

10 Secret FINISH FORMULAS Revealed

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POPULAR Woodworking

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Makita 18-volt Drill-Driver is Lightweight

At just more than 3.5 pounds the Makita 18-volt $\frac{1}{2}$ " Compact Cordless Drill-driver (BDF452) is 25 percent lighter than its predecessor, the BDF451. The loss of weight is because Makita has made changes in the drill that made it a full inch shorter in length without sacrificing much in the way of torque (only 20 percent) and let's face it, you don't generally have to worry much about torque in the woodshop, but the savings in length can come in handy when you're trying to get into those small areas. Makita also dropped back to the standard two-speed design that still delivers plenty of rpm.

The good news for Makita owners is that the new drill-driver will accept the lithium batteries from your older Makita units. The bad news is, the new batteries will not fit with the older drills.

The drill-driver kit includes the drill, two 1.5-amp hour (Ah) batteries and the charger.

The recharge time for the battery is a mere 15 minutes.

How does the power of the drill stand up? I used this tool for the entire day in the shop as I made shop cabinets using pocket screws and not one time did I have to recharge the battery. The next day, as I continued the job, I finally had to recharge – and the battery recharged so fast that it was at full power before I was ready to use the drill again.

There is one concern with this drill. If you are a power-tool aficionado, you'll find that the keyless chuck does not close 100 percent, so using the smallest of bits (under $\frac{1}{16}$ "), will be an issue. But you still have the built-in LED light, which I found to be a nice benefit when working deep in the corner of cabinets. The new "gym shoe"-styled white and black exterior design distinguishes it from the standard Makita blue.

—Glen D. Huey

For more information, circle # 132 on Free Information Card.



SPECIFICATIONS

Makita 18v Compact Lithium-ion $\frac{1}{2}$ " Cordless Drill-Driver Kit

Street price: \$219

Recharge time: 15 minutes

Replacement battery: 3.0 Ah (\$70)

Performance: ●●●●○

Price range: \$555

Makita: 800-462-5482 or

makitatools.com

Grex 23-gauge Headless Pinner

Twenty-three gauge headless pinners have come a long way in recent years, and we were glad to test the new Grex model P645L in the shop. The new edition is an upgrade from the P630 model in a number of ways.

First, there's the additional range of fastener lengths. Now you can use fasteners in 12 different lengths from $\frac{1}{2}$ " to $1\frac{1}{4}$ " in size. This is a $\frac{1}{8}$ " increase in the total fastener length from the earlier tool's top end. Is this something big? If you're attaching face frames, it might just be great news because of the additional holding power. This was evident in plywood as well.

Next, while Grex has continued using the adjust-free magazine (no need to adjust for each change in fastener size), the double trigger safety and rubber hand grip, there is a new feature in the P645L that I found especially interesting – the lockout mechanism (shown in the inset photo). If you have ever attached mouldings to your projects only to find that the pinner was emptied sometime during the task, you will appreciate this feature, too. Dry firing will not happen after the number of remaining fasteners drops below six or seven pins. Of course, this feature can be over-riden if you are about to complete the task.



How does the pinner operate? I shot the $1\frac{1}{4}$ " pins through 4/4 pine and 6/4 red oak without any problems. The pins did move slightly with the grain of the wood, however nothing more than you would expect. The P645L is a bit weightier than the previous model by almost a half-pound but it is still light enough to use for an eight-hour work day.

Unlike many of those in the construction trades, I am not a fan of the belt hook. I cannot see dragging the air hose around the woodworking shop while attaching mouldings. Fear not, I am sure that the feature can be removed if need be.

—GH

For more information, circle # 122 on Free Information Card.



SPECIFICATIONS

Grex 23-gauge Headless Pinner

Street price: \$330

Fastener sizes: $\frac{1}{2}$ " to $1\frac{1}{4}$ "

Weight: 2.68 lbs.

Performance: ●●●●●

Price range: \$555

Grex: 626-289-7618 or

grexusa.com

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LETTERS

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1. Use the lateral adjustment lever to skew the blade so that it is perpendicular to the side of the plane rather than parallel to the sole to compensate for the side and sole not being square, or ...

2. For boards that are rectangular in cross-section, when shooting, flip one of the boards of a pair that will be joined so that the angles of the "shot" edges will be complementary even though they are not 90° (analogous to edge-jointing two boards at once). Of course this wouldn't work for mouldings.

I was wondering if you or the author, Paul Sellers, have any thoughts on this subject.

Mark Ketelsen
Lincolnshire, Illinois

I always tweak the bed of the shooting board instead of the tool.

Usually a strip or two of strategically placed blue painter's tape will fix things. You can get scientific about it if you like: Use a machinist square and feeler gauges to determine how out of square you are at the top of the sidewall. In my experience, the old Stanley planes are more likely to be tooed in at the top.

Then measure the thickness of your tape with a dial caliper and lay down enough strips of tape on your shooting board to compensate for the plane. This will get you close, but it won't be perfect. You might need to add or remove another strip of tape to get things perfect. Test your results on wood.

Once your square says you are shooting square, you're done.

— Christopher Schwarz, editor

Matching Sapwood and Heartwood

I'm in the process of building a full-size, adjustable Mission-style entertainment center (adjustable for regular televisions, full-size units and the new thin televisions). I'm building it out of cherry and have cut around knots and defects. Unfortunately, I simply can't afford to cut around sapwood. Nor could I select boards from one flitch.

Having said that, I have the utmost confidence that I can blend the sapwood and heartwood in the finishing process — that's where you come in. (You didn't know you were assisting with this project, did you?) I've read some articles on matching sapwood to heartwood (they vary so I wanted your input), but it goes beyond sapwood and heartwood. I also need



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