

**C & C 30 MK II – Cockpit Seat Backrests**



**Installed on S/V "Wyndisphree" S/N 58**

**86E18806  
(03/23/2000)**

## **C & C 30 MK II**

### **Building the Removable Seat Backrests**

1. This package contains instructions and sketches. You should confirm the dimensions for the helm backrest and the 2 side rests.
  2. A moderate amount of experience in woodworking and use of equipment is useful to make the pieces and assemble the Backrests.
  3. Good luck, and take your time making this very useful addition to cockpit comfort.
- .
- You can e-mail me if you have a problem or need advice.

## **Have Fun!**

### **Equipment**

1. Table saw with carbide blade (as many teeth you can buy).
2. Drill press with drill bits for pilot holes and # 6 screws.
3. Drill countersink.
4. Router and curved cutter bit.
5. Palm sander, drill press sanding disks.
6. 3/8" Power drill & bits (to drive screws).
7. Assortment of clamps or equivalent.
8. Flat workbench with vise.

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## C & C 30 MK II – Helm Backrest

### Material

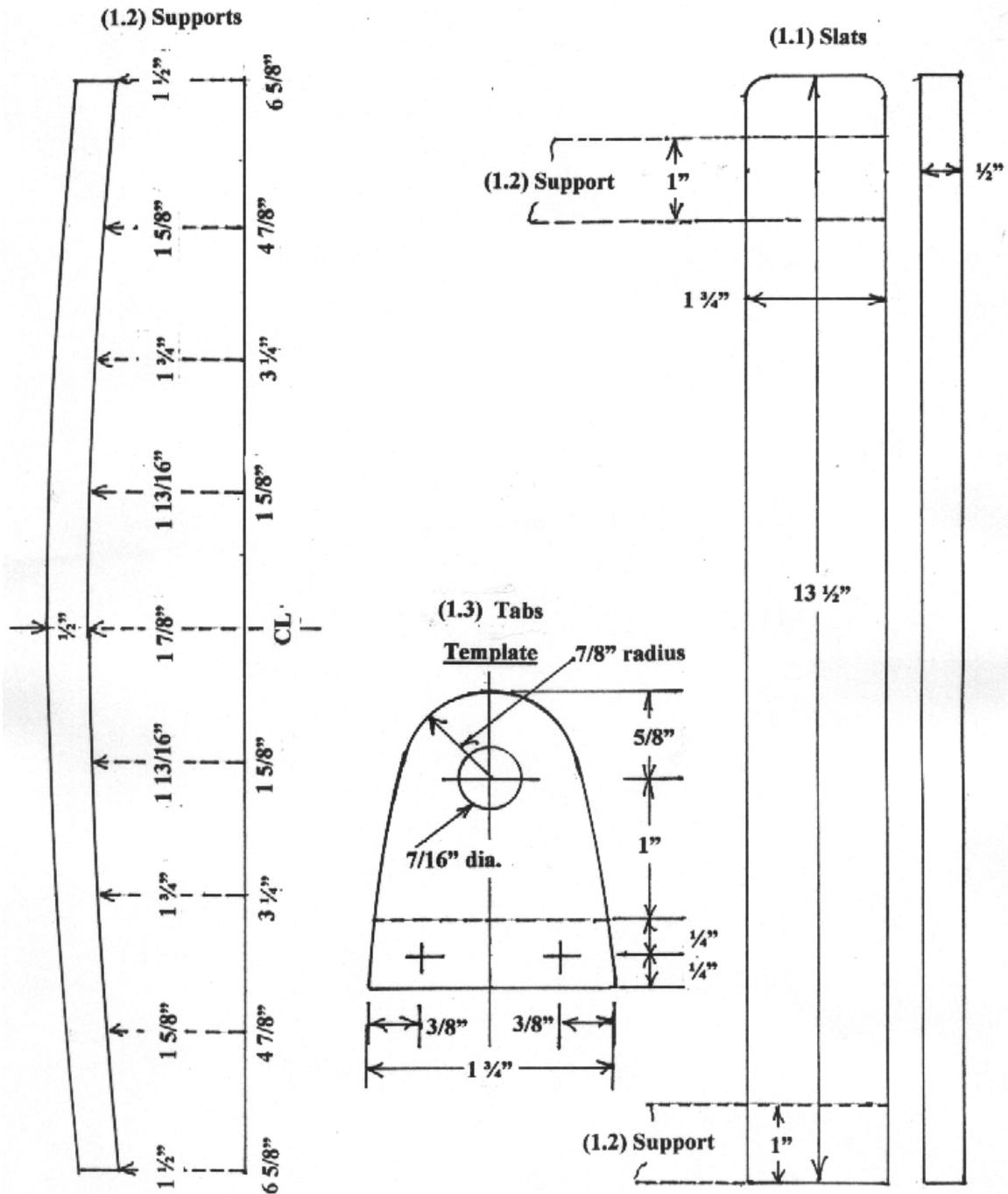
1. Helm Seat - Teak
  - (1.1) Slats -- 6 pieces  $\frac{1}{2}$ " x  $1\frac{3}{4}$ " wide x  $13\frac{1}{2}$ " long.
  - (1.2) Supports -- 2 piece 1" x  $2\frac{1}{2}$ " wide x  $13\frac{1}{4}$ " long.
  - (1.3) Tabs -- 4 pieces  $\frac{1}{2}$ " x  $2\frac{1}{2}$ " wide x  $2\frac{3}{8}$ " long.
2. Epoxy glue.
3. # 6-1" flat head SS screws.

### Assembly

1. Cut the 6 slats (1.1) per the dimensions above. Round the top edges as shown on the right side of Page (3). The vertical edges of the slats should be lightly sanded.
2. Layout the supports (1.2) using the matrix on the left side of Page (3). Use a jigsaw or band saw to cut out the supports. Do not cut exactly to the lines but leave material so that the 2 supports can be finished by sanding. Remember! The supports are 1" deep!
3. Cut out the 4 tabs using the template dimensions on Page (3).
4. Assemble the slats (1.1) to the supports (1.2) using epoxy glue. The top support is located  $\frac{3}{4}$ " from the tops of the slats, the bottom support is flush with the bottom of the slats. Glue and clamp the 2 outside slats to the supports first. Make sure the assembly is square. Space the 4 remaining slats at roughly  $\frac{1}{2}$ " intervals.
5. Use 2 1" screw to assemble each tab to the supports. The tabs are centered between the cap nuts on the drop-down ladder, so check this dimension. The 4 tabs are screwed to the top side of both supports, centered  $2\frac{1}{4}$ " from each end (or your revised dimension).



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C & C 30 MK II - Helm Backrest



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**C & C 30 MK II – Side Backrests**

**Material**

- 1. **Side Seats - Teak**
  - (2.1) Slats 12 pieces 5/8" x 2 1/4" wide x 19 1/4" long.
  - 2 Supports 1 piece 1" x 6" wide x 16" long.
  - (2.3) Tabs 4 pieces 1/4" x 1 7/8" x 3 3/4" long.
  - (2.4) Tab inserts 1 piece 5/8" x 3" x 3 3/4" long.

- 1. Epoxy glue.
- 2. # 6 1" SS screws.

**Assembly**

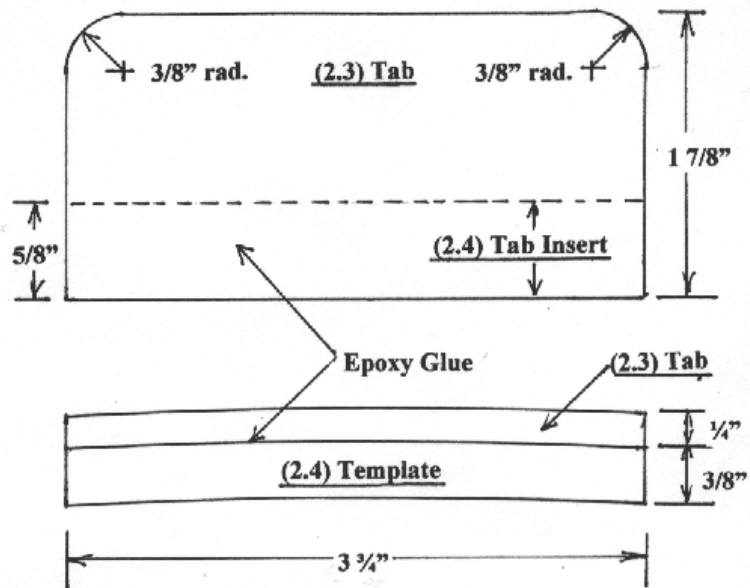
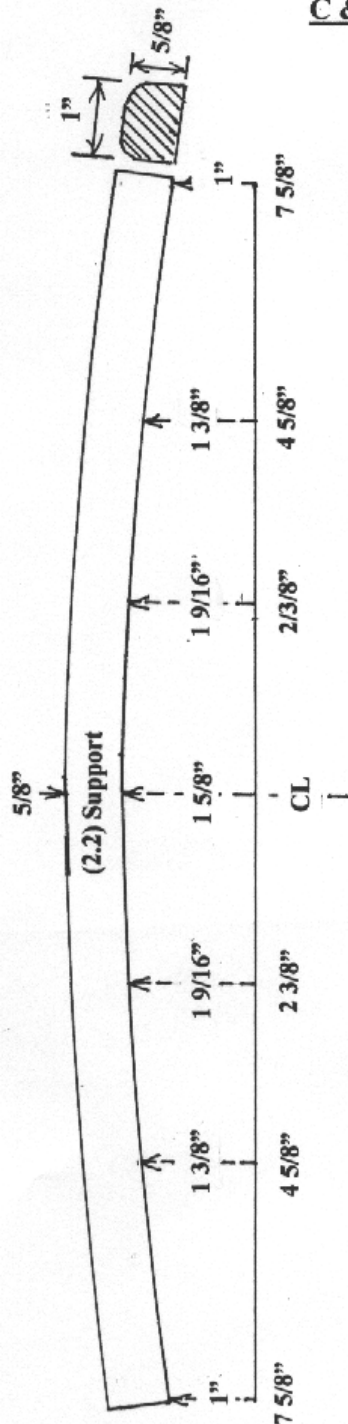
- 1. Due to the curved nature of the stern railing the 2 side backrests are "handed". The initial assembly can be done on a flat surface using 2 slats (2.1) & 2 supports (2.2) per side. Several "hands" will be useful to hold, measure, clamp and screw the 2 supports to the slats. This done the rest of the assembly can be completed.



- 3. Cut the 12 slats (2.1) per the dimensions above. Round off the top edges as shown in the picture above. Use a router with a curved cutter bit to round the vertical sides and top on one face only (cockpit side).
- 4. Use the matrix on Page (5) to layout out the curvature of the supports on a piece of cardboard first. Check the shape by laying it on top of the 7/8" tube next to the ladder. Correct the shape if required. Cut 4 supports (2.2) from the 6" wide plank. Use the "helm" procedure to finish the 4 pieces. Router the 2 edges on the "hump" side using a curved cutter bit.

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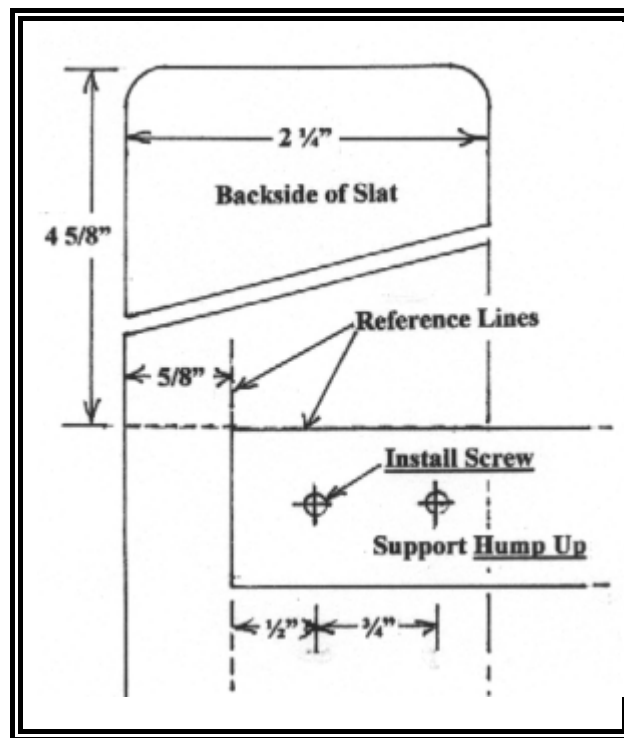
1. Layout the Tab (2.3) and cut the 4 pieces.
2. Use the Tab inserts (2.4) Template to cut 4 pieces. Again use the "helm" procedure to accomplish this.
3. Epoxy glue the Tab(2.3) to the Tab insert (2.4) and clamp.
4. Round off the edges with sandpaper.

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**Assembly Continued**

(Refer to Page (7) "The BIG Picture")

1. Drill 2 1/8" holes at either end of the 4 supports and countersink ( shown as (+) on Page(7)). Use a drill press. Mark a horizontal reference line on the backside of the 4 slats 4 5/8" inches and 11 1/8" from the top. Mark a 5/8" vertical reference line on the outside edge each of the 4 slats. See below.



2. Clamp a slat at either end of both supports, top and bottom, at the reference lines. Make sure that the support "hump" is up and the front face of the slat is down. Install 1 # 6 1" SS flat head screw in the end hole of each support to secure the 2 slats.
3. Mount the top support on the 7/8" stern tube. Keep the higher slat horizontal and clamp to the 1" tube. Gently move the opposite side of the top support to rest on the tube. Clamp the slat to the tube. Install the second screws in the 2 supports at each end. Remove the assembly and install the 4 slats.
4. Drill 2 holes in the tabs – 1/4" from top and 5/8" from the edges. Center the tab on the top support and locate it in line with inside edge of the outside slats. 2 screws and your done. Repeat for the other side backrest.

**Your Done!**

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