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I declare that the work contained in this submission is my own work and has not been taken from the work of others save to the extent that such work has been cited within the text of this submission.

Signed: _____

Date: _____

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Sequence of events

Bridle joints:

- 1) Check timber for size and defects.
- 2) Mark face side and face edge.
- 3) Mark width and length of tenon.
- 4) Cut tenons by clamping in the vice at an angle first and then cut straight.
- 5) Leave enough room to allow for pairing of the tenons.
- 6) Mark out mortise lining it up with the cut tenon for a perfect fit.
- 7) Cut the mortises on the mortising machine cutting it the whole way out past the final line.
- 8) Cut off the excess waste and close joint together.
- 9) Allow a few minutes for cleaning the joints.

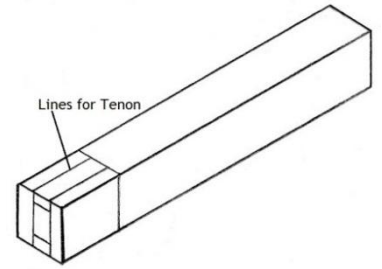


Figure 1

Step	Time Taken
1	30 seconds
2	20 seconds
3	1 minute
4	10 minutes
5	0
6	4 minutes
7	10 minutes
8	5-6 minutes
9	2-3minutes



Figure 2

Reflections

While making these joints I noticed that the standard of my bridle joints have improved from what they used to be, but there is still room to improve as both faces didn't exactly line up flush against one another. The mitre joints that were cut either side at the top were not a clean fit and adjustments had to be made. Overall I am happy with the joint but again it needs improvement to reach a high standard of work.

Mortise and tennon joints:

- 1) Check timber for size and defects.
- 2) Mark face side and face edge.
- 3) Mark full position of mortise. Measure exact width of mortise.
- 4) Set mortise gauge to size of mortise and mark both pieces.
- 5) Mark off position of rebates
- 6) Mark off shoulders of tennon.
- 7) Cut cheeks of tennon. Cut mortise on mortise machine.
- 8) Machine both pieces on the spindle.
- 9) Cut and clean shoulders of tennon
- 10) Mark width of tennon and cut to size.
- 11) Fit tennon.

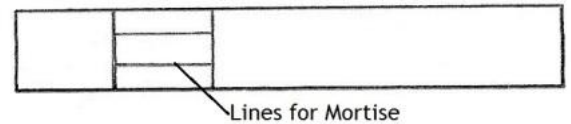


Figure 3

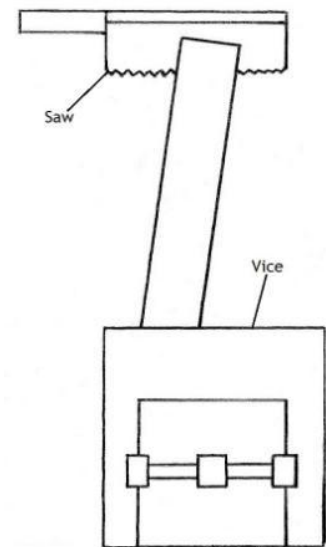


Figure 4

Step	Time Taken
1	30 seconds
2	20 seconds
3	2 minutes
4	1 minute
5	2 minutes
6	3 minutes
7	15 minutes
8	5 minutes
9	6-7 minutes
10	2-3 minutes
11	50 seconds

Reflections

On making these joints I noticed that they fitted together quite well due to the amount of practice I had on these joints, but again when the rebate was done and both sides on the frame were mitred, it was the mitres that threw the joint out of place. The mitres did not fit together quite as good as I had hoped but adjustments had to be made to the joint. If I was to make this frame again I would practice a lot more of the mitres in a joint which would give me a better standard of work.

Dowel Joints:

- 1) Check timber for size and defects.
- 2) Mark face side and face edge.
- 3) Mark overall length of timber and cut to size.
- 4) Set up dowelling machine to the position of the dowels.
- 5) Place the piece of wood in the machine to drill holes for dowels.
- 6) After drilling holes place a dowel in piece of wood and join to other piece.
- 7) Cramp pieces together to ensure good joint.



Figure 5

Step	Time Taken
1	30 seconds
2	25 seconds
3	2-3 minutes
4	5 minutes
5	3 minutes
6	2 minutes
7	1-2 minutes



Figure 6

Reflections

While making these joints I had one slight problem and that was that the holes did not line up to one another, this was due to two face sides and edges being marked at the start. This problem shouldn't have happened and was overcome by replugging the holes with dowels and gluing and cutting them off and then re-drilling the holes in the correct place. The joint fitted perfectly after this mistake was re-done. I was happy with the finished joint in the end as I thought it fitted nicely and to a high standard.

Reflections

My overall opinion on the finished frame was that it was not up to a high standard and needs improvement on the joints. But it did show some signs of jointing improvements as I thought the finish on the actual joints were up to the high standard expected by me. The actual surface finish was not quite what I expected it to be but there is always room to improve. The joints on the frame did not sit flush which might have been down to the face side and face edge markings and might have been changed during the manufacture of this frame. The finished product was not as good as what I expected but it does have some good qualities as a finish product, all joints had a good tight but manoeuvrable fit which I thought was good. Overall I am happy with the frame, but again needs work.

Images and works Cited

Figure1: <http://www.woodworkbasics.com/image-files/making-a-bridle-joint1.jpg>

Figure2: <http://www.woodworkbasics.com/image-files/mortisingmachine.jpg>

Figure3: <http://www.woodworkbasics.com/image-files/making-a-mortise-and-tenon-joint2.jpg>

Figure4: <http://www.woodworkbasics.com/image-files/making-a-mortise-and-tenon-joint2.jpg>

Figure5:

https://www.canadianwoodworking.com/sites/default/files/styles/article_full_w625/public/images/articles/woodjoinery_lead_2.jpg?itok=X5BYHyZl

Figure6:

<http://www.detelstrojogradnja.si/dat/akcija/Dowel%20hole%20boring%20machine%20D-23.jpg>

<http://jointingtechniquesfurniture1.yolasite.com/reflective-journals.php>

<http://www.woodworkbasics.com/index.htm>