

# Cordless Recip Saws

by David Frane

In the late '80s, when cordless drills became really popular, a lot of us figured it wouldn't be long before most power tools had batteries. It took another 10 years, however, for the recip saw, the one tool used by every trade, to go cordless. Makita used to make one, but it was so small and weak that it was more a curiosity than a serious tool. During the past year, Milwaukee and DeWalt each introduced full-size cordless recip saws, and for the past couple of months I've been trying them out to see how well they worked.

## Better Batteries

Tool companies have wanted to make cordless recip saws for a long time, but they were stymied by the state of battery technology. Tradesmen wouldn't accept a cordless tool unless it performed about the same as a corded model, and that meant the saw had to do a reasonable amount of work on a single charge. A bigger battery was the answer, but big batteries are heavy, because the voltage rating of a cordless tool goes up as the number of cells in its battery pack increases. Each cell is rated at 1.2 volts, so a 12-volt drill has 10 cells (1.2 x 10), an 18-volt recip saw has 15 cells, and a 24-volt tool like Bosch's hammer drill has 20 cells.

Both of the new full-size cordless recip saws use 18-volt batteries, which weigh about 2½ pounds. In a corded drill, which weighs about 3½ pounds, that's a big percentage of the total weight. But the battery weight isn't much of an issue for these heavier recip saws.

**Runtime.** Manufacturers have always had the option of putting bigger, more powerful motors in cordless tools, but until recently, they couldn't do

it without greatly reducing runtime. The more energy you can cram into a battery cell, the longer it will go between charges. Today's 1.9-amp-hour battery cells have 66% more storage capacity than the 1.25-amp-hour cells common in the '80s. These improved batteries have allowed tool makers to increase power output without sacrificing runtime.

**Chargers.** Charger technology has also advanced. In the past, chargers were controlled by timers, so getting a proper charge was often a matter of dumb luck. It was easy to end up with batteries that weren't quite full or that were damaged by overcharging. Nowadays, professional-grade chargers are controlled by microprocessors that "know" exactly how much juice to put back into the batteries.

## Milwaukee Power-Plus Sawzall Model 6516-2

To me, a cordless tool is perfect if I can forget that it's cordless while I'm using it. The Power-Plus Sawzall came close to this ideal standard, in part because it has the same front end as the corded Super Sawzall. I noticed the similarities as soon as I squeezed the trigger: The tool felt and sounded like the real thing. I haven't used the saw long enough to know how well it will hold up, but it's safe to say that the front half of the 6516-2 will be durable, because it's already proved itself on a corded model. From what I can tell by using the saw, the back half is equally well made.

**Cutting capacity.** The Power-Plus Sawzall uses 2-amp-hour battery cells and, according to the manufacturer, it will cut 28 6-inch-diameter holes in 5/8-inch plywood on a single charge. While I didn't try to reproduce this feat, I did use the saw to demo a garage, and Milwaukee's numbers seem about right. The saw cut with plenty of power, although it cut noticeably slower than saws I'm used to. I looked at the specs and sure enough, the Power-Plus is rated for 0 to 2,000 strokes per minute (spm); top speed for a corded model is anywhere from 2,400 to 2,800 spm. Considering that cordless tools are intended for intermittent use, the convenience of ditching the cord should more than make up for the lower cutting speed.

I especially liked the trigger on the Power-Plus. It had a lot of throw, which allowed me to control the speed with an unusual degree of precision. Most of the time, speed control is not an issue,

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Breakthroughs in battery technology, like that used in these new 18-volt cordless recip saws from Milwaukee and DeWalt, have led to more power and longer runtime between charges.



The keyless blade clamp and the adjustable foot on Milwaukee's Power-Plus Sawzall are as easy to use as any on the market.

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but it makes a difference when you're cutting close to finishes, wires, or pipes that you don't want to hit. I also liked the fact that the housing has a place where you can store the allen key needed to adjust the shoe (although I had to look hard to find it).

The model 6516-2 is 18<sup>1</sup>/<sub>4</sub> inches long and weighs 8<sup>1</sup>/<sub>4</sub> pounds. It sells for around \$300, and it comes with a metal case, a 40-minute charger, and a single battery. A second battery costs about \$80.

### DeWalt Model DW938

What you see is not always what you get. When I first got hold of DeWalt's DW938 cordless recip saw, I took one look at it and thought, "What a funny-looking tool." But then I tried it out, and was surprised by how much I liked using it. What appealed to me most was its speed: The saw runs at 0 to 2,800 spm, so it cuts like crazy.

But speed isn't everything. The old-fashioned key-operated blade clamp makes it hard to remove blades, the shoe isn't adjustable, and I sometimes had trouble getting the batteries out. Also, the variable-speed switch didn't give me the same sense of control that I had with Milwaukee's saw.

**Lighter weight.** On the other hand, the DW938 only weighs 6<sup>1</sup>/<sub>2</sub> pounds, so it's light and easy to use. Batteries account for about 2<sup>1</sup>/<sub>2</sub> pounds of the total weight of both the DeWalt and the Milwaukee saw, so the difference is in the construction of the motors and gears. Milwaukee will tell you that its saw is heavier because the company didn't skimp on anything when it built

it. DeWalt will tell you its saw is lighter because it was designed from the ground up to be a cordless tool. During the garage demolition, I found myself picking up the DeWalt more often because of the faster cutting speed, but if I had to put money on which saw will last longer, I'd bet on the Milwaukee. Only time will tell.

The DeWalt DW938 uses 2.0-amp-hour battery cells, so it will do about the same amount of work on a single charge as the Milwaukee saw. The 17-inch-long saw is equipped with an electric brake, and retails for around \$300, including a charger, one battery, and a plastic case. Spare batteries go for \$60.

### Buying Into a System

Something else to consider when purchasing a cordless recip saw is how well it fits with cordless tools you already own. For example, all the tools in the Power-Plus line share the same charger; if you have the 18-volt recip saw and the 12-volt drill/driver, you have to throw only one charger into the truck. Milwaukee also makes a couple of 12-volt jigsaws, but right now, the 6516-2 recip saw is the only 18-volt tool in its product line.

Similarly, the charger that comes with the DeWalt's DW938 recip saw will charge any of the company's 9.6- to 18-volt XR battery packs. If you buy into DeWalt's 18-volt system, you can also swap batteries among the recip saw, the circular saw, the drill/driver, and the hammer drill.



**David Frane**, a former finish carpenter, is an associate editor at the Journal of Light Construction.