

## Box Frame Coffee Table

Designed and constructed  
 by Dick Holden



This attractive coffee table, best described as a "box frame" design, is very easily made using your Triton workcentre and is therefore a good introduction to "Triton carpentry" for the beginner. The dimensions of the table specified here are 600mm x 600mm, with a top measuring 520mm x 520mm. However you can easily alter the size to suit your own preferences by varying the length and, if necessary, the depth of the side members of the "box frame" (Components C and D).

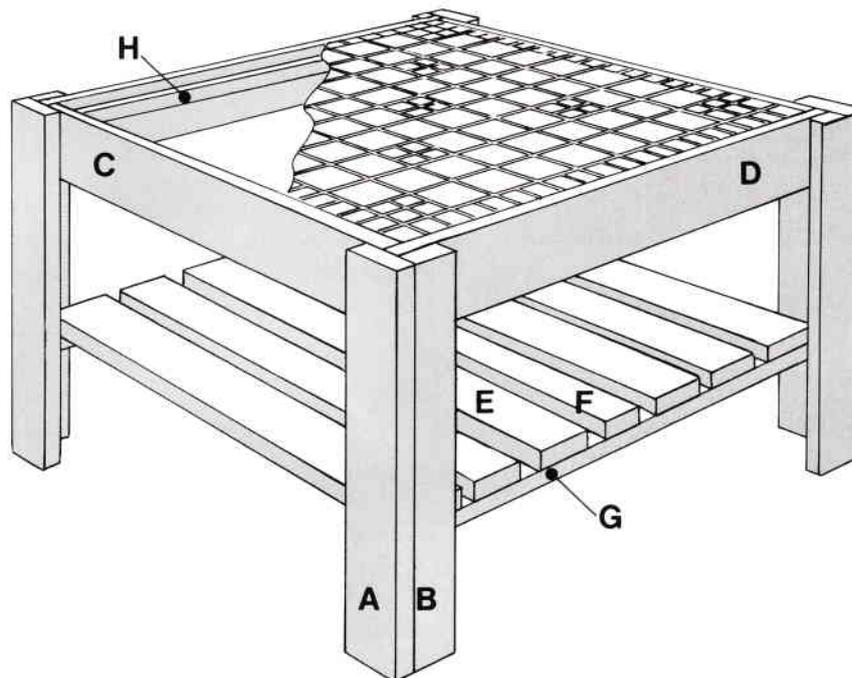
Our coffee table was made with a tiled top, but the design can also be easily adapted to take a solid or a veneered timber top, or a smoked glass top.

The cutting procedures are quite straight forward, with the use of a length gauge on your workstops (see the Jig Guide) to ensure identical components.

### Component Specifications

Part No.	Description	Quantity	Width	Thickness	Length
A	Legs	4	70 ×	19 ×	380
B	Legs	4	42 ×	19 ×	380
C	Box frame	2	70 ×	19 ×	520
D	Box frame	2	70 ×	19 ×	558
E	Magazine shelf	6	70 ×	19 ×	558
F	Magazine shelf	1	42 ×	19 ×	558
G	Magazine shelf	2	42 ×	19 ×	558
H	Support strips	4	20 ×	19 ×	400
I	Table top	1	520 ×	19 ×	520

All dimensions are in mm



### Tool Requirements

**1. ESSENTIAL** Triton Workcentre and your power saw. A length gauge as shown in the Jig Guide is very useful for rapidly cutting components to the same length and is specified throughout the project. Also needed: measuring tape, square, hammer, nail punch, medium and fine sandpaper.

For the tiling: "Spreader" for adhesive, grouting tool.

**2. USEFUL** Orbital or finishing sander, hand or electric drill and drill bit set, countersink bit.

# Construction Details

## Material Shopping List

**1. WOOD** Radiata pine was used in our construction, but any close grained furniture material would be suitable.

Shop for:

**70 × 19mm** — 5 @ 1.2m, 1 @ 1.8m (Frame, legs, etc.)  
**42 × 19mm** — 2 @ 2.1m (legs and shelf)

And for the table top:

**19mm chipboard or similar** — 1 @ 520mm × 520mm

Note: Chipboard is normally sold in large sheet sizes, beginning at 1830 × 915mm (6' × 3'). If you don't have a Triton extension table to enable you to cut large sheets easily, you may have to find a timber merchant willing to cut to size for you. Alternatively use your power saw hand held, using the saw's guide and a straight batten clamped to your sheet.

If you are making a tiled top, check your tile sizes first.

**2. FASTENING** PVA or equivalent wood glue. Bullet head nails — 30 × 2mm, 40 × 2mm, 50 × 2.8mm. If you are using a softwood, processed nails which have a coating of adhesive have better holding power. Countersunk woodscrews — 8 @ 1¼" × 8 G. Tile adhesive.

**3. OTHER** Tiles to suit your choice of design and colour scheme. Tile grout.

**Optional** Steel or plated "furniture glides" for the bottom of the legs.

## General Points

**1.** With a tiled top table it is essential to work out your tile design and complete your top first in case the design and/or tile size may necessitate some variation in frame dimensions.

Note that our detailed instructions (as well as the buying guide) assume that your table top is actually 520mm × 520mm.

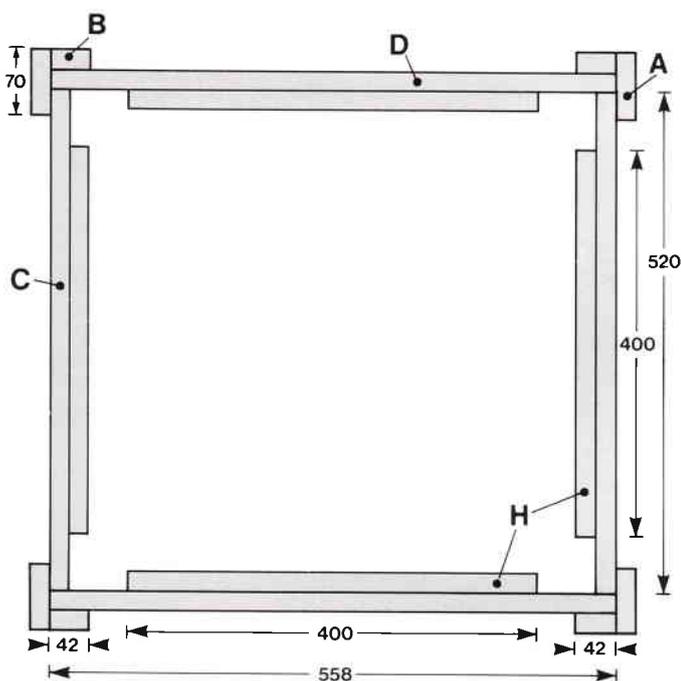
**2.** It is important that the box frame must be assembled as a complete unit before the legs are attached, and the correct positioning of frame sides (**C, D**) when forming the box is also important. Refer to the detail drawing **Figure 1**.

**3.** Assemble the magazine shelf as a complete unit before attaching it to the main assembly.

As already mentioned, complete your top first and check its dimensions. If your top sizing does vary from our example, you will need to adjust the dimensions of (**C, D, E, F and G**) to suit the new dimensions of your table top. A study of the drawings will help you to do this. With the top

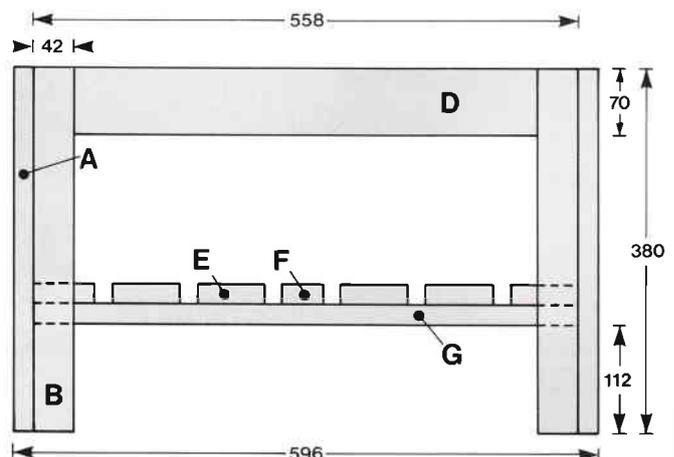
completed and the frame dimensions confirmed, you can begin cutting the other components.

**2** Set up your workcentre in the crosscut mode. Use a length-gauge extension, as shown in the Jig Guide section and described in your operating manual, to cut the four leg Components **A**. Set your stop block at 380mm and cut the four from the 1.8m length of 70 × 19mm material. (**Figure 2**)

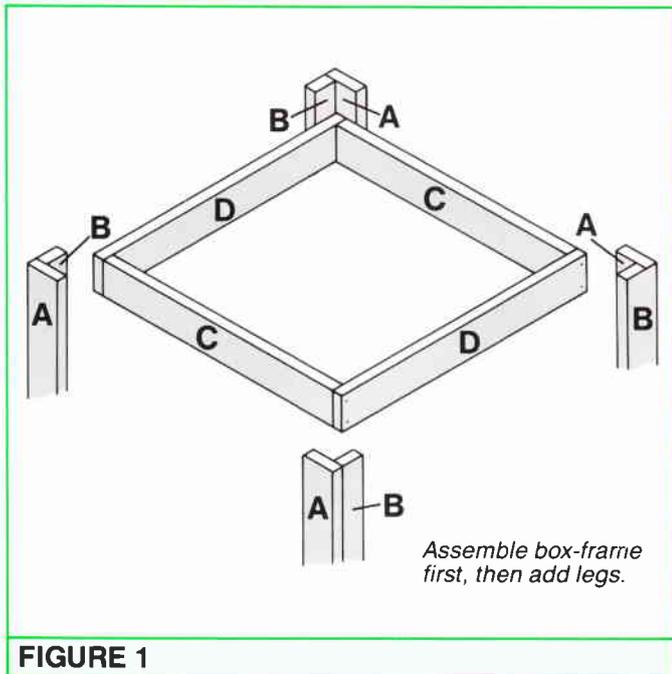


PLAN VIEW

(Top and magazine shelf removed)



SIDE VIEW



Using the same stop block setting cut the four leg Components **B** from one of the 2.1m lengths of  $42 \times 19\text{mm}$  material. Retain the offcut.

**3** Reset the stop block at 520 mm and cut the two frame Components **C** from one of the 1.2m lengths of  $70 \times 19\text{mm}$  material.

Reset the stop block again, this time at 558mm, and cut eight pieces to this length, two from each of the remaining four lengths of  $70\text{mm} \times 19\text{mm}$ . These are for Components **D** and **E**.

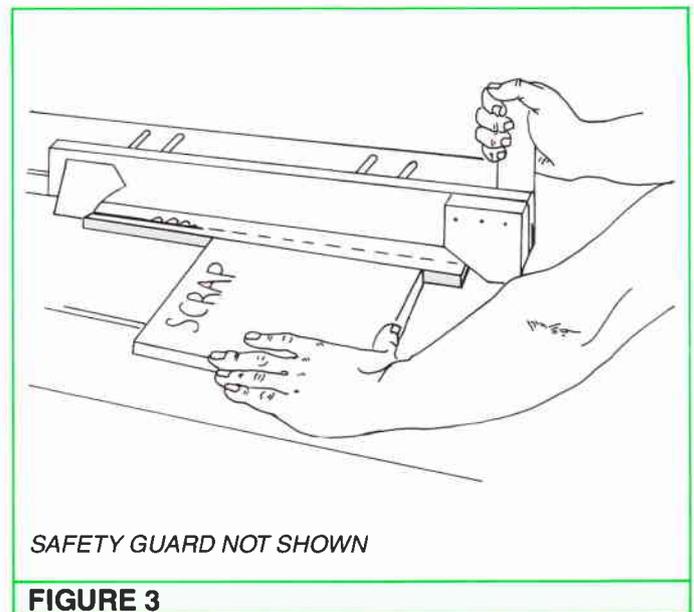
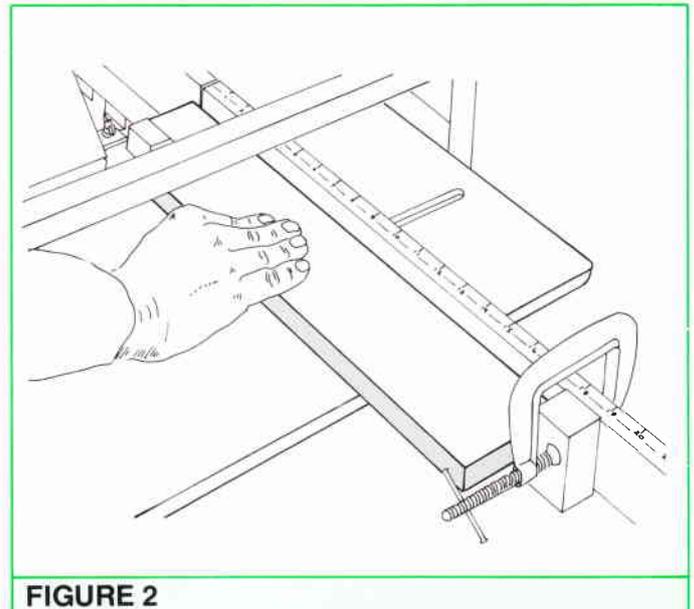
On the same length setting, from the remaining 2.1m length of  $42 \times 19\text{mm}$  cut three lengths of 558mm for the Components **F** and **G**. Set aside the offcut.

**4** The next step is to cut the four top support strips **H** from the two offcuts that were kept from the  $42\text{mm} \times 19\text{mm}$  material. These offcuts should measure about 420mm and 570mm long respectively.

Convert to the table saw mode, and be sure to add your safety guard. Now set your rip fence at 20mm.

### Safety Note

Narrow ripping can be dangerous if the correct procedures are not followed. Always use a push-stick when narrow ripping. For extra safety and accuracy, make a "Repetition Ripping Jig" — see the Jig Guide for details. (Figure 3)



Rip down your offcuts to obtain two pieces approximately 19–20mm square. Slight variation in the width/thickness dimensions do not matter, as these components will not be visible.

Mark off 400mm on each, and using the protractor set at 90 degrees, cut all four pieces to this length. **Exact** length here is not critical either.

**5** Your cutting is now complete, and assembly can begin. To assemble the "box frame" take the two pieces each of Components **C** and **D**, and lay them out on edge to form a "box" with the end sections of **C** butting up to the ends of the wide faces of **D** (As per Figure 1).

Check to ensure that your top fits well into the "box frame" as it will be too late afterwards to make adjustments. If OK, add glue to the ends of **C** and

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nail through **D** at each corner into the respective ends of **C**, using two 40mm × 2mm nails. Pre-drilling is advisable. Check that all four corners are square.

**6** Assemble the four legs, in each case by gluing and nailing through **A** into the 19mm edge of **B**, using three 40mm × 2mm nails. Again, pre-drilling is advisable. Make sure that both ends of **A** and **B** are flush.

Attach the legs to the “box frame” by gluing and nailing from the inside of the frame into the legs, using two 30 × 2mm nails through both **C** and **D** at each other. Take care to position the legs correctly. (Refer Figure 4)

Using the 50mm × 2.8mm nails (pre-drill), nail through the legs from outside into the ends of the frame components **C** and **D**. (Figure 4). (One nail through each leg component, making sure that the nails don't meet).

**7** To assemble the magazine shelf, lay out the six pieces **E** and the one piece **F** (in the centre) top face down and nail the two pieces **G** in position, using 30mm × 2mm nails. See Figure 5.

The space between each slat should be about 15–16mm. You may find it helpful to begin with each end slat and work towards the centre to ensure even spacing. Check for square as you go.

The completed shelf is then nailed in position using 40mm × 2mm nails through **A** and **B** of each leg. Pre-drill and make sure the nails don't meet.

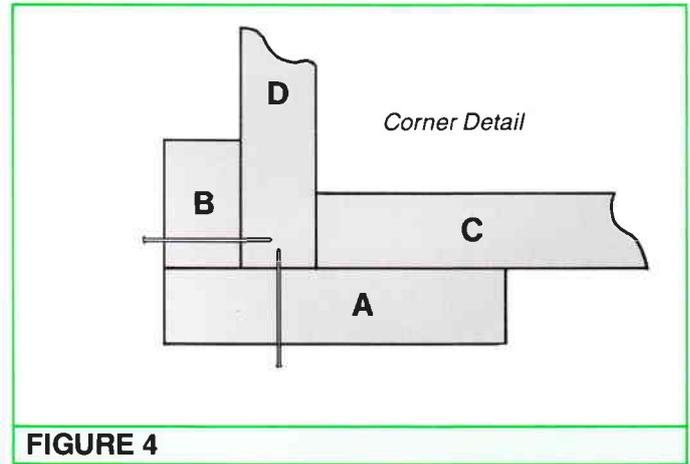


FIGURE 4

**8** The final step in the assembly is to carefully place the tile top upside down on a flat surface, place the completed frame and leg assembly (also inverted) over the top, and mark the positions for the support strips **H**. This ensures that the upper face of your tiled top is flush with the top edges of your frame members **C** and **D**. Tack the support strips in position with 30mm × 2mm nails. Add two 1¼" × 8 G countersunk woodscrews to each support strip for extra strength. The table top sits on these support strips **H** without the need for fastenings.

**9** If you can obtain some furniture glides from your hardware store, add them under the bottom of the legs. Punch all the visible nails, fill the holes with colour matched wood putty, and sand your coffee table ready for finishing. (Refer to the special appendix on Furniture Finishes and Finishing).

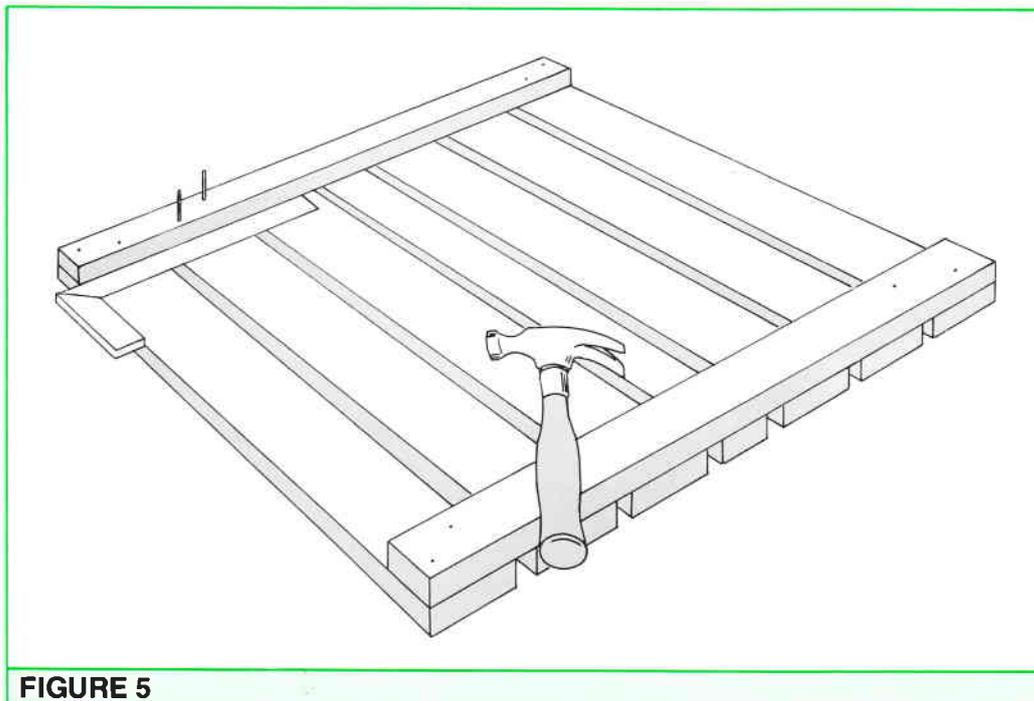


FIGURE 5