

# Westerly 22



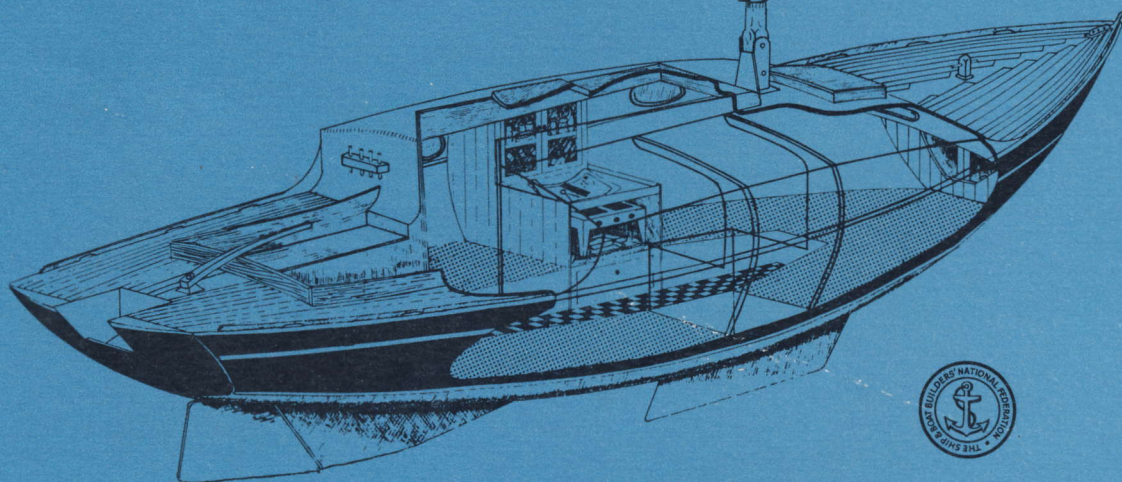


# Westerly 22

a 4½ ton (TM) twin-keel four-berth sloop  
designed by D. A. Rayner and  
built by Westerly Marine Construction Ltd  
members of the Ship & Boat Builders'  
National Federation



Built to Lloyd's series production schedule





# There's something

Success in designing small boats depends on finding the best answer in every case of compromise—and this can only be achieved by living for long periods with the result of your decisions. Experience shows which ideas work in practice and which don't. Our designer has many years' experience of going to sea in small boats, and as a result *Westerly 22* is a good boat to live aboard.

## about a

She looks, and is, a real 'little ship'; one which will be the envy of others and stamp her fortunate owner as someone who knows what a boat ought to be.

## Westerly 22

You can take her to sea in weather that will deter much bigger vessels. And, even if you are not that sort of sailor but just want a quiet time, it is comforting to know that, if you are caught out, you have something beneath you which will bring you home safely. Confidence in your boat is the best recipe for enjoyment at sea. A *Westerly 22* will give you that confidence.

# How we designed the Westerly 22

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*CUSTOMERS' NEEDS - BASED ON EXPERIENCE - CAME FIRST*

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**BY D. A. RAYNER**

IN THIS DESIGN we have done our very best to get away from the normal appearance of a plastic boat. Two heavy teak rubbing strips on each side go a long way towards achieving this aim. The decks, after special preparation, are painted with International non-slip deck paint. The toe rails, the cabin hatch and the cockpit are of teak. We believe that in this boat we have

made the best possible use of old and new materials, and a really shipshape appearance is the result.

*Westerly 22* is a twin-keeled sloop, with full hydrofoil sectioned keels toed-in  $2^{\circ}$ . The twin keels and the skeg form a three-point landing so that she always settles easily when she dries out or is put on a trailer. The skeg on which the rudder

is hung is far enough away from the keels to avoid hydrodynamic interference between one keel appendage and another. The rudder blade is turned well up to avoid damage when grounding.

The twin-keel design, with the ballast weights on the keels, ensures that a *Westerly 22* makes very little leeway; also, it makes her remarkably stable. The hydrofoil acts in the same way as an aeroplane wing; it develops 'lift' towards its curved surface, and this produces a thrust to windward. On the wind, her performance is a great deal better than many keel boats, and when running the twin keels and long skeg hold the ship to her course; she always feels even larger than she really is. Her great stability is a result of the high ballast/weight ratio attained by the use of glass fibre construction. This ratio is 42 per cent. This should be compared with the ratio for most wooden cruising yachts which is more generally in the region of 33 per cent. A *Westerly 22* will heave to, and she is so well balanced that she can be handled under either mainsail or jib alone.

#### **Built to Lloyd's series production schedule**

Everything about the hull and decks is built under Lloyd's supervision and to their approval. The much-prized certificate can only be obtained after Lloyd's surveyor's closest inspection of the factory and of the boat during its building. Each hull is supplied with a Lloyd's Certificate. This will be found in the future to have a very large effect on the second-hand value of any plastic boat built since Lloyd's introduced this extremely worthwhile standard.

In the manufacture of plastic-reinforced laminates, the factory building itself, as well as the skill of the workmen, contribute to a satisfactory product. In our new buildings, thanks to cavity brick walls and insulated roofs, with fans and heaters which control both temperature and humidity, we achieve a standard of resin cure which cannot be improved upon by any other boat builder. It is on the carefully controlled transformation of the wet mat into a solid laminate that success depends.

A good plastic laminate is stronger and lasts longer *with less maintenance* than any other boatbuilding material yet devised. The Royal Navy now use it for all boats under 32 feet long, and, at both the Hamburg and New York boat shows in 1964, more than fifty per cent of the exhibits were classed as of glass fibre construction.

We are always pleased to show prospective purchasers round our plant, where visitors are very welcome to see full details of the construction both in drawings and fact.

#### **Fire risk reduced**

There is no greater fire risk with glass fibre than with wood (and wood itself, when it has been built into a hull, is not easy to ignite). Fire at sea is neither caused nor prevented by the structure of the ship. It comes from what is carried in her and is nearly always the result of bad stowage or faulty handling of inflammable liquids or gas.

We, as designers, cannot prevent mistakes at sea, but we can at least build our boats with special and adequate compartments for the two most dangerous liquids - petrol and bottled gas. For these we have provided safe stowage in a way which we do not think has ever been done before in a boat of this size and price. Two separate watertight and vented spaces have been built into the stern. One of these will hold two gas bottles and the other a five-gallon petrol tank. The floors of both compartments slope aft and have open drains through the counter so that any spillage or leakage can immediately escape outboard. With this arrangement, there is a very great reduction in the fire hazard, and in our opinion this should be obligatory on all cabin cruisers.

#### **Economy**

It is now generally recognised that boats of glass fibre construction are more economical to maintain than those built of any other material, both in ease of maintenance and in freedom from large repairs. Two people working for two weekends should be able to complete with ease the



annual maintenance.

So much for the short-term view, but real economy should be considered over the normal useful life of any product. In the course of years many wooden and steel boats develop defects which call for heavy expenditure if their fabric is to be kept in perfect condition.

The US Customs Authority has recently completed a ten-year trial and has reported exhaustively on three boats built of glass fibre to the same common design as their boats with wooden and steel hulls. At the end of the ten-year period the glass fibre hulls, tested scientifically, showed no significant deterioration, and carefully kept cost figures proved the remarkable economy in maintenance of the laminated plastic construction. The maintenance costs of the three boats examined were in every case *less than one-fifth* of the cost of wooden or steel hulls in comparable service.

In other words, glass fibre can offer, over the years, an 80 per cent reduction in maintenance cost.

#### **Design for spaciousness**

The feeling of space in the cabin is a continual surprise to visitors. The space taken up by each item has been so carefully regulated by experienced design that the cabin feels even bigger than it really is. There are over 64 cubic feet of deep and easily reached lockers in the cabin furniture, besides four drawers, pan locker, galley, sink, cupboard and adequate hanging space. Our drawings give an overall impression of the lay-out and appearance of the cabin, but only a visit can really give an idea of the comfort aboard.

There are two 6 feet 6 inch berths and two 6 feet 3 inch forward berths which can be made into a double by inserting an additional mattress between them. If required the forward compartment can be made into a separate cabin, ensuring privacy.

A marine-type lavatory is fitted in the forward cabin, and a double-burner cooker and sink amidships.

In the cabin, the ship's side is panelled in foam rubber and Vynide to match the cushions. This keeps the cabin cool in summer and warm at the beginning and end of the season.

In really cold weather, the cabin can be warmed by using the Calor-gas operated cabin heater which we have designed especially for use in our boats.

#### **The cockpit**

The cockpit is self-draining, with sea-cocks fitted to both drains. All the woodwork, seats and floor are of African teak. The seat backrest is deep and set at a comfortable angle against which to lean. A lifting tiller is standard equipment, and greatly increases the effective size of the cockpit.

#### **Advantages of the outboard engine**

Now that outboard engines are so very reliable, and those with rubber mountings so quiet, there are great advantages in adopting this type of engine for auxiliary yachts of medium tonnage. After all, it is not only the machinery of an inboard engine that takes up space; the stowage capacity of every compartment through which the exhaust or petrol pipes lead is reduced.

Again, it is not merely in the context of space that the outboard scores. When sailing, the propeller is lifted clear of the water. There can be no drag from a raised outboard. The after deck has a well into which the engine-head may be tipped when not in use. The engine can be left locked on the counter throughout the year. Another material point: the very best outboard is a great deal cheaper than the fitted cost of even the cheapest inboard engine.

#### **Choice of rigs**

The hull will take either the Gunter or the Bermudan rig with equal facility; both give very much the same performance. The main advantage of the Gunter rig, in 'family' sailing, is the ease with which it can be reefed without leaving the cockpit. In this rig, all the halyards lead aft to pinrails within reach of the helmsman.

This is a big point for the man who may be at sea with just his wife and children for crew.

We feel that the masthead Bermudan rig demands a stronger crew to handle the big working jib which is so much part and parcel of this rig; while in some people's eyes the longer mast of this rig will give the boat a better look when at anchor than the shorter Gunter mast. So we think this choice is a matter for the individual, who will know the strength of his normal crew.

### Trailing

A trailer not only enables you to visit new

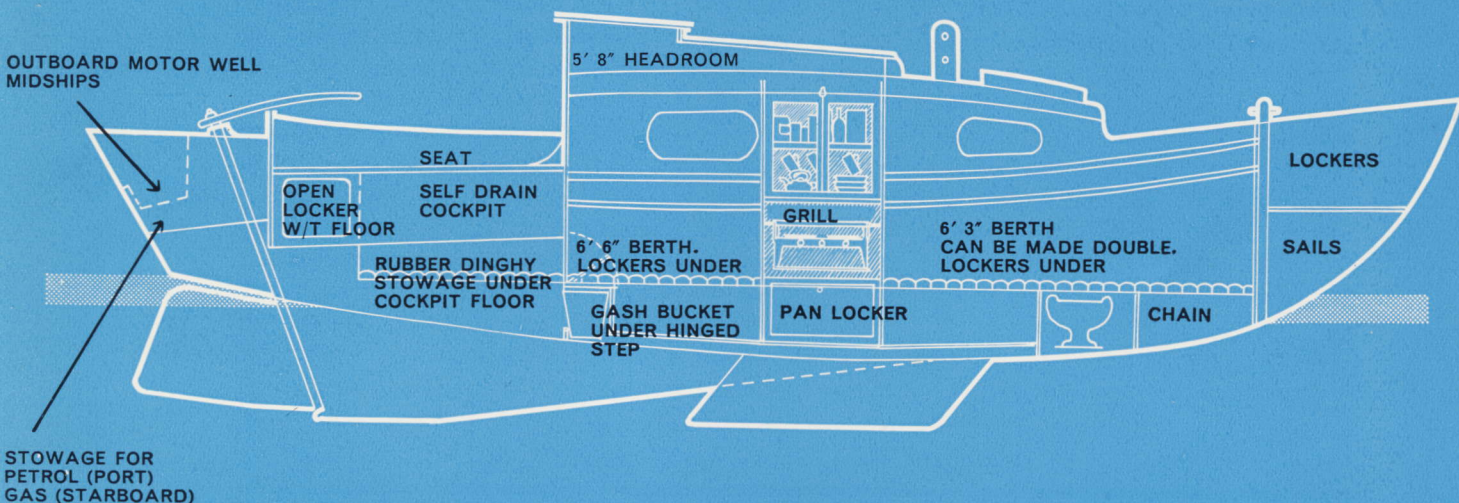
cruising grounds for holidays without the fear that bad weather will prevent your return to your home port - it also allows you to take your boat home for the winter. Even for a busy executive, the small amount of servicing required by a glass fibre *Westerly 22* makes this a reasonable proposition.

It is not necessary to have a special towing vehicle. When on the trailer designed by us for our own boat, she will trail easily behind any four-gear car of over 1,800 cc (and an automatic gear change seems to make no difference). Indeed, cars of as low a capacity as 1,500 cc have towed greater weights over selected routes without damage.



Ready to leave No. 1 factory. A *Westerly 22* on her trailer.





## SPECIFICATION

**LENGTH OVERALL** 22ft 3in Length waterline 18ft 4in

**BEAM EXTREME** 7ft 5in Beam waterline 6ft 6in

**DRAUGHT** 2ft 3in

**HEADROOM** 5ft 8in

**TRAILER WEIGHT** 27cwt

**DISPLACEMENT** with crew and cruising gear 32cwt

### SAIL AREA

	sq ft
<b>Gunter</b>	232
Main	157
No. 1 Jib	75
No. 2 Jib	34
Spinnaker	150

	sq ft
<b>Bermudan</b>	227
Main	120
No. 1 Jib	107
No. 2 Jib	63
No. 3 Jib	31
Spinnaker	216

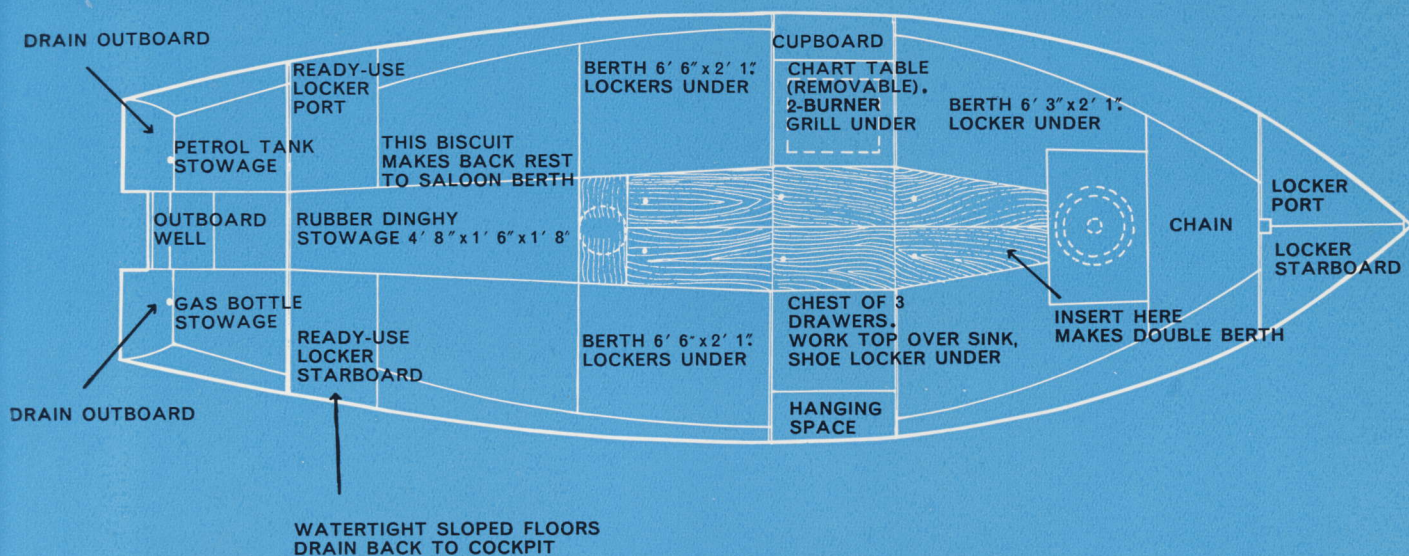
**BALLAST** 475 lb each keel. Total 950 lb

**SKIN AND DECK** Colour impregnated polyester resin laminate to current Lloyd's specification

**MAIN FRAMES** Laminated top hat section to Lloyd's specification for reinforced plastic yachts

**HOG AND BILGE STRINGERS**  $\frac{3}{16}$ in steel plate of suitable dimensions, laminated into the ship's main structure. The skeg bolts, keel bolts and the fastenings of the mast tabernacle are bolted through the metal plates. Oversize washers prevent damage to the laminate





## COCKPIT SEATS & FLOOR, MAIN HATCH, DECK TRIM AND RUBBING STRIPS

African teak

**INTERIOR WOODWORK** Mahogany marine ply, grain selected and matched

**INTERIOR CABIN SIDES** Panelled in Vynide material over foam rubber

**DECK FITTINGS** Stainless steel, naval brass and galvanised iron

**STANDING RIGGING** Stainless steel  $\frac{3}{16}$ in diameter one/nineteen, swaged ends

**RIGGING SCREWS** Superston stainless  $\frac{5}{16}$ in by Lewmar of Emsworth

**BLOCKS** Stainless steel strapped blocks by Gibbs of Warsash

**RUNNING RIGGING** Prestretched Terylene by British Ropes.  $1\frac{1}{8}$ in circumference three strand for halyards,  $\frac{3}{4}$ in circumference three strand for lifts,  $1\frac{1}{4}$ in plaited for sheets

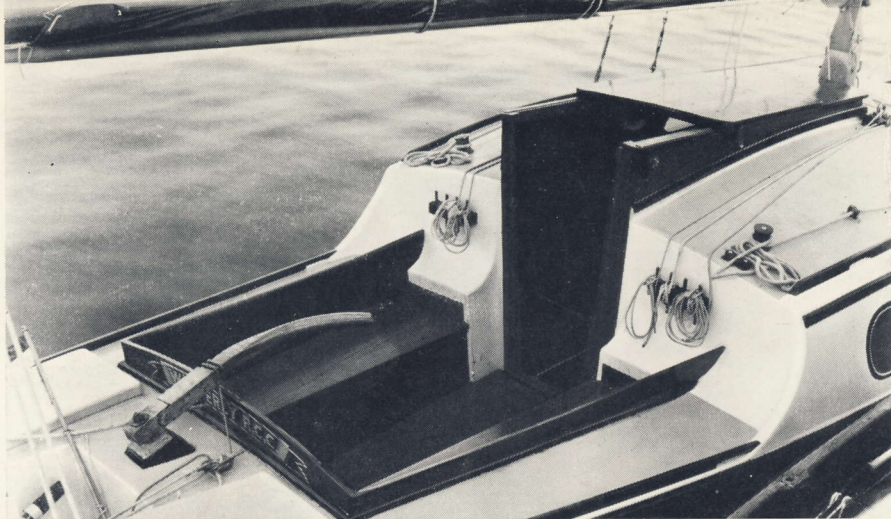
**MAST AND SPARS** Clear grain silver spruce by Collars of Oxford. Stainless steel masthead fittings by Lewmar of Emsworth

**SAILS** 6oz Terylene. Colour to choice. By Jeckells of Norfolk

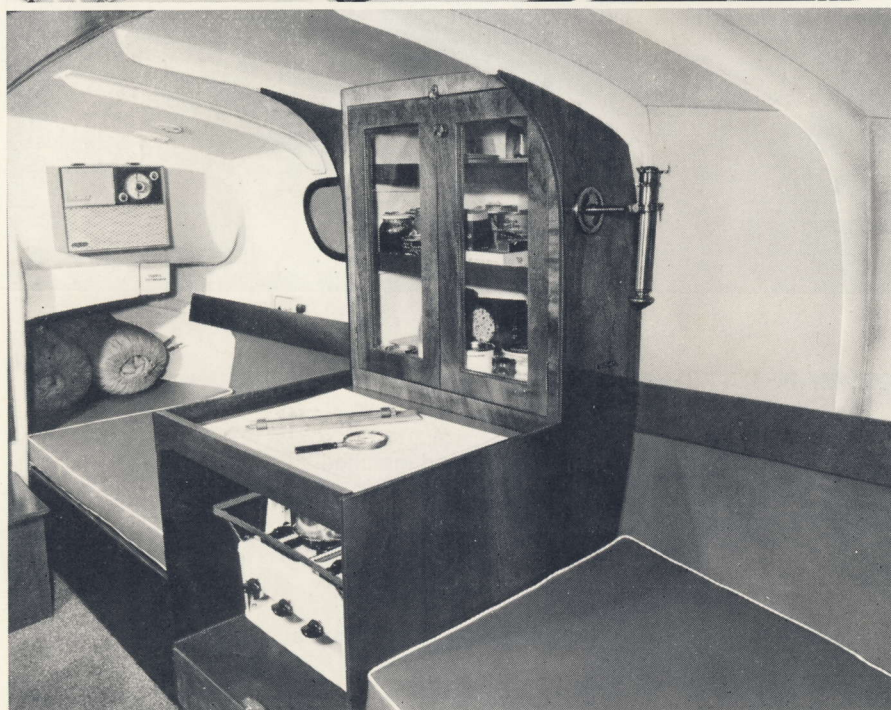
**PAINT** International standard Interlux marine finishes and anti-fouling. Colours to buyer's choice

**SEA-COCKS** All skin lavatory fittings, cockpit drains and the sink drain are with sea-cocks fitted of best marine quality



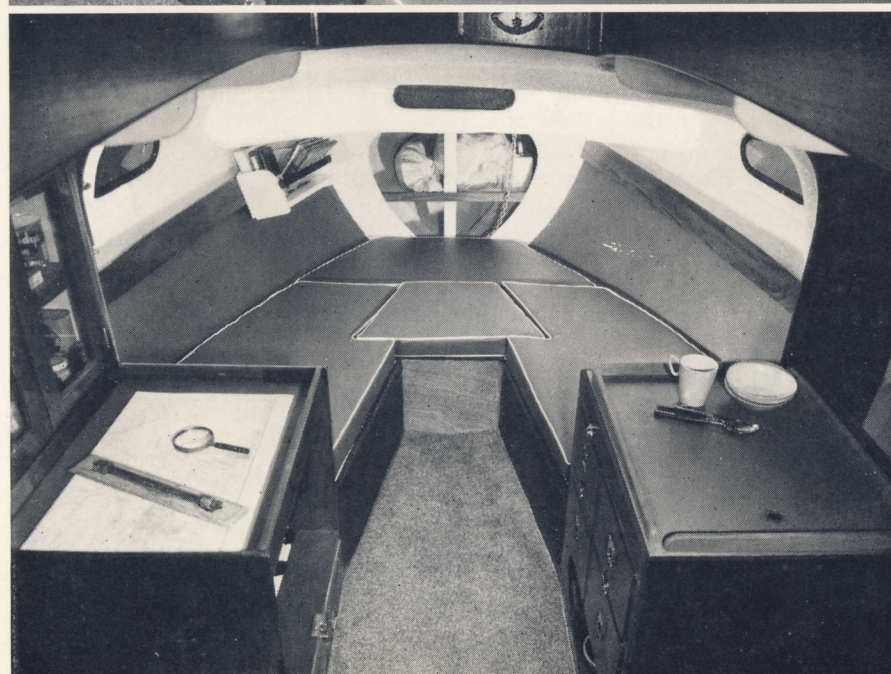


The cockpit of a Gunter-rigged boat with the halyards and the reefing tackle led aft. Plenty of room for four adults



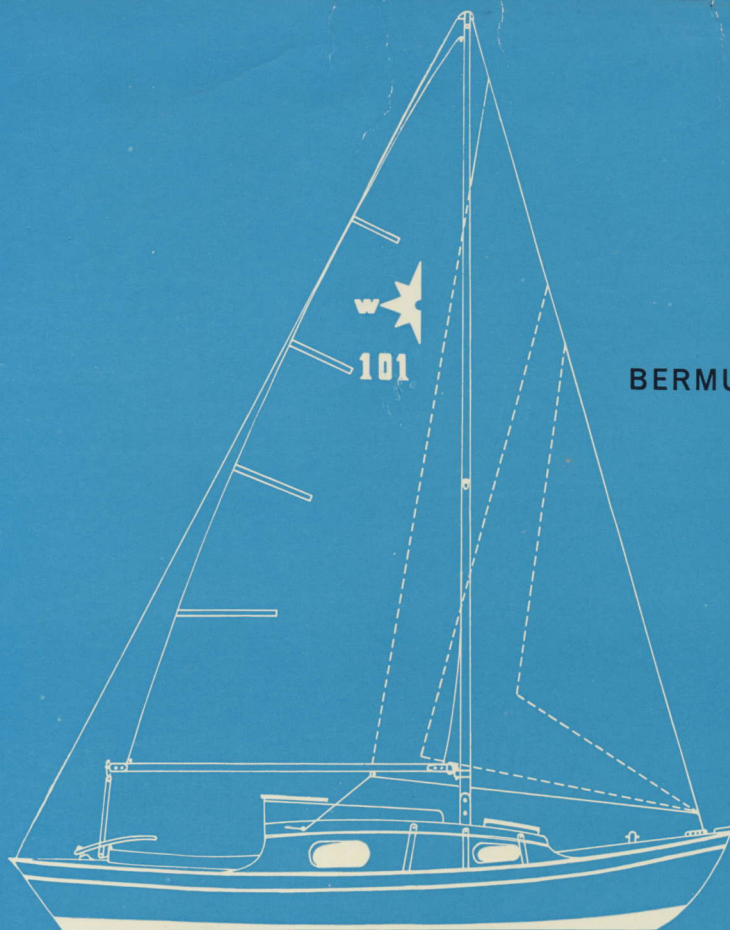
## Aboard the S P A C I O U S Westerly 22

The larder and galley are on the port side. The chart table lifts off to make an extra work top when cooking

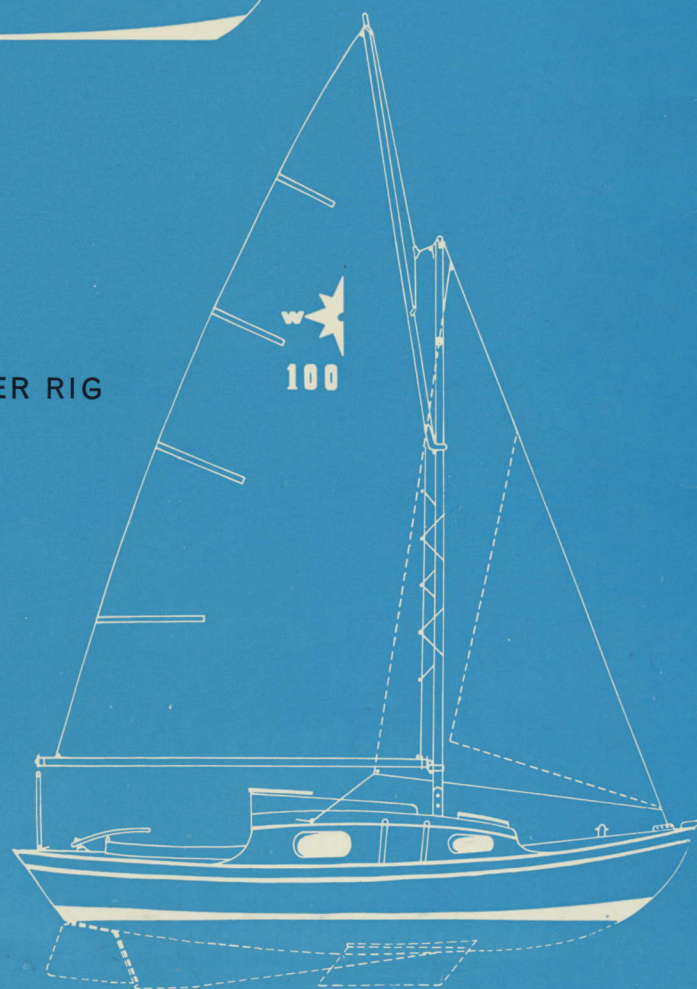


The cabin, with room for nine people to gather in comfort. An insert between the forward bunks makes a double berth or space for three adults to sleep in bags. The sink is under the lifting top on the starboard side





BERMUDAN RIG



GUNTER RIG





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