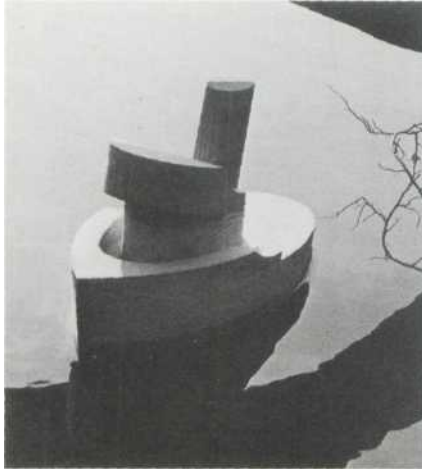


142 TUGBOAT



This sturdy tugboat floats on water, so a child can enjoy it in the bathtub or swimming pool. The all-wood design makes it safe to play with, and it can be built in no time

at all. Be sure to use waterproof glue when assembling.

1. Cut blanks for the thicker pieces from 3/4" stock face-laminated with water-resistant glue. Cut all pieces to the listed dimensions.

2. Cut out the shapes on a band saw using the patterns provided. When cutting the hull (A), set the bandsaw table at a 10° tilt; this will reduce the sanding needed to shape the contour.

3. Turn the smokestack (E) round on a lathe, then remove stock by sanding or rasping from both sides of the cylinder to make it oval-shaped. Angle the top of the smokestack and the deck house (C) at 10°.

4. Use a belt sander with a sanding drum to make the inside concave curves on the railing (B) and pilot house (D). Shape the hull with

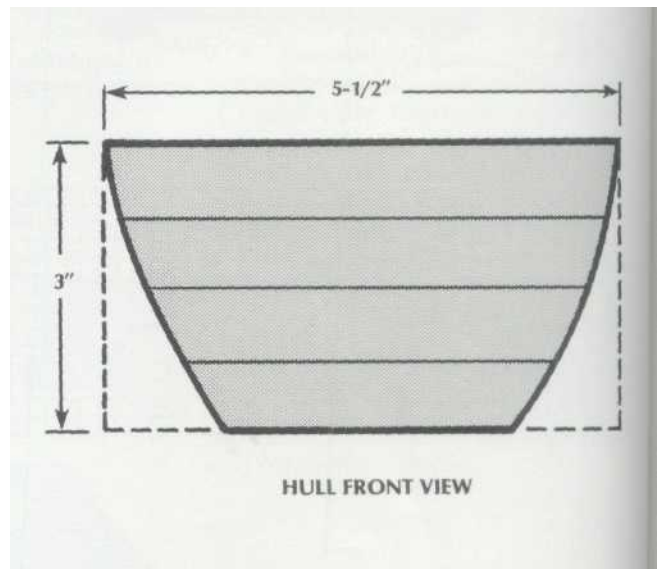
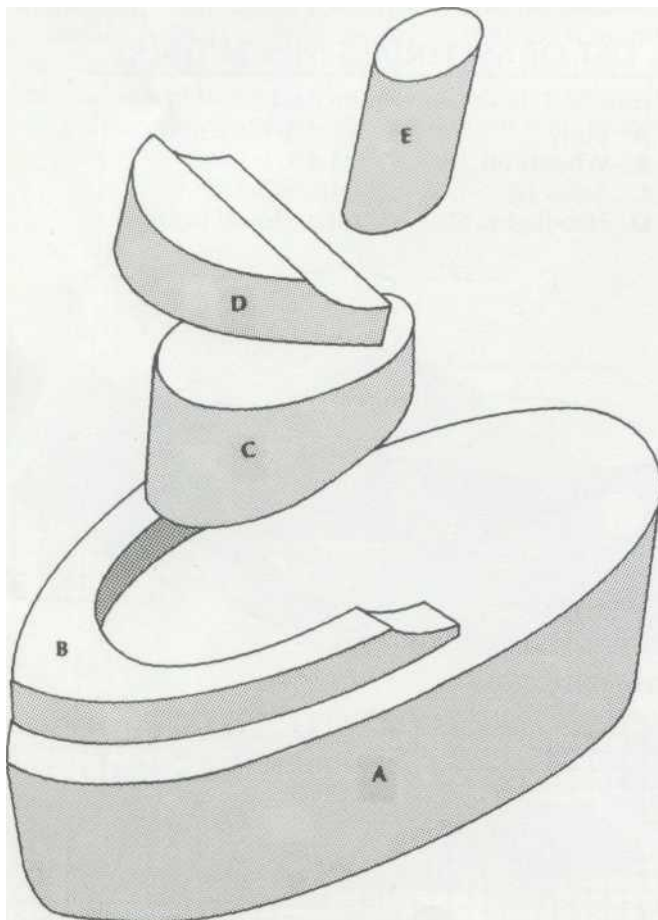
a convex curve as the sides taper in toward the keel, gradually at first and then sharply toward the bottom.

5. Rough sand all the pieces with coarse sandpaper, then repeat with gradually finer grits. If using a belt sander, always keep the workpiece moving to eliminate any large flat spots in the contour.

6. Before final assembly, test the tugboat to make sure it floats evenly. Attach the railing to the hull and carefully set them in the water. Move the pilot house, deck house, and smokestack into a position that enables the tugboat to float up right and level.

7. Mark the exact position of the parts, then assemble using water proof glue and clamps. Dowels can also be used for added strength.

8. Finish as desired.



LIST OF MATERIALS

(finished dimensions in inches)

A	Hull	3 × 5-1/2 × 12
B	Railing	3/4 × 5-1/2 × 7
C	Deck house	2-1/4 × 3 × 5
D	Pilot house	1-1/2 × 4 × 3-1/4
E	Smokestack	1-1/2 × 1-1/2 × 4
	Water-resistant wood glue	

ONE SQUARE = 1/4"

