High free board makes Sea Rover a safe and seaworthy boat for use on large lakes or ocean waters.

Sea Rover

Craft Print Project No. 239

Ocean-going outboard that can be built as a sports, utility or cabin model in either a 15 or 17 ft. length

By WILLIAM D. JACKSON
Naval Architect

WHAT'S your cruising pleasure? Chances are, this adaptable design has what you want. If a stylish open water sportster is what you have in mind, Fig. 10 shows this version. If you prefer a cabin cruiser, *Sea Rover* can be made in that style, too, as shown in Fig. 16. Or if you just want to get around with ease, there's the economy style outboard utility model of *Sea Rover* shown in Fig. 14.

And that isn't all. If the 15-foot length of our original version is too snug for you, for a few more dollars you can convert this plan to a 17-footer as shown in Fig. 1. If you have trouble getting exterior grade plywood, you can use the lap strake planking (Fig. 4) instead of plywood covering. And, finally, you even have a choice of motor mountings (Figs. 3 and 3A) for rough or smooth waters.

STATEMENT OF USES

USES: Tri-model, ocean-going outboard motor boat for general usage upon open waters anywhere. Hull has ample beam and unusual depth for rough waters and may be used as a fishing boat, pleasure craft or to haul water skis and aquaplanes. Can be built as a utility, sports or cabin model in either the 15 or 17-ft. length.

LENGTH: 15 ft. Extended model 17 ft.

BEAM: Utility—6 ft. 2 in. Sports and cabin—6 ft. 5 in. (Outside moldings).

DEPTH: Sports Model—Fwd. 41 in., Amidships 34 in., Aft 24 in.

WEIGHT: OF HULL: 350 lbs.

CAPACITY: Sports model seats three persons in forward seat and four persons in cockpit on aluminum folding chairs.

CONSTRUCTION: 3/8-in. plywood bottom with convex surfaces; trussed keel and batten construction; sides 1/4-in. plywood. In areas where plywood is not available, plans show how conventional planking may be substituted.

SPEEDS: Evinrude or Johnson 25, 1954 models 26 *mph*. Powered with an Evinrude 25, Sea Rover easily planes 7 persons at 20 *mph*, hull soft riding, and planing actions begin at 14 *mph*, hull rides easily in rough water, and turns at wide open speeds upon the proverbial dime.

Sea Rover's large, unobstructed cockpit will comfortably seat seven people. Longitudinal-beam hull design makes for high-strength, light-weight construction. Completely enclosed I-beam type keel and four 3/4-in. deep outside bottom battens permit *Sea Rover* to ride high and dry

boatplans-online.com

in following seas with excellent maneuvering qualities.

First determine the style and length hull you intend to build. Since the framework is assembled on the floor upside down, frames extend to raise the framing off the floor to the proper height. Only the first three frames (#1, 2 and 3) are affected in making the various hull styles.

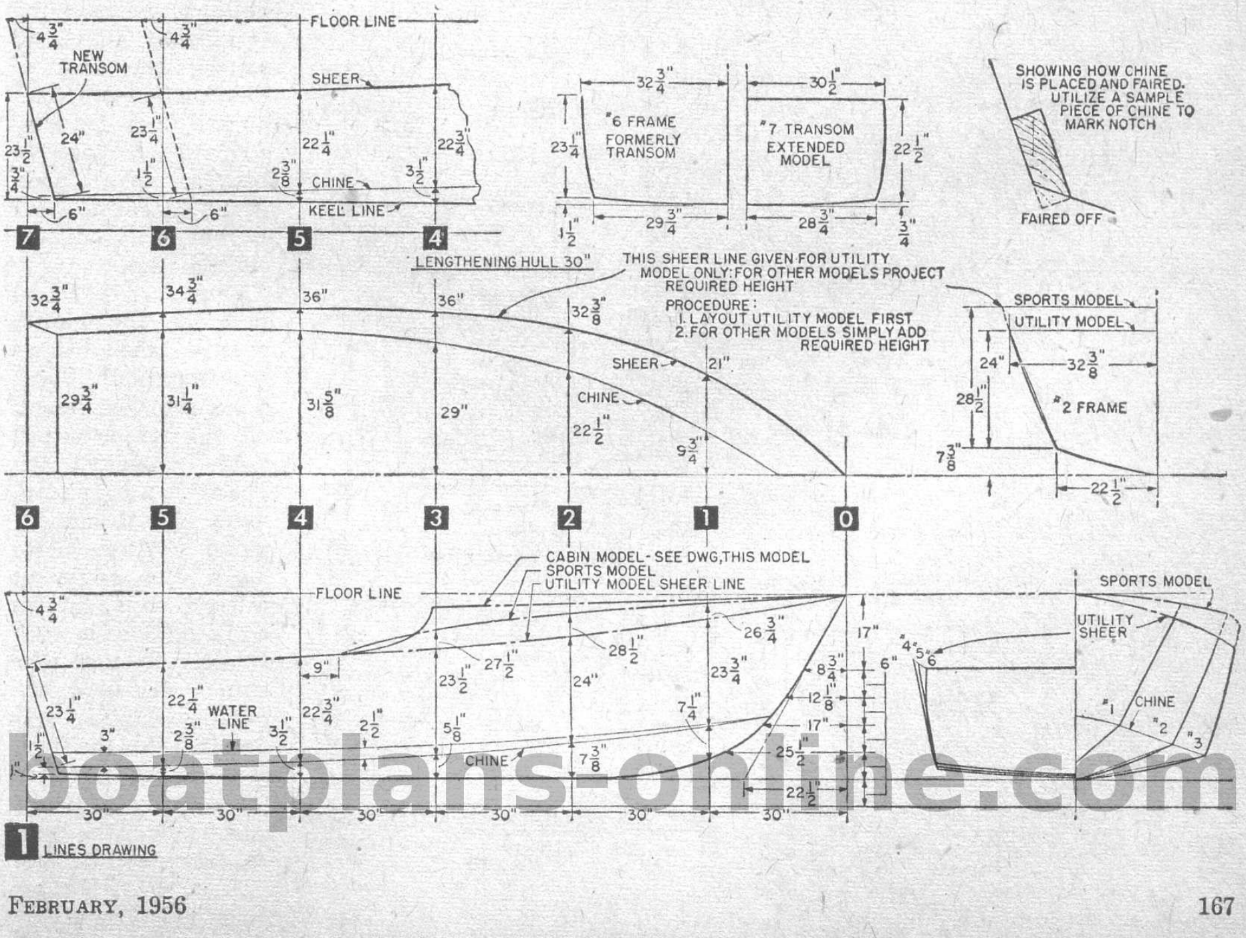
Begin by drawing full size patterns on heavy building paper of all the frames and stem (Fig. 2). Be sure to include frame extensions. The transom on the 15-ft. model becomes the #6 frame on the 17-ft. model (Fig. 1). If you intend to use your version of Sea Rover in all kinds of weather and extremely rough water, make the transom without a cutout for the motor and mount the motor out aft of the transom upon one of the manufactured transom brackets or make an outboard motor bracket as in Figs. 3-A and 16.

To transfer the outlines of the frame patterns drawn on the building paper to the wood, use a dressmaker's toothed wheel or a prick punch to make a series of marks through the paper on to the wood. Transfer the outline of the gussets to ⅜-in. plywood. Make two of each gusset. Also cut out filler blocks to place between gussets on all frames as shown on #4 frame.

When you have the frame parts sawed out use the paper patterns as an assembly guide by placing each part over its drawn counterpart. Coat all contacting parts with glue (*Elmer's Waterproof, Penacolite G-1124* or *Weldwood*) and fasten gussets to frame members and filler blocks with #6 x ¾-in. *fh* screws. Make the transom of ¾-in. plywood and fasten the oak frame members with glue and #9 x 1½-in. *fh* screws driven through from the plywood side. Space the screws about 3 in. apart and countersink the screw heads so that they can be filled with wood putty later.

Two methods of making the stem are shown. If plywood is available, the laminated stem (Fig. 2) is by far the best type to make. Transfer the outline of the stem twice on a piece of ⅜-in. plywood and saw out two one-piece outer stem sides. Then, using the same paper pattern, transfer the stem outline to two pieces of 2-in. stock (actual thickness 1⅝-in.) so that the pieces join as indicated in Fig. 2. Groove the joining edges with a dado head and assemble with a ⅜-in. plywood spline set in glue. Fasten the plywood stem sides to the core with glue, clamping about every 6 in. to provide uniform pressure the entire length of the stem. Do not use nails or screws to fasten stem together. If other method of making stem (Fig. 4) is followed, cut the three parts from full 2½-in. thick stock and bolt together as in Fig. 4.

When the glue on the assembled frames and stem has hardened, bevel the stem and cut notches for the keel and #1 frame. Cut out the bottom center of the #1 frame so that it will fit over the stem. Also cut notches in the top and bottom of lower frame member on the rest of the frames and transom to take the keelson and keel floor pieces. Note in Fig. 5 that the notch for the keel floor is only ⅜-in. deep while the notch



1 LINES DRAWING

boatplans-online.com

for the keelson is ¾-in. deep.

If you are building this boat in a shop having a wooden floor, layout and temporarily fasten 2 x 2-in. pieces 7 ft. long to the floor 30 in. apart to represent each frame position. If you are working on a concrete floor, make up the erection frame show in Fig. 6. Be sure to place the 2 x 4's on edge as indicated to resist the force of bending the bottom plywood planking in place. The side planking on the hull will equalize this force when the boat is completed.

Line up the center of frames #1 and 2 with the centerline of the erecting frame with a plumb bob and temporarily clamp the extensions on the frames to the 2 x 2's. Then fit the stem to the #1 and 2 frames and line it up with the mark on the centerline. If you are working on a wooden floor, securely fasten the stem to the floor with a metal angle bracket (Fig. 7). If you are using the erection frame on a concrete floor, secure the stem to the two center 2 x 4's with wooden blocks (Fig. 6). Line up and erect all the other frames and transom in the same way. Be sure to set the transom on the proper angle (Fig. 1 and 8). With all the frames in position, bend a light batten (¾ x 1 in., 18 ft. long) against the frames at the keel, chines, bilge batten and sheer locations to ascertain the relative positions and alignment of the frames and check for high and low spots. This checking is important as it determines the fairness of the completed boat. Make any minor adjustments by loosening and refastening the frames to the 2 x 2's with wood screws.

Assemble the keelson to the stem and frames next. Taper the fore end of the keelson to the thickness of the stem, place the keelson in the frame notches and fasten to each frame, stem and transom with two #10 x 2-in. screws. Now select a 1 x 4-in. board 10 ft. long that has one edge perfectly straight. Lay this board on top the keelson, straight edge down, and check the keelson to make sure it is perfectly straight from transom to #3 frame. If a discrepancy of 1/16 in. is evident, either shim up the frames or cut the frame extensions down until the keelson is straight without the slightest evidence of dips or hollows. To hold the frames in alignment during the rest of the construction, temporarily nail 1 x 2-in. strips 14 ft. long to bottom and side frame pieces to hold frames in line during construction.

Temporarily clamp both of the chines against the frames and stem next. Using a sample 3-in. length of the chine stock hold it against the chine and frame, mark each frame for chine notches. Also mark the angle at which to saw the chine notches in each frame. Remove the chines and saw the notches slightly undersize. Cut the transom chine notches through the plywood and frame. End grain of chines will be cov-

boatplans-online.com

ered later with an outside transom frame. Again clamp the chines in place and, if the notches were cut slightly under-size, run a saw between the chine and notches to make them larger and correct angle cut for good wood-to-wood contact.

MATERIALS LIST—SEA ROVER

EXTERIOR PLYWOOD

No.	Description	Use
1	3/8" x 4 x 10' fir	bottom
1	3/8" x 4 x 8' fir	bottom
2	1/4" x 4 x 10' fir	sides
2	1/4" x 4 x 6' fir	sides
1	1/4" x 4 x 8' fir	deck
1	3/4 x 27" x 6' fir	transom
1	1/4" x 4 x 8' magohany	semi cabin sides
2	3/8" x 4 x 8' fir	flooring, gussets stem sides

LUMBER

1	3/4 x 4" x 10 1/2' oak	keelson
1	3/4 x 4" x 10' oak	floor keel
1	5/8 x 1 3/4" x 10' oak	outer stem
2	7/8 x 2 1/4" x 14' oak	chines
2	3/4 x 1 1/4" x 8' fir or spruce	sheer clamps
2	3/4 x 1 1/4" x 12' fir or spruce	sheer clamps
2	3/4 x 9 1/2" x 12' oak	frame bottoms, transom frame
1	3/4 x 9 1/2" x 14' spruce	frame sides
2	3/4 x 11 1/2" x 10' spruce	deck beams, coamings, fillets
1	1 5/8 x 5 1/2" x 3'	inner core of stem
1	1 5/8 x 7 1/2" x 3'	
1	1 5/8 x 3 5/8" x 4' (2 x 4)	bottom-planking, battens
2	3/4 x 1 3/4" x 10'	inside-bottom battens
2	3/4 x 1 1/4" x 10'	
4	3/4 x 1 1/4" x 10'	outside bilge battens
1	3/4 x 2" x 5'	deck battens
2	3/4 x 1 1/2" x 16'	side battens
2	1 x 2" x 5 1/2'	spray rails
2	5/8 x 1 1/8" x 6' mahogany	sheer molding
2	5/8 x 1 1/8" x 10' mahogany	sheer molding
1	5/8 x 3" x 3' mahogany	bent sheer molding
1	2 x 10 x 18" fir or spruce	transom knee
1	7/8 x 9 1/2" x 5'	windshield
1	7/8 x 11 1/2" x 3'	windshield
2	3/4 x 9 1/2" x 10' fir or spruce	seat bottom and back
1	1 1/4 x 12" x 3' mahogany	seat knees
1	1 1/4 x 6" x 3' mahogany	seat supports
1	1 5/8 x 7 1/2" x 12' fir	keel fillers
2	3/4 x 3 5/8" x 10' fir	bottom-batten uprights
2	3/4 x 2 1/4" x 3' spruce	seat risers
2	3/4 x 9 1/2" x 6' spruce	side decking

MISCELLANEOUS

5 yds.	6 oz. canvas 36" wide	deck
2 boxes	5/16" copper tacks	canvas
8 gross	#8 x 1" fh screws	
3 doz.	#8 x 1 1/4" fh screws	
6 doz.	#8 x 1 1/2" fh screws	
1 gross	#9 x 1 3/4" fh screws	
4 doz.	#10 x 2" fh screws	
1 gross	#6 x 3/4" fh screws	
3 doz.	#6 x 1/2" fh screws	
3	5/16" carriage bolts (one each 5", 6", 7" long)	
1 qt.	Kuhl's Bedlast	
3 lbs.	Weldwood glue or 2 qts. Elmer's or Penacolite	
1	streamlined bow handle	
2	aluminum lifting handle	
1	deck running light	
1	3/8 x 24 x 28" plexiglas	windshield
1	1/8 x 1" x 12' aluminum strip	windshield trim
1	spot light	
2	bow chocks	
2	5" cleats	
1	15" steering wheel and bracket	
36 ft.	flexible tiller cable	
4	pulleys for tiller cable	
1	Evinrude Simplex throttle and gear shift control	

PAINTS

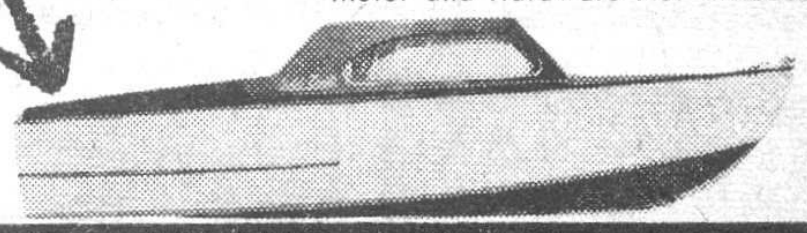
1 gal.	clear Firzite	
1 qt.	Condon's Plasticlear	
1 qt.	Condon's Boatlife (red or green for bottom)	
1 qt.	Condon's Boatlife (white for sides)	
1 gal.	prime paint (white for inside)	
1 gal.	semi gloss enamel (gray for inside)	
1 gal.	Kuhl's Brushlast	
2 qts.	Kuhl's canvas cement	
1 qt.	Pettit's shipandec Cream for canvas deck	

Ladd's 16' HARD-TOP for only $396*

You get assembled hull. All other parts pre-cut, ready for home assembly. Mahogany decks & cabin. Easy to do, no special tools needed. Ideal family or fishing boat. Order hull & easy-kit today. Or all assembled, ready to paint, only $584.* Painted & finished, just $684.*

Write Wm. B. Ladd today for free information on full Ladd line.

*Prices FOB Stockton, Calif.
Motor and Hardware Not Included.



Ladd Built BOATS P. O. Box 1385 Stockton. Calif.

TREMENDOUS Profits with Hagen's Exclusive TEAR GAS PENCIL!

100% PROTECTION

This Tear-Gas Pencil discharges smothering clouds of tear gas to instantly stop, stun and incapacitate the most vicious man or beast, an effective substitute for dangerous firearms; leaves no permanent injury. No selling experience needed. Handle as a profitable sideline . . . soon you'll sell it full time. Start now! Send $4.25 for complete demonstrating kit of Automatic Tear Gas Pencil, 10 demonstrators and 3 Powerful Tear Gas Cartridges. Not sold to minors.

Sells Easy to Service Stations Small Stores Loan Offices Banks, Homes

Hagen Supply Corp. Dept. SM-26 St. Paul 4, Minn.

"Jorgensen" and "Pony" CLAMPS:

Indispensable "extra hands" for woodworkers, boatbuilders, metalworkers. Built for "Industrial" service — insist upon "JORGENSEN" and "PONY" from your dealer.

ADJUSTABLE CLAMP CO.
"The Clamp Folks"
427 N. Ashland Ave., Chicago 22, Ill.

FREE CATALOG shows over 40 styles.

boatplans-online.com

BUILDING or REPAIRING
DO THE JOB RIGHT

USE KUHLS ELASTIC
GLUES CEMENTS
PRESERVATIVES
SEAM COMPOSITIONS
TO MAKE AND KEEP HER TRIM AND WATERTIGHT

16 GREAT *Elastic* MARINE PRODUCTS by KUHLS
Seam Composition
No. 1 for Decks No. 2 for Hulls
• Canvas Preservative • Firegard
• Seamlast • Bedlast • Seam Paint
• Canvas Cement • "Avio" Aer-O-Nautic Liquid Marine Glue • Trowelast
• Linolast • 3-Way Preservative
• Brushlast • Patchlast • Double Plank Cement
SOLD AT ALL DEALERS

◀SEALTITE A RUBBER BASE LIQUID SEALER
FOR BOATS • TRAILERS • HOMES
SEALTITE is Oil Resistant, Expands and Contracts for an absolute watertight Seal. For hard to get at open seams not wider than 1/32 of an inch.
IN 4 COLORS: WHITE - MAHOGANY - BLACK - NATURAL
FREE! BOOKLET #126—Has a Composite Boat Chart. Shows what to use and where to use it.
AT YOUR DEALER OR WRITE DIRECT
SINCE 1889 H. B. FRED KUHLS 65th Street & 3rd Ave. BROOKLYN, 20 N.Y.

Get This NEW Catalog of WOOD AND WOODWORKING MATERIALS

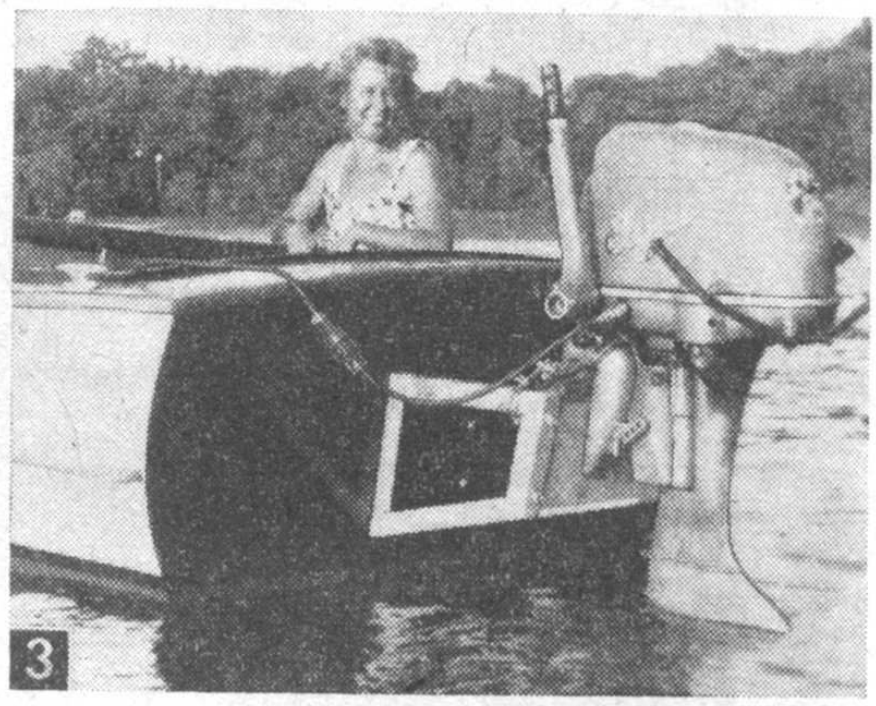
World's Largest Selection of Finest Domestic and Imported Woods . . . Mouldings, Hardware, Tools, —ALL AT LOW MONEY SAVING PRICES!
Your complete wood buying guide and project book. Craftsman is your best, most complete source of finest kiln-dried domestic and rare imported woods, beautiful wood inlays, colorful bandings, matched plywoods, embossed mouldings, carved ornaments, newest woodworking tools, "hard to find" cabinet hardware and fittings . . . more than 1,500 items! Packed with newest scroll saw patterns, project ideas & money making plans. Enclose 25c (refunded with first order) to help pay mailing, handling cost. Write now!
Craftsman Wood Service Co., Dept. C-2, 2729 S. Mary Street - Chicago 8, Ill.

128 PAGES
Many in full color
packed with rare, fancy & imported woods . . . veneers, plywoods, patterns, tools, ornaments, hardware . . . everything for the woodworker.
MAIL COUPON NOW!

CRAFTSMAN SERVICE CO., Dept. C-2
2729 S. Mary St., Chicago 8, Ill.
Enclosed find 25c. Rush me new *Woodworkers' Catalog Handbook.*
NAME_____
ADDRESS_____
CITY_____ZONE____STATE_____

Fasten the chines to the frames with one #10 x 2-in. *fh* screw at each joint. Bevel the fore ends of the chines to fit the stem and fasten to the stem with #10 x 2-in. *fh* screws.

Sheer clamps are fitted next. We will assume you are building the sports model from here on, but should you wish to build the utility or cabin model, insert the sheer clamps as in Fig. 1. For the sports model two sheer clamps are used on each side (Fig. 5). First mark and notch flush into the frames the clamp extending from the transom to #3 frame on both sides. Fasten with one #8 x 1¾-in. *fh* screw at each joint. Then clamp the fore sheer clamp in place, mark for notching in frames and cutting aft tapering end where it joins the top edge of the rear clamp (Fig. 5). Remove the clamp, notch the frames and replace the clamps in the notches. Bevel the end to fit the stem and fasten to frames and stem with one #8 x 1¾-in. *fh* screw at each joint. Make two ¾-in. thick filler blocks (Figs. 5 and 9) and insert between the juncture point of the fore and aft sheer clamps between #3 and 4 frames. Mark, cut and fasten a ¼-in. plywood gusset over the filler block and clamps on the inside of the hull. Install the side battens similar-



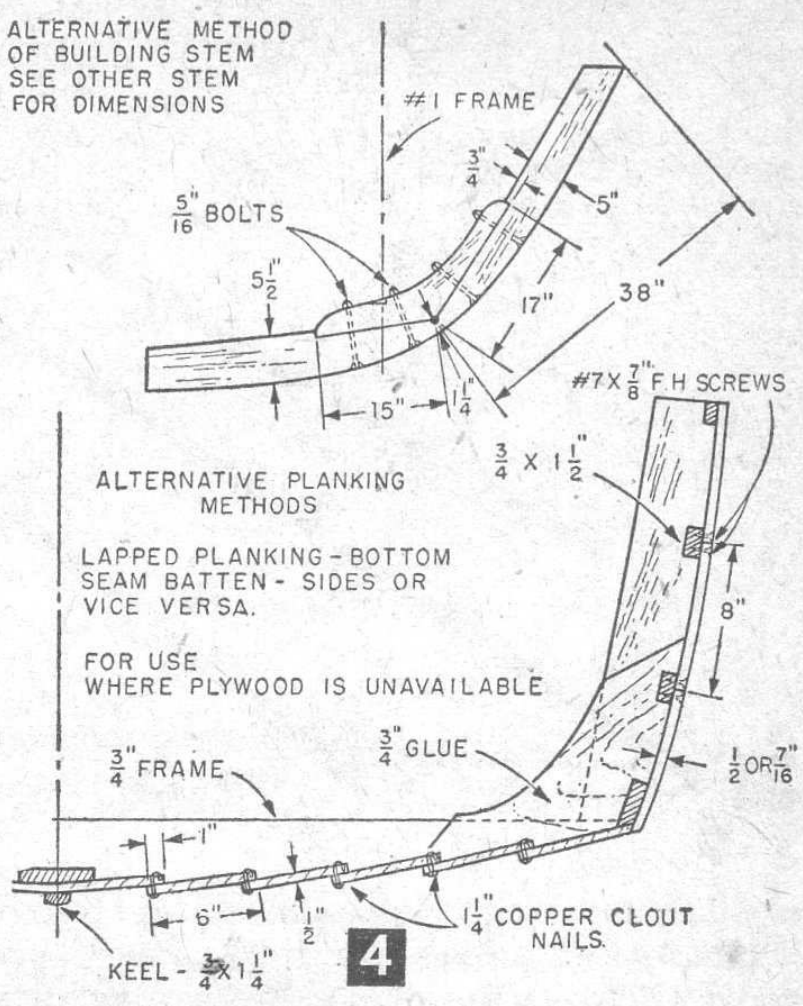
Transom can be made flush with sheer line and an outboard motor bracket used as shown above or recessed for mounting motor directly on transom as shown below.

boatplans-online.com

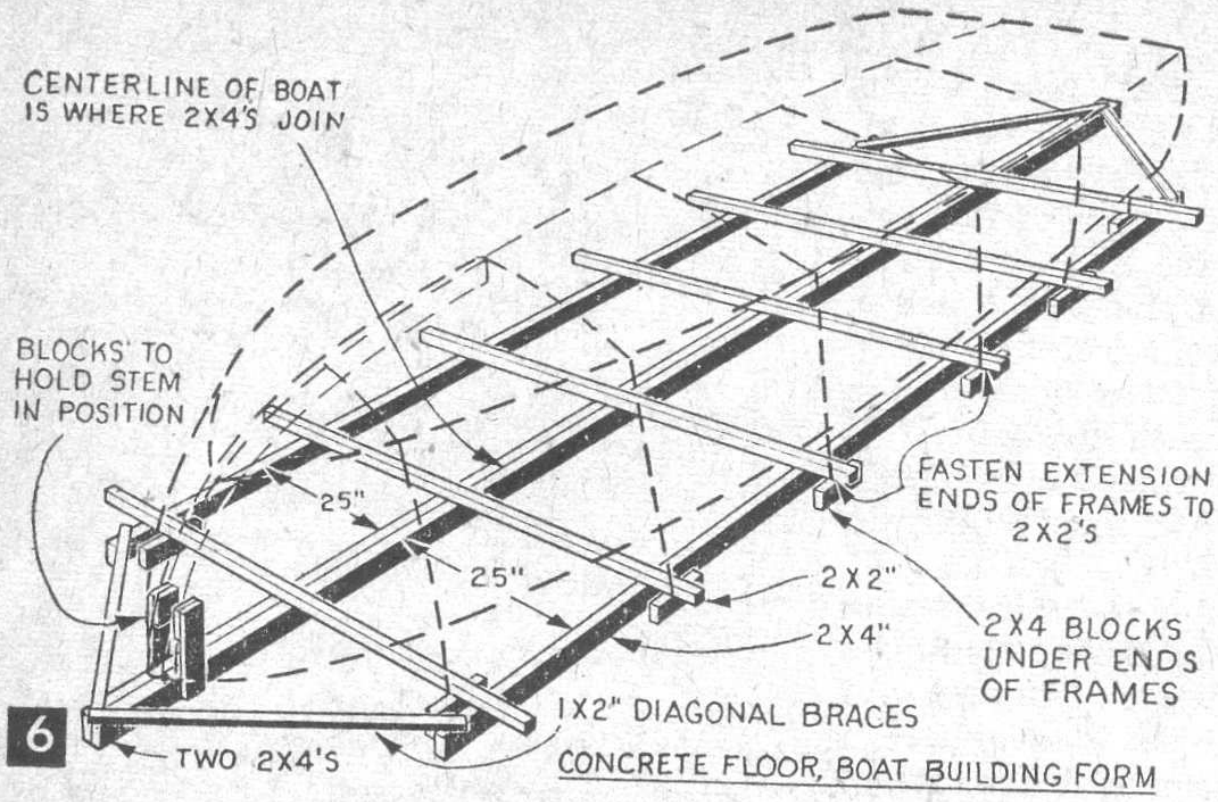
ly fastening with one #8 x 1¾-in. *fh* screw at each joint.

Placing the bottom battens comes next. Mark a center line lengthwise on the keel and measure out from this line to mark the location of the battens on the transom and #2 and 3 frames. The center of the outside bottom battens are placed 24 in. on each side of the keel so that the bottom plywood planking which is 48-in. wide will land exactly in the center of the outside battens. Notch the four bottom battens flush in the bottom frame members and fasten with one #8 x 1¾-in. *fh* screw at each joint. A portable electric hand saw set at the exact depth of cut will aid considerably in cutting the notches accurately.

With a jack plane and wood rasp fair the entire frame work. Lay a stick across all points as fairing continues to assure flat, even surfaces at all joints. The rasp will be found especially useful around the stem where a hand plane may not be used with convenience. Bevel the bottom edge of the chines to conform with the bottom edges of the frames (Fig. 1). After fairing, cut the three outside transom frame pieces (Fig. 2). Coat the adjoining surfaces of the frame pieces and the ply-



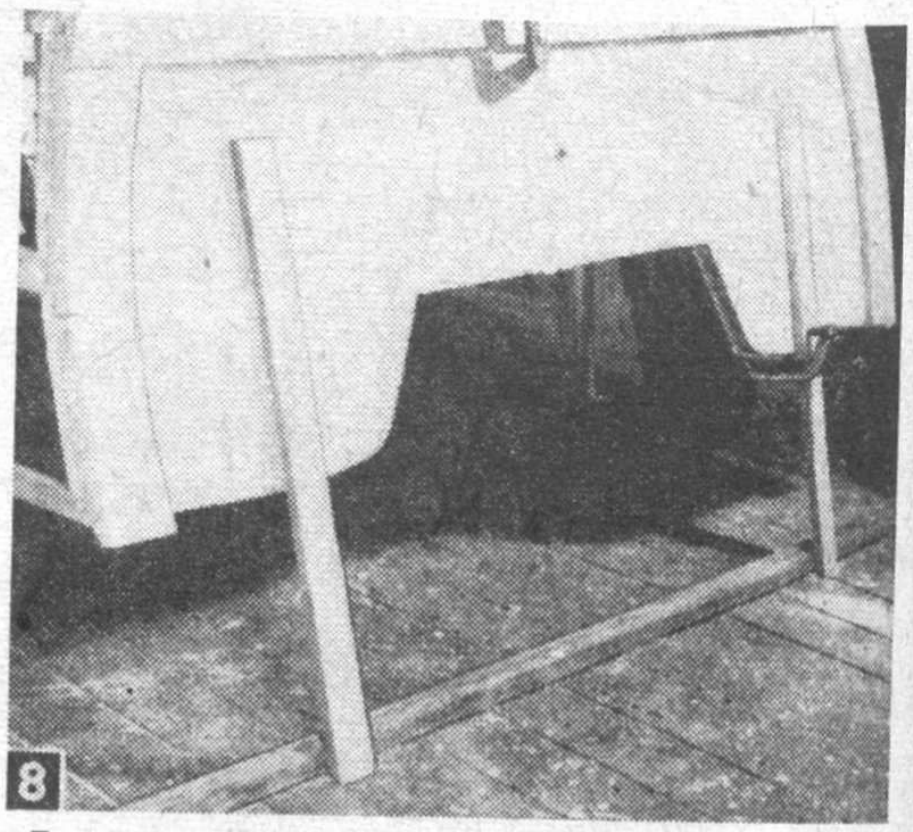
boatplans-online.com



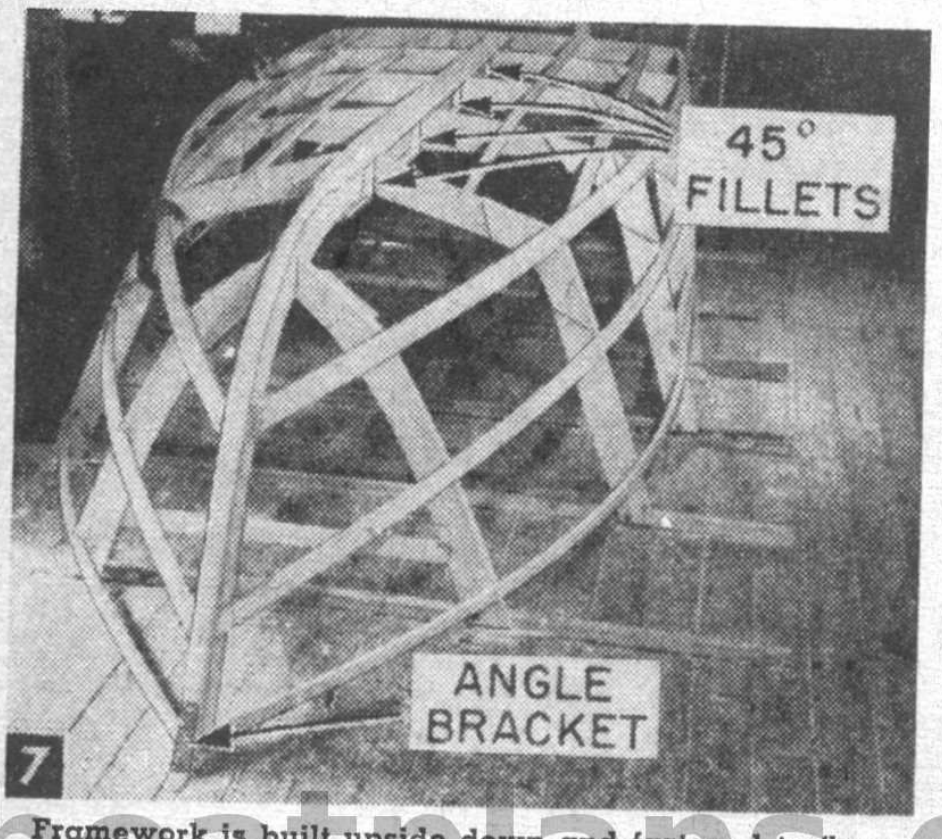
wood transom with Kuhls *Bedlast* and fasten with #10 x 2-in. *fh* screws spaced 3 in. apart and staggered. Remove the excess *Bedlast* and trim the framing flush. Be very careful not to plane away too much of the outside framing at the bottom of the transom. Check with a straightedge.

To install the floor keel it will be necessary to crawl under the framework. First cut the rabbets on the floor keel as in Fig. 5, and then fasten up in the previously cut notches in the frame bottom pieces with two #10 x 2-in. *fh* screws to each joint. Fit the fore end to the stem and fasten similarly and bevel the aft end against the transom. Do not fasten to the transom until later. Fill the space between the keelson and floor keel with filler blocks (Fig. 5) cut from stock size 2 x 4's. Assemble with glue and eight #8 x 1¾-in. *fh* screws, four through the keelson and four through the floor keel. Glue and nail 45° fillets in the corners where the filler blocks join the frames as in Fig. 7. Make similar filler blocks of ¾-in. thick stock and fasten in place on top of the bottom battens. These filler blocks also serve as floor beams (Fig. 5). Make and install the transom knee, countersinking so that bolt heads will be flush with keelson.

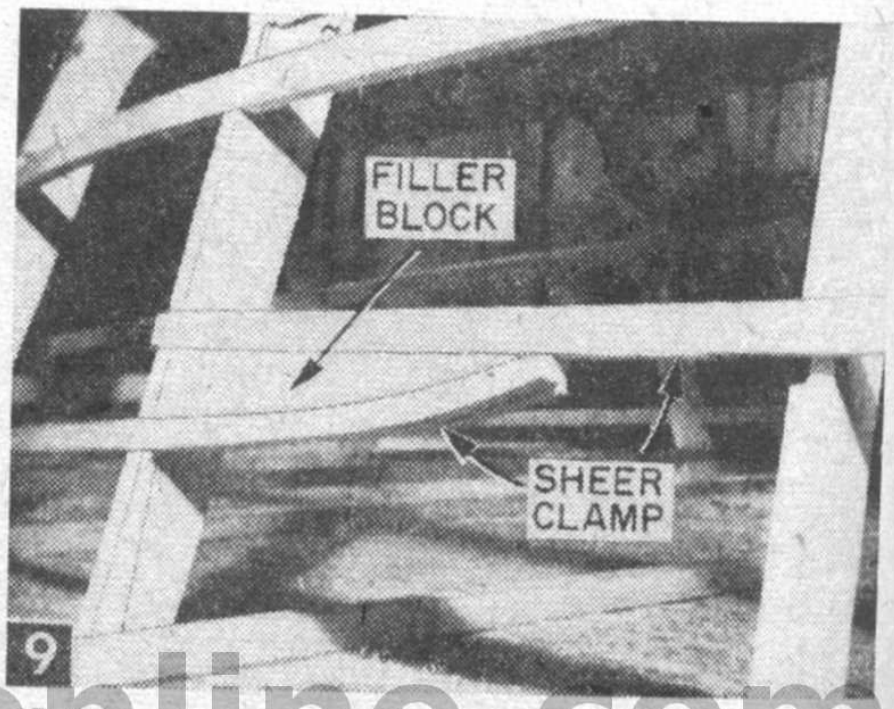
You are now ready to plank the hull framework. Starting with the bottom planking, place a 4 x 10 ft. piece of ⅜-in. plywood on the framework so that the long edges land mid center on the outer bottom battens and the rear 4 ft. edge flush with the outside transom frame. Clamp to bottom battens at transom and #4 frame. Now slit the fore end directly above the center of the keelson (Figs. 10 and 11) with a portable electric hand saw and clamp the forward corners to chines as in Fig. 11. Mark the underside of the plywood along both sides of the chines, keelson, bottom battens and frames. From 2 x 4-in. stock cut and fit two planking battens (Fig. 5) to join the fore end of the after planking and the after end of the fore planking. Consider-



Transom is supported by two uprights at the proper height and angle above the floor.



Framework is built upside down and fastened to floor to keep it in alignment during construction.

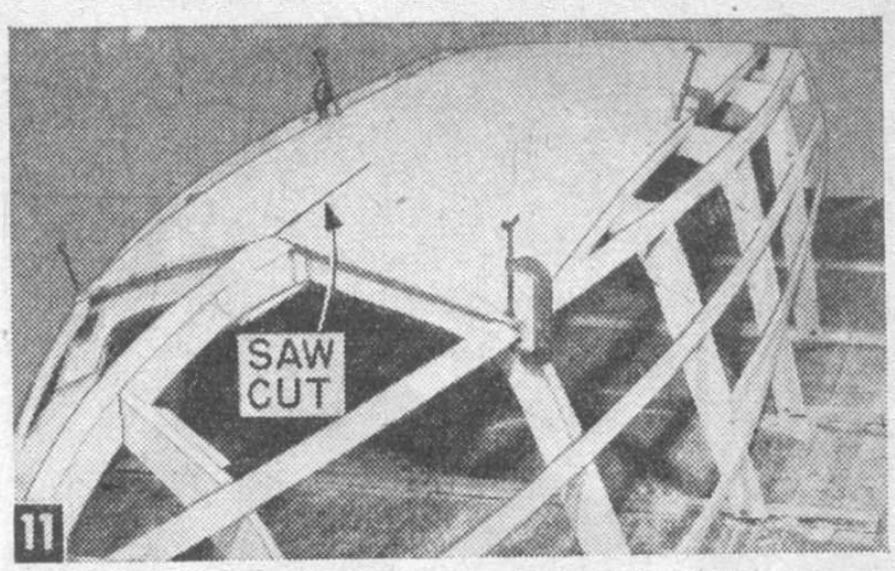


A filler block is used to strengthen joint where fore and aft sheer clamps join.

boatplans-online.com

able shaping will be required to make these battens and one may be spoiled and have to be discarded before just the right curve and bevel is achieved. Then remove the plywood and drill 3/32-in. holes in the center of the pencil lines at each end of each set of lines. Connect these holes with a pencil line on the other side of the plywood to indicate the center of the frame members when locating and drilling lead holes for the screws to hold the planking to the hull.

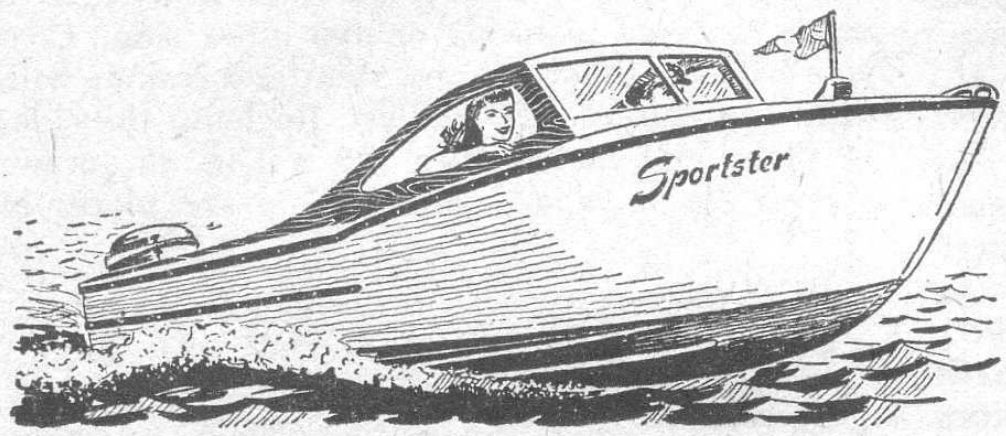
Before replacing the plywood planking on the framework coat all joining surfaces on frame except transom and chines with waterproof glue. Coat transom and small portion of chines with *Bedlast*. Replace plywood on framework again lining it up flush at outer transom frame end in center of bottom battens. Clamp in position and fasten with #8 x 1-in. *fh* screws spaced 2½ in. apart. Use a double row of screws along keel and transom. Coat with glue and slip the fore end planking battens you shaped from 2 x 4-in.

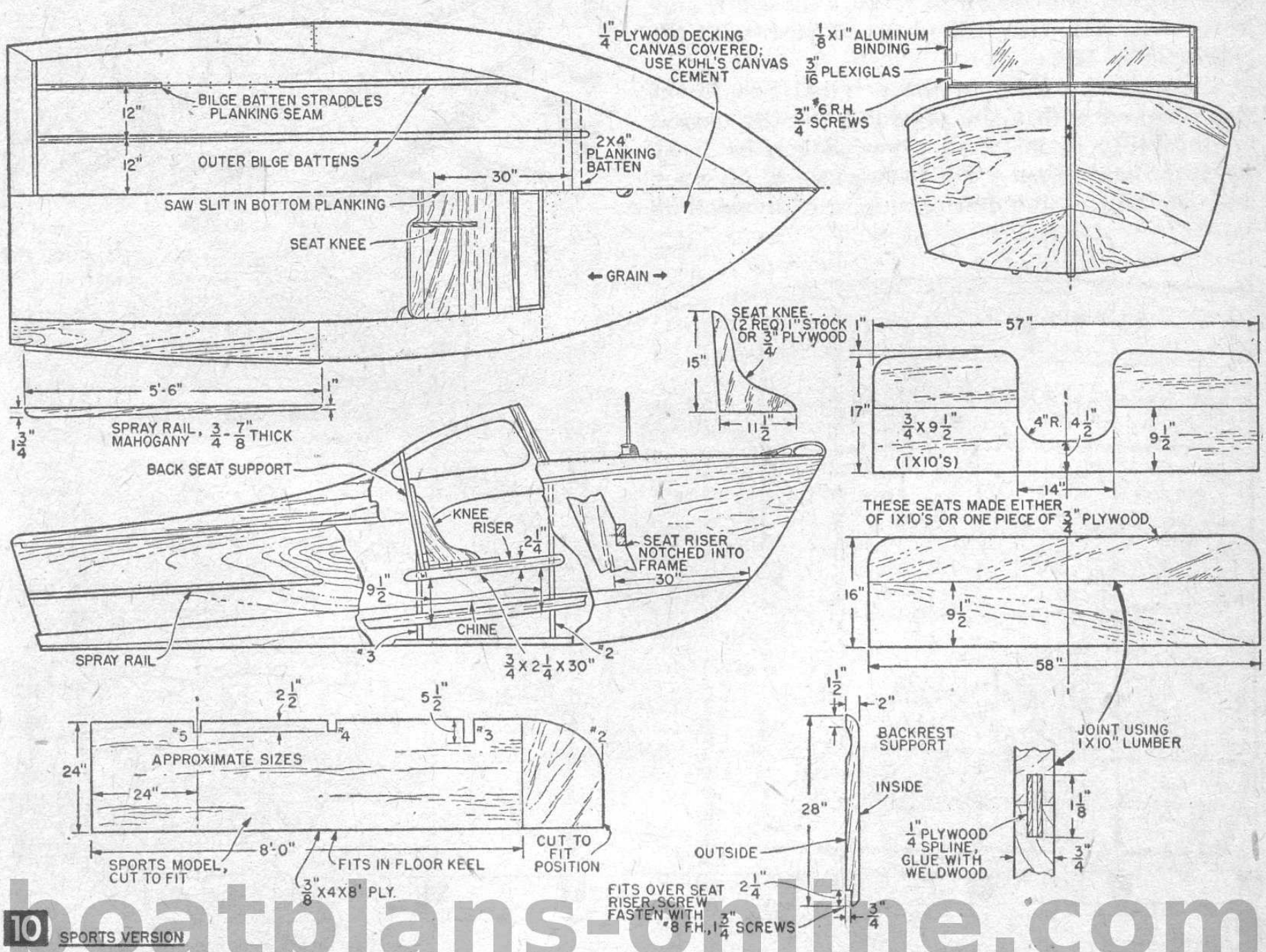


First sheet of plywood planking clamped to bottom of framework and ready for marking.

stock so that half of each batten is covered with the planking and screw fasten in place. To determine the shape and size of the two pieces of planking required to cover the fore end of the bottom, lay a piece of heavy paper over one side of the unplanked framework from stem to chine and crease it with your thumb nail along the chine, fore end of the after planking and center of stem. Cut paper to shape and use as a pattern to mark and saw out two pieces from 3/8-in. plywood.

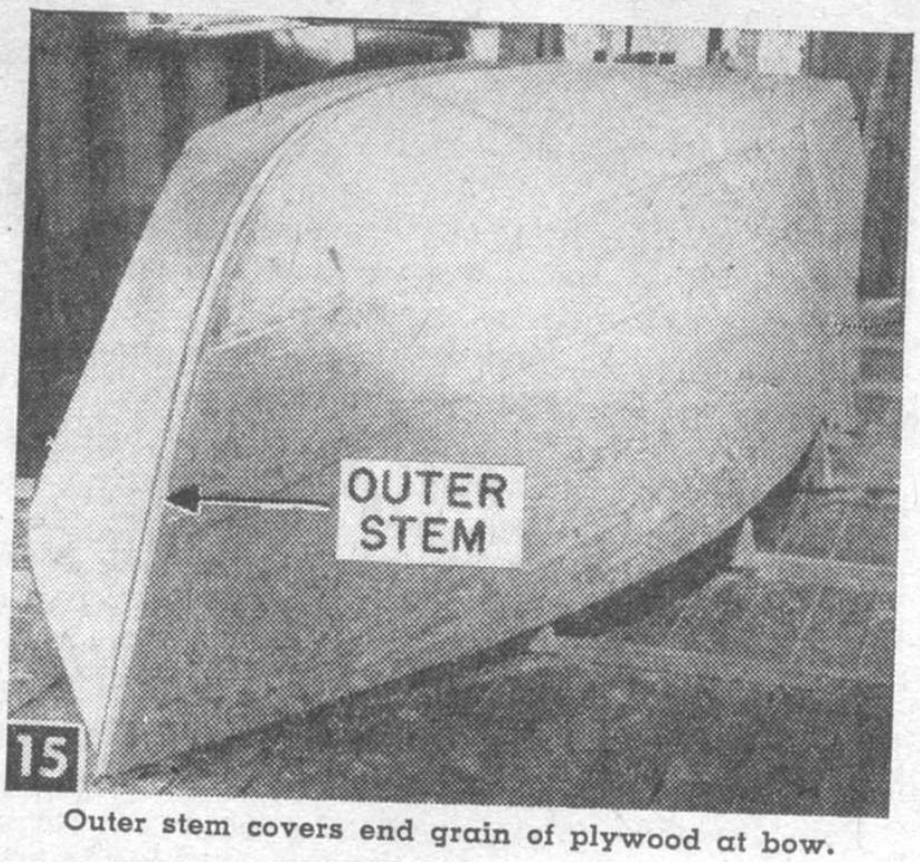
Since 3/8-in. plywood is not pliable enough to bend and clamp in position on the frame, wrap the pieces in an old blanket and soak with hot water for about 15 min-





10 SPORTS VERSION

boatplans-online.com



15 Outer stem covers end grain of plywood at bow.

plywood for the aft planking to the framework, allowing the aft planking to overlap the fore planking one inch or so for marking where the pieces will be butt joined together. Mark, remove and saw to shape. Use glue on all parts except chines and transom and replace on framework fastening with #8 x 1-in. *fh* screws as you did the other planking. Make four ¾ x3-in. planking battens (Figs. 5 and 13) and fasten with glue and screws over vertical seam where side planking joins. Scrape off excess *Bedlast* and, after glue dries, trim edges of planking flush along stem, chines and transom.

To cover end grain of plywood at the bow and the slit cut in the bottom planking, soak ⅝ x 1¾-in. outer stem (Fig. 5) in hot water and fasten with *Bedlast* and #8 x 1¼-in. *fh* screws spaced 6 in. apart. Bevel the outer stem to conform with the sides of the hull and taper to a feather edge on bottom (Fig. 15). Saw the outer bilge battens with a bevel on each side as in Fig. 5, coat the contacting surfaces with *Bedlast* and fasten with #8 x 1½-in. *fh* screws (Fig. 10) spaced 6 in. apart. Before the hull is turned right side up, sand and apply two coats of *Firzite* followed by three coats of thinned Kuhls *Brushlast*. Just before launching, apply two coats of enamel to outside of hull. If the hull is to be covered with fiberglas, do not apply any paint, and use glue in all seams where *Bedlast* was used. Once fiberglas is applied, hull may be painted to color desired. If you are building your version of Sea Rover in a country where plywood is not available, the hull can be planked with solid wood as in Fig. 4.

You are now ready to turn the hull right side up. Remove the clamps or screws holding the framework to the floor or building frame and, with the aid of two or three friends, roll the hull over. Chock the hull fore and aft to prevent rolling while working on the interior and deck. First trim the plywood flush along the sheer clamps and saw a new curve in the sheer line at the drop between #3 and 4 frames (Fig. 5).

Now, depending upon the model you are building, layout and cut the deck beams. The utility model is shown in Figs. 1 and 14, the sport model in Fig. 10 and the cabin model in Fig. 16. Fasten the beams to the aft side of the frames with two ¼ x 2-in. bolts. Also make and bolt the coaming support block (Fig. 5) to the ends of the #2 beam. Notch the deck battens (Fig. 5) flush into the deck beams and then fasten with one #8 x 1¾-in. *fh* screw to each joint.

Make the coaming supports detailed on the #3, 4, 5, and 6 frame drawings (Fig. 2) next. Each support consists of a ¾-in. thick fillet piece between two ¼-in. plywood gussets. Coat gussets with glue and fasten gussets and fillet to frame with 1¼-in. galv. nails. The support at the transom is merely a 1⅝-in. thick block. The coaming is made in two pieces as in Fig. 5. Fit

16 CABIN VERSION

boatplans-online.com

the aft piece of coaming in place first, trimming to fit against the transom, and follow by fastening to supports with two #8 x 1¾-in. *fh* screws to each joint.

Now, cut and fit the fore pieces of coaming in place coating the joints with glue and screw fastening similarly to supports (Fig. 13). With the aid of a straightedge laid across sheer and coamings, plane edges evenly to shape until both edges are true and flat. Place ¾-in. spruce or fir boards in position on aft sheer clamps and coamings, mark, remove and saw to shape. Cut a notch or grove in the fore end of the side decks to take the ¼-in. fore planking and fasten with #8 x 1¾-in. *fh* screws spaced about 6 in. apart. For a neat appearing job counterbore ⅛ to 3/16 in. for screw heads with a Forstner bit. Place a spot of glue in counterbore and tap a wooden plug into hole covering screw head.

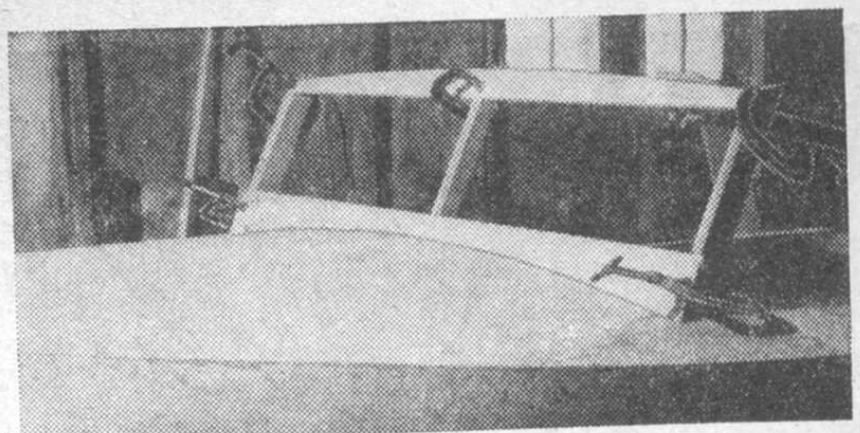
The ¼-in. plywood for the fore decking is now placed in position so that the seams will be in center of the deck. Mark and saw to shape. Coat contacting surfaces with glue and fasten with #6 x ¾-in. *fh* screws spaced 3 in. apart. Join the plywood side decks at the windshield and have the grain running athwartwise so as to bend more readily at the bent sheer line. Butt edges together and place a ¾ x 2-in. plywood batten at underside of joint. Trim the fore and aft decks flush with side planking and coaming.

Make up the windshield parts (Fig. 5), temporarily assemble and clamp in position as in Fig. 17. Make any minor adjustments and mark for rabbeting the edges to take the *Plexiglas*. Then remove the windshield and prepare to canvas the deck. Sew 36-in. wide canvas together so that the seam will be in the center of the deck. Stretch the canvas in place and cut roughly to shape. Then remove, coat the bare plywood with Kuhl's canvas cement, replace canvas and rub the surface of the canvas to remove wrinkles and assure complete adhesion. Fasten canvas to center of deck and sheer with tacks. Mix canvas cement with turpentine to the consistency of thin paint and apply a single coat to the canvas. Allow about 10 days to cure before painting.

After cutting the rabbets on the windshield parts, reassemble and permanently fasten to the deck with #8 x 1¾-in. *fh* screws. Be sure to allow a ¼-in. space between the windshield side posts and coaming for the semi cabin sides.

Make a full-size cardboard pattern of the cabin sides and fit in place on the hull. Then remove and transfer shape to ¼-in. mahogany plywood and saw to shape two pieces or sides. Cut and glue a ¼ x 2-in. mahogany band to the top side of the cabin sides fastening with #6 x ½-in. *fh* screws spaced 3 in. apart. Give the interior of the hull three coats of paint and when dry, place the cabin sides in position fastening with #8 x 1-in. *fh* screws spaced 4 in. apart.

Make and fasten seat risers (Fig. 10) into notches cut in #2 and 3 frames with two #10 x 2-in. *fh* screws at each joint. Cut the seat backrest uprights to shape and fasten to seat risers



17 Temporarily clamp windshield together and fit it to the deck before covering deck with canvas.

through cabin sides, using one #10 x 2-in. *fh* screw into riser and two #8 x 1¼-in. *fh* screws through sides. The seat bottom, back and knee may be made of lumber or ¾-in. plywood. If lumber is used, make a splined joint and glue the pieces together. Fasten knees to seat bottom first, then fasten bottom and knees to seat risers with #8 x 1¾-in. *fh* screws. Continue by fastening seat back to uprights and knees with #10 x 2-in. *fh* screws into knees and #8 x 1½-in. *fh* screws into seat uprights.

Cut the ⅜-in. plywood floor boards to size (Fig. 10) and fasten to floor keel and frames with #8 x 1-in. *fh* screws.

Sheer moldings are next. Make as in Fig. 5 from mahogany and fasten in place with #8 x 1¼-in. *fh* screws spaced 6 in. apart. Cut the curved pieces for the molding at the bent sheer from a piece of ⅝ x 3 x 30-in. mahogany. Make and fit the spray rails (Fig. 10) in place temporarily fastening with #10 x 2-in. *fh* screws from inside of hull through side battens and planking. Use about eight screws for each rail. Then remove the rails and sand the outside of the hull to ready it for painting.

Although Sea Rover can be painted any color you desire, use marine paints made especially for boat use. The original Sea Rover was given two thin coats of *Pettit's* cream colored deck paint on the canvas decks, Condon's *Boatlife Plasticlear* on all bright work such as windshield, cabin side and molding and *Boatlife* white on the hull sides —green on the bottom. Because mahogany is an open grain wood use a paste wood filler before applying *Plasticlear*.

To make your boat a really convenient sportster, install a steering wheel on the left side (port side) and connect steering gear as in Fig. 16. Evinrude *Simplex* controls are inexpensive and readily available from your local dealer. Complete directions for installation are included. Additional fittings needed are: a bow light mounted on the forward deck, a lifting handle at the extreme bow, port and starboard bow chocks and two 5-in. cleats on the after side decks.—END

● Craft Prints in enlarged size for building runabouts and cruisers are available at $1.50 each. Order by print number, enclosing remittance (no C.O.D.'s or stamps) from Craft Print Dept., SCIENCE AND MECHANICS, 450 East Ohio Street, Chicago 11, Illinois.

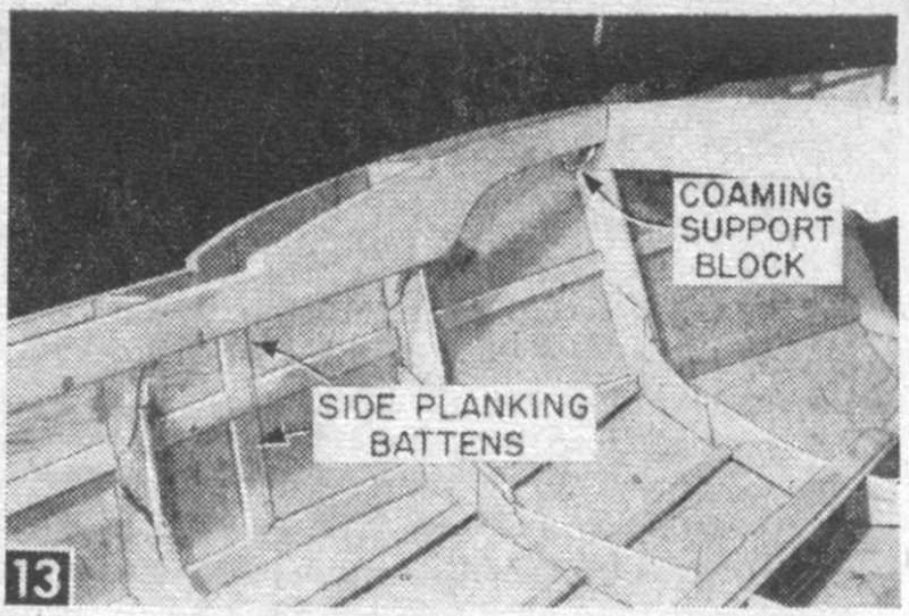
boatplans-online.com

12

Completed bottom planking trimmed flush with chines and center of stem.

utes. Coat contacting surfaces with glue and clamp the still hot plywood in position. Fasten with #8 x 1-in. *fh* screws spaced 2½ in. apart. The outer chine parts of the bottom that the 4 x 10 ft. plywood fails to cover is now planked. Lay a piece of ⅜-in. plywood in position, mark and cut to shape. Coat the battens and chines with *Bedlast* and fasten in place with #8 x 1-in. *fh* screws. Now trim the plywood flush with the chines (Fig. 12).

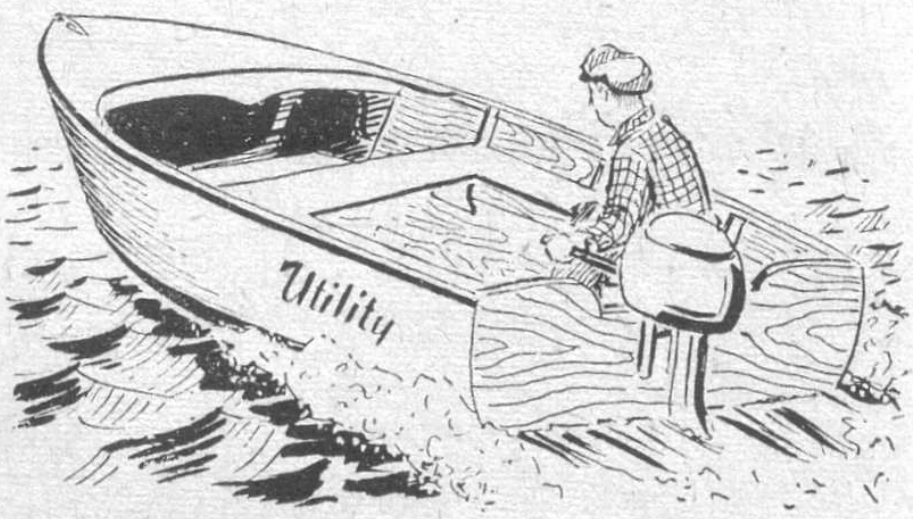
Although the sides of the original Sea Rover was planked with ¼-in. plywood, for the utmost in durability ⅜-in. thick plywood can be used. In either case select a 4 x 10 ft. piece of plywood and starting at the bow clamp the plywood to



13

The fore and aft pieces of plywood side planking is butted together between frames and reinforced with planking battens.

the framework. Mark along chine, sheer and 10 in. forward of #4 frame where fore planking will join aft planking (Fig. 5). Then remove plywood and saw to shape. Follow the same procedure to make the fore planking on the other side. Coat side battens, sheer clamps, stem and frames with glue and chines with *Bedlast*. Reclamp the sides in place and fasten with #8 x 1-in. *fh* screws spaced 2½ in. apart. Now clamp the pieces of



14 UTILITY VERSION

boatplans-online.com