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Bedroom Wardrobes

In relating how he made a pair of large bedroom wardrobes, Steve Prescott explains the advantages of working with solid wood, and highlights seven key techniques and lessons to be learnt from their manufacture

Last year, before we rented a larger workshop, our resident craftsman Steve Prescott was starting up his business, Cotswold Fine Furniture, in our garage-and-a-half workshop. The space was challenged by one of his first commissions, a pair of bedroom cabinets, which might not have created such disruption had he chosen to make them from veneered MDF or ply rather than solid ash and cedar of Lebanon.

The brief for his clients was to fill two alcoves of different width, but the customers wanted the wardrobes to be the same height and width and depth. The wardrobes were being made for life, and, says Steve: "They weren't expecting to be in the house forever. It wouldn't have been wise for the wardrobes to look unbalanced in the future. It works as it is because the wider alcove is where the door opens against a curtain, so it needs more space around the wardrobe." Brochures from the likes of John Lewis had been consulted, but none of them had the layout to suit his

customer's needs. "It was about the size of the drawers they wanted, and that they were concealed behind the doors, which are laid onto the front." Few of the brochures offered solid wood wardrobes, and the choice of wood was limited, especially to match the existing ash bed in the room. Steve was able to pick up a detail of a shallow curve from the headboard and footboard, and replicate it on the plinth. "It helps to create a family resemblance."

Working with solid wood

The decision to use solid wood rather than veneered board isn't quite as much of a cost as you might expect, unless you are willing just to use thin stick-on lipping, as you find on Ikea cabinets, but you do need access to a wide belt sander. "With solid wood there's no need to pre-lip the MDF before veneering, no need to shoot the edges on loads of veneer, and no need to set up a large vacuum bag in the workshop." By gluing a 1in or so lipping onto the edge of MDF before veneering you can make veneered board look much more like solid wood, but it does take time and accuracy to get the lipping spot-on, though in other ways it makes construction simpler because you don't have to worry about movement.

"The cedar of Lebanon for the back panels was my idea," says Steve, "but they didn't want cedar drawer bottoms for fear of the smell being overpowering." Instead he went for solid ash drawer bottoms, using a traditional drawer construction. The wardrobes do differ in that the gentleman's has five drawers, while the lady's has two drawers and a loose box for shoes. That makes the drawers a different depth in each wardrobe, and the doors are overlaid, and raised up off the floor so that they don't drag on the carpet.

Fig. 1 Steve tidying up the rebate along the back edge of one wardrobe with a shoulder plane to fit the back panel



Fig.1 The pair of wardrobes have different layouts



1 Sizing

Wardrobes need to be made with storing clothes in mind



The wardrobes are just over 2m tall, and Steve allowed 1m for the gentleman's hanging section, and 1.45m for the lady's hanging section. Though the alcoves are different widths, Steve and his clients decided to make the wardrobes identical so that they would be balanced in future homes. Notice how the upper panel in the doors is longer than the lower panel, which gives the wardrobes an appearance of greater height.



Details The wooden rail for clothes looks better than a metal one. There is a rail for ties inside the doors



Vastern's
Hardwood supplier
offering top service



On British Woodworking's advice Steve bought the ash and cedar for the wardrobes from Vastern's at Wootton Bassett, near Swindon, Wilts (vastern.co.uk, 01793 855336). The huge sawmill mainly sells home-grown hardwoods, which it kiln-dries itself. They are set up for working with joiners, architects, buildings and furniture makers, and provide an excellent service. Tom Barnes from Vastern's says that they will sell timber to almost anyone, but not less than a board at a go. It is typical that they organised a pack of boards for Steve by appointment, after he called the day before. "We like people to do that," says Tom Barnes. "We struggle if they turn up out of the blue."

Vastern's (as they are known locally), have stocks of the main English hardwoods, and some specialist softwoods, plus a few European species. You can find a full list of what they sell on their website. They charge by the cubic foot or the cubic metre, depending on the customer.

2 Timber Buying

How to choose boards to suit your projects

Steve rang his timber supplier, Vastern's, to say that he'd be visiting the next day, with a rough estimate of what he'd need, and they organised a pack of boards ready for him to sort through on his own. This is hugely valuable if you are needing to go through a cutting list part by part, rather than having to work out a volume of timber that you need, and hoping you'd get the necessary lengths and widths. "You are balancing your time against buying more timber. I might have had to buy 50% more if I hadn't been able to sort the boards myself."

In estimating the cost of timber in a quote Steve starts by 'volumising' the quantity of wood he will need from a cutting list, and doubles that to account for wastage. If he hadn't been able to carefully go through the planks at Vastern's, and mark out the bulk of the components in chalk, he might have had to order even more

than he bought. As it was, the cutting list tots up to 15.98cuft of ash, cedar and sycamore for the two wardrobes and drawers, and he bought 38.55cuft, costing about £15/cuft for ash, £28/cuft for cedar and £21/cuft for the sycamore.

The wood seemed to be consistent throughout the pack, and possibly from the same tree. Some was straight edged, but you could see that the wane-edged boards were consecutive, and from one log. This makes matching the grain easier.

You start by finding boards for the longest pieces (the back panel stiles (J), door stiles (N), and the carcass sides (C)). For these Steve needed 2m lengths, but as none of the planks at Vastern's were 4m, he had to work out what he could cut from excess. He marked out most of the parts, particularly the visually important parts, like the door rails (Oa,b&c), to make sure they match the door stiles and are consistent.



Pic.2 Vastern's had prepared Steve a pile of boards (above) for him to sort through at his leisure. This is a great luxury for any woodworker. In particular he was looking for flat boards (right) for the 8in-wide pieces that he needed to glue up the carcass sides (C). Gradually he moved the boards he wanted from Vastern's stack onto bearers of his own to keep them safe from bruising on the concrete floor. Ultimately he had to return because he forgot the 11/2in boards for the drawer fronts, but fortunately Vastern's are close to our workshops



Pic.3 Steve hired a van to visit Vastern's smart new centre at Wootton Bassett (top). Fortunately the weather was good when he got back!

3 Door Handles

How to make recessed door pulls with a router and jig

The bedroom for which Steve made these wardrobes is quite small, and he didn't want to fit protruding handles lest they catch on clothes as the owners brush past. The solution is a recessed pull routed into the door edge. The recess is cut back at the front.

To shape the recess Steve used a Wealden Drawer Pull cutter (T7123 1/2, wealdentool.com), and simple curved MDF jig. Because the cutter doesn't have its own integral bearing, Steve first fitted a guide bush to the base of his Trend T11 to run against the template (below). There is a fine adjuster on the router to stop you raising it accidentally and dig the cutter into the guide bush.



Recessed The handles are recessed into the edge, shaped with a drawer pull cutter



Jig Clamp a simple curved jig to the front face of the door to cut the recess. Steve used a guide bush on the bottom of his T11 router to shape the handles



4 Panel Production

Processing, gluing up and sanding boards for jointing

Realistically, to make wardrobes like these for sale from solid wood you need access to a wide belt sander. You can buy a wide horizontal Jet 22-44 drum sanders from Axminster for £1060, but if you are regularly making items as large as these wardrobes you'd probably need access to a more powerful (and expensive) machine with dedicated extraction. Steve does this through a local furniture making business who rent out their industrial sander at about £40 an hour. Steve uses it to sand all the panels to

thickness, as well as the main components for the door frames, and even the made up drawer divider frames. It took him about two hours to put all the parts through the sander, but it will have saved Steve days. Steve favours Bessey K cramps (the red ones), which can be stood up on end and which are very easy to adjust, and they cramp parallel. "Record ones tend to bend, and you should use blocks with them to stop staining and to raise the work in line with the screw threads."



Pic.4 Cleaning up the book-matched boards for one of the ash door panels. The door panels are 15mm thick, with fielding on the front and a shaped rebate on the back. Steve used a panel raising cutter for the front and a drawer pull cutter for the back, to size the tongue accurately to fit in a 6mm groove in the door stiles (N) and rails (O). Wealden produce a combined Back Cutter Kit (T1960, wealdentool.com) to go with their panel raising cutters to produce a guaranteed 6mm tongue even if the thickness of your panel is inconsistent because you always work off the front face of the panel, with that face down on the router table. The cedar panels (M) in the back are 12mm thick. They are flat on the inside, but rebated on the rear to fit in the 6mm groove in the back rails & stiles

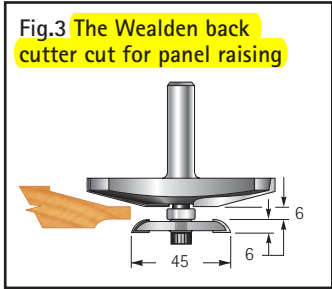


Fig.3 The Wealden back cutter cut for panel raising

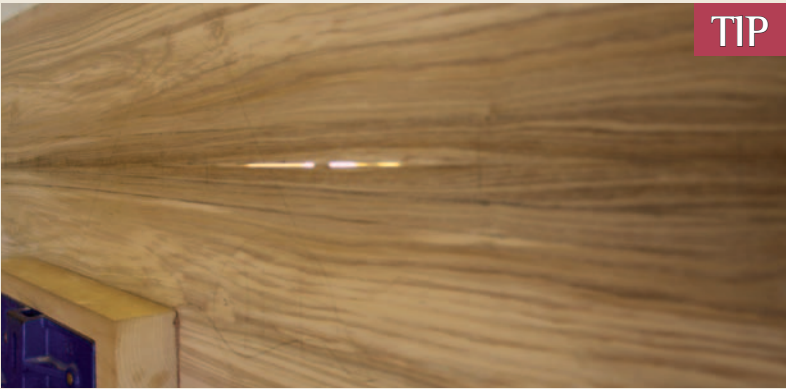
Pic.5 Stacks of panels back from the wide belt sander, in stick and hopefully staying flat. By doing all these at once Steve saves himself days of time, but the thicknesses have to be well planned to match cutters etc...



Pic.6 All the ripping was done on a bandsaw, which is better for following a 'chalked' line freehand than on a tablesaw. There is also less wastage in dust, and it's generally gentler. Steve is considering buying a rail-guided circular saw (like a Mafell or Festool) for dimensioning panels. The cordless Bosch saw wasn't quite strong enough for 2in ash boards, especially with a thin CMT blade, which is great for 18mm MDF, but wanders a bit in solid wood

Gluing up the panels

An exploding biscuit jointer altered Steve's technique



TIP

British Woodworking's old Elu biscuit jointer exploded while Steve was working on the wardrobes, and was going to cost too much to repair. So he jumped at the opportunity to buy a Festool Domino, which is commonly used for producing loose tenon joints, but can also be employed for locating edge joints to glue up panels with the least possible work afterwards. Steve hand planes the edges, very slightly concave (0.5-1.0mm gap over 2m length), to guarantee the ends are tight.



Pic.7 Using Dominos to locate the edges on the panels. This means there's less waste to be removed later

This is a technique Tage Frid recommends in *Tage Frid Teaches Woodwork* (Book 1). If you are doing this by hand, Tage says there is no need to use a dowel or spline if the glue joint is good, and planed by hand rather than machine. Steve says Tage would put a very slight convex curve along the length of a wooden plane to automatically create a concave edge for jointing. The only problem with the Domino for edge jointing is that the boards can be difficult to part after a dry assembly, which isn't the case with a biscuit jointer.



Pic.8 Applying Evo-Stick PVA with a brush to one of the door panels