

INGRID

Seacraft October 1953, 13; 6: 348 et seq.

LOA	37'6"
LWL	32'0"
Beam	11'4"
Draft	5'6"
Displ	25,000 lb
Sail area	816 sq ft

The South Australian ketch *Ingrid* made the headlines last season by winning the eighth Sydney–Hobart Race. Her owner-skipper, Adelaide sailmaker James Taylor, brought her home in tenth place, but her excellent RORC [Royal Ocean racing Club] rating took her to the top on corrected time.

Ingrid is a Colin Archer type double-enders, designed by an American follower of Archer's, William Atkin. Her plans were originally commissioned by *Motor Boating* magazine, whose readers asked for an enlarged version of Atkin's earlier *Thistle* design. This is what Atkin himself has to say about her:

Ingrid is a big boat. She has all the characteristics usually associated with seagoing ability. She is the kind of boat that behaves in rough water. She can be depended on to sail herself. She is ableness personified, and she is equal to any situation.

Ingrid's beam is practically the same as that of *Thistle*, but the draft has been increased to 5ft 6 in, as shown in the dimensions given at the top of this page. Ballast accounts for nearly half her total displacement, since she has 9,000 lb of iron on the keel and 3,000 lb of inside ballast.

The sail area totalling 816 square feet is distributed as follows: jib, 162; staysail 123; main 346; mizzen 185. Weight of sails is a controversial subject, but it seems to me (and it has been borne out by practice) that it best to use extra fine quality cotton duck, keeping this light in weight, and making sure that the sails are made in the finest manner. Your well-made fine quality sails will outlast heavier but less expertly made sails.

Eight-ounce Wamsutta duck or its equivalent is the proper thing to use on *Ingrid*. The cloths should run across the sail. There should be two rows of reef-points in the mainsail, one in the mizzen, none in the headsails. Have pockets for battens in main, mizzen and staysail.

The lines show a genuine *redningskoite* — Norwegian rescue ketch — of a type Colin Archer designed some years ago, to stand up to the worst weather of the notoriously angry North Sea. These craft have since earned a world-wide reputation for seaworthiness and are favoured by many long-distance cruising men.

The deck gives more than usual room for working the vessel; there is 12 ft 5 in from the stem to fore end of the deckhouse; somewhat over 3 ft on each side of the house; and 10 ft 10 in from the house to the stern. The self-draining cockpit, 5 ft 9 in long and 5 ft 8 in wide, is separated from the accommodation by a 1 ft 9 in bridgedeck.

Each cockpit seat conceals a 30 gallon petrol tank; these sit on the cockpit floor, and any leakage or spillage simply flows outboard through the drainpipes. Tank filler caps are easily reached by lifting the hinged seat-tops. Fit the shut-off cocks above the cockpit floor, and you will have the most perfect form of tank installation.

There is a hatch in the foredeck, another in the deckhouse top, and a third in the afterdeck. The companionway is placed on the starboard hand, leaving room for the mainsheet traveller and the

mainsheet cleat. Somehow it is difficult to picture a better arrangement, and at the same time have the thing simple and easy to build.

The cabin is large; a six-footer can walk through upright, which should please many. Personally I feel that headroom is the least important feature of a small yacht's design, but we do not all think alike in this respect. Anyway, in a hull of *Ingrid's* length heights do not have to be abnormal in order to get full headroom.

For living aboard, it is well to have the galley aft. Then drip from the companionway falls where it is least objectionable and easiest to mop up. A coal range is shown in the plans, because coal is one fuel that can be obtained in any part of the world — and cheaply too. If you agree with this idea, and decide to retain the range, I suggest you get an oil or alcohol stove as well, for pumped overboard. [*sic*]

The generous-sized sink is fitted near the waterline; this means it will not drain by gravity, but any husky pump will do for emptying it. Other galley fixtures include a large icebox, lockers for cooking utensils under the sink, and dish lockers behind both sink and range, extending the full length of the compartment — 5 ft 10 in.

Opposite the galley is a chart table, with built-in lockers and drawers underneath. Water supply is distributed in three tanks — one under the cabin floor, the others under berths in the main cabin.

The main cabin is fitted with one high berth, which can be left made up during the day; opposite this is a low berth, having a big locker under the deck. A settee ranges along in front of the high berth. Some idea of the cabin's size can be had from the width between the settee and the opposite berth — 2 ft 10 in of straight flooring. There is good room for drawers under the settee.

The toilet compartment is large; it measures 3 ft 2 in by 3 ft, without counting the locker, and has 6 ft headroom under the carlings. Fittings include pump-out toilet and a corner wash-basin. It is always good practice to lead the drain from the basin into the toilet, whence it can be pumped outboard.

A good-sized clothes locker stands opposite the toilet compartment; rising 5 ft from the floor, it provides a wide shelf in the corner of the cabin. The shelf, by the way, must be rimmed by a low railing, to keep objects from sliding off. Passageway between the toilet and locker is 23 in wide.

The forward cabin has two built-in berths with lockers under, and shelves forward, as shown in the plans. The chain locker is divided by a vertical partition, in case two anchors and two cables are carried; they should be carried, too. The heaviest anchor for a yacht of this size should weigh 80 lb and carry about 300 ft of 3/8-in chain; the light anchor should weigh 40 lb and carry 200 ft of 5/16-in chain. Yachtsman-type anchors are recommended.

The engine is installed under the bridgedeck and cockpit floor. It is difficult to suggest any particular make of motor, because most of those advertised nowadays will perform so well, but I would say that a 40-horsepower six-cylinder Gray should prove ideal for this design, giving a speed of 7½ miles an hour. Use a standard two-blade propeller; you won't gain much by fitting a feathering prop to this outfit.

Keel specification calls for a 10-in by 16-in slab of yellow pine or white oak. (These are heavy timbers, weighing 44 to 46 lb per cubic foot; Australian equivalents are kauri, stringybark, Sydney bluegum, white beech and spotted gum. — Editor)

White oak, sided 6 inches, is specified for stem, stern post and deadwood, and also for the steam-bent ribs. There is only one way to ensure that steam-bent frames will not break or bend unevenly. Pick first-quality bending timber; split centre of plank; then saw with the grain as split.

The frames are to be spaced at 12-in centres, and the larger ones should be doubled up. Single, they will measure $1\frac{1}{4}$ by $2\frac{1}{2}$ inches; doubled one inside the other, their finished size will be $2\frac{1}{2}$ by $2\frac{1}{2}$ inches. The two parts should be fastened together only after they have cooled and set.

Planking is to be $1\frac{1}{4}$ -in cedar, 22 strokes each side. (This is a light timber, weighing only 22 lb per cubic foot. Australian builders could use maple, Huon pine or hoop pine — or imported Oregon. — Ed.)

Little is gained by using planking in single lengths; well-buttet planks are just as good. In fact, long strokes are likely to split at the ends, because the grain here will run somewhat across the plank. Use galvanised nails for the fastenings; in heavy planking, plug-bore for the nail-heads and cover with boat plugs.

Butt blocks of $1\frac{1}{4}$ in white oak should be a nice fit between the frames and should overlap the plank width by at least half-an-inch each side. It is necessary to concave the butts in the hollow sections and crown them in the round sections.

A hull of *Ingrid's* size should be caulked with cotton, have seams payed [*sic*] with red lead and then stopped with seam putty.

The deck, of $1\frac{1}{2}$ -in by 2-in white pine, should be laid with the seams parallel to the centreline; use boat nails for fastenings and let in heads same as for planking. Fastenings will, of course, be plugged, and seams will be treated same as for the sides. Drive in plenty of caulking if you want a tight deck.

White oak $2\frac{1}{2}$ -in thick is specified for the rudder, which tapers at the foot to $1\frac{1}{2}$ -in and is streamlined aft to $\frac{5}{8}$ -in. The pocket for the tiller is formed by cheekpieces, and bronze castings should be used for the rudder hangings.

These are the main features of *Ingrid* — a sturdy, willing craft that will take you anywhere, any time.

Copied by Peter Last, 23 April, 2001. The article is illustrated by four diagrams, which have been scanned. In my collection, there is also (as of today's date) a photograph of *Ingrid* approaching her moorings on an Opening Day.