SEA SKIFF

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SEA SKIFF is quickly built over forms for construction of one or for several boats. It is planked with waterproof plywood and will retain its leakproof qualities even if left to dry in the sun for long periods. An ingenious method of framing makes for a sturdy boat and provides a hull that will give many years of trouble-free service.

The general design presents a sturdy skiff that may be used on any waters anywhere. The boat may be rowed, powered with air-cooled inboard motors or outboard engines, or rigged for sailing. As a sailor it is dry, light, and fast in a good breeze.

Start construction by obtaining the materials listed in the Materials List. Then saw the form (Fig. 2) to shape and mount it on 2 x 4 legs at a convenient working height. To construct the mould frames, stem and transom (Figs. 3 and 4) accurately, draw full-size paper patterns of these parts, lay your material upon outlines, mark and cut to shape, reassemble on the pattern and fasten. The transom is cut from ¾-in. plywood with a ¾ x 3-in. frame, fastened with #8 x 1½ fh screws, inserted from the aft side of the transom.

Saw the mould frames from 1x6; fasten at chine joints with ½-in. plywood gussets. If these moulds are to be used several times, glue and screwfasten the gussets, afterward attaching cross pieces to prevent misalignment. The stem is sawed to shape as shown in Fig. 3.

STATEMENT OF USES

USES: Seaworthy craft for use on any waters anywhere, for boat liveries as well as for personal use.

TYPE: Skiff.

LENGTH: 13 ft. 9 in. to outside stem.

BEAM: 60 in.

SEATING CAPACITY: Five passengers.

POWER: Oars, outboard, air-cooled inboard, or sail.

Now mount the transom, mould frames and stem on the form and hold in place by bracing. With everything secured, spring a light batten over the framework and mark correct beveling so that plywood will lie evenly and fair at all points.

With all parts beveled, cut notches for clamps, chines and keel in all parts. Spring the keel in place and attach to transom, frames and stem notches with two #10 x 2-in. fh screws at each joint. Be careful not to attach any members to the moulds, as the hull is later to be lifted clear of the form and moulds when planked.

Now secure the chines. Fasten both chines simultaneously to prevent wringing framework out of shape. Use one #10 x 2-in. fh screw at transom joints, bevel the ends to fit the stem and fasten in the same way. If the chines have a tendency to slip off the mould-frame notches, hold temporarily with small angle irons screwed to moulds and chines (see detail, Fig. 2). When hull is planked, simply remove the screws and lift the hull clear. Continue by attaching clamps in
similar fashion, fastening at transom and stem with one #10 x 2-in. fh screw to each joint.

Trim and fair the entire framework so the plywood will lie evenly at all points. Hull may be covered with either full-length or 8-ft. length plywood. Using 8-ft. lengths, cover the sides first with a length of plywood clamped in place. Mark and cut to shape. A butt strip $\frac{3}{4} \times 4$ in. fitted between clamps and chines secures the butted joints of plywood on sides and bottom. Before fastening the plywood, coat chines, clamps, transom and stem with Weldwood glue. Place plywood in position and fasten with $\#8 \times 1$-in. fh screws spaced about 2 in. apart.

With both sides attached, trim edges evenly. Install the skeg (if you don’t plan on using an inboard) and short keel. The skeg is fitted closely and held temporarily with a few screws. Later, when the hull is turned over, the skeg is fastened with screws from the inside.

Lay 8-ft. lengths of plywood in position on the bottom, marking and cutting to shape. Before attaching plywood, coat all adjoining surfaces with Kuhl's aviation glue. Lay cloth strips about 1-in. wide on glued area, recoat and lay plywood in position, fastening with $\#8 \times 1$-in. fh screws spaced about 2-in. apart. Cover remainder of bottom similarly—and don’t fasten plywood to moulds.

Trim fore end of hull along stem and cover exposed edges of plywood with an outer stem $\frac{1}{2} \times 1\frac{1}{2}$-in., softened with hot water, bent and screw-fastened in place.

Now remove the hull from the form and turn it right side up. Seat risers are attached by springing to sides and securing with $\#8 \times 1$-in. fh screws inserted from outside hull.

Fasten ribs in place next. Mark locations on keel and secure each rib with two $\#8 \times 1\frac{1}{2}$-in. fh screws. The center of each rib is drilled and

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risers with #8 x 1 1/2-in. fh screws. Cut the breast hook and transom knees to fit and fasten with #10 x 2-in. fh screws. Fasten mouldings in place with #8 x 1 1/4-in. fh screws spaced about 8 in. apart. Screwfasten floor boards of 5/8-in. plywood or 5/8 x 6-in. boards. Smooth hull and apply one or two coats of sealer. Follow with two coats each of white primer and paint or enamel. If you cover bottom with fiber glass (materials and instructions for application of this material are available from Herter’s Inc., Waseca, Minnesota), complete freedom from worm damage is possible in salt water and strength is greatly increased in either salt or fresh water.

For use of Sea Skiff as a sailboat, see Fig. 7 for complete details. An air-cooled inboard, such as the 1 1/4 hp Reo Trollabout Inboard Marine Engine (Williams Marine Co.) or a 3.6 hp Clinton engine, may be mounted off center or on the center line of the boat. With an off-center installation, the centerboard used in sailing can be left intact and you can use sail also. You may prefer to mount your engine on center, however, and forego sailing equipment. If you mount inboard on
center, move the amidships seat forward. The Reo Trollabout comes in kit form (about $100 for fresh water installations, $125 for salt water), with complete instructions for installing. For use of Sea Skiff with outboards, cut out transom as indicated in Fig. 8, or attach an outboard motor bracket (such as that made by the Hadley Mfg. Co., 2242 Smead Avenue, Toledo 6, Ohio), to the transom.

(Note: Possessing the advantages of great strength together with light weight, and more easily built than craft that follow conventional rules of construction, Sea Skiff, as mentioned earlier, is easily mass produced. Moreover, a set of full-size paper patterns—required for one or 100 Sea Skiffs—lend themselves to rapid mass production.)