

Recycled pallet table

Neil Lawton makes an upcycled pallet table

Whatever the season, there is often a need for a small table to suit our circumstances. There are times when we may wish to entertain friends in the house or garden, depending on the time of year, whether it be sat around the log burning stove in winter, or sat in the – hopefully – summer sun in the garden. To have a table in each area would be quite impracticable and space consuming. There are three seating areas in the garden and apart from the formal dining table, another two in the living room and conservatory – all of varying heights.

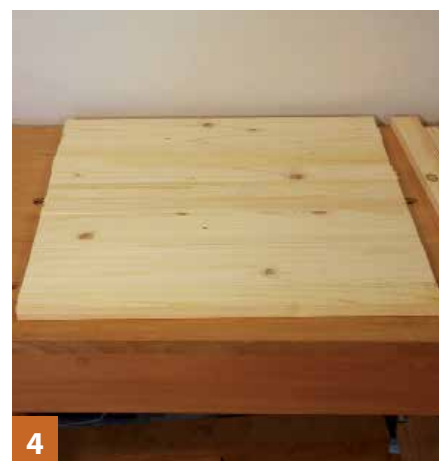
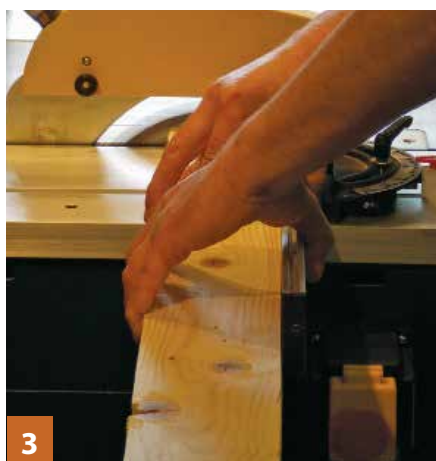
My passion is for using reclaimed/ recycled materials for my work, so I set myself a brief to address this problem without purchasing anything extra to what I already had available, to complete the project.

1 Start with one pallet-worth of wood, 'de nailed'. My pallet had been added to at some point by the addition of some pine (*Pinus spp.*) floorboard offcuts, which proved to be a help later on.

2 Clean the wood by a quick pass through the thicknesser, although a belt sanding would suffice. As you use the thicknesser, check each piece on every pass and gently tap out any loose knots.

3 Cut away the nail damaged areas and rip a quantity of timber to width for the tabletop.

4 Cut more pieces than required to enable a 'cherry picking', for the most suitable fit and later machining. As you will see, some of these extra pieces will be utilised later.



5 Cut some longer pieces and mitre to frame the top. Cut the frame internally so it is 1mm larger all round. As the table is to be used indoors and out, a tight fit could lead to distortion of the top, if there is any movement in the timber.



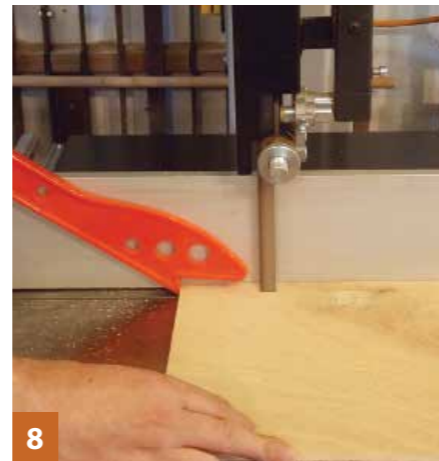
6 Construct the top using a loose tenon arrangement, again to allow for expansion or contraction of the timber. Set the router table to create a rebate in both sides of the internal pieces and the inner sides of the mitred frame.



7 After routing, it will become more evident how the tenons will help maintain a level surface.



8 Bandsaw the tenons from offcuts of 6mm ply, although rips from a suitable hardwood could be used.



9 Cut the tenons to a length to allow them to seat into the frame rebate on either side.



10 Next, dry clamp the top to check for square and fit. If any tenon is slightly overlong, it will interfere with the mitre joint. It is a lot easier to rectify any problem at this stage, rather than when the glue has been applied.



11 Glue a tenon into the two end frame rebates and the mitre joints only; this will help key the mitres together while allowing for movement across the top.



12 The floorboard pieces on my own pallet were utilised for the legs. They were not planed down, but would have holes filled and sanded clean later. Mark a centreline on each leg, mark a radius on the ends and measure out the drilling points.



TOP TIP
 1. A good quality metal detector is useful for checking for buried nails; this will avoid potential damage to blade metal. This is also useful for looking for lost nuts and bolts on the workshop floor.
 2. Different pallet types will yield different sections of wood. It is useful to have a selection to choose from.

13 The next step is to drill a small pilot hole through each of the four legs, at the centre pivot point.



14 Set the depth stop, using a Forstner bit to create a recess to accommodate a nut and bolt, on one side of each leg.



15 Next, drill the pilot hole through to the required diameter and bolt the legs together.



16 With the bolts now cut flush, make a radius on the end of each leg using the disc sander. Having the legs bolted together makes it easier to ensure the legs end up an equal length.



17 Cut a batten to the length of the leg spacing and at a height to allow small expansion brackets to centre on the legs; these will form the hinge.



18 Here is the hinge assembly put together. You may notice a mixture of screw types due to using whatever was to hand. You can use whichever screws you have available, even second hand ones can be used.



19 Clamp a batten of equal length to the hinge to the front edge; this will maintain the correct spacing and cut cross members to start tying the mechanism together.



20 Recess the screw points using a small Forstner bit...



TOP TIP
 3. Surface dirt needs to be wirebrushed off any surfaces before machining, as it can quickly dull a cutting edge.
 4. Select your pallets carefully. For this project it is best to avoid painted or obviously treated wood, and research any stamped markings. Some pallets may have been treated with harmful preservatives and are therefore not suitable for reclamation work.
 5. Alternating the grain orientation of the top pieces on assembly will help the surface remain flat, even if movement occurs.

21 ... and then cut plugs to match. A single screw so near the end grain is a possible weak point. The idea behind plugging the screw is to introduce glue into the end grain to reinforce it.



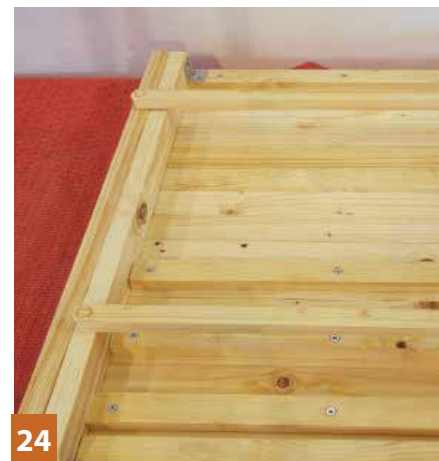
22 Then, secure a baton to the outer two legs using two straight brackets. The use of these allows the table to fold entirely flat and ensures that there is no interference with the leg height, regardless of the height position. Anything thicker would contact the bottom of the tabletop, which would lead to a sloping surface.



23 Glue and pin two pieces of wood to the table edges, these will act as runners for the legs. Secure batons to the underside of the top to achieve the three height positions.



24 Break down the table into its component parts, then sand and fill. I decided to leave it looking natural, so I finished with Danish oil. It could, however, be scorched or coloured with stain to suit.



25 The finished table at all three heights.

