 5" front end of the leg goes along with a good bead of poly caulk to fill the small gap so we don't have to make a compound miter for this leg.

When you staple these legs to the 1x4 cleat use 2" deck staples and shoot the leg holding it out approximately 1 1 degrees. Remember on all of these cuts and rips, a cut is across the grain and a rip is with the grain. A lot of carpenters don't know that.



Now cut a 16" piece of 3/8" plywood off the end of a sheet and then two pieces 5" at the narrow end and 1 1¼" at the wide end (this makes an 1 1° brace) to make the brace as shown below in the picture (keep one of these for a template).



Glue and set this down on the 1x4 cleat **solid** and center it and shoot a staple at the bottom into the legs, then align the legs with the piece of plywood and staple the plywood to the legs, do both ends.



Cut a 1x4 for a leg brace (it is 32" point to point) with an 1 1/2" cut at each end. It goes as shown at the bottom of the plywood brace. Staple to the legs and to the plywood, use poly caulk or construction adhesive.

Add a shelf, if you want, to the 1x4's. I usually use 1/4" plywood for the shelf. It is also 8" wide and about 23" long.



This sawhorse beside the new one is 9 years old and still solid. I spent about an hour building this one. That is my cattle and horse brand on the old one, a small pinetree.

Building good sawhorses is an enjoyable project and they are tools that you can be proud of.

Especially when every carpenter has to stop and look at them, because they probably have never seen one like it.

One of the best things about these horses is that they weigh about 18# each. I don't cut on these horses; I use a frame table on top of them to cut on.

After building a pair of these horses you'll never go to a job and not be able to inspect the sawhorses, I can't. But I usually surprise my wife and keep my mouth shut about their sawhorses when we go to a project.

The last step is to sand or grind the corners and round over the ends of the legs where they touch the ground. If you don't do this the ends of the legs will split when you put a load on the horses.

The very best sealer that you can apply to your new horses is fiberglass resin thinned down with 25% MEK thinner. You can add some hardner if you want, but the resin will dry in a day and if you don't use all of the mix you can use it later. Next best is oil based concrete sealer. Any sealer is better than none. I really load up the sealer on the feet so they won't soak up water.

If you have a different style of sawhorse. send me a picture of it, but try this one.

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