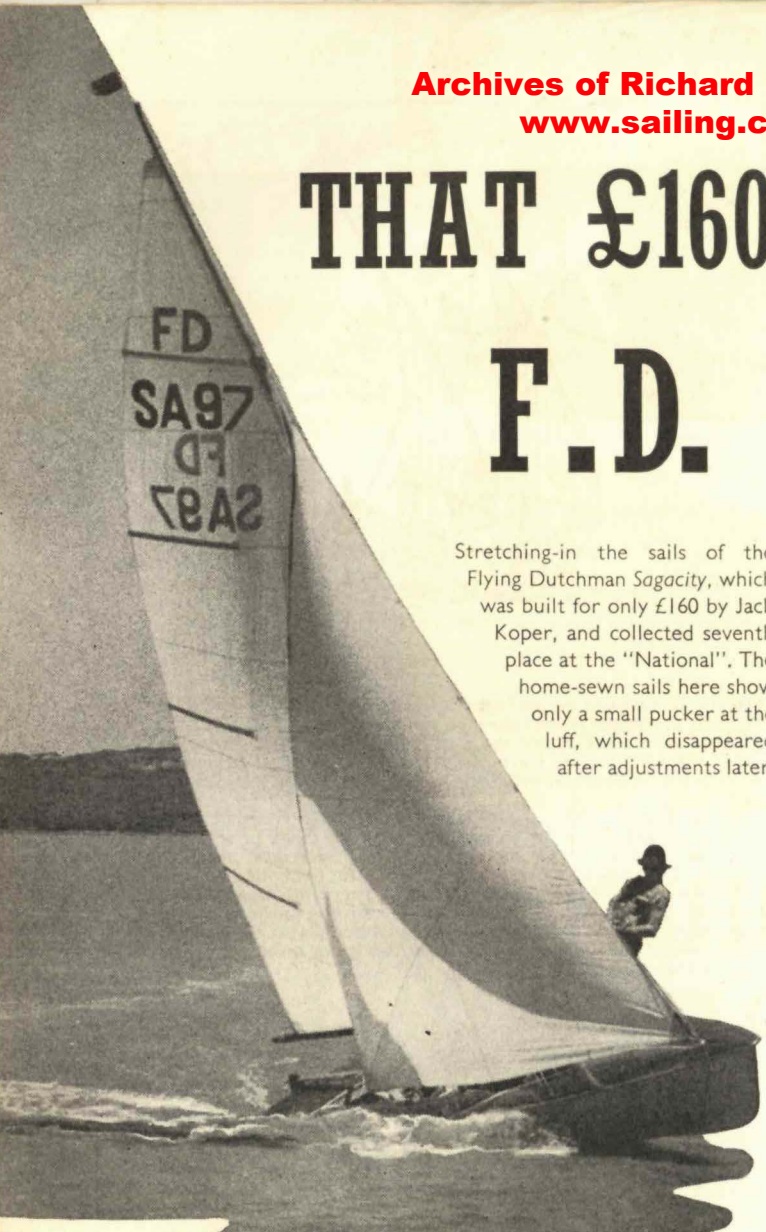


THAT £160 F.D.

Stretching-in the sails of the Flying Dutchman *Sagacity*, which was built for only £160 by Jack Koper, and collected seventh place at the "National". The home-sewn sails here show only a small pucker at the luff, which disappeared after adjustments later.



WHEN I decided to have a new Flying Dutchman, I knew I would have to build on a shoe-string. I proved it could be done and the resulting craft raced successfully—and this is how I pulled it off.

A few major items are necessary. These are: a work-room, tools, connections (friends!), and lots of time.

Anyway, the shell was made with the aid of a hired mould, off-cut strips of Meranti, $\frac{1}{8}$ in. by 2 in. to 4 in. The final weight of the bare shell came out at 160 lb. for $\frac{3}{8}$ in. thickness—and very tough, too. The hull was finished off with cedar and plywood frames, cedar and ply centreboard and bulkheads, with home-made stainless steel fittings, in three months' working time.

Weight was then 274 lb., being the minimum allowed.

By then time was running short and the National Regatta was to be sailed in two months, so mast and many fittings had to be bought in a hurry. The rudder blade in aluminium alloy was expensive, but an old Sprog mast was made into a bendy boom. Fairly cheap Jap. nylon rope was used for halliards, Italian hemp for sheets. The whole boat, including cradle, cover and home made sails cost just under £160.

To make sails was a bit of a venture, and here is how it was done: The material was obtained through an agent in Cape Town and comes from Scotland; 20 yards for the main, 12 yards for genoa, 10 yards for working jib. Total cost £17, landed.

First stage. A mainsail was cut to scale 1 in. equals 12 in. out of paper, each panel separately (genoa and jib too) and glued together with slight overlap, about three times as much overlap at the luff end as at the middle of the sail seam. Rounding off the luff and foot was about $\frac{1}{4}$ in. (3 in. on actual sail). This sail looked beautiful and I felt confident of making a successful one of the material.

Many sails were studied.

I did not dare look at any Ratsey sails with their small panels, but the Danish and Dutch jobs looked fairly easy to make.

I was going to make use of wide panels, 30 in., and have the bolt rope inside the cloth. The seams are about 1 in. at the widest point at the luff tapering to $\frac{1}{4}$ in. midway along the seam. The curve of the leach was traced from another sail.

First the panels were sewn zig-zag together with 6 in. to spare at the luff, side and foot. The roach was cut and sewn, the batten pockets made and sewn in place.

Second stage. The mast and boom were now laid flat on boxes in the garden in a sheltered spot. The sail was folded round the bolt rope and pulled through the grooves. As the materials was now hanging down, I could see the curve quite easily. It was a matter of pulling the material in, or out round the bolt-rope and, by doing so, reduce creases or make more or less round wherever needed.

It was found necessary to put a short seam at the foot. Then the cloth was pinned every 6 in. or so to prevent it from slipping off the bolt-rope.

Third stage. Next, the sail—with pins and all—was hoisted into my boat's mast and so we sailed round the Vlei with a friend at the tiller while I walked all over the boat with pins in my mouth to alter the shape where needed.

After that we went ashore, where the sail was carefully lowered—and I took a strong laxative to remove those pins which were not used on the sail!

The sail was taken home and finished by sewing the bolt-rope tightly into the sail (you must have a special zippfoot-attachment). The seam along the luff and foot was turned in and zig-zag sewn.

The sail was the most advanced cut I could find and is intended to be used on a bending boom and bending mast.

One race was sailed before the National Regatta and, although the wind was not strong, with my light crew I found the going heavy. It was obvious that the sail was fine for the lightest of winds only.

So back to Cape Town, where a 2 in. panel was taken off the foot to flatten out the belly.

So now I was ready to start at the Regatta. The first race proved the sail to be right. We were second till we badly overstepped the first mark, rounding seventh; but we improved to fifth position at the finish.

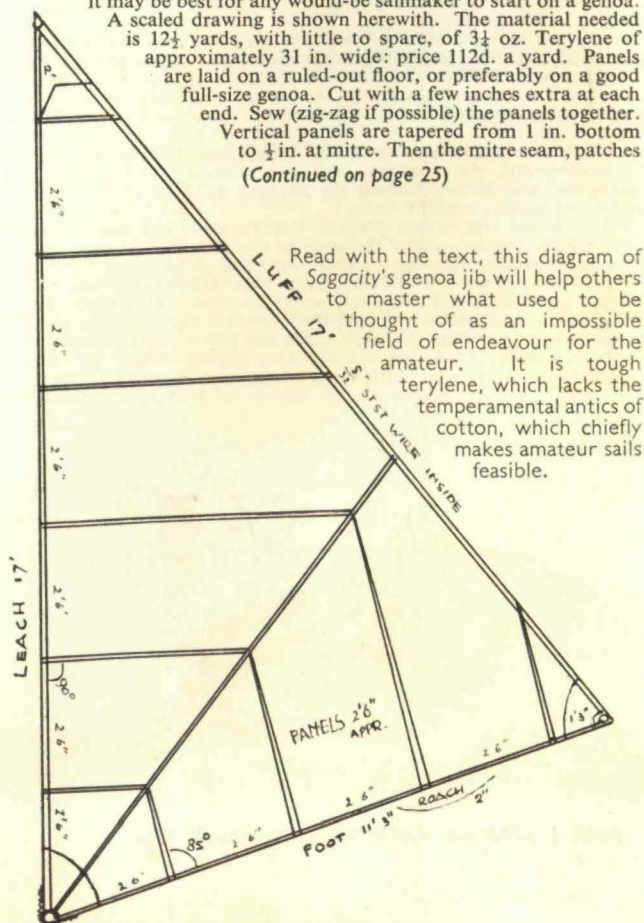
We found that the mainsail was still on the full side, but reefing points to flatten it still more are being made along the foot. Our light weight (overall crew weight was only 315 lb., excluding wet jerseys) found beating heavy going, but reaching and running most exhilarating, overtaking several boats in the process.

So I believe now that it is not very difficult to make one's own sails. Mine are setting well with few creases and seem to have the drive one requires.

The genoa was made in a hurry and not tried before the Regatta, but also proved successful. It seemed to me that a jib is even easier to make than a main with almost straight seams, except the vertical ones which are tapered slightly towards the mitre seam. So it may be best for any would-be sailmaker to start on a genoa.

A scaled drawing is shown herewith. The material needed is 12½ yards, with little to spare, of 3½ oz. Terylene of approximately 31 in. wide: price 112d. a yard. Panels are laid on a ruled-out floor, or preferably on a good full-size genoa. Cut with a few inches extra at each end. Sew (zig-zag if possible) the panels together. Vertical panels are tapered from 1 in. bottom to $\frac{1}{4}$ in. at mitre. Then the mitre seam, patches

(Continued on page 25)



Installation of fishing gear depends largely on the cockpit design and preference of the skipper. Some skippers install a second control station to allow for steering amidships. To withstand the hard steering equipment takes in offshore work, it should be reliable, with all blocks bolted to the hull. The offshore outboard should be a convertible boat with canvas top and side curtains to protect against foul weather and sun. Windshield wipers should be installed and kept in working order.

Step plates and heavy duty bumpers will help retain the finish on the craft. Deck chocks forward allow for keeping an anchor easily accessible and out of the cockpit.

Fill your petrol tank carefully with a minimum of splashing and spilling and never smoke while filling the tank.

A cardinal precaution, especially where children or non-swimmers are concerned, is proper life-preserving equipment. Lifejackets should be considered essential and they should be worn. Simply never take a chance.

Learn the basic signs of impending bad weather and never ignore them. If caught on the water by an approaching storm, head for shelter at the first sign of high winds or rain. Keep your boat headed into the waves and don't run flat-out before them.

Cross the wake of a large boat at a safe angle, if you can't avoid it completely, and slow down or stop before changing position in a small boat.

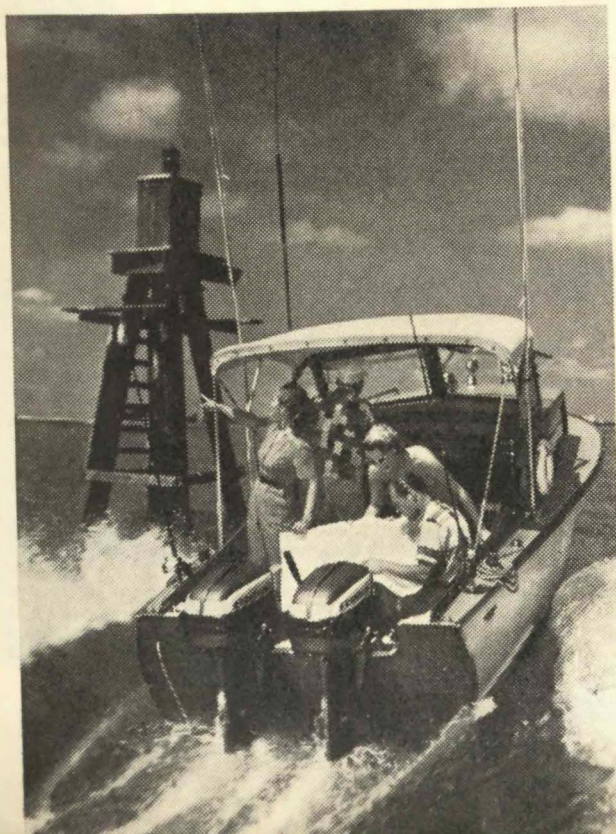
Slow down and use caution in approaching docks and harbours, respect the property of others by refraining from being a "cowboy" at any time. Don't take your boat too close to swimmers or fishermen. Remember, your boat has no brakes. Learn the seagoing rules of the road, and observe them.

Always be sure your boat is rated as being able to safely handle the maximum horsepower of the motor which you attach. Don't crowd a small boat beyond its rated motor horsepower. Don't carry too big a load. The number of seats in your boat doesn't always indicate its capacity.

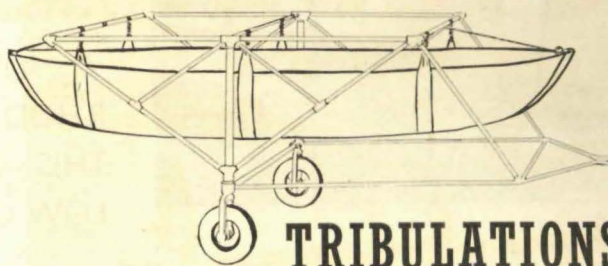
Don't throw refuse overboard to drift to beaches. Punch holes in both ends of cans to sink them and stow other refuse aboard until you beach.

For some fishermen, nothing beats offshore work with an outboard. The partisans hold there's no greater thrill than a catch made from a highly-maneuverable outboard craft. It's fun and it's safe—but only with good equipment. ■

Cardinal principle for offshore work with an outboard should be the use of long shaft motors. Long shafts permit higher transom cut-out and less likelihood of taking aboard water in a following sea.



BID TO END TRAILER



THE trouble with most boat trailers is that one has to spend quite a lot of money on an article which has extremely limited uses... for 99.9 per cent of the time the boat trailer is not being used... it's just lying about the garage, or being fallen over and cursed at, in the yard. Then the owner buys another boat and has to get another trailer...

Another thing about boat trailers is that one has to pick the boat up to put it on the trailer and that is a job that requires help from the neighbours, the wife, and other miscellaneous small fry.

In fact boat trailers are useful only when you need them and then of course, you need them... for the rest of the time they are just a dead loss.

Which being so I have invented a trailer that's different... and of course, better.

With my trailer you don't have to pick the boat up to load it, you just run the trailer over the boat and by dint of a small pulley you pull the one end up, then you walk round and pull up the other, fasten the centre strap and clip the torsion bar across between the wheels... it's a piece of cake, honest!

Another advantage of my trailer is that it can take different sizes in boats—sharpies, sixteen footers... but no catamarans, please!

And lastly, this trailer HAS OTHER USES. It can be converted to carrying the vegetables, or the garden soil... just sling a large box instead of a boat... It can be used as a tent or beach hut... wheel it down to the site, unclip the torsion bar and sling a "tarp" over it... sleeps four, easily. Or if you are in despair with your four year old... hitch a swing to the centre supports and let the kid rock himself to sleep... What an invention!

One of these days I'm really going to invent a way of making money... In the meantime those interested in owning a gem such as stated above contact J. Jackson at Zeekoevlei, and he will be delighted to make you up one... he is good at that sort of thing!

F. S.

*We bows to the Sunday Sailor
who thought "a head" was something you worried about
the next morning.*

THAT £160 F.D.

(Continued from page 20)

and leach and foot are sewn. Sew wire into luff, the seam approximately 1 in. wide. By hollowing out, or with a slight roach of the luff, the genny can be made to be used for strong or light winds.

The yarn used was real polyester Terylene, quite thin, which was obtained (by favour) from a wholesale importer of thread. The reel cannot be fitted on the sewing machine in the usual way, but must run through a loop, and the conical spool must be fitted on a stick (similar to knitting-machine wool) which does not turn round. The result, however, was excellent.

JACK KÖPER

FOOTNOTE: There are two short textbooks on sailmaking. The first, from America (*Sail-making Simplified*, by Alan Gray, Rudder Publishing Co., New York), makes a mystery of the niceties of the business; the second, from England, pooh-poohs the pundits and is called *Make Your Own Sails* by Bowker and Budd, Macmillan & Co., London.—Ed.

*We bows to the Sunday Sailor
who thought "a jib" was something you got from
the "Swapchest".*
