

Warre Kit Assembly & Set Up Notes

Introduction

These notes do not provide detailed instructions but rather some important hints. The international plans for Warre Hive are found at <https://warre.biobees.com/plans.htm> They will be a useful guide. The Natural Beekeeping Tasmania kit is modified to address a cool climate, and the macaracpa timber has been dressed to 25mm.

The joints on the boxes rebated for extra strength and stability.

Cypress (Macaracpa) is a light but brittle wood. The wood **MUST** be drilled prior to nailing or drilling to avoid splitting. It is a durable timber that will last for many years.

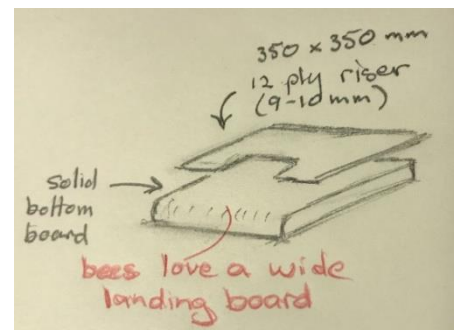
As a general rule, clamp joints before drilling. Use a square to ensure all construction is square and flat, and check this often. It is essential that hive boxes have no gaps and align on every side.

If you are new to beekeeping, please do a beekeeping course to understand how bees live.

Check you have been provided with the correct number of kit parts.

Parts of the Hive (one box hive)

- 1 Roof Ridge
- 2 Roof covers (optional depending on roof choice)
- 2 Roof sides
- 2 Gable Roof Ends
- 4 Quilt sides, 4 Quilt Risers and Quilt Mesh
- 2 Rebated Box sides, 2 Flat Box sides and 2 Bevelled Handles
- 8 Frame Set with 2 full frames and 6 short frame
- 1 Bottomboard



Tools required

- Small Square
- Ruler
- Pencil
- Clamp
- 50mm Stainless Steel Screws or 60mm Flathead Galvanised Nails (12 per box)
- 40mm Stainless Steel Screws for Handles (6 per box)
- 40mm Galvanised Screws for Roof and Quilt Box (24)
- 70mm Screws for Roof Ridge (2)
- 3.5mm Drill bit
- Countersink Bit (if using screws)
- Screwdriver or power drill
- Rough and Fine Sandpaper
- Wax/ Oil Mix (see the back page)

Stand and Bottom Board

Stands are not provided with the kit. Ensure your hive is off the ground to reduce moisture and cold impacting the bees.

The Bottom Board comes assembled. Do ensure the sides of the ply riser are well oiled before use and re-oil the outside from time to time.



Assembly of Box

The box consists of 2 rebated sides, 2 straight sides and 2 handles.

- 1 Dry fit the sides together to ensure the inside joints are well-aligned. Some parts may have wood blemishes or holes and arrange the parts so these are on the inside.
- 2 Sand or scrape the joints to allow a tight fit
- 3 Mark three hole positions or use a template to set out three holes on the join
- 4 Using a flat surface, clamp the box together. Check the box is square using a small square set/ ruler
- 5 Drill (and countersink if screwing) and insert 50mm screws
- 6 Check square and levels of the box from time to time
- 7 Sand each edge and a small section of each outside corner using rough sandpaper. Repeat with fine sandpaper
- 9 When box is complete, mark hole positions on handles
- 8 Handles align in the same direction as the internal frames. ENSURE HANDLES ARE PLACED ON STRAIGHT SIDES WITH BEVEL ON TOP, sloping away from box, and clamp them to the sides
- 10 Pre-drill and use 40mm screws to attach handles
- 11 Rough sand the inside of each box. The bees will love this.
- 12 Admire your handiwork!!! Congratulations
- 13 Brush all dust from the box before oiling

Frame Sets

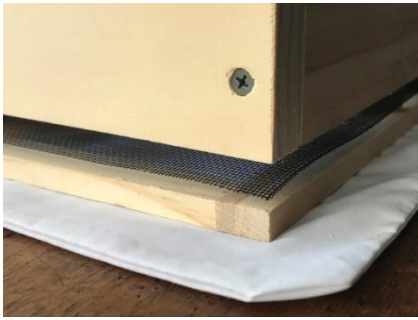
Warre frames sets consist of 2 full frames which are used as honey frames at 1 & 8 in the hive box. There are 6 short end frames for places 2 to 7.

Attach the frame by staple gun or nails on the top of the frame and not through the side lugs. **Use a file or rough sandpaper to rough up the underside of the frame bar.** Bees will attach their wax strongly to rough timber.



Other options may be used. If you have frames with centre grooves, you can dip popsicle sticks into melted beeswax and insert one in the groove. Or simply rub a wax bar down the centre of the frame. Frames are always pushed together into the centre of the box. The canvas **hive mat** is placed on the frames of the top box.

Quilt Box



The quilt box is approximately 5mm smaller than a hive box. This allows for the lid to slip easily over the box and allows room for a cotton cloth on the bottom that is stapled to the sides.

Alternatively you could place a cotton piece on top of the mesh. The purpose of the cotton stops fine dust and particles from the pine wood shavings falling on the bees.

Nail or screw the box section together ensuring it is square, place the mesh on the bottom and the risers on top of the mesh, then secure the risers and mesh with nails or staple gun.

Gable Lid



Square up the gables and side, clamp and screw. The ply cover needs to be well attached to the sides, so use screws to secure this part. This cover sits on the quilt box so takes some pressure. Once the roof is added it is difficult to repair the cover without dismantling the top.

The roof needs some careful measuring to ensure the lids are even from all sides. Test the position by placing the ridge on top and ensure it sits flat.

Mark where the screws line up with the gables and attach one screw. Remeasure to ensure the lid has not moved and screw the rest of the lid.



Measure the holes for the ridge. The ridge will need a very long screw (75 - 100mm) at each end. Use the drill bit to make the hole and mark where the screw will meet the gable. Remove the ridge to provide access to drill into the gable.

**We recommend painting the lid and ridge of your warre hive.
An oiled roof can blacken over time.**

Well Done! You have completed the Build Section!

Wax/ Oil Preparation for Inside Boxes

Needed: A small amount (8-10gms) of chemical-free Beeswax
Rice Bran Oil
Container to heat mixture and store excess

Initial Preparation:

Heat 10 parts oil until warm, then add 1-2 parts beeswax. Continue to stir until the wax has dissolved. Wax melts at 63° C, discolours at 85° C and can ignite easily. DO NOT leave wax unattended.

Whatever your choice of outside finishes, wax the inside of the boxes. Any strong smelling timber like macaranga or celery top pine needs waxing. Heat the box in the sun and when warm, coat with the warm wax. Allow to soak in and later wipe off the excess. A warm room will also work well.

Wax the inside of the boxes and NOT the frames.

Wax/ Oil Preparation for Outside Boxes

Use RAW Linseed Oil and beeswax mixture for the external areas of the hive. Wax the outside of the boxes and exposed areas of the lid.

Ensure the edge of the plywood riser on the Bottom Board is well waxed to reduce swelling from moisture.

If you wax the outside of your hive it will need recoating from time to time. On a warm day, place your wax mixture in the sun then recoat your boxes.

Setting up the Frames

Do not oil the frames. Rough the underside to enable the bees to attach their honeycomb securely. If you have flat hives, the roughened wood will suffice, or you could rub on some beeswax.

Each box contains 2 full frames which are placed in position 1 & 8. These are filled with honey by the bees. All other frames are open at the bottom to ensure continuous brood pattern as the colony builds downward. *Before bees enter the hive, ensure the frames in each box are pushed together and in the centre of the box.*

Setting up the Quilt Box

Only use pine shavings or straw in your quilt box. Using strong smelling shavings like Celery top, Huon pine or Cypress will have your bees abandoning their hive. They need neutral smells to enable them to smell the subtle pheromones from the queen and brood. Never place the shavings in an impermeable bag as they are critical to moisture control in the hive.

Before winter, top the shavings up to fill the quilt box. At any time, if there is an excess of moisture or mould in the shavings, then replace them. This is good to do every few years regardless of moisture.

Locating your Hive

In our cool Tasmania climate, it is important to have the hive off the ground by at least 100mm to stop cold and damp. Solid wood or bricks with something to insulate the hive against damp is good.

We also place the hive in full sun and away from overhanging trees. Never have a hive under the dripline of a tree. In Tasmania, we do not protect hives from the strong afternoon sun as we need full sun to increase colony activity and reduce the need for using as much honey to keep warm.

Direct the opening of the hive to the North East or North to get the early morning sun onto the hive entrance.

Ensure the hive is upright and not leaning in any direction.

Protect the hive from excess wind as it cools the colony and its brood, makes flying and landing difficult, and may topple the hive during storms.

If your hive is set up in early September, it will be ready for the start of swarming season. The oil/wax inside the hive boxes will act as a swarm attractant.

Finding Bees

Bees may be attained in a number of ways – scouts are attracted to your hive and a swarm moves in, you collect a swarm and hive then or you use a starter colony.

There is a video that explains hiving a swarm into a warre hive. At this site

https://www.youtube.com/watch?v=wOjl_hwFZ60

There are also starter colonies or nucleus hives available, so please contact me early in the season. They are usually available during November – January.

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