Nancy Jane as shown above was built by Charles Sears of Buffalo, New York, using hand tools exclusively and without outside help. He powered it with a 90 hp Dodge conversion which could turn a 12x13 prop at 3200.

"NANCY JANE" 19-ft. Inboard Runabout

By WILLIAM JACKSON

Craft Print Project No. 150

THE Nancy Jane is an all purpose craft designed to fulfill a great variety of uses in one boat. With a length, beam, and depth generous enough to be usable anywhere, this seaworthy design provides a craft that may be equipped with a marine or converted auto engine from 15 to 100 hp, for speedy, stable riding service on open or sheltered waters. For those to whom cruising is the ultimate relaxation Jane may be equipped with one of the trim cabin designs shown or utilized as a double cockpit runabout. However the basic design as indicated upon the plans is that of an open cockpit utility runabout which is not only easy to build, requiring the minimum of labor and materials, but for all around use such as fishing, hunting, surf board riding, and short pleasure trips this model would be difficult to surpass. If desirable it may be constructed first as an
DO NOT NOTCH #7 AS TRANSMON FITS AGAINST END

 Keel Apron fits atop form 10 3/4"
 Keel Apron fits atop form 2 3/4"
 Keel Apron fits atop form 2 3/4"

 BUILDING FORM - 2'X12"X17'

MATERIALS LIST - NANCY JANE
Keel Apron - 1 Pc. 1 1/2"x5 3/4"x16'
Keel - 1 Pc. 3 1/2"x10"x16'
Chines - 2 Pcs. 1 1/2"x3 3/4"x19'
Chine Fillers - 2 Pcs. 3 1/2"x3 3/4"x19'
Skag Keel - 1 Pc. 1 1/2"x10"x12'
Clamps - 2 Pcs. 3 1/2"x3 3/4"x18'
Inwales - 2 Pcs. 3 1/2"x1"x30'
Carlings - 2 Pcs. 3 1/2"x1"x30'
Deck Battens - 2 Pcs. 3 1/2"x10"x14'
Floor Cross Pcs. - 8 Pcs. 3 1/2"x2 3/8"x12'
Deck Bents - 2 Pcs. 3 1/2"x2 3/8"x12'
Bottom & Side Battens - 4 Pcs. 3 1/2"x3 3/4"x16'
Bottom & Side Battens - 4 Pcs. 3 1/2"x3 3/4"x20'
Frames - Bottoms - 2 Pcs. 3 1/2"x2 3/4"x18'
Sides - 2 Pcs. 3 1/2"x2 3/4"x14'
Stem - 1 Pcs. 3 1/2"x2 3/4"x9'
Hull - 1 Pcs. 3 1/2"x2 3/4"x17'
Engine Beds - 2 Pcs. 3 1/2"x2 3/4"x4'
Engine Girder - 2 Pcs. 3 1/2"x2 3/4"x15'

PLYWOOD REQUIRED
Planking
Sides - 8 Pcs. 3 1/2"x2 3/4"x7'
Bottom - 6 Pcs. 3 1/2"x2 3/4"x7'
Decking - 2 Pcs. 3 1/2"x2 3/4"x6'
Transom - 1 Pcs. 3 1/2"x3 3/4"x5'
Floor Frames & Chine
frame gussets - 1 Pcs. 3 1/2"x2 3/4"x4'

FASTENINGS
10 Gross - 1 1/2"x2 1/2" Flat Head Screws.
1 Gross - 1 1/2"x2 1/2" Flat Head Screws.
1 Gross - 1 1/2"x2 1/2" Flat Head Screws.
1 Gross - 1 1/2"x2 1/2" Flat Head Screws.
4 - 5/16"x6" Carriage Bolts.
1 Quart - "C" Quality Marine Glue.

open cockpit utility, and a cabin added later.

With the exception of the framework, waterproof marine plywood is used almost exclusively in the construction as it provides a hull capable of withstanding extreme service, is easily and more quickly fabricated, and represents a minimum outlay for materials. The first step in the construction of "Jane" should be to lay the lines down full size upon large sheets of building paper. This process will eliminate possible errors and provide full size patterns of parts necessary, not to mention affording a better understanding of the boat as a whole. The hull is most easily built when placed upside down and for this purpose cut the form to shape as indicated, mount upon legs similar to a saw horse, and raise to a height convenient for working upon the sides and bottom of the hull.

Prepare full size patterns of all frames, transom and stem and proceed to transfer the shapes to materials designated for the purpose, sawing to shape and later returning to patterns for assembly. Bolt stem together with 3/16" carriage bolts, while the frame joints should be secured with 1½" No. 10 F. H. screws, six to each joint. Plywood 3/4" floor frames and chine gussets secure keel and chine joints respectively and are coated with casein glue or plastic glue before assembly. The transom is cut from a 3/4" plywood sheet and a 3/4" x 4" frame secured around the outer edges, fastening with 1½" No. 10 F. H. screws. When all frames are assembled, notch out members for keel chines, and inwales and also notch form to receive frames.

All frames and the stem are now assembled upon the form. Align all frames squarely, retaining the transom and stem square with the form by nailing wood strips from these parts to form. Also secure strips across tops of all frames to prevent compression strains when planing—and prop frames even and level with wood strips from floor to frames.

First member to be attached to the frame is the 3/4" x 5 ½" keel apron which is screw fastened to each frame notch and stem with two 2½" No. 8 F. H. screws. The outer keel 3/4" x 3" is now attached to keel apron, first coating adjoining surfaces with "C" quality marine glue, and fastening with 1½" No. 8 F. H. screws spaced about 6" apart.

Clamp chines in place, trimming rear ends to fit transom notches and spring both chines together towards the stem, aligning frames and beveling frame notches to conform with chine angle. Fasten chines to frames with 2½" No. 10 F. H. screws, bevel ends of chines to fit stem, and
fasten with 1¾" No. 8 F. H. screws. Spring both inwales in place and fasten to each notch with one 1½" No. 8 F. H. screw. If the frames have been aligned as construction progresses, the framework should now present a uniform and rigid structure for planking. If any member is not fairly aligned, do so now. The ¾" x 1¾" bottom and side battens are now notched into place and secured with 1¾" No. 8 F. H. screws.

All dimensions to outside of frames no reductions necessary for planking.

Trim and fair all joints so plywood to be applied lies evenly and smoothly at all points. The chine filler piece is now attached to chine with 1¼" No. 8 F.H. screws spaced about 6" apart.

Covering the frame work with plywood is quite simple but before this work is begun certain fundamentals should be observed. Drill lead holes for all fastenings, sinking screws slightly below surface to be later putted. Coat all adjoining surfaces, especially keel joints, chine, and transom edges, with "C" quality marine glue, before placing planks in position for final fastening and lay cloth strips upon glued area and recoat. At points where plywood is butted provide a ¾" x 6" oak butt block and screw fasten plywood in place to butts, chines, keel, frames and stem with 1¼" No. 8 F. H. screws spaced about 8" apart. The forward bottom pieces of plywood adjacent to the stem should be softened with hot water to bend readily.

With the planking trimmed evenly along all edges, turn the hull right side up and remove the form. Begin the interior assembly by sawing to shape the deck beams fore and aft and attach in place with 1¼" No. 8 F. H. screws. The side deck supports are now screw fastened to top of frames, followed by placing in position the ¾" x 3" clamps which add stiffness to the boat and help in supporting both beams and side deck supports, and are fastened to frames with 1¾" No. 8 F. H. screws. The carlin is now notched into rear beams, side supports and forward deck beam, fastening with 1½" No. 8 F.H. screws. Finish deck assembly by notching the deck battens into beams and fastening with 1¼" No. 8 F. H. screws.

The ¾" or ½" plywood decking is now applied and fastened in place, at all points with
1½" No. 5 F. II. screws spaced about 3" apart. Trim evenly along cockpit edges and cover with a ½" x 5" plywood coaming, screw fastened in place. Cover forward and aft cockpit beam with a shaped covering board—the forward cockpit beam covering piece sawed to an attractive curve and used as a dash board. The sheer moulding is now fastened in place with 1½" No. 8 F. II. screws spaced about 8" apart.

Installing the engine girders and engine beds will depend upon the power used as the varying characteristics of different engines require separate attention. However, in general, notch girders partially into frames to prevent shifting and fasten securely to frames with metal brackets. The engine beds are bolted to the girders and are located to suit the engine installed. Two inch thick separators should be secured between girders and beds to further increase rigidity. The flooring is made from waste plywood and attached to cross pieces laid across girders.

Such things as rudders, stuffing boxes for the shaft, steering wheels and other fittings are standard equipment and are obtainable from any marine supply establishment. The engine used will depend upon the builder’s finances—while marine engines are first choice, an auto engine such as the Model A or V-8 Ford properly converted is entirely satisfactory.

The skeg shown upon the plans is shaped from a piece of oak and is recommended as a protection to propeller and rudder.

- Craft Print No. 150 in enlarged size for building Nancy Jane is available at $1. SPECIAL QUANTITY DISCOUNT: If you order two or more craft prints (this or any other print), you may deduct 25% from the regular price of each print. Hence, for two prints, deduct $0.50; three prints, deduct $0.75, etc. Order by print number. To avoid possible loss of coin or currency in the mail, we suggest you remit by check or money order (no C.O.D.'s or stamps) to Craft Print Dept., 212, Science and Mechanics, 450 East Ohio Street, Chicago 11, Illinois. See coupon on page 192. Now available, our new illustrated catalog of “106 Do It Yourself Plans,” $1. Please allow three to four weeks for delivery.