

PHOTOGRAPHS BY MICHAEL T COLLINS

# Maple camper box

Michael T Collins creates on the move storage

## Cutting list

- 2 pieces of ply for left and right sides
- 2 pieces of ply for the back and front
- 2 pieces of ply for the top and bottom
- 1 additional bottom insert piece

## Supplies

- 4 of 25mm rubber fixed wheels
- 1 of 60cm piano hinge
- 1 short length of sturdy leather

A couple of weeks ago, a friend called to say she wanted a simple, no-frills box made for her teardrop camper, and would be round to talk details. A couple of hours later Louise appeared with trailer in tow.

The box was going to be for storing

clothes and had to fit within the under-shelf area, be easy to slide in and out and have a lid.

Since the entire inside of the trailer is beautiful maple plywood, I decided to use 19mm furniture-grade ply. When cutting ply on a tablesaw it is important to have the face side facing up and use a zero-clearance insert. To lessen the tear-out effect, score the saw line.

**1** Next all the mitres were cut – there was no need to add any additional mechanical holding as the ply had enough long-grain glue surfaces. However, if in doubt, you can use biscuits or splines. It was carefully cleaned up, including the edges that needed it and I applied glue to all mitres and then put the box together around a base that had previously been

cut to size. I used a cheap piece of 19mm ply as it was unlikely to be seen. **Note:** when cutting mitres, it is always safer to use a sled. Never try to do this against the fence.

**2** I applied clamping pressure and checked for square, allowing the glue to dry. While the glue was drying, I cut a second piece of the furniture-

grade ply for the inside bottom, glued and dropped into place.

Four holes were drilled in the corners of the base – these would house the wheels.

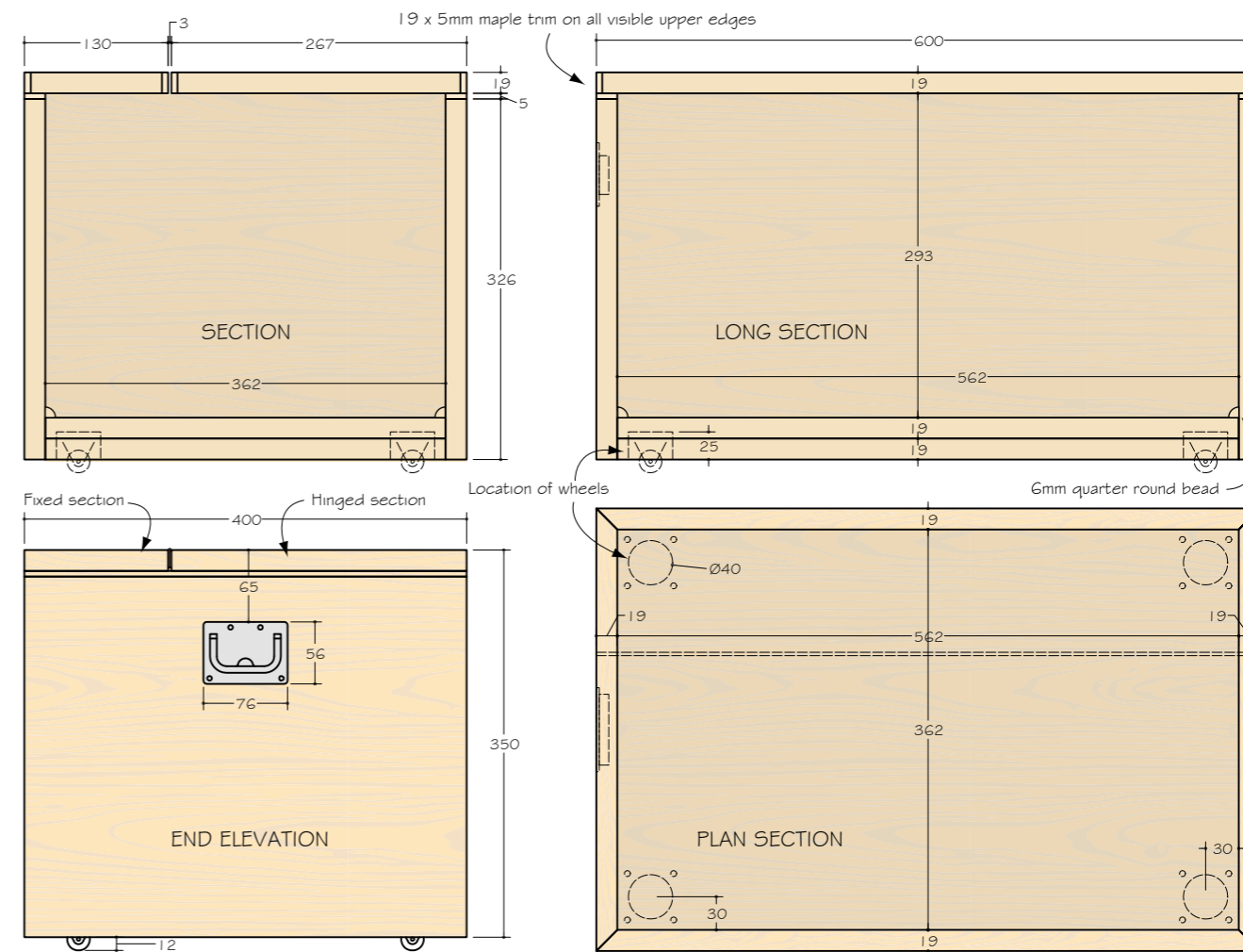
**3** Once the glue was dry, any irregularities were planed flush from the outside in.

## The wheels

**4** The wheels were inserted into the holes created by the inner bottom as these would take all the weight. I decided it would be prudent to add countersunk screws around the wheel holes. The wheels were screwed in place, protruding approximately 12mm below the box.

## Finishing off the base of the chest

**5** All upper edges of the chest were trimmed with 19mm x 5mm solid maple – this was primarily to hide the ugly visible ply edge, and secondarily it provided a more robust edge. The pieces were cut and mitred. As the box had already been made, the trim needed to be flush with the inside of the box, as planing would be difficult. ▶



**6** The trim was glued into place and secured with tape. There was enough long-grain surface so I wouldn't need to use any nails or screws.

Ideally I would have trimmed the ply before cut and assembly, but when I started making the box, the maximum height was not yet known and I had a hard time finding wheels with a low profile. This way, once the maximum height was known, I cut the base to the required height on the tablesaw.

**7** I planed the edging flush with the sides. I always do this by planing from the lower surface (the sides) over the trim – this way the result will be flat and the plane less likely to cut into the side. **Note:** an alternative is to use a flush-trim router, but in my opinion it is quicker and more satisfying to use a block plane.

### Making the lid

Owing to the location of the chest in the teardrop a full-size hinged top was not possible, so the top was divided into one-third fixed and two-thirds hinged. This would allow the chest to be rolled out a little way and the lid would have space above to lean back slightly without hitting the overhang.

**8** The two parts of the lid were cut to size and the visible edges given the same treatment as the sides.

**9** I glued the fixed lid section into place.

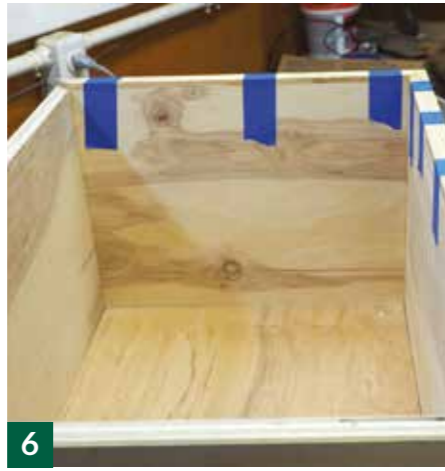
**10** While the glue was drying, I temporarily installed the piano hinge, making sure of alignment and that the knuckle of the hinge was just flush, or slightly below the top of the lid.

**11** I gave all surfaces a light sanding with 180 followed by 220 grit. I had to be careful sanding as some ply surfaces are only paper-thin veneer.

**12** To protect the surface I gave the whole chest a coat of amber shellac to match the interior of the teardrop trailer.

### Handles

The client wanted rope handles, but this would have increased the external space taken up by the chest and limited the internal space with ugly rope knots. Instead, I opted for flush handles. This is not the first time I have given myself



more work for a client and probably won't be the last.

**13-15** First I positioned the handles in the desired location. Then, deeply scoring the location, I created a profile of the back side of the hinge.

**16** I transferred the profile to the chest, making sure to flip the drawing in case there are any anomalies in the shape.

**17** With a palm router, in a couple of passes I removed all the waste to the deepest area, making sure to avoid a 5mm buffer zone around the edge of the handle's flange. I raised the router enough to remove all the waste to the thickness of the flange, paying particular attention to stay within the scored lines.

**18** Any remaining waste along the score line was removed with a chisel first...

**19**... then with a router plane. Because one of the hinges had some unevenness, I had to test-fit the hinge a couple of times, paring away additional waste to get it to seat firmly. **Note:** a simple technique to see what areas need to be removed, is to simply rub the back of the handle with a pencil and push firmly into the cavity – the pencil will be deposited on the high spots.

### Finishing up

**20** Just to finish off the inside bottom corners of the chest, I pin-nailed a 6mm, quarter-round bead, mitring into the corners.

**21** The box was given a final sanding all over with 320 grit and a final couple of coats of amber shellac.

**22** The handles were secured in place.

**23** A leather strap was positioned to stop the lid going too far back on itself.

**24** The chest was delivered to the client who was delighted and drove off a 'very happy camper'. ■

