

Flying Scot, Inc.
Balsa Sandwich Repair Instructions

Important: Ambient temperature has a large affect on resin cure time. At 80 degrees you may not have enough time to wet out the mat and lay the block before it cures. It is best to go with smaller pre-measured quantities that can be easily catalyzed and mixed as you go rather than one big mix.

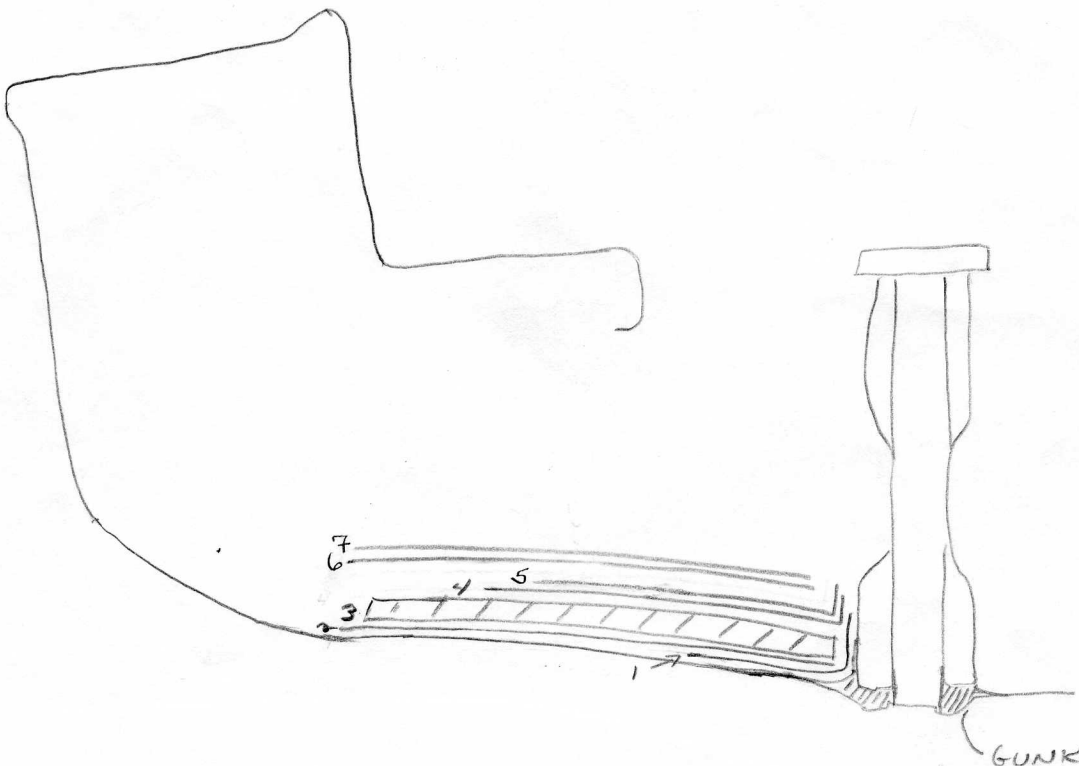
1. Remove glass on top of balsa sandwich
2. Chisel out the old balsa blocks making sure that everything is removed as the new material will not bond to a moist surface.
3. Grind or sand smooth
4. Vacuum out all dust
5. Paint with resin and allow to cure
6. Tailor the 1.5 oz. mat to cover the area under blocks
7. Wet out the 1.5 oz. mat with resin and eliminate any air bubbles
8. Lay the balsa blocks in the brick pattern being sure to press down hard to eliminate any air trapped under the blocks
9. Sand smooth making sure to grind or sand well beyond the edge of the new balsa job to allow the new mat and roving to bond
10. Paint with resin and allow to dry
11. Taylor the mat and roving to fit, overlapping beyond the balsa 3 to 4 inches
12. Mix the resin in small batches (2 quarts to start). This prevents the resin from becoming hard before you have time to work with it.
13. Pour the resin onto the mat and roving
14. Work the resin back and forth with a roller or squeegee until all of the air is worked out.
15. Allow to cure
16. Brush-paint with a gelcoat that contains a surfacing agent to make sure it is completely sealed. **Tip: You can mix fine sand into the gelcoat to give you a non-skid finish.**

Note: This list begins with what is technically the third layer of glass as the first two layers are generally left in place so as to not damage the hull.

Layers:

1. 108" x 5" x 1.5oz mat – under blocks and up side of trunk
2. 84" x 25" x 1.5oz mat – under blocks
3. Balsa Blocks
4. 120" x 10" x 3/4oz mat – over blocks and up side of trunk
5. 120" x 8 ¼ biaxial – over blocks and up side of trunk
6. 243" x 60" x 1.5 oz mat – over blocks (will need trimmed once laid in)
7. 243" x 60" cofab – over blocks (will need trimmed once laid in)

Note: Layers will need to be trimmed to size



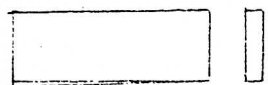
Note: Repair overlap minimum is 4 inches

BLOCK DESCRIPTIONS

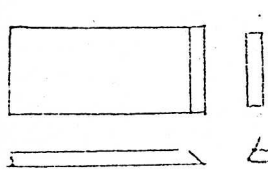
ALL BALSA BLOCKS ARE $\frac{1}{2}$ " THICK. THE GRAIN IS PARALLEL TO THE LENGTH. BLOCKS ARE RESINED IN THE BOAT WITH THE LENGTH PARALLEL TO THE CENTER BOARD BOX.

Total number (2 halves = 1)
554 for entire bottom

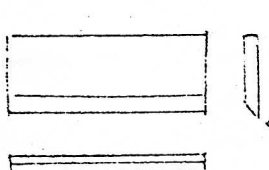
L W
5 $\frac{3}{4}$ 2 $\frac{1}{4}$ F.L. (474) FULL LENGTH - MOST OF BOAT



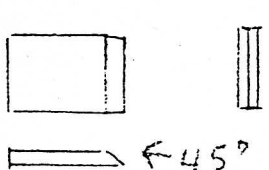
5 $\frac{3}{4}$ x 2 $\frac{1}{4}$ FL. (11) FULL LENGTH - USED ON MOST AFT PART OF CORE
EB. END BEVEL
45°



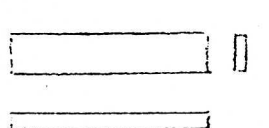
5 $\frac{3}{4}$ x 2 $\frac{1}{4}$ FL. (40) FULL LENGTH - USED ON SIDES.
S.B. SIDE BEVEL
45°



3 $\frac{1}{8}$ x 2 $\frac{1}{4}$ H.L. (34) HALF LENGTH - USED AT BOW + STERN
End Bevel
45°



5 $\frac{3}{4}$ x 125 H.W. (7) HALF WIDTH - SEVEN AFT OF C.B. CASE, (ON ONE SIDE ONLY)

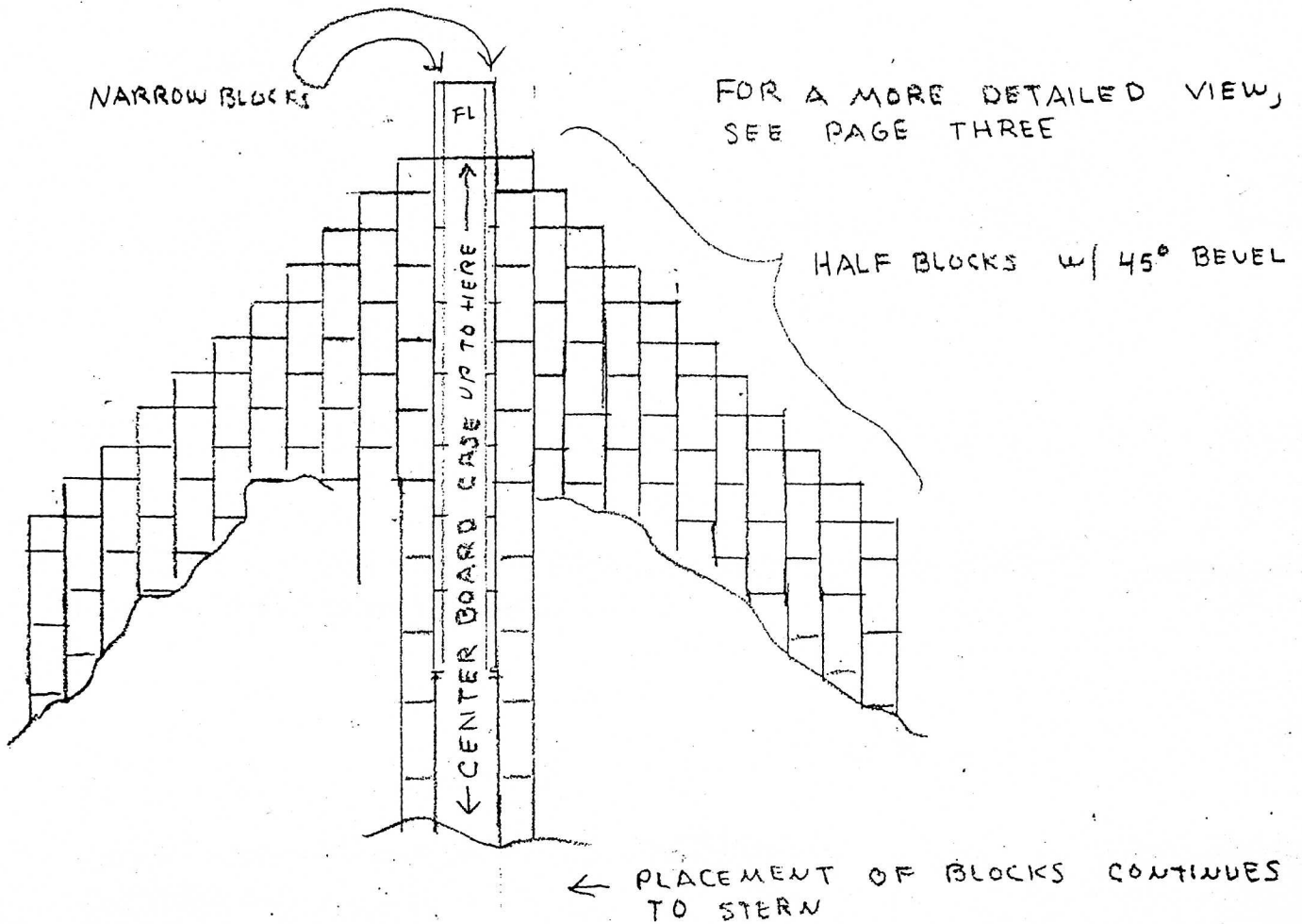


5 $\frac{3}{4}$ x 1 N.W. (12) NARROW WIDTH - SIX ON EACH SIDE OF C.B. CASE AT BOW



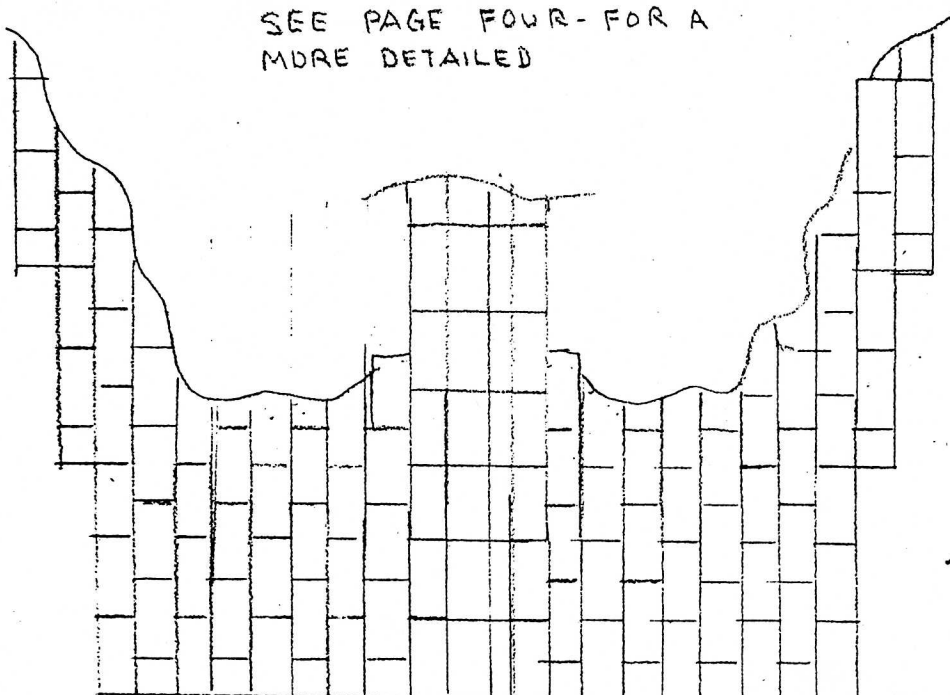
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BALSA BLOCK PLACEMENT AT BOW



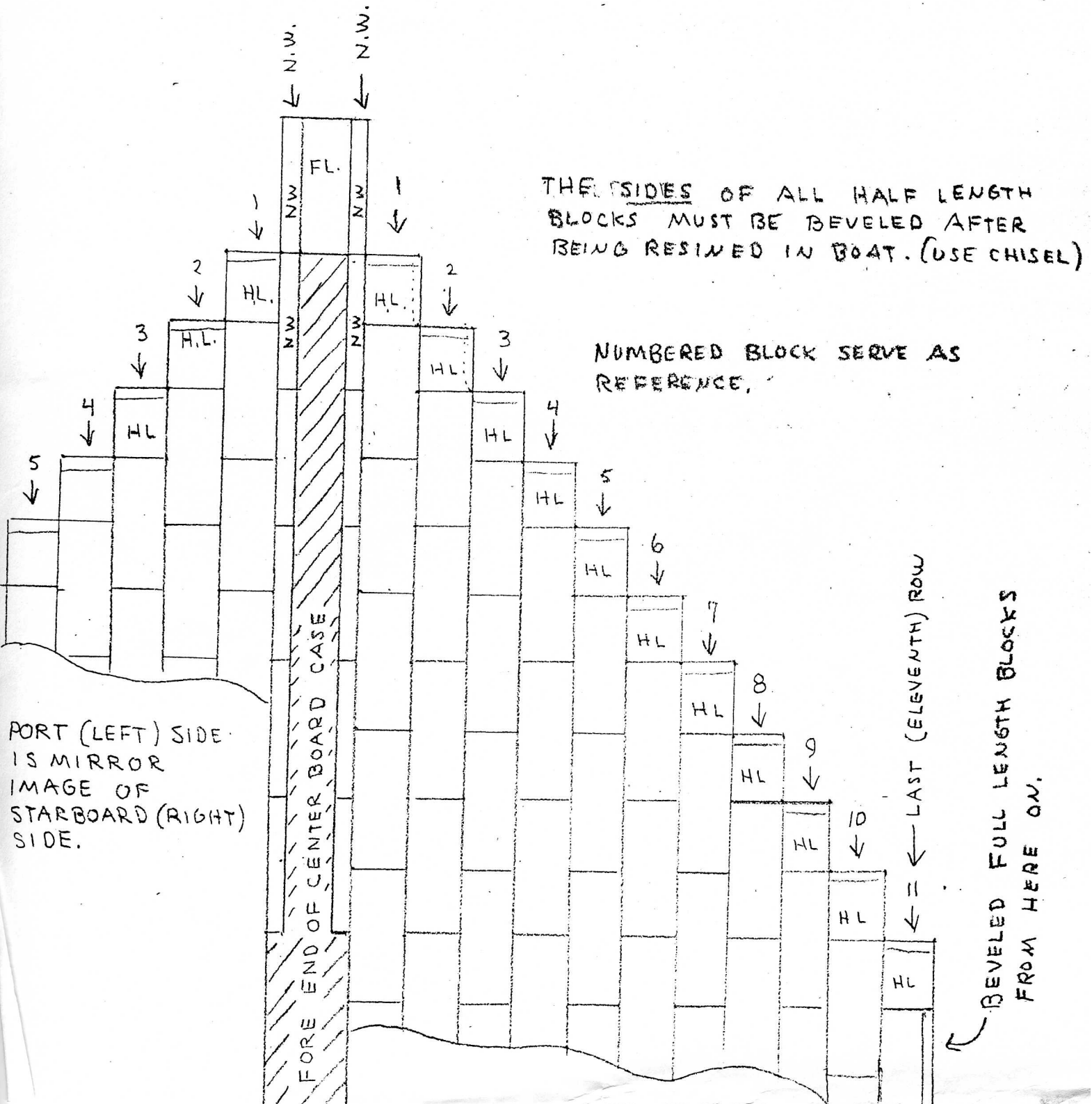
BALSA BLOCK PLACEMENT AT STERN

SEE PAGE FOUR - FOR A
MORE DETAILED



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SAME SCALE AS PAGE FOUR

$$1'' = 5\frac{3}{4}''$$



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AS PAGE 4.

1" = 5 3/4"

THIS SIDE IS SYMMETRICAL WITH STARBOARD

