Toolbox

Makita 2704X1 Table Saw

Back when 8 1/4-inch portable table saws were the norm, Makita's model 2708 dominated the professional-grade portable-saw market. The company's next saw, the 2703, had a 10-inch blade but still only 12 1/4 inches of rip capacity. Unfortunately for Makita, while it was designing the 2703, DeWalt was designing the DW744 — a 10-inch model with telescoping rails, capable of making rips of over 24 inches wide.

For most carpenters, this was a major change: It meant we no longer had to choose between portability and rip capacity, because we could get both from the same saw.

In the 10 years since the DW744 was introduced, most tool companies have come out with wide-ripping portables of their own. By the beginning of this year, Makita was one of the few major tool companies that had yet to produce a wide-ripping saw. However, that changed in the spring, when Makita launched the 2704X1. As soon as I heard, I requested one for testing because I've tried almost every portable saw on the market and wanted to see how this one stacked up.

Makita 2704X1 Specs

Weight (saw only): 62 pounds
Weight with stand: 115 pounds
Table size: 21 1/4″ x 29 5/8″
Maximum rip: 25″
Cutting depth at 90 degrees: 3 5/8″
Cutting depth at 45 degrees: 2 1/2″
Amps: 15
No-load speed: 4,800 rpm
Electric brake: yes
Maximum dado capacity: 13/16″
Street price: $479 (saw only); $558 (saw + stand)

Makita USA
800/462-5482
www.makitatools.com

Capacity

The new Makita saw is similar to other saws on the market: It takes a 10-inch blade and can make rips of just over 24 inches wide. Its 15-amp motor is equipped with an electric brake.

Power. The motor runs smoothly and has enough power for any task a carpenter would want to perform. Using the supplied 40-tooth combination blade, I had no trouble cutting 3/4-inch plywood and 5/4 hard maple.

To further test the motor, I made some cuts that I wouldn't normally make with a portable saw — such as resawing a redwood 2x4 and a 2 1/2-inch-thick piece of hard maple, each time in a single pass. Although it was more of a strain than cutting thin stock, the motor handled it just fine.

Blade height. The 2 1/2-inch depth-of-rip at 45 degrees is nothing out of the ordinary, but the maximum depth-of-cut at 90 degrees is noteworthy. At a 90-degree bevel, the Makita's blade can be extended 3 5/8 inches above the table, making it possible to rip 4-by material in a single pass. Most other 10-inch portables rip only 3 1/8 inches deep.

The Makita table saw's scale is clearly graduated, but glare can make it hard to see through the magnifying lens. The narrow slot in the fence limits your view; if the hairline is between full numbers, it's not immediately obvious where you are on the scale.

Bevel Mechanism

The blade tilts away from the fence and can be set to bevel between 45 and 90 degrees. Bevel settings are changed by releasing a lock lever and rotating a large hand-wheel that tilts the trunnion by means of a rack-and-pinion mechanism. This mechanism makes it easier to make fine adjustments to bevel settings.

The geometry of the trunnion is as it should be — the distance between the fence and where the blade exits the table is the same at all bevel settings. This means the rip scale is as accurate for bevels as it is for 90-degree rips. (On some saws, the scale is accurate only when the bevel is set to 90 degrees.)

One aspect of the Makita's bevel mechanism that I don't like has to do with the blade stop: If you turn the hand-wheel too hard, the blade goes slightly beyond 90 degrees. There are times when you might want to do this — if you want to back-cut a joint, for instance. But it would be better if Makita used some kind of stop override the way Bosch and Porter-Cable do. Their saws are designed to bevel between –2 and 47 degrees, but the stops are normally set at 0 and 45 degrees.

Fence System

The rails and fence on the Makita are made from hefty aluminum extrusions. The main rails are bolted to the table, and the telescoping sections extend from inside and are locked in place by a pair of levers on the front of the housing. A 5-inch section of the table goes out with the extensions.

When I first got the saw, the fence slid easily along the aluminum rail extensions, but the bottom of it dragged slightly on the table. Apparently, the front rail got knocked out of whack during shipping. I repaired it easily by loosening a couple of mounting screws and raising it slightly on the saw. After that, the fence slid smoothly at all points along the rails.

The fence is locked on the rails by means of a short pivoting handle, which works the same way as a conventional fence lock but looks different because there isn't a big knob sticking out of it. I ended up preferring this arrangement: Things are less likely to get hooked on the handle and it's less likely to get damaged in transit.

Rip Scale

Although I like the fence and rails on this saw, I do not like the rip scale. It seems that it should be simple to design a scale, but obviously it isn't or manufacturers wouldn't be doing it so many different ways.

On fixed-rail models, like full-size con-



The saw bolts to a wheeled stand (left). To raise the stand, you squeeze the locking lever (center) and lift to the upright position (right). Gas lifting props similar to the ones on truck caps provide much of the force needed to raise and lower the stand.

tractor saws, the scale is printed continuously down the length of the rail and the fence moves along it.

DeWalt has a single continuous scale and the rails have to move every time you change the rip. Bosch makes one of the more popular saws of this type, and it has two scales: one for narrow rips and another for wide ones.

Makita went with a single scale that starts on the main rail and continues across the smaller rail that telescopes out from inside of it. This means you can read the rip scale the same way you would on a fixed-rail model, by looking to see where the hairline indicator on the fence crosses the scale.

The problem with Makita's design is that the scale can be hard to read. It's viewed through a narrow slot in the fence, so if the hairline is about midway between full numbers, you can't see the next number up or down the scale. Since the outer rail telescopes out from inside the rail bolted to the saw, the scale drops down at $12\frac{3}{16}$ inches onto the lower (outer) rail. This puts the hairline well above the surface of the scale, which means it will read differently depending on what angle it's viewed from.

Makita's solution was to put two hairlines on the magnifier — one on the top and one on the bottom. If you look from the wrong angle you'll see both lines, but if you look from the correct angle (straight through the lens) you'll see just one. It works, but I always felt as if I were squinting to line things up. A simple pointer (like Bosch's) or hairline (such as DeWalt's) close to the surface of the scale would be faster and easier to read.

The Stand

One of the reasons small portable saws became popular was that they were easier to haul around than 250-pound cast-iron contractor models. But as rip capacity has gone up, so has the weight of the tools.

At 62 pounds, the 2704 is of average weight for a 10-inch portable model. Most carpenters can lift that much, but a saw is an awkward shape to carry, so many manufacturers make wheeled stands that can be "permanently" bolted to the tool. To transport the saw, you fold up the legs, and then roll the stand and saw on the wheels.

Until the introduction of the 2704XI, the most convenient stand out there was Bosch's Gravity-Rise model (see *Toolbox,* 7/06), which is designed to be raised and lowered with minimal lifting force.

Makita has achieved something similar with its scissors-action stand, which is equipped with gas lifting props similar to the ones that hold open the hatches on truck caps.

To raise the stand from the folded position, you grab the handle, pull back on the locking lever, put your foot on the crossbar, and lift. As the stand unfolds, the saw rises straight up.

The process doesn't take a lot of effort, but it's not as easy to operate as the Gravity-Rise stand.

One unique feature of the Makita stand is that you can raise the table to a variety of heights — 31, 34, 36, or 38 inches above the floor.

I like the Makita stand and think it's comparable to the Gravity-Rise model — but I do have one concern: Gas lifts

eventually wear out and do not work well in very cold weather.

Other Features

Like most saws, this one has a number of added features. It has a cord wrap — nothing fancy, but it sure beats having the cord drag behind you and get hung up on things.

A dust port projects from the back of the housing; when connected to a shop vac, it collects a high percentage of the sawdust.

The 2704 will make up to a $^{13}/_{16}$-inch dado, but you need to use 6-inch cutters. (Larger ones will hit the housing.)

Guard. Most blade guards are very poorly designed, the main problem being that taking them off for dadoes and then putting them back on for regular cuts takes too much time.

Makita's guard is an exception; installing it is simply a matter of sliding its end into a clamp below the table and pulling on a spring-loaded release pin. To remove it, you retract the pin and pull on the guard.

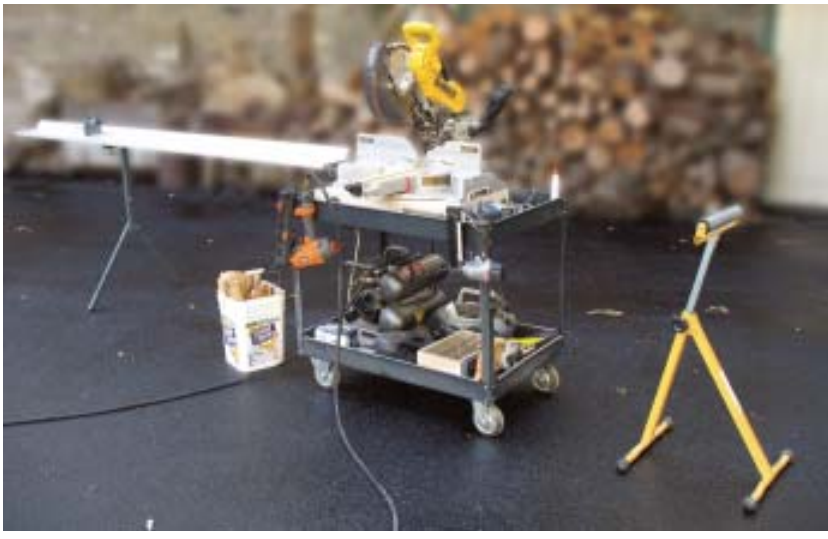
The Verdict

The 2704X1 is a powerful, well-made saw with a much better-than-average stand. No saw is perfect, but overall this one is as good as any portable model around, including two of my favorites, DeWalt's DW744 and Bosch's 4000-09.

If you're in the market for a new table saw, Makita's 2704X1 is worth checking out. The only major knock against it is that the rip scale is harder to read than it should be. — *David Frane*

Roll-Around Trim Station

by Jeremy Hess



The author transformed a steel utility cart into a great low-cost saw station that allows him to move his 70-pound sliding miter saw — plus all the rest of his trim-carpentry tools — from one space to another in a single trip.

The company I work for recently signed a contract to build a 7,200-square-foot custom home. We always do our own trim work, so I knew I'd be one of the two carpenters installing the interior trim. Since the house has 60 doors and 158 windows on one floor — and since getting from one end of the building to the other involves a 400-plus-foot walk — I was determined to find an easy way to move my tools around.

The Cart

My first thought was to use a little red wagon — but then, one night at a restaurant, a better solution came to me. I noticed while I ate that the busboy was placing the dishes he cleared on a metal cart that he pushed from table to table. And it dawned on me that I could probably rig up something similar for my trim tools.

Later, I went looking for a suitable cart. After mulling over several different sizes and designs at Harbor Freight (www.harborfreight.com), I settled on a 24-inch-by-36-inch steel model that cost $35. It looked sturdy, it was big enough to handle all my commonly used trim tools, and it would fit through most doorways. So I bought one and, with the help of some scrap materials from previous jobs, I built myself a nice portable workstation for very little money.

The cart's top shelf holds a 12-inch miter saw, a jigsaw, chisels, and other common hand tools. A plywood stand elevates the saw so that it can be connected to a Sawhelper UltraFence.

The Setup

Now that I had the right cart, I went about outfitting it. I put my 12-inch sliding miter saw on the top shelf, along with a number of my most frequently used trim-carpentry tools.

On the left side of my saw I mounted a 9-foot Sawhelper UltraFence (American Design and Engineering, 800/441-1388, www.sawhelper.com), which offers continuous support for material and has a superior stop system. (It's also easily removable.) I could have put a matching UltraFence on the right side, but I prefer to use a 12-inch roller support because it makes getting to the back of the cart easier.

The lower shelf contains a twin-tank compressor, a radio, and less commonly used hand tools. A plywood layer on both shelves adds strength and prevents the steel surface from dulling sharp hand tools.

A sturdy plywood box keeps gun nails together; its sliding Plexiglas lid shields them from sawdust while allowing the author to check stock with a glance.

I also keep a jigsaw, a Collins Coping Foot, block planes, and other common hand tools on the top level. The shelf's rolled lip provides a convenient place to hang trim guns, which saves me from having to constantly bend over to pick them up.

On the bottom shelf I store my 2.5-gallon air compressor, loose hand nails, various hand tools, a cordless drill and bits, other small power tools, and a radio. I built a plywood box to hold gun nails, since the cardboard boxes they ordinarily come in fall apart the second I put them in my van. A Plexiglas lid keeps out dust and allows me to see how many nails I have left.

I installed a power strip at one end of the cart, too; now there's only one cord lying across the floor when I work, and I don't have to keep swapping plugs.

By the end of the day, the entire setup is covered with dust, but we normally have a shop vac on site and cleaning everything off takes a few minutes at most.

The Benefits

Since building the trim station, I've used it on several jobs. It comes in particularly handy when I'm installing window and door hardware and doing punch lists. When I'm hanging doors, I keep it close by with a pile of shims on top and my gun hanging from the side.

One of the advantages of my rig is how it speeds cleanup at the end of the day. If I'm working in a reasonably safe location, I just wheel it into a closet, which I secure with my own lockset. Removing my tools from the site is almost as easy: I wheel the cart to the door and then carry the stuff to the van.

I don't use the workstation for small jobs, though; it wouldn't be practical. It takes up too much room in my van to haul around when it's not really needed. I use it mostly for jobs that take a few days or weeks.

Generally, I'm really happy with the size of the cart and my design. Eventually, I'll probably add a drawer or two under the top shelf to store other small items.

Other guys on the job get a laugh picking on my "hobo cart," but I know they're just jealous.

Jeremy Hess *is a lead carpenter with Heisey Construction in Elizabethtown, Pa.*

Go Deep! Whereas the blade arbor on most gas cutoff saws prevents them from cutting deeper than 5 or 6 inches, the Partner *K650 Cut-n-Break* can cut up to 16 inches deep. Powered by a 71-cc two-stroke engine, the saw's drive belt travels between twin cutting wheels to create a 3/4-inch kerf that — says the maker — is the perfect size for 1/2-inch EMT and expansion joints. The twin-blade design also eliminates overcuts at corners. The K650 costs $1,400.

Partner USA, 800/288-5040, www.partnerusa.com.
Circle #16

True Grit. A recip saw can cut through many different kinds of materials, but not, alas, through concrete and masonry — unless it contains an *Intimidator Blade* ($30; below) from Flush-Cut Tools. According to the manufacturer, the tungsten-carbide grit blade can cut reinforced concrete, rock, terra cotta, block, and brick. For something even tougher, consider opting for the diamond-carbide version, the Annihilator ($99; far right).

Flush-Cut Tools, 707/632-6854, www.theflushcut.biz.
Circle #17

Quick Spin. According to Hitachi, the *CM4SB2 Dry-Cut Masonry Saw* can get through tile, marble, granite, concrete, and brick with the greatest of ease. Powered by an 11,500-rpm 11-amp motor, the 4-inch blade cuts up to 1 3/8 inches deep. Thanks to a sealed armature coil, the tool is quieter and vibrates less than competing models, says the maker. I found it on the Web for $105.

Hitachi Power Tools, 800/829-4752, www.hitachipowertools.com.
Circle #18

Tile Time-Savers.

Generally described as the Mercedes (or, in my book, the Ferrari) of tile-tool manufacturers, Raimondi has a reputation for high-performance, precision tile tools. The Italian company offers just about everything for tile-setters, but here are a few of my favorites: The *Pedalo Washmaster Grout Station* ($250), which uses pedal action to make wringing a grout sponge easier, can cut grouting time in half, says the maker; the kit includes pole-mounted and handle-mounted sponges. Unlike most suction cups, the *Super Grip* ($20) can pick up even the most heavily textured tile. For bigger jobs, try giving the *Cico Mixer* ($510 to $550) a spin. The slow-turning, seven-gallon mixer — which won't trap air — can mix thinset, grout, floor leveler, and even concrete.

Raimondi USA, 800/625-6686, www.raimondiusa.com. **Circle #21**

Cut a Rug.

Pulling up an old floor is a lot easier with a *BS-50 Lightweight Stripper.* Designed for removing ceramic tile, wood flooring, VCT, carpet, and sheet vinyl — as well as adhesives and roofing materials — the compact machine can be carried by one person and has a removable handle for transport. Adjustable rear wheels provide numerous blade angles for effective operation with a wide variety of materials. The BS-50 lists at about $1,200.

Blastrac, 800/256-3440, www.blastrac.com. **Circle #20**

Masonry-Cutting Jamb Saw.

Installing a new floor as part of a remodel? You may need to undercut doors, trim, or even a brick hearth for a clean installation. Designed to cut wood and masonry, Crain's 13-amp *812 Super Saw* has a $6\frac{1}{2}$-inch blade that can slice through a $1\frac{3}{4}$-inch door in a single pass. Cuts range from flush to $1\frac{1}{4}$ inches off the floor. The saw (with a case) costs $280.

Crain Tools, 408/946-6100, www.craintools.com. **Circle #19**