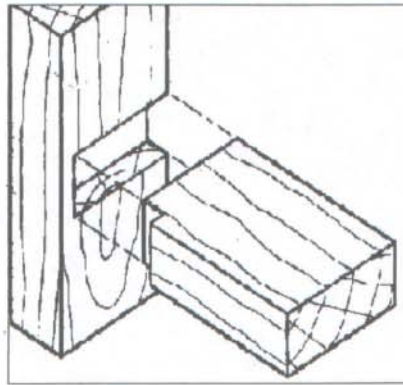


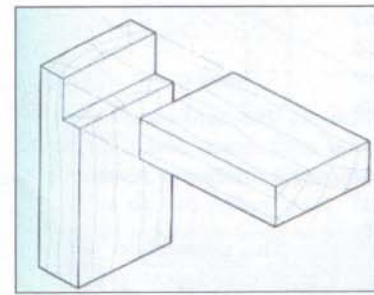
Analyse and justifies the selection of appropriate materials, components, processes, including industrial processes and equipment, and other resources.

The **stopped housing** joints are used in preference to through housing joints where the appearance of the edge is an important design factor and a cover strip is not to be used to cover up the edges.

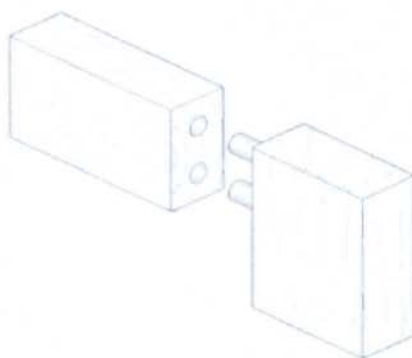


Stopped Housing Joint

Rebate housing joints are often called rebate and butt joints or end housing joints. They are stronger than butt joints when glued and nailed because they have two contact surfaces and they can be nailed two ways if necessary.



Rebate housing Joint



Dowell Joint

Dowelled butt joints can be used in a variety of applications such as frame construction, leg and rail construction. Matching dowel holes are drilled in both pieces. Wooden dowels are then glued into the holes in one piece and the joint is assembled with glue applied to the contact surfaces and the other holes. Dowel holes should be drilled with a dowel bit. A dowelling jig can be used in conjunction with a portable power drill bit.

MICHAEL DYBAC



Joints and construction

1. Joint one involves the joining of the side piece (19 mm) to the straight piece of (42 mm x 19 mm) pine strip to give the door support. There are a number of joints possible to attach the two pieces together.
 - Option 1- **Dowel joint** would be strong but very time consuming. It would be difficult to line all the dowels up in a straight line
 - Option 2- **Butt joint** is very easy to assemble. Once the two pieces are lined up they are ready for clamping. A simple joint although could be too weak for structural purposes. If nails were applied it would make it a lot stronger but the nails will stand out and effect the appearance.
 - **Option 3- Biscuit joint** Is very effective and strong. This joint is very simple to construct and takes very little time to assemble. With a larger gluing surface and the fact that it is easy to assemble this joint is the one that will be used to assemble all the 42 x 19 pieces of pine to the Frame pieces of the unit to create a backing for the doors.
2. The joint of the main shelves are very important in the fact that they are strong to with stand a certain amount of weight. If these joints are not strong structural damage could occur to the unit These shelves have to be strong enough to hold 50 kg plus objects.
 - Option 1- A glued and nailed **butt joint** could be effective as it is easy and simple to construct. With certain weight there could be a chance of structural damage. This joint is not that strong although used in many commercial entertainment units. This could be considered if no other option was available.
 - Option 2- **Biscuit joint** is another option available in construction of these pieces. Although this joint is easy to construct and has great strength, it isn't certain on how much wait it could with stand. The quickest option is to go to a joint construction that is known to withstand so much wait.
 - **Option 3- The Stopped through housing joint** Is going to be the most effective design in appearance and strength. Although this has greater difficulty aspects it is worth the time and effort to construct this joint as it will be beneficial to the structure or the unit. It is stated the strongest and with proper construction it will be appealing and flush with the unit.
3. This joint is a going to be a mitred joint so that both pieces meet at a 45 degree angle.
 - Option 1- **Dowelled mitre joint.** this type of joint is very strong although there is not quite enough room in this joint to make the dowels very long. There is no room to construct this joint effectively.
 - Option 2- **Biscuit joint** is also very effective but with out much room, it can make the joint very week.
 - **Option 3- Glued Butt joint** is going to be the most effective design. It is strong as it is only a small area and considering the rest of the pieces are going to be biscuit joints it is going to be enough to be strong.
4. This joint is very important in structural aspects. It has to be very strong as it is the main frame of the unit. The two pieces of 2400 x 19 will be attached flush so that it looks as effective as one piece of timber.
 - Option 1- **Dowelled butt joint** is very strong and effective. Although the pieces are 1400mm long it could be very difficult in lining the pieces up so that there is no differences in the pieces of timber and that there is no twists or bows.
 - **Option 2- Continuous biscuit joint** is going to be the most effective way of constructing this joint. It is simple, reliable and very strong. It also takes very little time to produce such good quality.

The use of templates

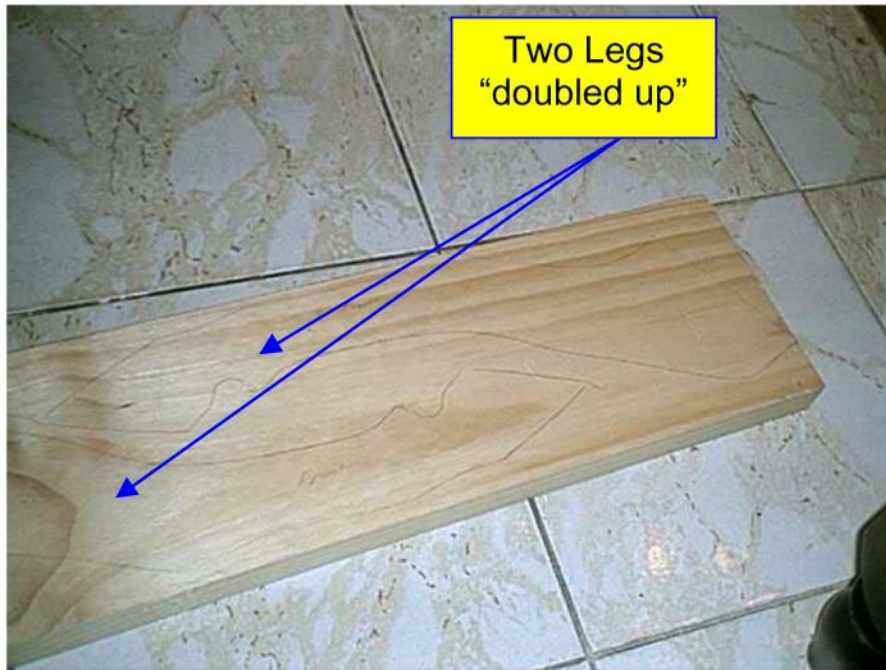
- ◆ Throughout all research, a common method used to create a horse, ready for carving, was to glue a number of individual pieces together, creating a box like horse, then carving the horse as a whole
- ◆ The main way to achieve this is by recognising, the amount of wood needed, and the different lengths
- ◆ The use of templates helps both, gain a scale outline, and justify the means of construction and resources purchased
- ◆ My templates were established by mainly a number of free hand drawings, being joined to the common sizes I wanted to achieve
- ◆ The common sizes of my horse came both from the internet and by visiting a rocking horse factory, where I received all the standard heights and sizes for different size horses'
- ◆ The creation of my templates was undertaken for a number of reasons including
 - a) They gave me an idea of the final products size
 - b) Allows me to reproduce a horse at anytime, by just tracing out cuts from templates
 - c) Allowed me to purchase the right amount of resources first go, with the ability to minimise waste

Example of templates allowing me to minimise

HSC 2002 – Industrial Technology

Selection and Justification of Components, Processes and Other Resources

Band 5/6



HSC 2002 – Industrial Technology

Selection and Justification of Components, Processes and Other Resources

Band 5/6

