Orbital Recip Saws

by Don Pascucci

I've been using the same recip saw for 15 years, so I welcomed the opportunity to try out newer models from Makita, Bosch, and Porter-Cable. The biggest improvement in these new saws is the addition of a lever or knob on the gear housing that lets you switch between orbital and straight cutting. In orbital mode, the blade movement traces a small circle, swinging forward and backward as it moves up and down.

If you spend most of your time cutting metal, there's no advantage to orbital action, because the circular motion strips the teeth off the blades too fast. But orbital action greatly increases the speed with which you can cut wood. My old Milwaukee Sawzall has been a durable and reliable saw, but even when it was new, it couldn't cut wood as fast as any of the new orbiting saws I tried.

Pictured from top to bottom are the Porter-Cable Tiger Saw model 9737, Bosch 1634VS, and Makita JR3020.

The lever-activated shoe lock on the JR3020 is simple to use; unfortunately, it's located right where you grab onto the saw.

Makita JR3020

The *JR3020* is powerful but light and well balanced, and it's very comfortable to use. A flexible joint between the gear housing and motor is designed to dampen vibration, and I have to admit the saw ran quite smoothly. I had the Makita saw for a few weeks — not enough to tell how long it might last — but its general feel made me wonder if it could withstand a steady diet of heavy cutting. The JR3020 is 18 inches long, draws 9.3 amps, and runs at between 0 and 2,500 strokes per minute (spm). It weighs around 9 pounds, comes with a plastic case, and costs about $180.

Although the trend in recip saws is towards key-less chucks, the JR3020 still requires an allen key to change blades. Using a key might bother some guys, but I'm accustomed to it and I don't change blades that often anyway. However, I didn't like the lock-on switch. It's located just above the trigger, and I accidentally activated it a number of times.

Traditionally, recip saws have required an allen key to adjust the position of the shoe. (By moving the shoe in or out, you can extend blade life by spreading wear over a larger number of teeth.) But the shoe on the Makita saw is held in position by a plastic lever. It's a great concept, but I found the location of the lever very annoying. I'm used to gripping the front end of the saw housing when I make a cut, and that's where the lever is. When I got the saw, there was some slop in the lever mechanism, so when it was locked it overshot the centerline of the saw. Eventually, I got the lever to stay in line with the housing by tightening the nut beneath it. Even then, the lock mechanism didn't always hold the shoe where I wanted it.

Bosch 1634VS

According to Bosch, the *1634VS* is the most powerful recip saw on the market. If size and weight are any indication — the saw is 19 1/2 inches long and weighs 9.75 pounds — that claim may be accurate, since it's certainly the biggest, heaviest saw I've ever used. The extra length wasn't a problem, though I can picture circumstances where it might be hard to get into tight spots. The saw does feel a bit nose heavy, probably because the gear housing is so massive. Inside is what the manufacturer claims is a unique counterbalancing system designed to reduce vibration. From what I can tell, it works, because the saw

The key-less chuck on Bosch's 1634VS is lever operated and easy to get at, but it won't hold the new extra-thick blades (the key-operated version will).

ran extremely smoothly and cut with exceptional power.

Key-less blade clamp. The 1634VS has an unusual key-less blade clamp. You pull back a lever on the end of the shaft and slip the blade in next to it, then release the lever to lock the blade in place. One nice thing about the lever setup is that you can get at it even when the saw stops on the in-stroke and the clamp is retracted into the housing.

The lever clamp is a good idea, but at first I had trouble getting it to work right. Blades sometimes pulled out of the saw during cuts, and after a while I noticed it only happened when I used the new extra-thick blades (standard blades are .050 or .035 inches thick, but Milwaukee's Ax and Lenox's Demolition blades are .068 inch thick). In fact, the saw's manual says you can use extra-thick blades only if you switch over to a key-operated clamp.

The key-less clamp had no trouble holding on to standard blades, but it took some finesse to remove them, because they sometimes got hung up on a pin that didn't retract as far as I thought it should.

Unique shoe adjuster. A unique feature of the 1634VS is the mechanism that adjusts its shoe. Squeezing a particular spot on the rubber boot that covers the front of the saw engages a spring-loaded pin. The pin can be popped into any one of a number of slots in the blade housing, each of which is a positive stop for a particular shoe position. The mechanism is rugged and simple to use. I'm not one of those guys who constantly adjusts the shoe, but I thought this was a slick feature.

The 1634VS has two speed ranges, 0-1,900 and 0-2,700 spm, and draws 10.5 amps. It comes in a heavy metal case and retails for around $190.

Porter-Cable Model 9737 Tiger Saw

Porter-Cable was the first company to make recip saws with orbital cutting action and key-less blade clamps. The *9737 Tiger Saw* is very compact and well balanced. It's about 18 inches long and quite stout. It doesn't run as smoothly as the Bosch saw and it may not be as powerful, but it tore through everything I put in front of it.

The key-less blade clamp on the Porter-Cable 9727 Tiger Saw is activated by twisting a knurled ring, and accepts all blade thicknesses.

The 9737 has a 9.6-amp motor and weighs around 9 pounds. It runs at 0–2,600 spm and has a switch with a lot of throw, so it's easy to control speed with great precision. The model I tested comes with a metal case and costs around $180.

Reliable blade clamp. The blade clamp on the 9737 is easier to use than the one on the Bosch saw. To install a blade, twist the spring-loaded ring on the end of the shaft and slip the blade into the slot; when you release the ring, the blade is locked in place. The clamp accepts any size and thickness of blade, even the .068-inch-thick Demolition and Ax blades. My only complaint about the clamp is that you can't get at it if the saw stops on the in-stroke. This has always been a problem with Porter-Cable recip saws, even those with key-operated clamps. Most of the time, you can grab the blade and pull the clamp clear of the housing, but if the gears stop in the right spot, you have to turn the saw on to get the clamp to move out of the housing.

Although you don't need an allen key to change blades, you do need one to adjust the shoe. Adjusting the shoe is a bit more cumbersome than usual because you have to loosen two separate screws to do it. To be honest, though, it didn't really bother me because I hardly ever moved the shoe.

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