Toolbox

A Pair of New Compound Miter Saws

by Sam Bodell

In recent years, a large number of tool manufacturers have introduced miter saws. If you've been in the trades for very long, you probably remember what it was like just ten years ago, when we didn't have so many to choose from. Carpenters used to cut trim with circular saws, table saws, and radial arm saws, depending on the need for portability and accuracy. Then, in the late 1960s, Rockwell (now Delta) introduced the first power miter saw. As you can imagine, every carpenter wanted one.

Not much happened for the next 20 years, and when other manufacturers started making power miter saws, they weren't that different from the original. True, blades got bigger and saws got lighter as aluminum and plastic replaced iron and steel; but the saws still cut with a chopping action and couldn't do compound angles.

First Compound Slide Saws

Then in the early '80s, Delta introduced the Sawbuck, a sliding compound miter saw that never caught on, because it was awkward to use and made sloppy cuts. The big change came

several years ago, when Hitachi introduced its 81/2-inch sliding compound miter saw. It could accurately miter and bevel boards up to 12 inches wide. Cuts we used to make with a circular saw and a miter gauge could now be done precisely on a portable machine.

My first compound miter saw was a Makita LS1011. I chose it because it took a 10-inch blade, standard size in my shop. The larger blade also meant the saw could handle taller, thicker material.

I recently tried out sliding compound miter saws from Bosch and Milwaukee. Since neither of these companies has a long history of making miter saws — Bosch is best known for hammer drills, demo hammers, routers, and jigsaws; Milwaukee for Sawzalls and heavy-duty drills — I was curious to see how their saws would perform.

Milwaukee 6496

At first glance, Milwaukee's new model 6496 looks like a simple, rugged machine; a closer look shows it is more sophisticated.

Fence design. The fences on early sliding compound miter saws were low and far away from the cutting point. While this arrangement kept the fence out of the way of blades or saw hous-



Milwaukee 6496

ings during compound cuts, it also meant that tall or thin material was poorly supported and short pieces were easily pulled into the large blade opening in the fence. Milwaukee's solution is a fence that can be removed and repostioned by rotating a lock lever. For regular miters, you put the square end of the fence towards the blade, which yields 31/2 inches of vertical support and bearing to within 1/2 inch of the blade. To gain clearance for compound cuts, flip the fence so the tapered end faces the blade. The switch can be made quickly: In the time it takes to read this sentence, you could easily remove and reinstall the saw's fence.

Setting miters and bevels. The 6496 miters 51 degrees to the left and 59 degrees to the right. The bed moves smoothly between positive stops at 0, 15, 22.5, 30, and 45 degrees, there's also an index mark at 31.6 degrees, the miter setting for cutting crown on the flat, but there's no stop.

One nice feature of the 6496 is the positive stop override. On many saws, when you get close to a stop, a spring mechanism pulls the bed to the preset angle, and it takes two hands to set up cuts near, but not quite at, the stop. This saw has an override button that allows you to disengage the spring mechanism and make fine adjustments with one hand.

Another subtle but slick feature is the way you can override bevel stop settings. Most compound saw heads will tilt to any angle between 0 and 45 degrees, but if you want to go farther, you have to use a wrench to retract

Miter Saw Specifications

Mil	waukee 6496	Bosch B3915
Blade diameter:	10"	10"
Weight:	53 lb.	52 lb.
Approx. retail price:	\$575	\$600
Max. cut at 90-degree miter (WxH):	12 ³ /8"x3 ⁷ /16"	12"x3 ¹ /2"
Max. cut at 45-degree miter (WxH):	8 ³ / ₄ "x3 ⁷ / ₁₆ "	8 5/8"x3 1/2"
Max. depth of cut:	37/8"	33/4"
Motor rating:	15 amps	13 amps

the stops. The Milwaukee saw has spring-loaded end stops that let you push the head 5 degrees past the 0-and 45-degree settings. In addition, the graduations on the bevel scale are large and spread over a broad section of housing, so it's easier to make precise adjustments to the bevel angle.

Strength and stability. Milwaukee also set the slide arms in an over-under configuration, slightly offset from each other. According to the manufacturer, this arrangement makes the carriage stiffer than the side-by-side slide arms on many other saws.

The 6496 has a relatively small footprint, but an outrigger on the back makes it very stable. Since carpenters normally cut with the work positioned to the left of the blade, Milwaukee mounted the head so there's more bed to the left than to the right. It's a minor point, but it shows that someone was thinking of the way the saw would be used on site when they designed it.

Overall, I was impressed with this saw, but there were a few things I didn't like about it. First, the slide action was rough compared with that of other saws; there was no slop in the slide mechanism, but the bearings were kind of noisy. And the positive stops are shallow, so it's easy to overshoot them if you aren't paying attention. Finally, while the motor had plenty of power, the reduction gears were noticeably louder than I'm used to.

Bosch B3915

The slide action on the Bosch saw is extremely smooth and precise. I also liked the power, stability, and relative quietness of the motor and reduction gears. I used the saw to rebuild a deck, and I had no trouble cutting wet pressure-treated 2x6s. As miter saws go, this one's very quiet.

Miter and bevel settings. The bed on the B3915 pivots smoothly and pops cleanly into stop settings at 0, 15, 22.5, and 45 to either side, as well as 60 degrees to the right. It also has a stop at 31.6 degrees for cutting crown on the flat. The miter scale, which is cast into the base, is large and easy to



Bosch B3915

read. In addition to the usual degree markings, it has graduations that correspond to standard roof pitches. The lock knob for angle settings is large and comfortable, and is equipped with a stop override for miters up to 52 degrees to the left and 62 degrees to the right.

The bevel scale is too small to read with any precision, but Bosch makes up for it by providing positive stops at 0, 45, and 33.9 degrees (the bevel angle for cutting crown on the flat).

Additional features. The B3915 has a depth stop that can be adjusted to keep the blade from going all the way through the stock, making it easy to use the saw to kerf stock for bending or, in a pinch, to cut dadoes by making multiple passes. The left fence is lower than the right, and it's angled away from the blade to provide clearance for compound cuts. And the throat opening is relatively small for a saw with a fixed left fence. Still, I prefer Milwaukee's fence, because it provides more support for the work on non-compound angle cuts.

Overall, I liked this saw, but it isn't perfect. It's larger and heavier than the other saws I've used. Plus, the bed extension on the left end of the saw requires that you loosen two bolts to extend it, and it looks like it would break off if you gave it a good smack. It's not a bad feature, but it seems like a complicated way to pick up an extra $3^{1}/2$ inches.

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