

Wormdrive Saws



Manufacturers have shaved off weight and added power to these West Coast favorites

I'm a framer, and a circular saw is the most important power tool I own. The crew I'm on frames about a dozen houses per year. We're on the West Coast, so of course we use inline saws. Carpenters usually refer to inline saws as

by **Tim Uhler**

wormdrives, though some models are actually equipped with hypoid gears. Whatever you call them, these saws are

long, narrow, and geared to run about a thousand rpm slower than the average sidewinder. This makes for higher torque, less vibration, and less noise. It also increases the life expectancy of the tool.

For this article I tested 7¹/₄-inch inline saws from Bosch, DeWalt, Makita, Milwaukee, and Skil. Some of these models

have been around forever; others are relatively new. Other sizes are available, but we focused on 7¹/₄-inch models because they're by far the most common. I tested the saws by taking them to work and sharing them with the other framers on the crew. We used the saws for several months; gradually, it became obvious which ones we liked the most. Ultimately, the ones we liked got used every day and the rest stayed in the truck.

Power, Weight, and Balance

When it comes to cutting framing lumber, the more power, the better. None of the saws was weak, but the 15-amp models were definitely more powerful than the ones with 13-

Bosch 1677M



Bosch 1678



Bosch and Skil are part of the same company, so it's no surprise that the 1677M resembles the Skil models. Skil's saws haven't changed in years, but the 1677M has a number of improved features. It weighs about the same as the Skil HD77M but is equipped with a more powerful 15-amp motor. It has a built-in rafter hook, comfortable rubber grip, and a maximum bevel of 50 degrees. The guard doesn't stick, and the magnesium base plate is reinforced with waffle-patterned ribs.

The bevel adjustment worked well, but the depth adjustment mechanism began to stick after a few weeks of use.

Amps: 15

Weight: 14.0 pounds

Rpm: 4,400

Maximum bevel: 50 degrees

Maximum depth of cut at 90, 50, 45

degrees: 2³/₈", 1¹³/₁₆", 1¹⁵/₁₆"

Street price: \$199

When I pulled this saw out of the box, the crew crowded around to try it. We're all dedicated wormdrive users and wanted to try this inline model that looks like a sidewinder. The 1678 has the same features as the 1677M — the only difference is that the handle is on top. After using it, we all agreed it was the most uncomfortable saw we ever tried. We're used to pushing from the back of the tool, and the top-mounted handle forced us to bend our wrists at what seemed like a very unnatural angle.

Amps: 15

Weight: 15.0 pounds

Rpm: 4,400

Maximum bevel: 50 degrees

Maximum depth of cut at 90, 50, 45

degrees: 2³/₈", 1¹³/₁₆", 1¹⁵/₁₆"

Street price: \$179

amp motors. This was most noticeable when I made cheek cuts on hip and valley jacks, which required me to cut compound miters in 2x12 stock. Heavy-duty operations like gang-ripping plywood and beveling the lower edges of LVL valley rafters also helped us distinguish the saws. All of them had enough power for those operations, but the DeWalt and the 15-amp Makita had an easier time than the others.

Your arm gets tired lifting a heavy saw, especially when you perform repetitive

operations like cutting stair stringers or cutting 40 rafters in a row. While all wormdrives are heavy, some manufacturers have tried to produce lighter saws by replacing heavy materials with lighter-weight aluminum, magnesium, and plastic composites. We particularly liked DeWalt's saw because it weighs only 13 pounds. Most other inline saws are a pound or two heavier, and the Milwaukee weighs close to 17 pounds.

Balance. Most wormdrives feel nose-heavy because the grip is in back and

the weight is out front. DeWalt's saw is shorter than other inline models, which makes it less nose-heavy and easier to handle. You would expect Bosch's model 1678 to be the best-balanced tool of all, because the grip is on top. It's definitely not nose-heavy, but to West Coast carpenters the top handle feels so unnatural that we preferred not to use the saw. On the other hand, it might appeal to an East Coast carpenter who wants the power of a wormdrive but the ergonomics of a sidewinder.

**DeWalt
DW378G**



The unusual configuration of the DW378 took some getting used to, but it soon became our favorite saw. It's stable, maneuverable, and, at 13 pounds, very easy to lift. The rear-mount handle is unusually short, and that makes for better balance. The guard works well; I don't recall it ever snagging during normal use. The DeWalt saw features a 50-degree bevel, 15-amp motor, and a built-in rafter hook. The base plate is Teflon coated and reinforced with waffle-patterned ribs.

Amps: 15

Weight: 13.0 pounds

Rpm: 4,600

Maximum bevel: 50 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2¹/₂", 1¹³/₁₆", 2"

Street price: \$139

Makita 5277NB



We didn't know what to expect from this saw because none of us had ever seen inline Makita saws on local job sites. But once we started using it, this quickly became one of our favorites. The motor runs very smoothly and, unlike most of the other saws, reaches full speed as soon as you press the trigger. The 5277NB has a comfortable rubber grip, a bevel scale that's easy to read and adjust, and a well-designed guard that doesn't hang up on small cuts.

Amps: 15

Weight: 15.0 pounds

Rpm: 4,300

Maximum bevel: 50 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2³/₈", 1⁹/₁₆", 1³/₄"

Street price: \$159

Controls and Other Features

Except for the trigger, the mechanisms for adjusting bevel and depth of cut are the most frequently used controls on the saw. The mechanisms should operate smoothly, and the scales should be easy to read. Some of the older models bevel only 45 degrees, but it's worth holding out for a saw that tilts to 50 degrees for steep cuts on hip and valley jacks. The Bosch, DeWalt, and Makita saws all cut 50-degree bevels; the Skil and Milwaukee models don't.

Most depth control mechanisms work fine when the saw comes out of the box. The real test is how smoothly they work after the saw has been dropped a few times. Most of the saws we tested were not affected by falls, but dropping the Skil and Bosch models damaged their depth control mechanisms and made them stick. Some of the saws we tested cut deeper than others, but they all cut deep enough to go all the way through 2-by and 1³/₄-inch LVL material at their

maximum bevel settings.

A well-designed blade guard is very important. The problem with guards is that some of them tend to hang up on the work, especially when you're cutting near the end of the piece. Some carpenters solve this problem by disabling the guard. To me, this is not a solution because it creates a terrible safety hazard. You're better off buying a saw with a guard that works. Except for Skil, all of the manufacturers have managed to equip their saws with

Makita 5277B



This is the 13-amp predecessor to Makita's 15-amp 5277NB. The bevel and depth adjustments work smoothly, and the guard doesn't hang up on small cuts. It feels a little lighter than the 15-amp model, and the motor is definitely less powerful. Because of this, the 5277 was one of the saws that tended to stay in the truck.

Amps: 13

Weight: 15.0 pounds

Rpm: 4,300

Maximum bevel: 50 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2³/₈", 1⁹/₁₆", 1²³/₃₂"

Street price: \$179

Milwaukee 6377-6



Our first reaction to this saw was, What a beast! It weighs 16.8 pounds, and that's a real load. The added weight made it easier to keep the saw on the cut line when we ripped, but it made it hard to use the tool for anything that required finesse. The 15-amp motor is smooth and powerful, and the super-thick cord will probably last forever. On the other hand, the cord's so thick you can't knot it to the extension, so it's always coming unplugged.

Amps: 15

Weight: 16.8 pounds

Rpm: 4,400

Maximum bevel: 45 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2³/₈", n/a, 1⁷/₈"

Street price: \$229



A saw is less likely to take a fall if it has a rafter hook. The Bosch and DeWalt saws are equipped with fold-away hooks.



guards that don't get hung up on short trimming cuts.

A built-in rafter hook is a great feature because we all encounter situations where there's no convenient place to put the saw down. A hook allows you to safely hang the saw from a rafter, joist, or nail. The Bosch and DeWalt saws both come with built-in hooks that fold out when you need to hang the saw. Another nifty feature is a rubberized grip. It rains a lot around here, and hard-plastic grips can get slip-

Skil HD77



The HD77 is the benchmark for wormdrive saws; it's been around longer than most of the framers on our crew and has earned a reputation for running smooth and being durable. That said, there are a number of irritating things about this saw. The guard snags when you cut shims or trim 1/4 inch off the end of a board. It's inevitable that a saw will get dropped, and the depth adjustment on this one started to bind after a couple of falls.

Amps: 13

Weight: 16.0 pounds

Rpm: 4,400

Maximum bevel: 45 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2³/₈", n/a, 1¹⁵/₁₆"

Street price: \$165

Skil HD77M



This saw is nearly identical to the HD77 but is a couple of pounds lighter because the base plate and housing are magnesium. It cuts smoothly but shares the same irritations as the HD77. The guard tends to snag, and the depth adjustment binds after a couple of falls. The flat magnesium base plate is not very sturdy. The saw we had fell off the horses onto the ground, and the edge of the base got bent. I would expect even more damage if the saw ever took a big fall onto concrete.

Amps: 13

Weight: 14.0 pounds

Rpm: 4,400

Maximum bevel: 45 degrees

Maximum depth of cut at 90, 50, 45 degrees: 2³/₈", n/a, 1¹⁵/₁₆"

Street price: \$175

pery. Both Bosch models and the 15-amp Makita are equipped with rubberized grips. This makes them more comfortable to grasp and easier to hold on to when your hands are wet.

Favorite Saws

It was pretty easy to pick our favorite models because the three carpenters on the crew were always fighting for same three saws. First place goes to the DeWalt. It's powerful, well balanced, and extremely light for an inline

model. We also liked Makita's 5277NB. It has superior power, a comfortable rubber grip, and a smooth-running motor that seems to purr. Our third choice would be Bosch's model 1677M. It has a built-in rafter hook, a sturdy waffle-patterned base plate, and a comfortable rubber grip.

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Sources

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877/754-5999, www.skil.com