

Survey of Sliding Compound-Miter Saws

All 12 of these versatile saws crosscut, bevel and miter; which one should you buy?

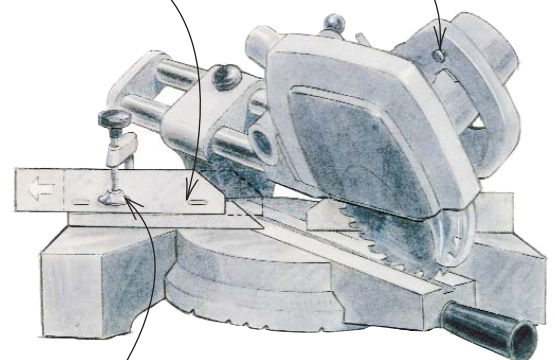
BY RICK ARNOLD AND
MIKE GUERTIN

ANATOMY OF A SLIDING COMPOUND-MITER SAW

Although sliding saws vary according to model and manufacturer, all have basic common features. The saw motor and blade are mounted on a sliding assembly that allows the saw to cut wide stock. The saws feature bevel and miter adjustments; all saws miter in both directions and bevel to the left. A few models bevel to the right as well.

A movable fence can support stock close to the blade.

Lock-out button



Stock clamp



Blade	60 tooth, 10-in. carbide
Weight	50 lb.
Amps/RPM	13/4700
Warranty	1 year
Crosscut capacities at:	
90° miter	12½ in. W; 3¼ in. H
45° miter	9 in. W; 3¼ in. H
45° bevel	12½ in. W; 2¼ in. H
45° by 45°	9 in. W; 2¼ in. H
Bevel range	47° left
Miter range	52° left, 62° right
*Price	\$500

Of all the machines, this saw had our favorite bevel scale. It's one of the only scales that we could read without leaning over or around the saw. Good friction resistance reduces the flop action when you are adjusting the bevel on this model; you won't lose control when you get beyond the center of gravity. There's a nice detent pin for crown-bevel settings that works handily and is unique to this saw. But like most of the saws, you'll be limited to only left bevels.

The detent override on the miter handle eliminates the problem of fine adjustments near the detents. The detent override has a simple but effective retainer clip if you want to avoid detents altogether.

The depth-of-cut stop doesn't have a quick release, so you have to spend time readjusting the saw each time you return to full-depth cuts. You'll also need extra tools to make the adjustments; the tools that came with our saw didn't fit. On the plus side, the quick-action hold-down clamp is great for repetitive lock downs, and the dust bag collected more chips than most other models.

The miter table has a generous range, from 52° left to 62° right. The Bosch has the second-longest table at 25 in. There is no carrying handle, but Bosch did include a nice crown-molding reference guide on the saw. This saw feels good. Even though it's not a standout, we'd put it on par with the Hitachi and Milwaukee models.

We admit it. We were blinded by tool lust. We purchased a 10-in. Hitachi sliding compound-miter saw for about \$900 shortly after it was introduced in 1990 without first evaluating our needs. Who can resist a new generation of tools? For many years, we used a radial-arm saw and a chopsaw. We figured the Hitachi would replace both, and it has served us well, although we still use the radial-arm saw on occasion.

Sliding compound-miter saws have taken the place of radial-arm saws on many job sites; they offer portability, accuracy and, in some cases, more cutting flexibility than the older saws. Less expensive than a good-quality radial-arm saw, the sliding saws are still high-ticket items that could set you back as much as \$700. Their portability has its downside, too. Most probably won't stand up to repeated collisions with the bottom of your truck bed.

Today, there are a dozen sliding compound saws on the market, and we recently got the chance to try them out. To test the saws, we used them on our own jobs and loaned them to other builder friends to get their input. We chose not to use the manufacturers' specs but took our own measurements on the saws

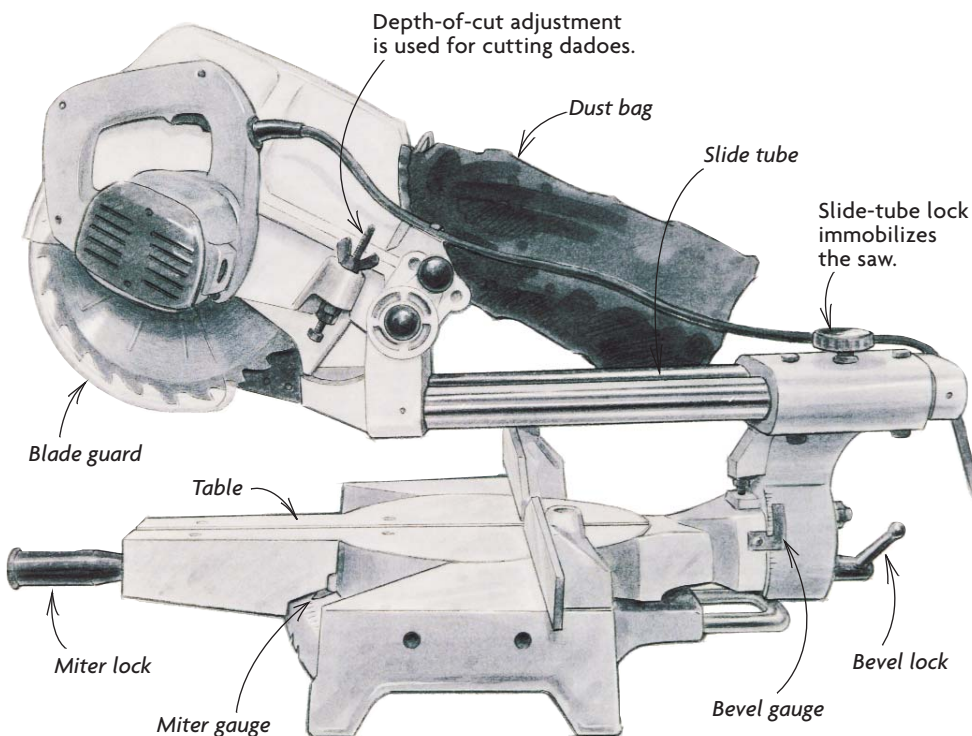
right out of the box. Although our methods may not be completely scientific, we think that they'll give you a fair comparison among the saw models.

Bigger blades don't necessarily mean bigger cuts

When buying one of these saws, most people first consider its ability to cut big stock. After all, the sliding feature is what sets these saws apart from other compound-miter saws (*FHB* #119, pp. 82-87). The most surprising thing we found was that the sliding feature of these machines really levels the playing field in terms of crosscut capacity. A saw with an 8½-in. blade has about the same crosscut capacity as a saw with a 12-in. blade. All can easily crosscut a 2x12 at 90°, but none can cut much wider than 13 in.

The same is true for bevel capacities. For instance, at a 45° bevel, the Makita 12-in. LS1211 has a cutting-depth capacity of 2 in. left and 1¼ in. right; the Hitachi 10-in. C10FS has 2¼ in. left and 1⅝ in. right, a difference of only a fraction of blade diameter. The same holds true for 8-in. and 10-in. saws.

The only advantage we found with the larger blades is a greater depth of cut. For exam-



ple, the 12-in. DeWalt will cut $\frac{3}{4}$ -in. thick stock at 90°; the $\frac{8}{2}$ -in. Hitachi can cut only a maximum of 3 in.

Features that make a difference

Even if we don't use a tool on a daily basis, we want it to perform when we need it; a tool should be dependable, accurate and well built. With that in mind, here are some of the features we looked for in these saws.

Because we change miter angles more frequently than bevels, we considered an easy-swiveling table important. A mechanism called a detent override, which disengages the preset table settings, and a miter lock are also important; both of these devices should be easy to use and precise.

Well-designed bevel locks, scales and head balance are key factors in bevel adjustment. The locks and scales are usually in the back and can be hard to operate or read from the front of the saw. Once you release the lock, you have to contend with the often top-heavy weight of the motor. It can be hard to balance the motor, adjust the bevel to the target and lock in the position all at the same time.

One advantage of a compound-miter saw is that it can cut crown molding on the flat, so any features that ease this task are welcome. We looked for miter and bevel detents or at least scale indicators.

To cut accurately, saws need fences large enough to support stock close to the blade, yet adjustable enough not to impede the movement of the beveling saw head.

Safety is a big factor, too. A smoothly operating blade guard that clears away for accurate cutting is a must. We often need to operate saws left-handed to balance stock on the table or to eyeball a cut. An awkward or badly placed lock-out button on the trigger can make left-handed operation much more dangerous than if there were no button at all. Several of the saws don't have a button, and we prefer it that way. The added safety afforded by lock-out buttons is debatable.

Is the ability to bevel right or left worth the money?

Four out of 12 saws featured in this survey bevel both left and right, a feature that costs about \$100 more than single-bevel models. The double bevel might save you the effort of transferring marks around on stock and might reduce the possibility of errors.

However, we found the depth capacities restricted when these models bevel right. If you're working with thicker stock, you'll have

Delta 36-240 (800) 223-7278



Blade	40 tooth, 10 in. carbide
Weight	45 lb.
Amps/RPM	15/5000
Warranty	2 year
Crosscut capacities at:	
90° miter	11½ in. W; ¾ in. H
45° miter	8¼ in. W; ¾ in. H
45° bevel	11½ in. W; 2 in. H
45° by 45°	8¼ in. W; 2 in. H
Bevel range	45° left
Miter range	47° left, 57° right
*Price	\$450

This saw looks a little different than the run-of-the-mill sliding-miter saw, but it fell short of the promises made by the loud stickers pasted all over the tool. The miter table is the longest of the test group; it's big enough to support wide stock easily and has legible scales on both sides. The table swings 57° to the right and 47° to the left, but the crosscut capacity was limited to a mere 11½ in., which is ½ in. less than the other 11 saws.

The main problem with this saw seems to be the design of the miter functions. The table's stiff action feels like it is an oil drop away from seizure, but oil didn't help. There's no detent override, and the spring-activated locking lever doesn't have enough power to provide a secure lock. If you bump the table, the lock won't hold its setting. The only way we could zero in on miter settings was to use both hands: one to squeeze the lever lock and the other to rap the table around on target.

The D-handle is comfortable and allows easy left-handed operation. We also liked the hold-down clamp. Once the post is locked in place, you can quickly slide the bar clamp for microadjustment and tighten down on the stock with the cam lock. Unfortunately, when you use the clamp, it limits the miter scale to about 45°. There are nice slots for tool storage, but there's no carrying handle. You can get the saw with an integral stand for an extra \$40 or \$50.

DeWalt DW 708 (800) 433-9258

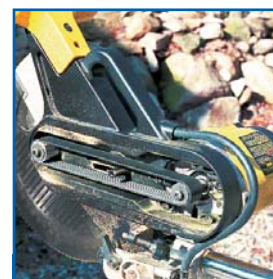


Blade	60 tooth, 12 in. carbide
Weight	59 lb.
Amps/RPM	13/4000
Warranty	1 year
Crosscut capacities at:	
90° miter	12¾ in. W; ¾ in. H
45° miter	9 in. W; ¾ in. H
45° bevel	12¾ in. W; 1¼ in. (R), ¾ in. (L) H
45° by 45°	9 in. W; 1¼ in. (R), ¾ in. (L) H
Bevel range	45° left and right
Miter range	50° left, 60° right
*Price	\$650

DeWalt used a belt-drive design (photo below) to get the motor out of the way for the dual-bevel feature. The motor is powerful, and the blade's starts and stops are smooth. The horizontal D-handle is comfortable to use both left- and right-handed and has no lock-out button. The miter adjustments are locked in by a unique lever system that works like the lock on most table-saw fences. Squeezing up on the lower lever disengages the detents and lets you fine-tune settings. Pushing down on the upper handle locks it into position. The table has one of the widest ranges, 60° right and 50° left.

The saw's fences stand ¾ in. taller than any other model's. Both left and right fences are incrementally adjustable: You can adjust close to the blade, no matter what the setting.

We were a little disappointed with the bevel adjustment. It's a long stretch to reach over the saw to read the scale accurately. Although there are no bevel de-



Belt drive means a lower profile and smoother operation.

tents, the scale is marked for crown cuts. The carrying handle is in a good spot on top and nicely balances the saw's weight. This saw is thoughtfully designed and well made.

Freud TR215

(800) 427-7307



Blade	48 tooth, 8½ in. carbide
Weight	35 lb.
Amps/RPM	9.7/4300
Warranty	1 year
Crosscut capacities at:	
90° miter	11¼ in. W; 2½ in. H
45° miter	8¾ in. W; 2½ in. H
45° bevel	11¼ in. W; 1¼ in. H
45° by 45°	8¾ in. W; 1¼ in. H
Bevel range	45° left
Miter range	45° left and right
*Price	\$360

The only saw that didn't come with four pages of safety warnings, the Freud needed them more than any other. The heavy spring that counterbalances the weight of the fully extended saw tries to lift the blade up and out of a cut. When you let go of the handle, the saw head lifts up and slides toward the rear, unbal-



Trigger not made for lefties.

ancing the saw. If you're not holding on tightly, the shifting weight of the saw head tends to flip the saw backward off the bench, particularly if the bench is narrow.

We found the switch and sliding lock-out button difficult to operate right-handed, absolutely impossible left-handed (photo left).

The miter lock and detent lever are difficult to operate with one hand. The detent lever must be cammed out and re-engaged just before the intended mark, or you lock down on every detent along the way. The miter-scale indicator is a crude red dot painted on the side of the inner arm. The saw also has an underpowered motor that bogged down when we tried to cut framing lumber. The blade guard doesn't work well, and it gets in the way when you change the blade. Although the low price of this saw might make it attractive, in our opinion this saw is a good example of poor design.

Hitachi C8FB2

(800) 706-7337



Blade	24 tooth, 8½ in. carbide
Weight	42 lb.
Amps/RPM	9.5/4900
Warranty	1 year
Crosscut capacities at:	
90° miter	12 in. W; 2½ in. H
45° miter	8¾ in. W; 3 in. H
45° bevel	12 in. W; 1¼ in. H
45° by 45°	8¾ in. W; 1¼ in. H
Bevel range	45° left
Miter range	45° left, 57° right
*Price	\$450

First introduced in 1988, this saw has plenty of power and nearly the same cutting capacity as its larger brother, the C10FS. The direct-drive motor tends to be a little jumpier than most machines, and the electric brake is aggressive. Hold on tight, or the deceleration will take control of the saw and of your workpiece.

The miter range extends a generous 57° to the right, but the C8FB2 is limited to left bevels only. The trigger lock-out button is removable, perhaps nice to keep unskilled or undesired users from fiddling but also easy to lose, so you may find yourself whittling to make a replacement. The power cord exits the handle on the right and forces you to raise your elbow to avoid chafing the side of your hand. The only way we found to avoid this nuisance was to put the saw on a shorter pair of horses, 30 in. or less. Another annoyance: The plastic bevel pointer snaps off in cold weather.

Both Hitachis have an adjustable chip guard that extends from under the slide tubes. The first cut you make will kerf the leading edge of the guard. The new slot gives you a cutline reference and is handier than eyeballing a pencil line as you bring down the blade. The guard also affords you a little more blade protection and keeps small cutoffs from being swept into the blade shroud. The standard dust-collection bag works well; internal wire ribs keep the sides of the bag from restricting chip flow.

Hitachi C10FS



Blade	40 tooth, 10 in. carbide
Weight	47 lb.
Amps/RPM	10/3800
Warranty	1 year
Crosscut capacities at:	
90° miter	12¼ in. W; 3¼ in. H
45° miter	9 in. W; 3¼ in. H
45° bevel	12¼ in. W; 1½ in. (R), 2¼ in. (L) H
45° by 45°	9 in. W; 1½ in. (R), 2¼ in. (L) H
Bevel range	45° left and right
Miter range	46° left, 57° right
*Price	\$575

We see more of this model around local job sites than any other saw. It is one of only four saws that bevels both left and right. Hitachi gets the motor out of the way by raising it above the arbor. By using a multi-V belt to transfer power, the saw starts and stops smoothly. The blade doesn't jump into or out of a cut.

Although this saw handles compound cuts on both sides, you will be limited to 33° miters when you cut 45° bevels on the right. There are bevel detents at 30° and



Hitachi's bevel and miter scales have a special marking system.

33.9° that make crown cuts easier unless you have to adjust close to the detents; neither bevel nor miter adjustment has a detent override. The saw's table gives a good miter range and swings 46° left

and 57° right. Even better, both bevel and miter scales have a foolproof marking system (photo above) that corresponds to the enclosed crown-cutting instructions, which are handy for novices. The saw also comes with adjustable plastic fences that give some backup for small workpieces close to the blade.

This saw has nothing fancy or slick. It's a well-built workhorse that, like the C8FB2, needs better scale indicators, a detent override, a quicker depth-of-cut adjustment and a taller adjustable fence.

to cut bevels on the larger-capacity left side anyway. If you want to save money, stick with a single-bevel saw and think twice about cuts.

Setting up the saws

Before tearing into an oak stair tread with your new purchase, the first thing you should do is check all the factory settings for bevel, miter and depth of cut. All manufacturers except Freud included instructions on how to make the adjustments. Most were fine as delivered, but it's still a good idea to check a new saw. None took longer than 15 minutes to set up.

When we bought our first sliding compound-miter saw, we were worried we might have difficulties adjusting the slide bushings as they wore with use, a problem we encountered with an earlier version of a sliding saw. Thankfully, all the models we tested have adjustments that remove the bearing slop. It's a quick, easy process we've done several times. We also advise lubricating the slide tubes regularly and keeping them rust-free. Once rust starts and the tubes become pitted, you'll have to replace them.

What's the right saw?

If you're thinking of buying a new compound-miter saw, we suggest that you evaluate your jobs. A good fixed-head compound-miter saw will cost from \$300 to \$400; a comparable sliding saw costs nearly twice as much. Whatever the choice, your tools should earn their keep. If you cut miles of stock trim, you'll probably be happy with a fixed-head saw. However, if you build a lot of cabinetry on site or trim with 6-in. to 12-in. wide stock, you should think about a sliding saw. Other builders we queried on *Fine Homebuilding's* "Breaktime" Web site have found sliding compound-miter saws invaluable for cutting wide stair parts and for the compound cuts on 1x10 stringers. We've even used ours to cut vinyl siding.

If we were in the market for a new saw, we'd be really happy with either the Makita LS1013 or the DeWalt. Both saws are comfortable to use and are well designed. A pack of saws took second place: the Milwaukee, the 10-in. Hitachi, the Bosch and the Makita LS1211. These saws had shortcomings but overall seemed to perform adequately. □

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Makita LS1011 (800) 462-5482



Blade	64 tooth, 10 in. carbide
Weight	39 lb.
Amps/RPM	12/4600
Warranty	1 year
Crosscut capacities at:	
90° miter	12½ in. W; 3¼ in. H
45° miter	8¾ in. W; 3¼ in. H
45° bevel	12 in. W; 1½ in. H
45° by 45°	8¾ in. W; 1¼ in. H
Bevel range	45° left
Miter range	45° left, 57° right
*Price	\$425

The first thing you'll think when you pop this saw out of its box is that someone stole the miter-lock handle. Actually, it's on the right side just behind the fence, a knob that you tighten to lock the table. Because the saw bevels only to the left, you'll have easy access to it.

This model seems to be made for the budget-minded but is still a powerful 10-in. saw. It has only one slide tube and seems to suffer from a little torsional play in the blade. We tended to drift off crosscuts when we put any lateral force on the handle during a cut. It's not a major flaw as long as you're aware of it and go easy when pushing.

The miter table was a little too stiff, even after we had fiddled with it. There's no detent override, so you'll have a hard time getting accurate indexing near the detents. The crown-cutting detents have no special scale marks, a fault we found on all three Makita saws. There is, however, a handy crown-cutting guide on the miter table that'll help. The saw's table swings enough to give you 57° on a right-hand miter.

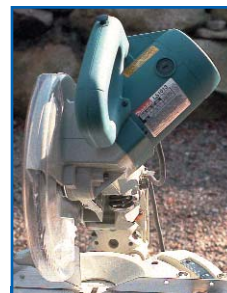
The gear drive has fairly smooth starts and stops with little jerking. The handle and trigger are similar on all three Makita models and are comfortable to use. Even though we hate lock-out buttons, this one permitted equal opportunity for south-paws. The button is removable, and Makita saw fit to include a few extras in case you lose the first.

Makita LS1013



Blade	64 tooth, 10 in. carbide
Weight	51 lb.
Amps/RPM	13/3700
Warranty	1 year
Crosscut capacities at:	
90° miter	12½ in. W; 3¼ in. H
45° miter	9 in. W; 3¼ in. H
45° bevel	12½ in. W; 1½ in. (R), 2 in. (L) H
45° by 45°	9 in. W; 1½ in. (R), 2 in. (L) H
Bevel range	45° left and right
Miter range	47° left, 52° right
*Price	\$565

This double-beveling model is made for pros: It's full of nice features and feels good. The saw comes with outrigger work supports and a large worktable that make handling wide stock easier than many other saws. Makita's left-side fence gives good, close support for straight miter cuts on tall work and easily flips out of the way for bevel and compound cuts. To keep the motor from limiting the right-bevel range, Makita turned the motor 45°



Smart design angles motor out of the way.

from the arbor-axis (photo left) and kept it a gear drive.

Makita moved the slide lock right to your fingertips; it's a locking collar just at the back of the miter-lock handle. Next to the miter-lock handle there's a detent-override lever that makes dialing in precise miters easy.

The miter scale is easy to read, and the table allows 47° left and up to 52° right. The table action is the smoothest of any model, but we were disappointed that Makita skipped the detents at 31.6° and 35.3° for cutting standard crown and neglected references on the scale. We liked this saw's bevel-adjustment action the best of the double-bevel machines. There's a positive detent at 0° bevel; exiting 0° takes a light rap on the saw to get out of the detent.

Makita LS1211



Blade 96 tooth, 12 in. carbide
Weight 52 lb.
Amps/RPM 15/4000
Warranty 1 year
Crosscut capacities at:
90° miter 12¼ in. W; 3¼ in. H
45° miter 9 in. W; 3¼ in. H
45° bevel 12¼ in. W; 1¼ (R) in., 2 in. (L) H
45° by 45° 9 in. W; 1¼ in. (R), 2 in. (L) H
Bevel range 45° left and right
Miter range 60° left and right
*Price \$660

The standard-issue 96-tooth carbide blade impressed us immediately but raised our expectations a little too high. Considering its high price, this saw is strangely inconsistent. The miter-table action is mediocre and has no detent override, so adjustments close to the detents are difficult. You can bevel left and right with this 12-in. model, but the capacities aren't much greater than the LS1013. We did like the bevel adjustment. It's counterbalanced to handle the motor's mass when you rotate it beyond its center of gravity. You still have to reach around back to lock it into position, but the upright bevel scale is easy to read. There's a quick-reference guide for crown-cutting, but there aren't any marks at the 33.9° bevel scale to guide you further. The miter table registers detents at 31.6° and 35.3°, but unfortunately, these numbers aren't marked on the scale. Despite these shortcomings, the table does allow you to cut 60° left and right miters, the greatest range of any of the saws.

Like the 10-in. LS1013, the LS1211 has a twist-away depth-of-cut adjustment that lets you change between full cuts and shallow indexed cuts such as dados. Surprisingly, there is no chop-action lock to keep the saw in the lower position for carrying. And although it looks cool, we're not counting on the plastic accordion slide-tube cover to withstand the rigors of real job-site duty.

Milwaukee 6496

(414) 781-3600



Blade 40 tooth, 10 in. carbide
Weight 49 lb.
Amps/RPM 15/4800
Warranty 1 year
Crosscut capacities at:
90° miter 13 in. W; 3¼ in. H
45° miter 9¼ in. W; 3¼ in. H
45° bevel 13 in. W; 2 in. H
45° by 45° 9¼ in. W; 2 in. H
Bevel range 48° left, 3° right
Miter range 51° left, 59° right
*Price \$570

Of all the saws, the Milwaukee seems the most likely to survive a tumble off the back of a pickup truck. If we still had several crews framing and trimming, we could send them all off with this model and not worry that the saw would suffer serious harm.

First, there's no safety lock-out button. Lefties can operate the switch easily. We like the flip fence; it gives tall support for square cuts and extended support for bevel cuts. A 5-in. extension increases the 6496's table on the left side of the blade to 13 in., longer than any other table.

The twist-lock miter handle has a detent



No reaching for bevel adjustments.

override beneath it and an easy-to-use lock-out retainer. There are no crown-miter detents, but the scale does have clear indexing marks that show you exactly where to go. The bevel lock is the easiest of all the saws to use. Rather than being mounted in the back as on most machines, Milwaukee put it on top (photo above). The bevel scale is there, too, for easy reading.

The saw bevels only left, but there's a spring-loaded override that lets you extend -3° beyond 0° and +3° beyond 45°. The bevel has no detents, but the scale indicates the common crown-cutting index at 30.9°. The saw's head is well balanced, too, which helps for fine-tuning adjustments.

Ryobi TSS 200

(864) 226-6511



Blade 40 tooth, 8½ in. carbide
Weight 42 lb.
Amps/RPM 10/5000
Warranty 2 years
Crosscut capacities at:
90° miter 12½ in. W; 2½ in. H
45° miter 8¼ in. W; 2½ in. H
45° bevel 12½ in. W; 2 in. H
45° by 45° 8¼ in. W; 2 in. H
Bevel range 45° left
Miter range 45° left, 60° right
*Price \$370/\$450

These models are virtually the same saw with only a few differences worth noting. Basic saws like Makita's



Craftsman 137.2129
(800) 377-7414

LS1011, they feature 60° on right miters and are limited to left bevels. There's no detent override on the Ryobi, so cutting angles close to the detents will be time-consuming. The Craftsman has different detent mechanics and does have an override. Both saws come with dust bags, but they didn't collect much. The depth adjustment is a simple bolt and wing nut similar to Hitachi's, which is a semiredeeming feature. The metal miter-scale indicator on the Craftsman bends easily but didn't snap off like Ryobi's plastic indicator.

Unlike most other saws in this review, these two saws were tough to assemble. To complete the assembly, we had to read carefully to find homes for left-over parts. If you're looking for a machine for occasional use and you don't mind a few inconveniences, then perhaps one of these saws would work for you. We'd go for the Craftsman saw because it has the better miter lock and detent override.