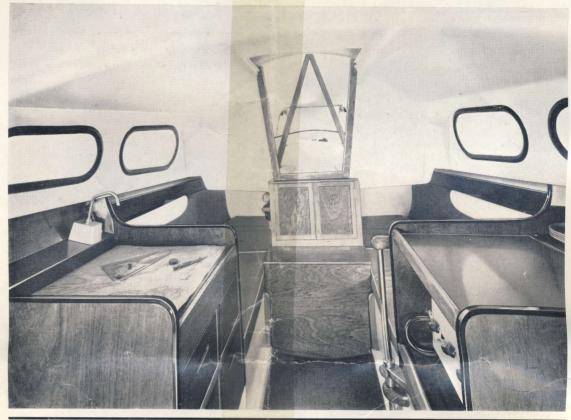


# Westerly 25 is new

... a fast 5-ton cruiser-racer with twin keels and berths for four designed by D. A. Rayner, A.R.I.N.A., and built by Westerly Marine Construction Ltd, who are members of the Ship & Boat Builders' National Federation. The low-drag hull is revolutionary in more ways than one. In a Westerly 25, however hard the wind may blow, you'll have that feeling of confidence and security which is the basis of all enjoyment at sea

The cabin, looking forward





# Introducing the Westerly 25

#### BY D. A. RAYNER, A.R.I.N.A.

westerly 25 is a fast cruiser which in the right hands is capable of putting up a really satisfactory performance under either R.O.R.C. or M.O.R.C. rules. At the same time her light draught and bilge keels enable her to be moored in shoal waters, to make use of harbours which dry out, and to be moved rapidly on her trailer to new cruising grounds or home for the winter.

One might wonder why we chose to design our new boat with bilge keels instead of a single central skeg. But besides the advantages already listed – and they *are* pertinent – there are others no less important. Properly designed bilge keels (with the ballast carried on the keels and not on the centre-line) can provide a very great righting moment. The stability curve of a *Westerly 25* at 90° heel gives a righting moment in excess of 6500ft.lb. Compared with a conventional single keel boat, her wetted surface shows a reduction of 11 per cent, while the theoretical area of the below-water hull over which laminar flow (as distinct from turbulent flow) may be expected is quite markedly greater.

But all these theoretical claims are useless

unless they can be transformed into workable hydrodynamic shapes – and this is where glass fibre comes in. With the infinite plasticity of this modern medium we have been able to obtain curves which in wood or metal would be either quite impossible to build or uneconomic to obtain. Glass fibre gives enormous strength in curved (or arched) surfaces. It permits a degree of 'fairing' of the underwater shape never previously obtained except in yachts built regardless of expense. In the low-drag hull of *Westerly 25* we have used this material to produce a perfectly faired hull and as a bonus we find that the more these curves add to her performance the more they increase her strength.

There is just one further point – hull balance along the fore and aft axis. We have designed Westerly 25 so that the centre of buoyancy of the hull shifts neither forward nor aft even when she is heeled to 90°. The shift of the centre of buoyancy aft on heeling is one of the most important factors affecting 'weather helm'; if the same calculations were to be made for many small cruisers it would be found that the centre of buoyancy had moved aft as much as 10 per cent of their waterline length even for angles of heel as low as 25°. Careful design on the drawing board can guarantee satisfactory performance at sea.

#### **Built to Lloyd's**

Westerly 25 is built in a Lloyd's approved factory to Lloyd's Rules for the Construction of Reinforced Plastic Yachts and the prototype hull is subjected to the most rigorous tests before being passed for production. This is your guarantee of safety and of the quality of our product. An individual certificate is supplied with each boat and this, in years to come, must greatly increase the resale value of your boat.

### A sophisticated sailing machine

Our first design, Westerly 22, was a family cruiser planned for case of handling and safety at sea with small or inexperienced crews. Westerly 25 is a rather more sophisticated sailing machine. In this ship the self-draining cockpit is larger

so that the increased sail area may be handled more conveniently and, because her crew may be frequently called on deck for sail changing, we have given her conventional side decks. We can also provide (as extras) adequate pulpits at both bow and stern and full-height life lines.

### Good appearance is important

We believe that a plastic boat without any wooden trim is shunned by most yachtsmen. So, while using glass fibre to give the minimum amount of maintenance, we have carefully sited just sufficient teak wood trim to ensure that *Westerly* 25 has the look and feel of a real ship. In fact many people when they first see her do not believe she is built of laminated plastic or even came out of a mould!

## The large cockpit – ideal for hot weather and warm climates

In addition to providing adequate room for sail handling, the large cockpit (almost seven feet in length) is an ideal shape for living in when weather conditions permit, and this consideration has been with us all through the time of planning and building. With an awning over the boom, the cockpit can be a real 'room out of doors'.

## Accommodation designed for spaciousness

The enlarged and more roomy cockpit has not meant that conditions below are cramped. On the contrary the cabin of *Westerly 25* is just as spacious as that of *Westerly 22* and in at least one important aspect it is even better. In addition to increasing the locker capacity to more than 80 cubic feet the extra length has enabled us to fit a marine lavatory in a separate compartment behind closed doors in the forward part of the ship. Added length at the after end has also allowed us to build-in a completely retractable carriage for the outboard motor.

There are two 25-inch wide berths 6ft 6in long and two similar berths 6ft 5in long. There is plenty of light and air. Westerly 25 has two large fixed ports on each side of the cabin top and two opening portholes in the cabin side for hot weather.

## Advantages of the outboard as an auxiliary

We firmly believe that an outboard can provide the auxiliary power for sailing cruisers of this type and size. These engines are very quiet, markedly reliable, convenient to service, have no propeller drag when the ship is under sail, and a leak-proof hull, have the great advantage of not calling for the stern tube and other below-water fittings necessary with an inboard installation. When an outboard is mounted to our design the safety factor is also greatly increased. The petrol tank, as in the case of the calor gas bottles, is carried in a separate compartment which drains outboard. The risk of fire is minimal because any leakage or spillage escapes immediately into the sea. The engine itself travels on a wheeled trolley running in guides. This trolley is controlled by a double link mechanism which locks it automatically in both the extended and housed positions. The engine can easily be raised and lowered by a child using only one hand, and when housed it is completely enclosed under hatches which can be locked. When not in use no one would know by sight or smell that an engine was aboard.

### But if you prefer an inboard . . .

We have at last found a diesel installation which satisfies our demand for efficiency and reliability: the 8 h.p. J L O his poard cir-cooled diesel driving through a Duer an extremely compact tandar. This is not in extremely compact carching, chosen under the volve pit floor but, all machinery which all machinery which all machinery which has be cheap, but cannot be cheap, but reme does give you a proper to you a proper 12-volt care enough to fulfil all the requirement of the proper countries.

With the Duerr stern gear the engine can be run at constant revolutions and the ship's speed varied by altering the propeller pitch. This control is achieved by a hydraulic mechanism worked from the cockpit where there is a visible pitch indicator. We have chosen this gear because its drive permits of no blade vibration whatever the pitch.

#### Seakindliness and seaworthiness

All my designs, of which this is the latest development, have proved remarkably seaworthy—often in the hands of novices—and, what is more, they have been equally seakindly and comfortable to live aboard. A five-ton *Corvette* sailed to Greece and back; *Westcoasters*, three-tonners, have sailed many times across the Channel and around the southern shores of the North Sea; the larger *Westerly 22s* have in their first season cruised as far afield as Norway and Spain, and No. 68 of the class was hove-to for two days in a force 8 gale half way home across the Bay of Biscay. In my opinion the Twenty Five is my



best yet – combining real comfort with speed. As with the *Westerly 22*, the Twenty Five will heave-to for long periods and is so well balanced that she will tack to windward under either jib or main alone.

### The Gunter rig as an optional choice

We had not at first intended to extend our development of the Gunter rig to the Westerly 25, but when two of the first five owners made urgent requests for this rig we agreed. Fortunately the deck mould had not been completed and so we were able to reposition the heel of the Gunter mast sufficiently far forward to compensate for the altered sail plan.

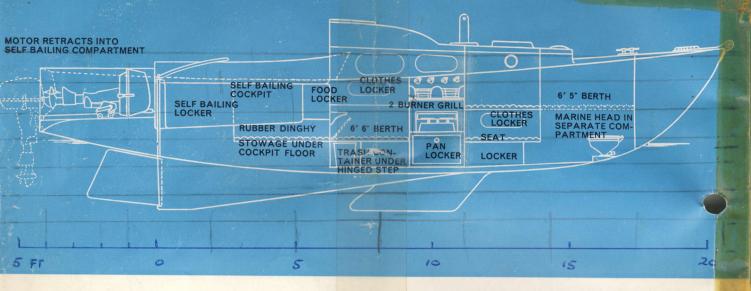
What has the Gunter rig to offer to the owner of a Twenty Five? It allows him to have a really fast hull under a rig which is more easily handled by a small crew and (as in the case of the family cruiser) it can be reefed from the cockpit. It permits a fine ship to be sailed single-handed. When thought of in this light it does indeed seem a worthwhile alternative.

### The Westerly 25 really is unique

In the Westerly 25 we think that twin-keel design approaches maturity. Now we offer you a ship which can not only be kept in shoal waters and easily trailed, but is also capable of being driven really hard in a seaway and can win her races; while on another day she can take your family cruising with comfort, safety and, above all – speed.

You'll not be left behind in a Westerly 25.





### **SPECIFICATION**

LENGTH OVERALL 25ft 1in Length waterline 21ft 0in

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

DRAUGHT 2ft 6in

HEADROOM 5ft 10in

TRAILING WEIGHT 35cwt

DISPLACEMENT with crew and cruising gear 45 cwt

SAIL AREA		sq ft		sq ft
	Bermudan		Gunter	
	(Main & No. 1 Jib)	276	(Main & No. 1 Jib)	252
	Main	146	Main	140
	Genoa	166	Genoa	131
	No. 1 Jib	130	No. 1 Jib	112
	No. 2 Jib	67	No. 2 Jib	53
	No. 3 Jib	32	No. 3 Jib	32

BALLAST 650 lb each keel. 150 lb skeg heel. Total 1450 lb

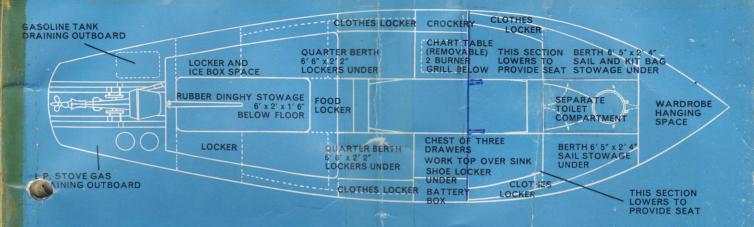
SKIN AND DECK Polyester resin laminate to current Lloyd's specification

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

KEEL BOLTS Each cast-iron keel weighing 650 lb is through-bolted to the hull with five  $\frac{3}{4}$  in stainless steel stud-bolts. Each bolt is capable of sustaining a shear-load of 31 tons. This apparently excessive safety margin is to preclude any bending of the bolts on impact and the consequent leak which might then occur

**RUDDER** The entire metalwork of the rudder stock and trunk is of stainless steel, and the cage around which the glass-fibre rudder is moulded is of the same material. The rudder is of true hydrofoil section, the leading edge fitting closely into a semi-circular fairing at the after end of the skeg. The scantlings of the rudder are in excess of Lloyd's Rules

**TILLER AND TILLER BOX** The lifting tiller of ash is housed in a hinged tiller box of stainless steel. The tiller box is bolted to a split brass block through which the square-topped rudder stock passes. The block can be adjusted for slack by two stainless steel bolts



SKEG AND BILGE KEEL STUBS are integrally moulded with the glass-fibre hull. There is no wood below the waterline. Both the skeg and the stubs have been most carefully faired into the low-drag hull to reduce turbulence to the minimum

WOOD DECK TRIM includes cockpit floor and seats and trim on cabin top and cockpit coaming. All in African teak

INTERIOR WOODWORK Interior furniture, bulkheads; mahogany marine ply. Drawer and cupboard faces and framing; solid mahogany

INTERIOR CABIN SIDES Panelled in Vynide material over foam rubber

**DECK AND MAST FITTINGS** include reefing gear, masthead fitting, stemhead fitting and chain plates; all in marine quality stainless steel

STANDING RIGGING Stainless steel 3/16 in diameter one/nineteen swaged ends

RIGGING SCREWS Stainless steel, patent lock by Gibb of Warsash

BLOCKS Stainless steel strapped Tufnol blocks by Gibb of Warsash

RUNNING RIGGING Prestretched Terylene. 1in circumference three strand for halyards, 3in circumference three strand for lifts, 14in plaited for sheets

MAST AND SPARS Bermudan Rig Metal mast and boom by International Yacht Equipment, South Benfleet

Gunter Rig Clear grain silver spruce by Collars of Oxford

SAILS All fore and aft sails other than Genoa, 6½0z Terylene by Jeckells of Norfolk. Genoa, 4½0z Terylene

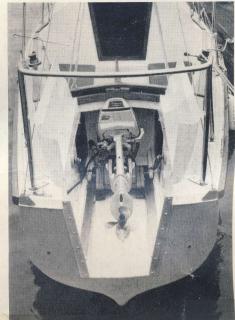
PAINT Antifouling International Hard Racing Copper Exterior Varnish International Polyurethane 101 Interior Deckhead International Korkon

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

Westerly 25



ONE . . .



TWO . . .

The retractable outboard motor



THREE ...



GO!

This retractable carriage and associated linkage is the subject of British Patent Application No. 48437/64



