

The Shoal-draft



“Owning a Southerly is rather like having a small day-sailer for exploring the harbour and a larger cruiser for voyaging further afield”

Keel mechanism

Northshore laminate the Southerly's keel case as part of the hull moulding, which also incorporates a recess for the cast iron grounding plate. This, in turn, is bolted to the hull by eighteen, 12mm stainless steel bolts.

The keel casting itself has a flange at the top that fits snugly into the slot in the grounding plate when it's down. A pair of delrin blocks either side should further discourage any lateral movement in a seaway and, combined with a pin that can be inserted to lock the keel down, should make sure that it behaves like a fixed fin out at sea. Apparently a 115 accidentally dried out on its locked-down keel, suffering nothing more than a bent pin.

The keel's stainless steel pivot, at its forward end, fits into a boss in the grounding plate, while a bronze bearing is pressed inside the corresponding

boss in the front of the flange. This way, the keel mechanism is self-contained and the possibility of leaks virtually eliminated. What's more, the whole assembly can, if necessary, be unbolted and dropped out of the bottom of the boat.

An electrically-powered hydraulic ram raises the keel, operating a 1:2 purchase. In the event of electrical failure, a few minutes' manual pumping with the handle will achieve the same result – the pump lives under the floor between the galley and chart table. Even if the hydraulics were to fail too, say Northshore, you'd simply end up with a fin-keeler – though you could always push the keel back into its case by drying out, then lock it up with the 1½in diameter stainless steel pin.



solution?

If you want a big, comfortable cruiser with a lifting keel, where do you start? **David Harding** looks at the options...

EVERYONE recognises the benefits of a lifting keel on a small boat – trailing and drying out are simpler, you can explore further up the river, and moorings cost less. But what happens when you move up in size? Well, trailability is unlikely to enter the equation, but the other considerations are just as valid – particularly over 35ft, when a fixed keel deep enough to produce a respectable performance can be an inconvenience to say the least. And it's not only close to home that shallow draft makes sense, because even round-the-world cruisers usually spend most of their time exploring harbours, creeks and inlets. After all, why sail across 3,000 miles of ocean unless you get to enjoy the scenery on the other side?

However far you plan to go, the problem is finding a big boat with a small boat's draft –

Since the keel case is an integral part of the hull moulding and the keel pivots in the grounding plate, there's little chance of any leaks.

unless you're lucky enough to live in a part of the world where marina surcharges for multihulls won't cramp your style. If you choose to stay with one hull, the French have their Feeling 36 or, for those who prefer aluminium, there's the Ovni 385 by Alubat. With other choices including the Feeling 33, Afep Marine's Manatée 330, the unusual, twin-boarded Bohème 33 and the larger Ovnis, there's plenty to look at across the Channel. Back on this side, Parker build the Castro-designed 335 but, when it comes to bigger lifting-keelers, Northshore undoubtedly rule the roost with their Southerlys – like the long-running 115, which started life as the 105 in 1979. She evolved into the 115 four years later and now, in Series III guise, is still going strong. Nonetheless, her narrow stern means a small after cabin by modern standards. Similarly, anything more than four is a bit of a crowd in her centre cockpit and, despite counting a circumnavigation among other achievements, she's not everyone's idea of an offshore cruiser. Some might argue that any lifting-keeler carrying most of her ballast on the underside of a shallow, high-sided hull can never be a true, blue-water passage-maker – but when you see a 115 parking on the beach and her crew splashing ashore with their trousers rolled up to the knee, even the most ardent sceptic would have to agree that she has her compensations.

Perhaps her greatest weakness in han-

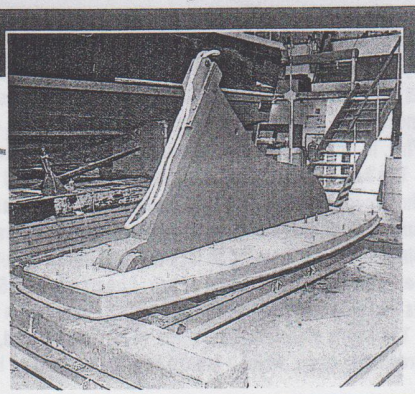
dling terms stems from the shallow rudder. Rob Humphreys was brought in to modify the blade on the Series II when he re-designed the keel, but its lack of depth can still lead to limited grip in brisk conditions.

The next step

Northshore's new addition was, they say, never intended as a replacement for the 115. Even so, they asked Humphreys for something of similar overall length – and this time, as with the 135, he had the advantage of starting from scratch rather than doing the best he could with someone else's old hull. As a result, the 110 benefits from a waterline nearly 3ft (0.9m) longer despite being slightly shorter on deck. Her broader stern leads to a roomier cabin beneath the large after cockpit, and she's undoubtedly a good deal faster. What's more, twin rudders should keep her on track when her older sister might start to struggle.

For all these differences, she borrows one crucial element from her sibling – the keel arrangement. When re-designing the 115's keel, Humphreys discarded the original triangular plate in favour of a higher aspect-ratio section to give deeper draft, a lower centre of gravity, greater hydrodynamic efficiency, and less intrusion inside the hull. As a result, Series II owners have enjoyed more living space, greater sail-carrying ability and an extra knot to windward – which is why only minor mods were made to the keel for the 110. ▣

A 135's keel awaits attachment in Northshore's factory. The whole assembly is bolted to a recess in the hull, so it can be removed for inspection and repair.



Southerly 110 Facts and figures

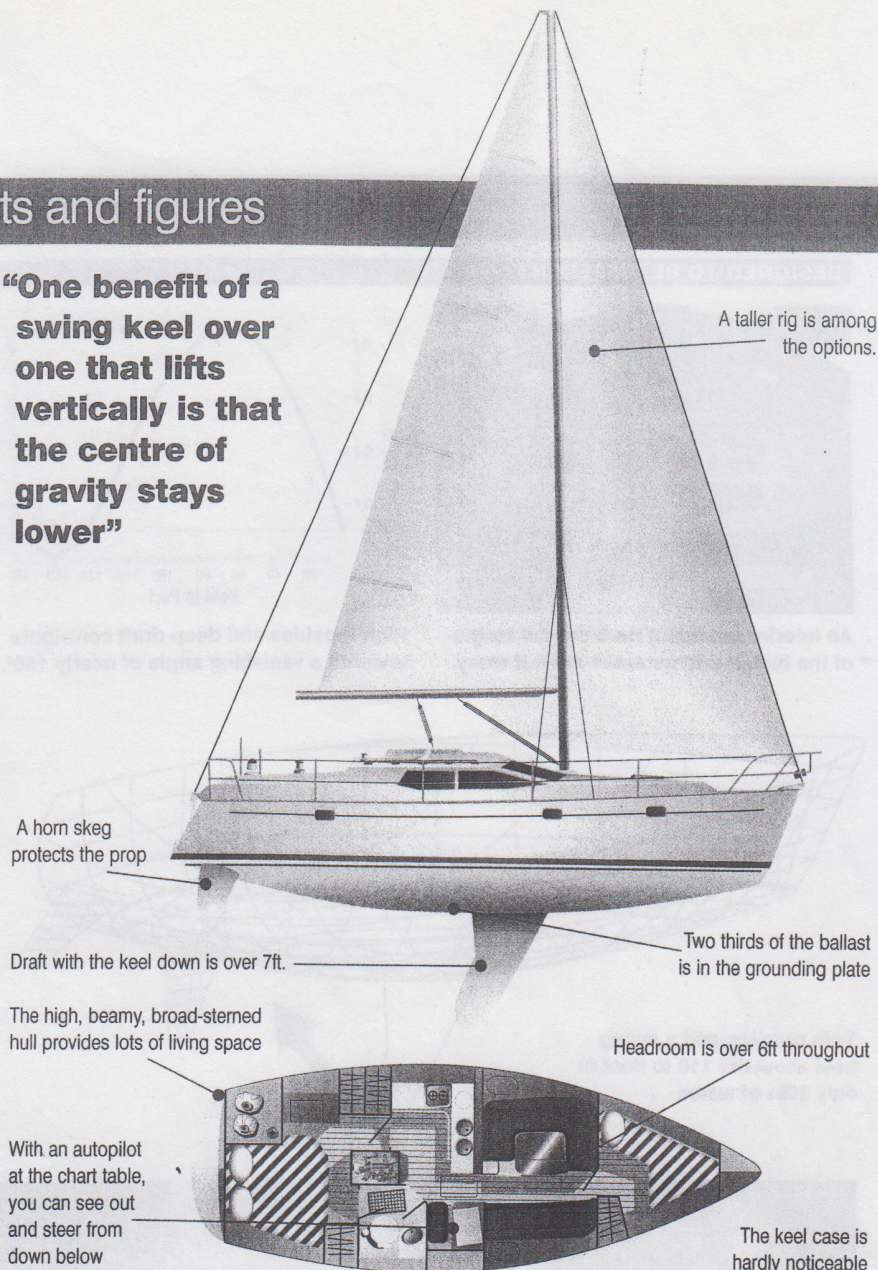
LOA	36ft 0in (10.97m)
LWL	30ft 3in (9.22m)
Beam	11ft 10in (3.61m)
Draft - keel up	2ft 4in (0.71m)
- keel down	7ft 2in (2.18m)
Displacement	13,750lb (6,237kg)
Ballast - grounding plate	4,455lb (2,020kg)
- keel	2,310lb (1,048kg)
Sail area (main & 100% foretriangle)	461sq ft (42.83sq m)
Engine (standard)	Yanmar 3GM, 27hp diesel
Designer	Rob Humphreys
RCD category	A
Price	£130,377 inc VAT

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CONSTRUCTION

■ Behind the outer layer of gel coat – which is clear below the waterline – Northshore use their Nordseal anti-osmosis barrier, a tissue-like polyester cloth saturated with gelcoat. They continue the laminate with a combination of CSM and woven rovings, using balsa in the topsides from 4in above the waterline and finishing with a special paint on the inside of the hull to resist water absorption from within. A full interior moulding runs the entire length of the boat up to gunwale height, forming the bunk fronts and tops, stowage lockers, a cover for the keel case, and landings for the bulkheads. Although the 110 is built in a more modular manner than the 115 – whose deck goes on last – Northshore say that the engine and most of the interior fittings can still be taken out through the main hatch if necessary.

“One benefit of a swing keel over one that lifts vertically is that the centre of gravity stays lower”



▣ As for the engineering, the ballast arrangement and lifting mechanism have been refined over 20 years. The cast iron grounding plate, bolted to a recess in the hull moulding, accounts for about two tons of ballast, with the keel itself providing the remaining ton. This distribution not only gives a ballast ratio of nigh on 50%, but also ensures that stability is only marginally affected when the keel's raised. In fact, the 110's stability curve shows a vanishing angle of nearly 150° with the keel fully down, and we're told the difference is only about 10-15° when it's up.

That's one benefit of a swing keel over one that lifts vertically; the centre of gravity stays lower. There's also less chance of damage if you hit the bottom – because the keel should simply swing back – and no need for a full-height trunking in the middle of the boat. Instead, thanks to the Southerly's raised deck saloon, Humphreys found room for a deep plate that retracts unobtrusively beneath the floor and extends the draft to 7ft 2in (2.17m) when fully down. Since a typical fin-keeled 36ft cruiser draws less than 6ft,

the Southerly's extra bite should stand her in good stead to windward. As a bonus, the variable geometry helps balance the helm.

And to dry out? Just pick your ground carefully, as you would with any boat, and nudge her gently in to the beach. When the water disappears, she'll sit quite happily on the grounding plate with the rest of the hull protected from any small lumps.

Going to ground

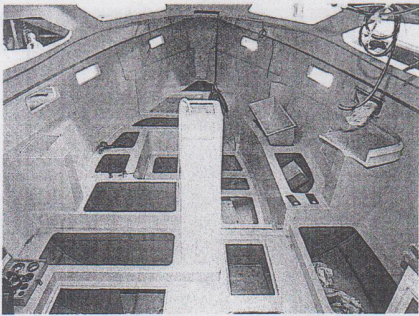
We grounded twice during our trial – deliberately, I'm pleased to say. The first time we edged up to the windward side of the channel, sailing close hauled, and carried on until we stopped. Getting off was simply a matter of backing the genoa, though Robert Hughes from Northshore had his finger ready on the keel-up button just in case. Later on, after stopping alongside the quay at Emsworth for lunch, we edged the bow into the beach at East Head so I could jump off and take some photos – both manoeuvres we could never have contemplated with a fin-keeler. Owning a Southerly is rather like having a small day-sailer for exploring the

harbour and a larger cruiser for voyaging further afield.

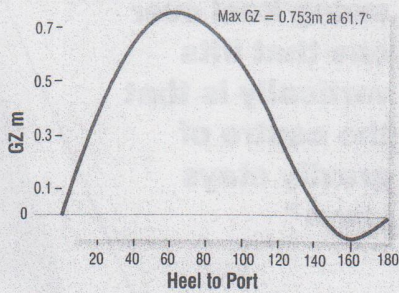
Of course, lifting keels have their drawbacks too. They add cost and complexity, and a high aspect-ratio section like the Southerly's can be stalled if you're really determined. Not that the 110 is difficult to sail – far from it. Although we had no more than 16 knots of wind over the deck in the flat water of Chichester Harbour, she did everything we asked without fuss – even making upwind with the keel fully raised. We made a dramatic amount of leeway and tacking was sluggish, but we still fetched up to windward of where we started.

Thanks to her modest rig (the sail area/displacement ratio is a lowly 13) combined with a wide beam and outboard sheeting, she's not exactly a killer to windward – 5½ knots appeared on the trailing log and we tacked through around 90°. If you want a little more punch, the optional four feet of extra mast would be worth having, together with a folding or feathering prop instead of the standard fixed three-blader. Given her displacement/length ratio of 221, plus

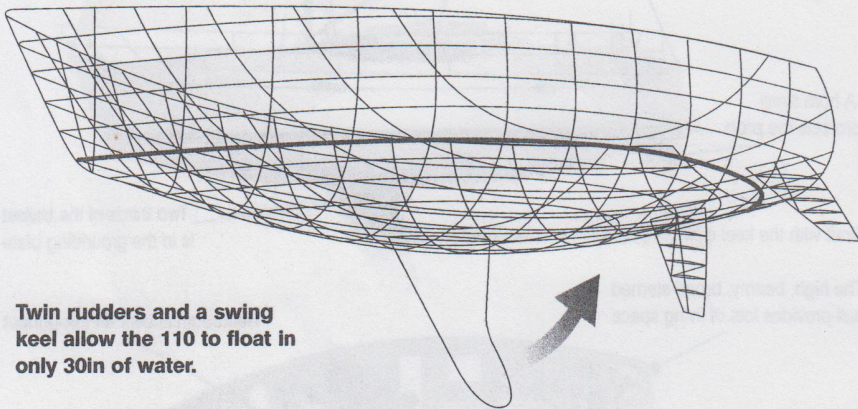
DESIGNED TO BE DIFFERENT



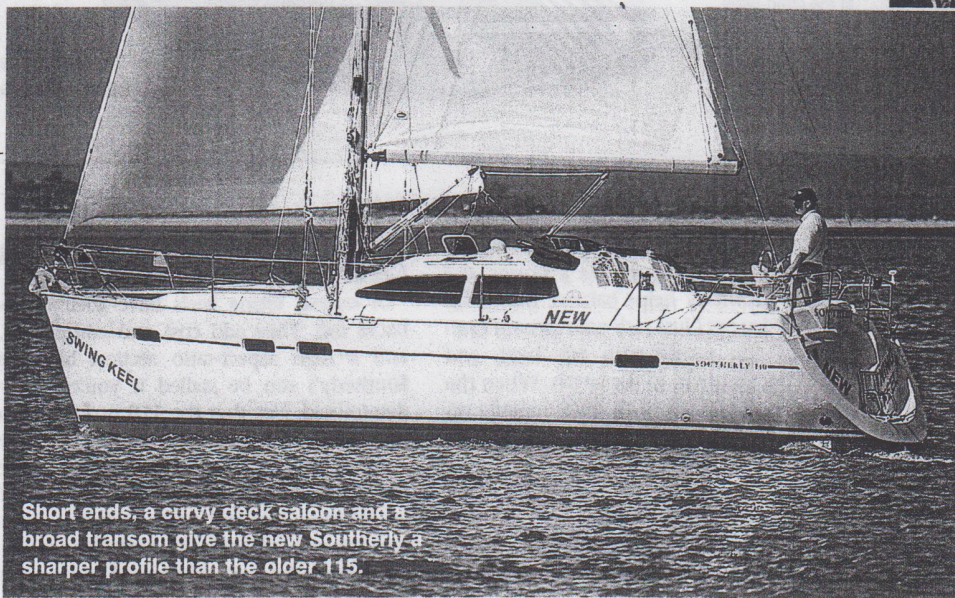
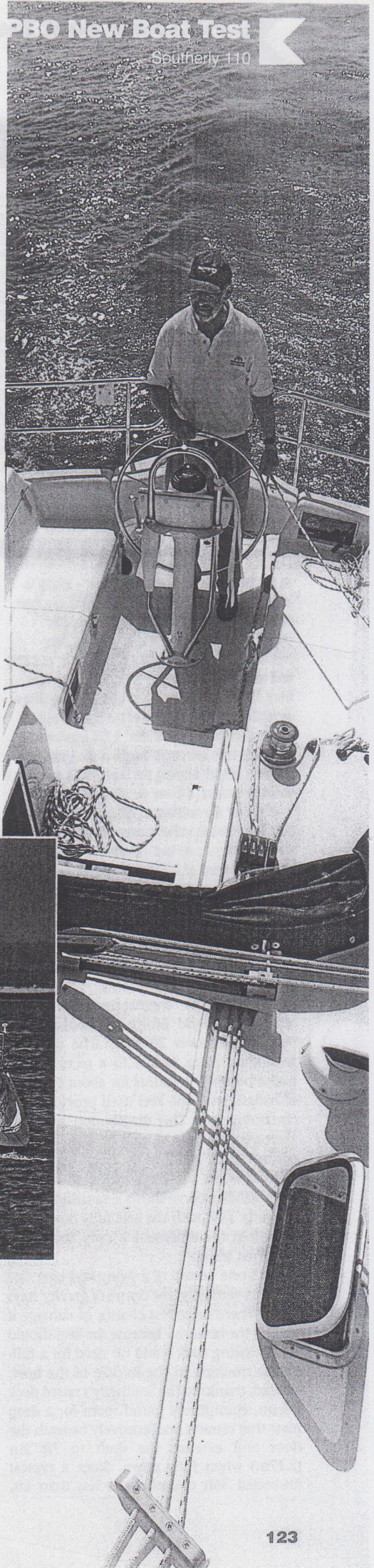
An interior moulding runs the full length of the hull, but large areas are cut away.



High topsides and deep draft contribute towards a vanishing angle of nearly 150°.



Twin rudders and a swing keel allow the 110 to float in only 30in of water.




Short ends, a curvy deck saloon and a broad transom give the new Southerly a sharper profile than the older 115.

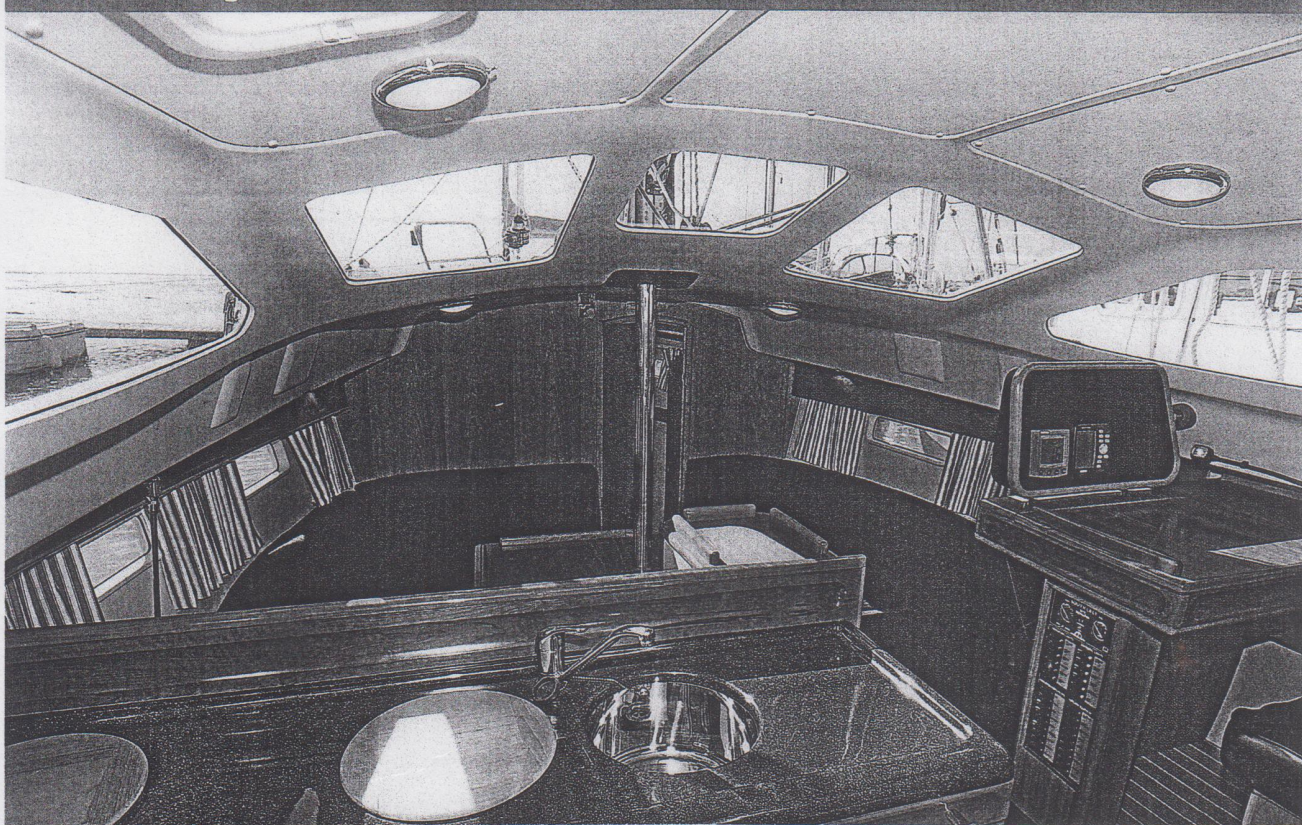
Humphreys' slippery-looking hull and that deep keel, I'd expect her then to start showing her true potential. Performance-conscious owners may also choose to have the traveller in the cockpit rather than forward of the hatch.

In any event, directional stability was excellent and the helm light, though lacking the responsiveness of a single rudder. Another drawback of twin blades – as we found – is that they make excellent weed-

catchers. The absence of prop-wash makes manoeuvring under power in confined spaces more of a challenge, too, which is why a bow-thruster is now fitted as standard.

Otherwise, handling was pleasant under sail and straightforward under power. My biggest gripe was the under-pitched prop, called for by the new 'clean-burn' legislation which stipulates that an engine must reach its full revs when under load. The first thing I'd do is change it for a coarser pitch, 

Southerly 110 Down below

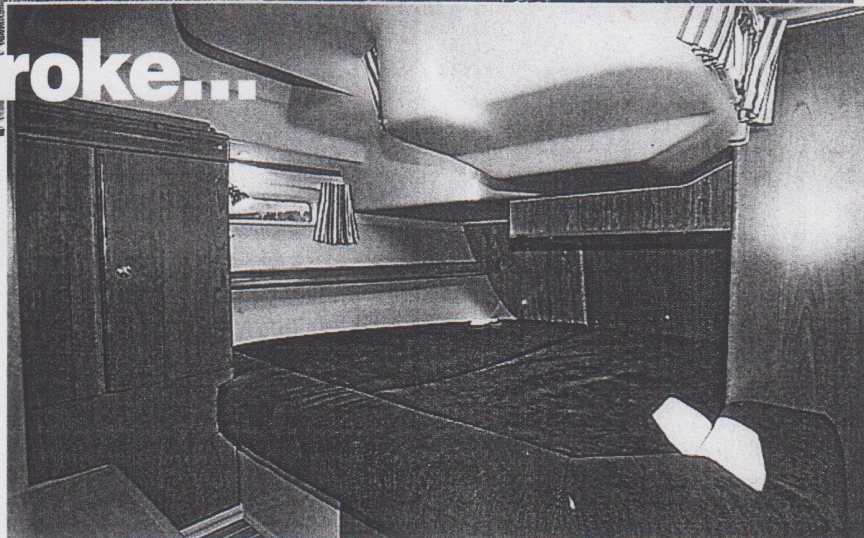


If it ain't broke...

■ Not surprisingly, the 110's interior closely follows the well-proven layout of the 115 with the galley to port in the raised deck saloon, the nav table to starboard, and the saloon ahead of them down a couple of steps.

The keel case is hardly noticeable, its top forming a small fiddled shelf that can be removed if you need to see down inside.

With a comfortable sleeping cabin each end and a heads – complete with wet locker – to starboard opposite the engine, the accommodation is light, airy and generally neatly finished in American Cherry, with little more than the odd bead of sealant to offend the eye.



▣ because I could never live with the Yanmar 3GM toiling away at 3,000 rpm to drive the boat along at less than 6½ knots. Opening the throttle all the way to 3,700 rpm gives you a maximum of 7 knots – still well below hull speed.

Looking forward

As on most modern yachts, headroom in the after cabin is gained at the expense of a relatively high cockpit sole – which in turn means low seats, to ensure the coamings make adequate backrests. But there's plenty of room to move around, good visibility over the coachroof, and ample locker space.

Twin backstays leave the helmsman unobstructed, though he's too far back behind the wheel to reach the Lewmar 44 self-tailing winches.

Moving forward along the side decks with their teak-capped bulwarks, you come to the mast-lowering system – if you've paid the extra £4,500 or so – with the cap shrouds on stainless steel struts to bring their pivot point in line with the mast's. The A-frame was also stowed along the deck of our test boat, though it can be removed.

Given the Southerly's shallow draft, being able to reduce the air-draft relatively easily makes sense – she's the sort of boat you'd

feel tempted to take down through the canals to the Med, where she'd be quite at home. On the other hand, you may prefer to go the long way round. It's nice to have a boat that gives you the choice.



Want to see more? Have a tour of the Southerly on our website:

www.pbo.co.uk

