

Mounted on figure-rolled glass and set in a glass case, this vessel makes an attractive display model

TUGBOATS GO TO WAR TOO! HERE'S ONE IN MINIATURE

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WATERLINE MODEL OF A NAVY TUG

OUR Navy uses this 65' tugboat extensively in its home waters. With many of the details simplified, and reduced to a scale of $\frac{1}{8}$ " to 1', it makes an interesting, easily built model. The profile, plan, and sectional drawings that appear on the next two pages are full-size reproductions; you can trace the necessary templates and patterns directly from them.

Make the hull from a $\frac{7}{8}$ " by 2 $\frac{5}{16}$ " by 8" block of wood, cutting it to the shape shown in the profile and the half plan. The top of the hull is identified in the plan view and in Section B-B, as well as in the profile. As indicated in Section A-A, the forward half of the hull is slightly curved between the waterline and the deck.

Use heavy cardboard or $\frac{1}{16}$ " wood for the deck. It extends beyond the hull all around to form a rub strip. Cement it in place and cut out a notch forward to take the cardboard stem. Make the rail, rail cap, and brackets from cardboard or thin wood. The bottom outboard edge of the rail is set in from the deck edge to line up with the edge of the hull. It slopes inward throughout its length except at the stem, where it is plumb. Cut three openings in each side, as indicated, to simulate freeing ports.

Make the superstructure from Bristol board. The sides and front are in one piece, as shown. Score and bend on the dotted lines; then cement the pilot-house top, trunk top, and after ends of the house and trunk in place. The molding around the top of the

pilot house is a piece of .040" wire. Cement pieces of black-painted celluloid to the inside so they cover all the cut-out openings; then glue the completed superstructure to the deck.

Oversize details are given for most of the fittings. Make the samson post from $\frac{1}{8}$ " dowel, paper-clip wire, and a carved wood button. Both double bitts consist of $\frac{3}{32}$ " escutcheon pins or button-head rivets, wood, and Bristol board. The anchor davit is a length of wire, bent, filed to a taper, and flattened as indicated. The hatches on deck are glued-down pieces of Bristol board. Use wire solder for the life raft—when painted, it will very nearly approach $\frac{1}{8}$ " in diameter. The water tank rests on Bristol-board chocks. Side-light boxes are mounted on short pieces cut from round toothpicks.

Finish the superstructure and deck with flat gray paint. Use black for the hull and trim. The starboard or right-hand light box is green; the other one is red.

For drawings, see next page

Workhorses of the seas, unspectacular little tugs like this one are daily playing an important part in tending the Navy's more glamorous fighting craft

