



## A Sliding Carriage for Your Circular Saw

by Jim Tolpin

According to advertisements for the *Saw Trax*, I can get twice the crosscutting capacity of a radial arm saw, the versatility of a sliding compound-miter saw, and a router table in one machine — all for just over \$300. This sounded too good to be true, so I had to see for myself. I asked George Woodruff of Pulyallup, Wash., to bring his Saw Trax “Professional” unit by my shop, and over the course of an afternoon, we put the tool through its paces crosscutting 2x4s, mitering thin trim stock, and chopping up hardwood-veneered plywood. We then removed the saw, installed my plunge router on the table, and ran a series of through- and stopped-dados, and cut rebates for some shelving stock.

After using the Saw Trax, I wouldn’t say my radial arm saw, compound miter saw, or fenced router table are obsolete. I’d put it this way: This system can’t outperform any one of these specialized machines over their entire range of applications. But the Saw Trax can

outperform these tools in some aspects, and more importantly, it can eliminate your need to always haul all three tools to the job site — if you’re willing to make a few compromises.

### Crosscutting

The Saw Trax has a saw carriage that holds an ordinary hand-held power saw and slides along parallel bars. The saw is not supplied with the Saw Trax — you supply your own. The rig is not too different from a conventional panel saw, except the bars are available in shorter lengths and the system includes a slotted particleboard back and a split fence that can be set at various angles for miter cuts, or straight for crosscuts.

The ease with which the tool made crosscuts was enough to convince me that this tool would be highly useful on just about any construction site. The carriage system works smoothly and with surprising precision. And the Saw Trax has a very wide crosscutting capacity. The

“Professional” model cuts panels up to 35 inches wide, which, as advertised, is over twice the capacity of my radial arm saw. But it takes some getting used to. You must always slide the stock in from the side; you can’t just slap stock down on the table as you would on a radial arm saw.

The Saw Trax is also very safe. Having seen my share of radial arm saw blades climb their way out of control toward my body, I really appreciated having the blade completely out of the way under the saw carriage.

To get the most efficient use of the Saw Trax’s crosscutting capacity, I set up an extended fence. With the saw table set up on a pair of sawhorses, a fence can be rigged out of some scrap 2x4s, which slide between the bars and the table and extend to either side.

### Mitering

The Saw Trax “Professional” has a 45-degree miter capacity of 21 inches. To cut across a board at an

angle, you have to loosen the screws in the fences and reset them to the angle you want. An adjustable protractor (such as the Stanley 46-052) makes this go fairly quickly. The lip of the protractor fits in the saw kerf, and the adjustable arm, set to the desired angle, rests against the fence. While this works, it’s a slow process compared to swinging the arms of either a radial arm saw or a power miter saw to a given angle setting. If your project requires you to make constant angle changes, you won’t want to be doing them on the Saw Trax for very long.

On the other hand, if your stock is greater than 12 inches in width, you may not have a better choice. And if you are making multiple angle cuts in the ends of the stock, and especially if you are making multiples cuts at two different angles (such as 45 and 90 degrees, or two mirrored 45s) then the Saw Trax is definitely where you want to be. Since each side of the fence operates independently, you can set each to a different angle. Then you

can cut stock as quickly as you can feed it into the table and slide the saw along the carriage. Compound angles are no problem, either. You set the fence to the first angle and then tilt the circular saw (using the saw's own tilting base and lock-down) to the second.

To cut the stock to length, I found I could index the cut line to the saw kerf — at least until the kerf in the particleboard base gets too ratty with use. I recommend cutting a replaceable insert strip in place of the kerf, so you always have a clean line to index off. To do this, rout a 2x1/4-inch slot into the table under the entire run of the blade. Then cut an insert out of melamine and secure it with a few pieces of double-stick tape.

### Ripping

I don't recommend ripping with the Saw Trax. To do so, you have to remove the standard crosscutting carriage and reinstall an optional ripping carriage that positions the saw perpendicular to the carriage bars. After screwing down the fence parallel to the blade and locking the carriage with the blade set to the desired distance from the fence, you then feed in the stock (against the spin of the blade). While it is safer than a radial arm saw for ripping, the bars make it awkward to push stock by the blade and at the same time keep the stock tight to the fence. To do this well and with any degree of efficiency, you really need two people.

### Routing Table

The Saw Trax can, however, replace the need for a table-mounted router system. And because of the sliding carriage, it can do some things the typical router table can't.

Changing the Saw Trax over from crosscutting to routing takes about 15 minutes by the time the carriage is properly adjusted (it needs to be lowered to bring the router close enough to the table for the bit to reach sufficiently into the stock for running dados). To speed this process, I recommend custom building an auxiliary table to mount over the Saw Trax table. This would effectively raise the work surface and eliminate the need to readjust the carriages. In this case, the changeover would probably take less than 5 minutes.

With the router married to a sliding carriage, cutting dados is a breeze — even stopped dados. You can easily control the cut. Unlike a table-mounted system, the cutting action on the Saw Trax is always clearly visible. If you build the auxiliary base to raise the work surface, you can align the marks for the dados along the fence of that base.

Routing rebates or profiles along the length of the boards is a bit



*This Saw Trax cutting system works like a miniature panel saw with a cross-cutting capacity of 35 inches and a miter capacity of 21 inches. The saw carriage can be replaced to hold a router as well.*

more awkward, however. You must be very careful to keep the stock tight to the table throughout the cut or you'll end up with too deep a cut — a disaster if you're running a shaped edge. You may miss your table-mounted router for these types of cuts.

### Kudos and Caveats

The Saw Trax is a well made, extremely durable, relatively lightweight, and portable tool. Overall, it is highly versatile, though to reach its full potential I do feel it needs a few additions.

For starters, this type of system is only as good as the tools you put on it. To get accurate crosscuts, your circular saw must be in good shape (no worn out bearings) and the blade must be sharp and designed for fine crosscutting. The same goes for routing. It is my recommendation that you commit one of your better circular saws and blades for exclusive use on the Saw Trax. Don't ever let it out to get trashed on the construction site — if you do, it probably won't ever make the same quality and line of cut. This does mean, however, that you must add the cost of the saw to the price of the Saw Trax.

Then there is the need to make fixtures: For efficiency in production crosscutting, I would build my own side support, fence, and sliding stop system. I would also make a replaceable insert, as mentioned above. To easily adjust the depth of cut, you need some kind of indexing block to slide between the blade and the table surface. George Woodruff showed me his — a block

of wood with notches cut to commonly used spacings. For routing, I would build a table with fence to slide on top of the existing table surface, as suggested above.

With these fixtures and a bit of practice, the Saw Trax would really come into its own. I could not, in fact, think of a better tool for building sets of shelving or closet systems on site: After crosscutting all the stock to length, you could switch over to the router and run all the dados and back rebates. (I would, however, shape the edges with a hand-held router and a self-piloted router bit). Then, with a Saw Trax, you could keep your bulky, hard-to-move radial arm saw and router table in the shop.

Several Saw Trax models are available. I used the Saw Trax "Professional" model with 50-inch-long bars for a maximum crosscut capacity of 35 inches. The Saw Trax "Precision" has 26-inch bars for a maximum crosscut of 21 inches. And there are two "Panel" models with 68-inch-long bars for a maximum crosscut of 53 inches, or 80-inch bars for a maximum crosscut capacity of 65 inches. These last two models don't come with a base; you have to provide your own. All models are available with either the standard carriage that will hold a 7 1/4- or 8 1/4-inch saw, or a larger carriage that holds a 10 1/4-inch saw. For more information, contact Aardvark Tool Co., 2605 W. Alabama Rd., #202, Acworth, GA 30101; 800/763-5795. ■

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