

# Sawhorses for the Shop

Three horses that cover  
all of your shop needs

BY CHRISTIAN BECKSVOORT

Sawhorses are an indispensable part of my shop equipment. No matter what the process or project, I reach for a horse to saw boards, to stand on, to lay out panels and joints, to hold parts and to elevate cabinets for sanding or planing. I also use sawhorses for drill-press work supports, assembly, finishing, outdoor power carving and routing, changing lightbulbs and even photography. I've constructed a pair each of three different heights: 1 ft., 2 ft. and 3 ft. The 3-ft. set includes height extenders for even more versatility.

Sawhorses are not fine furniture. I built these horses quick and dirty, to be useful but sturdy. The material is whatever I happened to have on hand at the time: pine, ash, oak, fir and even the ever-

plentiful cherry scraps. For joinery I relied on butt joints held together with glue and screws. I spent a lot of time and effort on my toolbox (see *FWW* #153, pp. 84-89) and will do the same when I have to replace my aging workbench. But sawhorses are a different story. I give them the roughest treatment without a second thought. While studying and restoring Shaker pieces, I noticed that although most of their work reflects meticulous craftsmanship and graceful design, many of their tables, stands and cases intended for shop use are merely glued and nailed together. They had the same idea. □

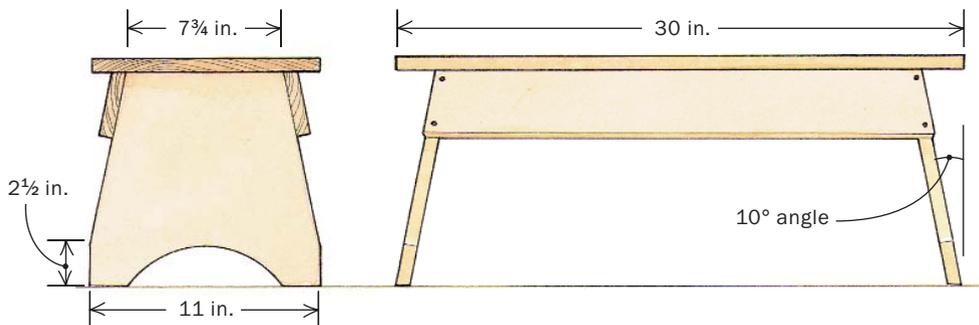
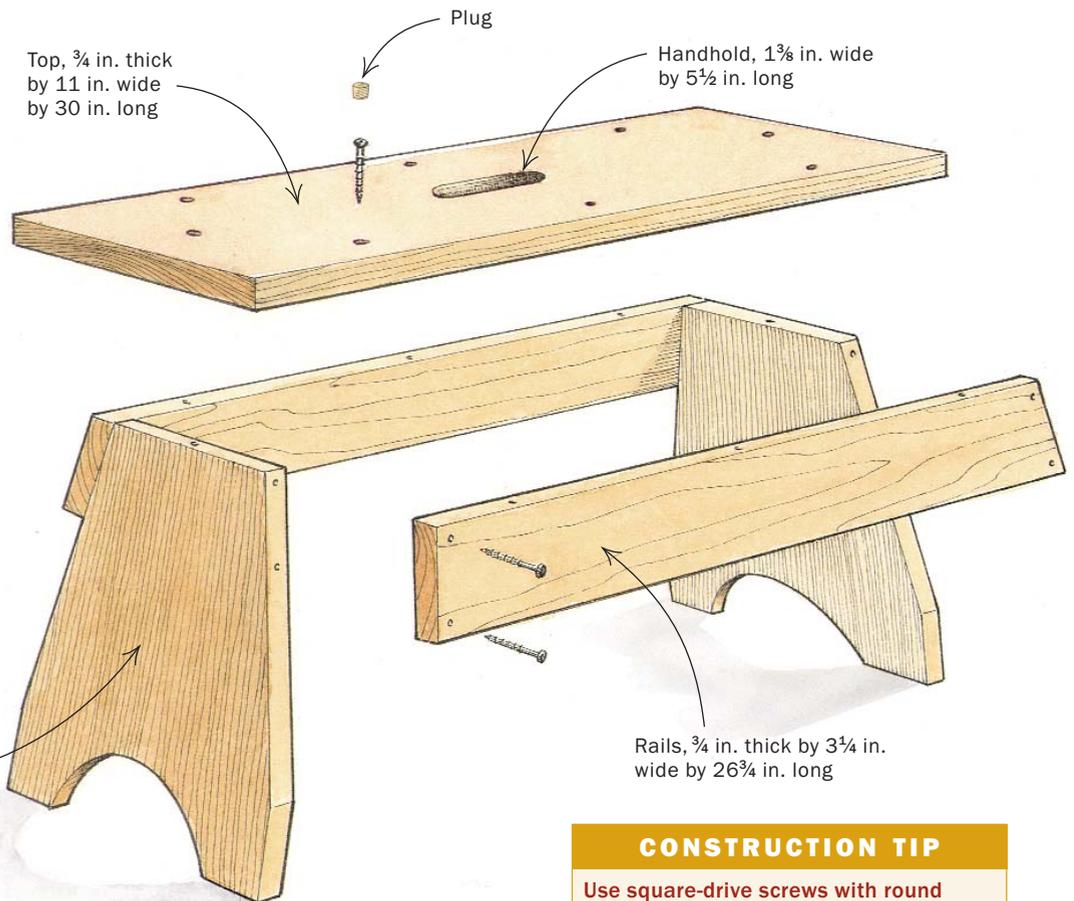
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## WIDE-TOPPED SHORT HORSE SERVES TWO PURPOSES

Essentially, this horse is a stool, but it can be used as a short bench for sawing, holding tall work in a vise and holding case work off the floor for finishing.



**Stepping up for crosscuts.** The 1-ft.-tall horse raises the workpiece so that you can use a crosscut saw comfortably.



### CONSTRUCTION TIP

Use square-drive screws with round heads because they are less likely to strip out and, unlike flat-head screws, won't act as a wedge.



**M**y shortest sawhorse is really a larger version of a foot-stool or a small bench. It's about a foot tall and is assembled with screws. Because the top of this horse is relatively large, it has a handhold in the middle to make it easy to pick up the horse and move it with one hand.

Generally, I use the short horse for sawing long planks to rough length. If I'm cutting off just a couple of inches from the end of a long plank, a pair of these horses goes under the long section. If I'm cutting the plank near the middle, the sawcut is made between the horses to support the cutoff.

Most often I'll use the short horses to bring a case piece up

to a comfortable working height. For example, I'm over 6 ft. tall, so a 30-in.-tall cabinet that needs to be planed or sanded is in a much better working position for me with this horse placed underneath it. When edging wide panels or case backs, I set one end into my bench vise and support the other end on the short horse. My ancient Skil belt sander weighs close to 15 lbs., and I prefer to use it in the horizontal position. Consequently, when finish-sanding the top of a 5-ft.-tall cabinet, I stand on the short horse to make sanding easier. When working on a nearly completed piece, I pad the top of the horse with carpet scraps to protect the piece from unwanted dings, dents

and scratches. I'm not the only one who finds my short sawhorses useful. The short horse gives every *Fine Woodworking* photographer who comes into my shop a great view of work in progress on my tall workbench.

The footprint of the base is the same size as the top so that the horse is safe to stand on, and a pair can be stacked. The legs are cut at 10° along both sides and are tilted at the same angle when attaching the side rails. A "V" or half-round cutout on both ends results in four feet. The rails are screwed in place, and the top is attached to the base with screws. I plugged the screw holes to keep chips and oil from accumulating in them, and I beveled all edges with a block plane before putting this horse into service.

When I build a pair of these horses again, I'll make one improvement: The rails will be 4 in. to 6 in. wide for added strength and racking resistance. My set, after 20 years of use, is starting to wobble a bit. Otherwise, I'm pretty happy with them.



**Use horses in conjunction with your bench.** While a workpiece is secure in the vise, the short horse provides solid support from below.



**A pair of medium-size horses makes an impromptu workbench.** At 2 ft. tall, these horses are the right height for doing finish work on a large case piece. The carpeting protects the workpiece.

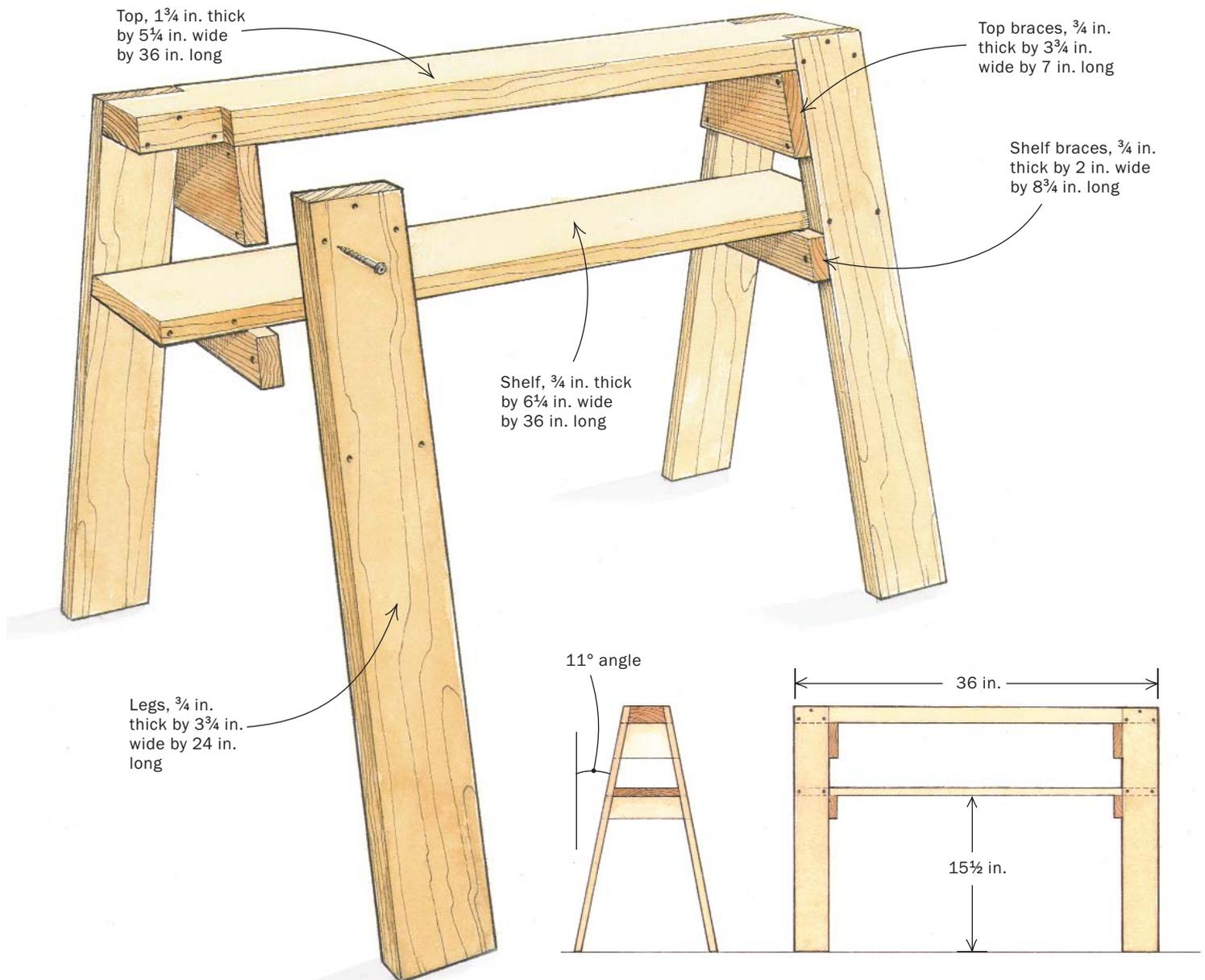
**T**he 2-ft. sawhorse is the workhorse in my shop. This style is easy to make and move around. I make them in pairs, and the design allows the horses to be stacked when not in use. I also stapled carpeting to the top to prevent pieces from being damaged while they are on the horses.

Their primary use is for holding case pieces at working height. When fitting face frames, backs or doors, or when sanding or installing hinges, I find these midheight horses indispensable. Standing on these puppies brings me right up to the ceiling in my shop: I can change lightbulbs or sand the tops of tall cabinets. And because the braces are inboard of the legs, I can clamp onto the ends as well as the middle of the top. I sometimes use these horses to clamp case sides upright when laying out and transferring dovetails from the top to the sides. This is a real handy feature when working alone.

There are many ways to construct a 2-ft. sawhorse. On mine, the legs are let into notches in the top piece. Braces provide racking resistance in two locations, and a shelf is handy for storage or as a step. The legs are splayed out 11° to

## 2-FT. SAWHORSE IS THE MOST USEFUL

This is a standard-size horse for general carpentry, but it also can be handy for holding case pieces. The shelf is optional, though it provides additional stability to the horse.

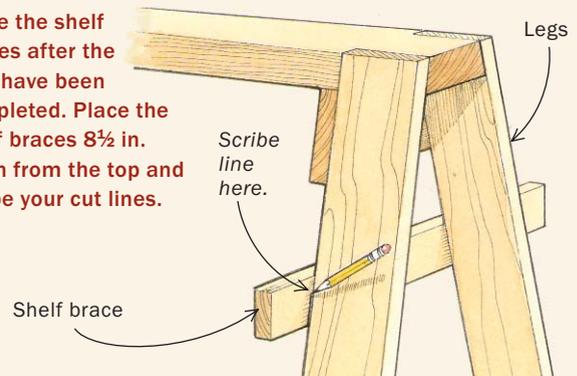


the sides. For the top, you can rip the sides of a 2x4 to 11° and simply attach the legs. Or you can use a 2x6 and let in the legs. The 2x6 gives you a wider top, which provides extra stability should you wish to stand on it. In addition to the two pairs of braces shown in the drawing, one of my 2-ft. horses has additional bracing just above the floor (see the photo above left).

A shelf on the lower braces not only adds strength to the horse, but it also is strong enough to act as a lower step. The braces under the shelf provide enough support that I can stand on the shelf without it flexing. For a while I had side strips along the shelf that kept tools from rolling off. They worked, but they collected all sorts of debris and were difficult to keep clean, so I took them off.

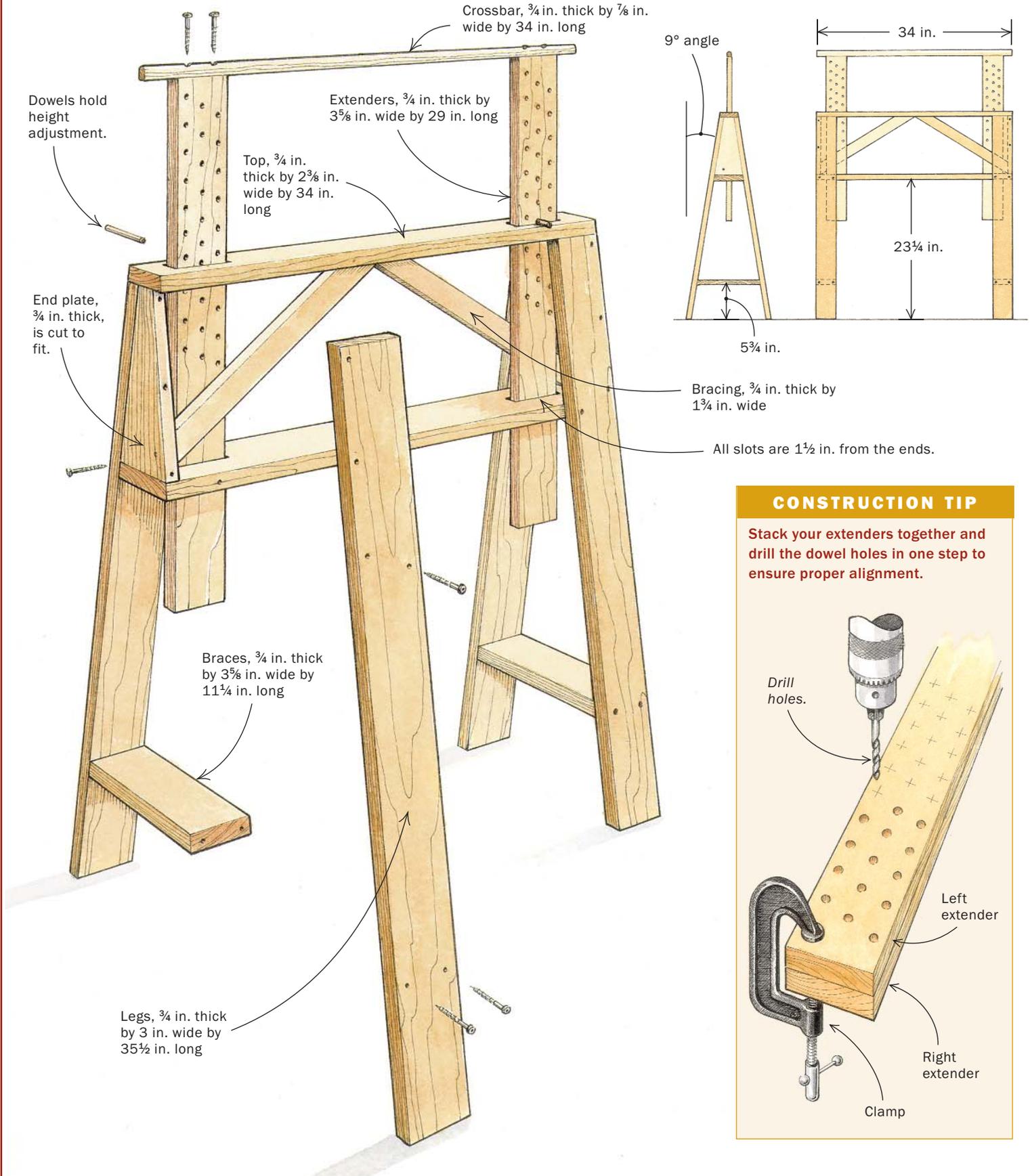
### CONSTRUCTION TIP

Make the shelf braces after the legs have been completed. Place the shelf braces 8 1/2 in. down from the top and scribe your cut lines.



# TALL HORSE IS ADJUSTABLE IN HEIGHT

The extenders on this horse raise your work to a comfortable height. The ends of the horse are made flush so that you can clamp tall pieces to them.





**Adjustable-height sawhorses are versatile.** Avoid back fatigue by raising the work up to a comfortable height.

I recently added a third pair of sawhorses that can be adjusted in height between 36 in. and 55 in.

I use these horses mainly for sanding and finishing. Even though they're 36 in. tall, I still have to bend over slightly, hence the extenders. For my height, 42 in. to 44 in. is ideal for sanding and finishing, especially tabletops. For fine, close-up work like carving or inlaying, I prefer 48 in. to 54 in. That's about mid-chest height for me, just right for the real fussy stuff. When I have messy work to do, I haul these horses outside, remove the extenders and use them like a bench for seat carving, grinding, sanding and routing. At the drill press, the extenders are useful for holding long work at the correct height.

The tall horses are built almost like the two-footers. The major difference is that I have enclosed the ends and added diagonal braces for strength. The extenders consist of two 3½-in.-wide boards connected to a ¾-in.-thick crossbar. The

boards are drilled at ½-in. intervals and fit into slots in the top and the lower shelf, much like a centerboard of a sailboat. Two ¾-in.-dia. dowels through the 2¾-in. holes hold the extenders at the desired height. The crossbar is padded with ¾-in.-dia. foam pipe insulation to protect the workpiece. It also provides grip to prevent panels from sliding around when they're being sanded.

Feel free to customize these horses as needed for specific applications. For example, the crossbar is fine for supporting wide panels, but it won't take the weight of a 4-in.-thick plank. A wider board or even a T-shaped crosspiece would make a good substitute. On occasion, when I use the horses as a single unit, I have scrap V boards fitted between them. Two bar clamps hold the whole unit together so that I can use it as a bench.

**Height adjustment is made with a dowel.** The holes are numbered on both sides for quick alignment.



**Pad the crossbars to protect your work.** Foam pipe insulation works well and easily slips on and off the top.