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Note from Jenny I have removed Patrick’s CAD Drawings and displayed them in a separate PDF File

Introduction

My initial thought process when designing this table began with deciding on how to incorporate the chess box. As this was the only stipulation laid out in the brief, I thought it was quite important to get this aspect of the design correct. There were several options open to me, such as, using the whole box, including top, as a drawer, separating the chess board and the box and incorporating the chess board into the table top, or possibly hinging the chess board to the table top and having the box underneath. In the end I decided to separate the chess board from the box and incorporate the chess board into the table top. My decision was influenced by the fact that I thought the chess board was too attractive an item to hide in a drawer.

With this decision made, I next had to decide upon the overall design of the piece. I had researched chess tables and games tables online but had not found anything that appealed to my own tastes. I am not a big fan of the old style games tables and chess is not my favourite game either. With this in mind I decided to incorporate a poker table into the design, as this is a game I do enjoy. There are obviously stark differences between chess tables and poker tables, with size being the most prominent one, and I had to take this into consideration when coming up with a design. Since chess tables and poker tables did not seem compatible to work as a double act, I decided to design a table that would be for chess in its own right, and have an attachable poker table top that would sit down over the chess table. The chess table would have solid mahogany legs with veneered MDF side rails and a beech veneered MDF top that would incorporate the chess board.

Poker tables usually accommodate eight to ten players but when I drew up the initial plans for the table, it was clear that this would be far too big. I decided to reduce the seating positions to six around the poker table and this came in at a far more manageable size whilst still giving each player comfortable elbow room. The poker table aspect of the design had a direct influence on the chess table aspect of the design given that the chess table would act as a base for the poker table. I needed the chess table to be wide enough to give a sturdy base to the much wider poker table top, while still looking like a table in its own right and not just a stand for the poker table. With the double width design of the chess table I think I have

managed to make a feature of the fact that the chess table supports the poker table and I think it looks quite well.

When deciding on the complexity of design of the piece, I had to take into consideration the time constraints laid out in the brief. With this in mind and with previous experience of jobs taking longer than anticipated, I decided to keep the design as simple as possible. This simple design will hopefully make the manufacturing process a lot quicker and there will be less thinking time involved, I hope this will give me more time towards the submission date to put a nice finish on the piece.

Design Objectives

The function of this table will be to act as a comfortable table for playing both chess and card games on. The chess table will stand at 718mm tall and with the poker table top attached the overall height will increase by 28mm to 746mm. The width of the legs on the chess table are 36mm wider than the chess table top, this is to accommodate the poker table top sitting down on this 18mm all around shelf. On the underside of the poker table top there will be a boxing fitted which will slot down over the chess table top. This boxing will be lined on the inside to prevent any damage being caused to the chess table top when sitting the poker table top down over it.

I would imagine the chess table would look good in someone's living room or games room. With the materials being used and the styling of the table, I think it will have a feel of real quality and a quality piece of furniture looks good anywhere in my opinion. I plan on putting green felt on the poker table playing surface to give it a genuine poker table feel, and this would also look good in a games room.

The proportions of the table were researched online. I found that a lot of chess tables came in at between 26 and 29 inches. I also researched poker table heights and found that these ranged from 29 to 32 inches. So as a compromise I decided to have my playing height for the poker table at 29 inches (746mm) and my chess table height at 28 inches (718mm). Given the size of the poker table top it is obviously not practical to have it attached to the chess table

at all times, so by having it detachable it can be stored elsewhere like in the shed or garage for instance. I don't see this as an inconvenience because poker is generally played on weekends when a group of friends get together for a game. This then leaves the more attractive chess table on display.

The overall blocky appearance of the chess table is in keeping with the style of the chess board itself. A chess board consists of several rows of squares and I wanted the table to compliment this look. I also feel that this makes the table look solid and substantial and gives the table real presence. On the practical side of things, the block style of the table provides a good sturdy base for the poker table top. The contrasting veneers used on the table also compliment the chess board style.

Methodology

The joints used throughout the table were heavily influenced by the time factor involved with creating the table. Considering I am essentially creating two tables I decided to keep my joints as simple as possible to give myself the best chance of completing the piece. The rails for the legs will be stop mortise and tenoned into the legs with a backing piece fitted to the rails and also housed into the legs. This backing piece will provide a base for the chess table top to sit down onto and be fixed to. The tops of the legs themselves will be routed down on the inside edges starting 18mm in from the front edge, they will be routed down 10mm to fall in line with the backing pieces fitted to the rails and this will complete the base for the table top.

The top box itself will be made from MDF and will consist of a base and then two layers of 18mm MDF, the top layer having had the center cut out of it for the chess board to sit down into. The joints used on this box are simple butt joints that will be screwed together and filled with wood filler. The box will then be veneered all over with beech veneer so there will be no visible joints. I feel that this will be the quickest, easiest and most logical method for creating the top. The joints used on the poker table top will be simple mitre joints all around for the mahogany ring on top of the playing surface and for the side rails.

There could be an argument made for the use of KD fittings on this piece. These fittings are generally associated with flat pack furniture but there would be an opportunity to use them on this piece in the construction of the top box of the chess table or at the joints where the legs meet the rails. I decided against the use of these fittings however because I did not feel they would give a strong enough hold at the rail/leg joints and because on the top box I felt that the screwed butt joint would be stronger and quicker to do. I also felt that the use of these joints would take away from the quality of the piece and this would compromise the integrity of the piece as a whole.

Estimated Timescale

- | Week No. | Job |
|----------|---|
| 1. | Break out material |
| 2. | Cut materials to finished sizes |
| 3. | Mark out and cut mortises on legs and cut rails to length |
| 4. | Fit rails to legs and cramp |
| 5. | Make top box for chess board |
| 6. | Veneer top box and fit to legs |
| 7. | Cut MDF poker table top |
| 8. | Cut mahogany poker table top ring pieces |
| 9. | Put curves on mahogany poker table top ring pieces |
| 10. | Fit side rails to poker table top |
| 11. | Fit boxing on underside of poker table top |
| 12. | Snagging |
| 13. | Finishing |

Cutting Lists

Machine Cutting List			
No.	Item	Material	Size
1	Poker table top/poker top side rails/support rails/top box	MDF	2440x1220x18
1	Legs	Mahogany	2340x180x50
1	Leg rails	Mahogany	1700x110x25
3	Poker table top ring	Mahogany	1220x90x50

Finished Cutting List			
No.	Item	Material	Size
1	Poker table top	MDF	1200x1200x18
6	Poker table side rails	MDF	600x100x18
4	Chess top box sides	MDF	500x114x18
4	Support rails	MDF	412x90x18
2	Top box tops	MDF	500x500x18
4	Legs	Mahogany	578x80x80
4	Leg rails	Mahogany	412x100x18
6	Top ring pieces	Mahogany	600x160x18
1	Top box tops	Beech veneer	980x520