

NOVA VOYAGER DVR 18IN DRILL PRESS

Nova Voyager DVR: part drill press, part spaceship... Jonathan Salisbury boldly goes into space (between his workbench and storage cupboards, to be precise) to explore

A crate was beamed down in front of my garage this morning and inside it was what looked like a drill press, except not quite like any I have ever seen before.

The motor of the Nova Voyager is connected directly to the quill and speed is controlled by programming via a user interface, not by shifting the belts on pulleys contained in the large box found on the top of most pillar and bench drills. In addition, the motor provides data to the controller on its position and load conditions and the controller 'uses this data to handle all the timing and power management to ensure an energy efficient and powerful motor'. In other words, the system is intelligent. It knows where the drill is and if it's being overloaded. It can also do a whole lot more...

Putting it all together

You cannot benefit from all the features of the Nova Voyager without referring to the manual, but before I could try it out it had to be put together. Assembling the Voyager is not really any different from any other drill – except that the head is ridiculously heavy and there was no way I could have possibly lifted and manoeuvred it into position without the help of my very strong and willing neighbour.

Plug it in, flick the switch

When switching on for the first time, and after a factory reset, the Voyager will beep and flash up safety messages before asking you to choose the language and units (mm, fractional inches, decimal inches) you wish to use. Once confirmed, you have the drill's permission to use it. Subsequent use always displays the safety messages first, before returning to the last setting used.

As a drill

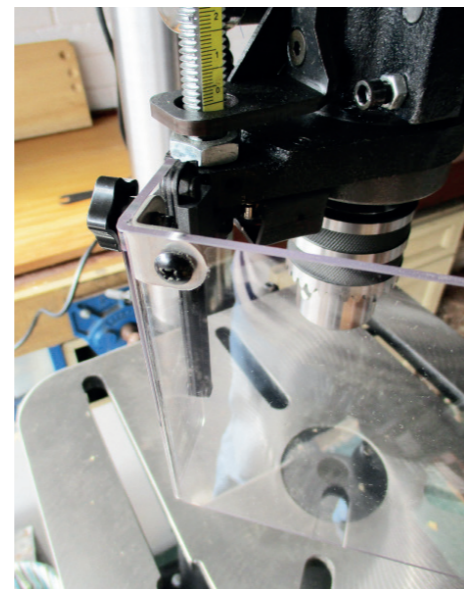
Ignoring the electronics for a moment, it's a fantastic drill press, and excels at the sharp end. The table is large and easily adjusted, the feed handles are large and comfortable, the movement is smooth, positive and pleasant to use. For woodworking, the 419mm-square table is a very good size, and is slotted for clamps and bolting on sacrificial work surfaces. The table rotates 360° around the pillar and can be angled – the latter setting shown on a gauge. Supplied, the table and quill aligned absolutely perfectly – 90° all round the drill – but the gauge reads about 0.5° and the plates are riveted on, so cannot be adjusted. Quill travel is 6in (150mm or so) and only requires two revolutions of the handle to travel the full distance; a quill lock allows you to fix the drill position at a set height. The base is big and heavy. What's more, when a long 5mm



Chuck, guard, handles and table installed



The high-quality keyed chuck



Interlocked chuck guard



Heavy-duty rack for easy table adjustment...



... with a large cranked handle



Large feed handles give good control

drill accidentally dropped through the centre hole onto the base, I was very pleased to discover that there were no holes for it, or dust and chippings, to fall into! Four holes are provided for bolting it to the floor, which ought to be done, especially when the weight of the head is considered.

The 3/4in chuck provided is key operated; personally I'd prefer keyless. It has a capacity of 3-16mm, which covers most drill shanks I think! If you need to use drills smaller than 3 mm, a converter can be used.



The control panel and lockable stop switch

Electronic

The differences start when changing the settings to suit the work, as they are entered with a dial and buttons and not by opening lids and fiddling with mechanical systems. A data sheet is not required; all you need to do is to select the type and size of drill being used, select the material to be drilled, and press the green start button...

The speed setting is chosen for you, but can be overridden. After all, not all hardwood is the same, and the manual does imply that it is a suggestion rather than the optimum setting. The default is 900rpm (probably about the same halfway-house-speed that most drills are set on), and can be varied from 50-3,000rpm via the main screen. I tried it up to its maximum 5,500rpm, but quickly decided that 3,000 is plenty after the Voyager sounded like it was going to take off. Up to eight favourite settings can be saved.

Feed rates are not automated or monitored, although a sensor relays back to the computer how much resistance is being overcome by the drill. The load you are applying to the high-torque

motor is then displayed on the screen as a percentage, to let you know if you're overdoing it a bit. It's a useful reference that allows you to up the pressure in the knowledge that you're within the limit.

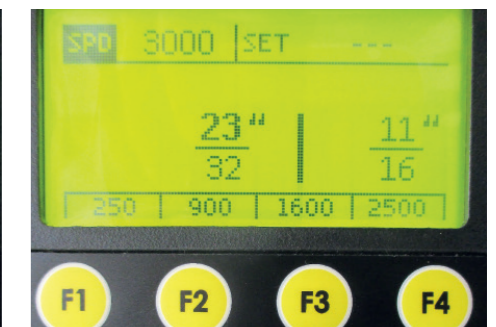
More features

Drill depth can be set electronically by lowering the drill to the workpiece's surface and pressing the 'ZERO' button before setting how far you want to drill and confirming. As you feed the drill downwards, the Voyager beeps like a reversing warning system in a car, getting faster as you approach the set depth, after which it stops. The hole depth is pretty regular, although if you are naughty and speed up the feed, the sensor won't respond quickly enough and you will over-drill. I used this feature to create the first hole carefully, then setting the manual depth stop (a threaded-bar with a quick-release nut) for further holes.

Drilling several holes one after the other can sometimes be hazardous if you need to move the workpiece as you go to clear shavings. No longer!



Dimensions can be set to metric...



... or imperial (fraction or decimal)



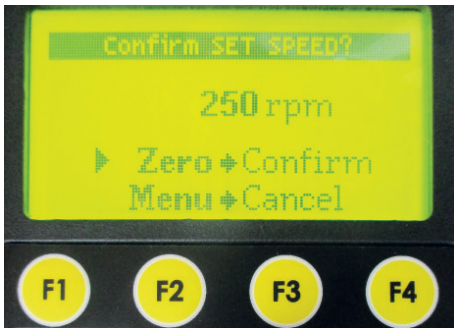
Menu changed with the dial – push to select



Select the drill required



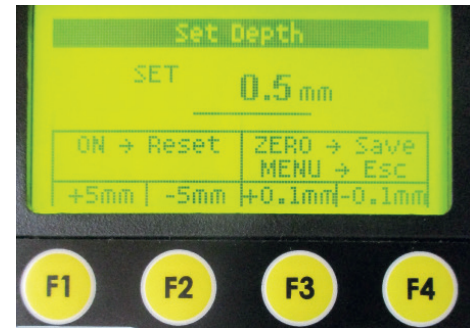
Select the material



Confirm choice with the press of a button



The screen reminds you that self start has been activated



Electronic depth stop can be set very accurately

Just program the Voyager to autostart when you begin to plunge, it will 'autostop' when the drill is back to the top and you can reposition and then carry on without letting go of the handle.

The pilot hole function is a useful setting when drilling harder materials. The drill starts off slowly until it senses that you have cut below the surface, when it speeds up to the set maximum. The screw thread tapping function provides a very slow forward rotation followed by a reverse clearance movement when resistance suggests it is required.



A manual stop is also provided



Why won't the drill work?



The software is updated via computer

Safety

The emergency stop button is right in front of your eyes and latches so you have to physically deactivate it too; if you haven't worked out that it is this preventing the drill from working, the screen will tell you! Once unlatched, the drill requires restarting with the green button – a no-volt switch, no less. Put your hands on the table when the drill is spinning at 3,000rpm and you can just about feel a light buzz. Any vibrations beyond these, caused by an unbalanced drill or if the drill gets stuck and the workpiece starts flying around, are detected by the Voyager and lead to the powering down of the motor. You can choose the feature's sensitivity too, although the default is off.

The Voyager motor will also be switched off if the drill jams for any reason and there is a spike overload trip that stops the motor if electrical supply problems are detected. The manual recommends that a surge protection socket is used, as the Voyager is computer controlled, but states that you should not use an RCD. More mundane safety features include the chuck key's spring-loaded pin to make it impossible to leave in the chuck, an interlock on the chuck guard and a message on the screen telling you that the drill will not work until you

SPECIFICATION

Power output: 1.75HP/2HP; 220-240V; 10A/15A

Spindle

Distance to table: 23½in/587mm (max)

Distance to base: 40.94in/1,040mm

Travel: 6in

Taper: No.2 Morse taper

Table

Size (woodworking) (L x W): 16½ x 16½in

(419 x 419mm)

Table tilt: -45° to +45°

Table rotation: 360°

Column diameter: 3.62in/92mm

Base size (L x W): 22½ x 17½in (565 x 445mm)

Chuck size: ⅝in (3-16mm)

Motor: Striatech DVR high torque

Warranty

- 2 year full replacement motor and controller

- 5 year full replacement on all other parts

Typical price: £1,599.99

Web: <https://mailchi.mp/craft-supplies.co.uk/novavoyager>

close it, and the option to password protect the system so you can keep the use of the drill all to yourself!

Conclusion

You might expect perfection at this price; the slots have a small amount of roughness left after casting, the membrane pad would be better replaced by proper buttons, the gauge for the table tilt is slightly out, and there ought to be a little holder for the chuck key. My current machine is a rusty and rattling nightmare stuck on 900rpm, but £1,599.99 to replace it seems like a lot of money – except, look at the catalogues and you will see that it is possible to spend more on a mechanical drill. Yes, changing settings still requires effort (although by reading the manual I found out that pushing in the dial is the same as pressing the 'Confirm' button), but nothing in comparison to those pulleys!

Even if you don't make use of all the features, the drill is solid, quiet, easy and a joy to use. Everything is in the right place and, if I had £1,600 to spend on a drill, I would definitely buy a Nova Voyager. This is a phenomenal piece of engineering, everything a high-end pillar drill ought to be – who wouldn't want one? ✂



How many drills come with a USB socket?

THE VERDICT

PROS

- Exceptional quality; quiet operation; easy to set up for every type of drill imaginable; does everything you could possibly want to do on a drill; the only drill press you will ever need

CONS

- Very heavy components require two strong people to lift the headstock into position; it's expensive!

RATING: 5 out of 5