# STOREBRO ROYAL 400

A reprint from

MOTOR BOAT
A N D Y A C H T I N G

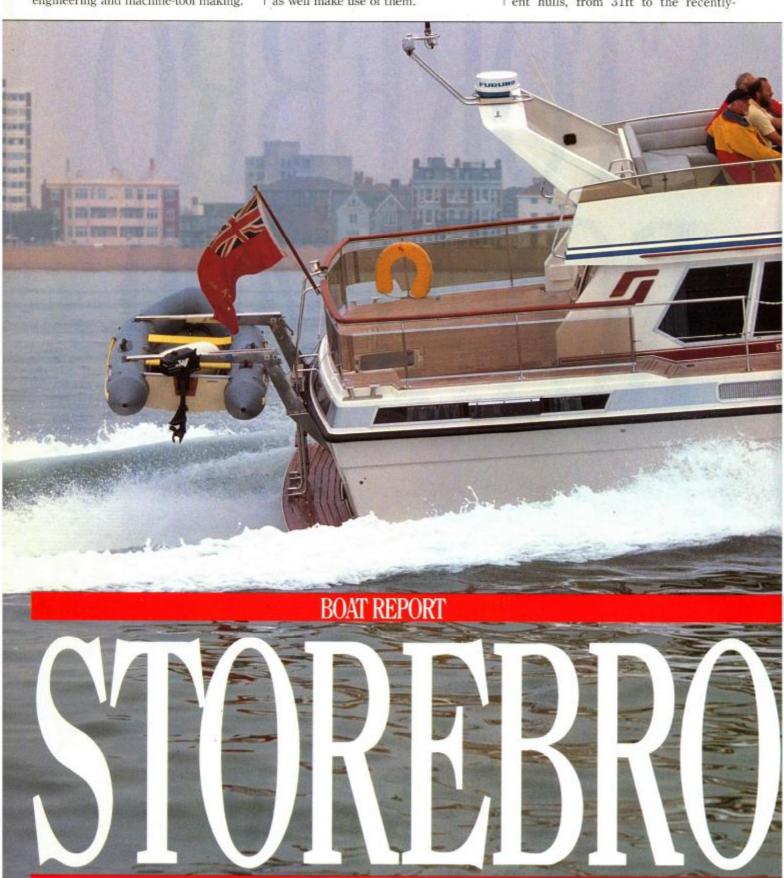
STOREBRO are probably the only boatbuilders ever to have received a royal charter to collect bog ore.

But that was in 1726.

Over the next two centuries, the company developed and diversified in a reasonably logical progression from collecting iron ore into forging and casting; then onto engineering and machine-tool making. Their somewhat surprising move into boatbuilding came about in 1945, when a group of Estonian refugees who had been offered jobs in the company turned out to be boatbuilders, not metalworkers. In a complete reversal of the usual way of things, Storebro reasoned that having unwittingly acquired the skills, they might as well make use of them.

Twenty years later, the boatbuilding section had become a significant part of the company, and had outgrown the premises available for it, so they moved to new workshops on the Baltic coast, and at the same time adopted GRP.

The company now build about 150 boats a year, spread across a range of six different hulls, from 31ft to the recently-



A new addition to the Royal family - a high-quality offshore cruiser from Swedish specialists Storebro, built to

introduced 50ft 500. All six are available with aft cabin layouts, designated Baltic, but other options are offered.

# DESIGN AND CONSTRUCTION

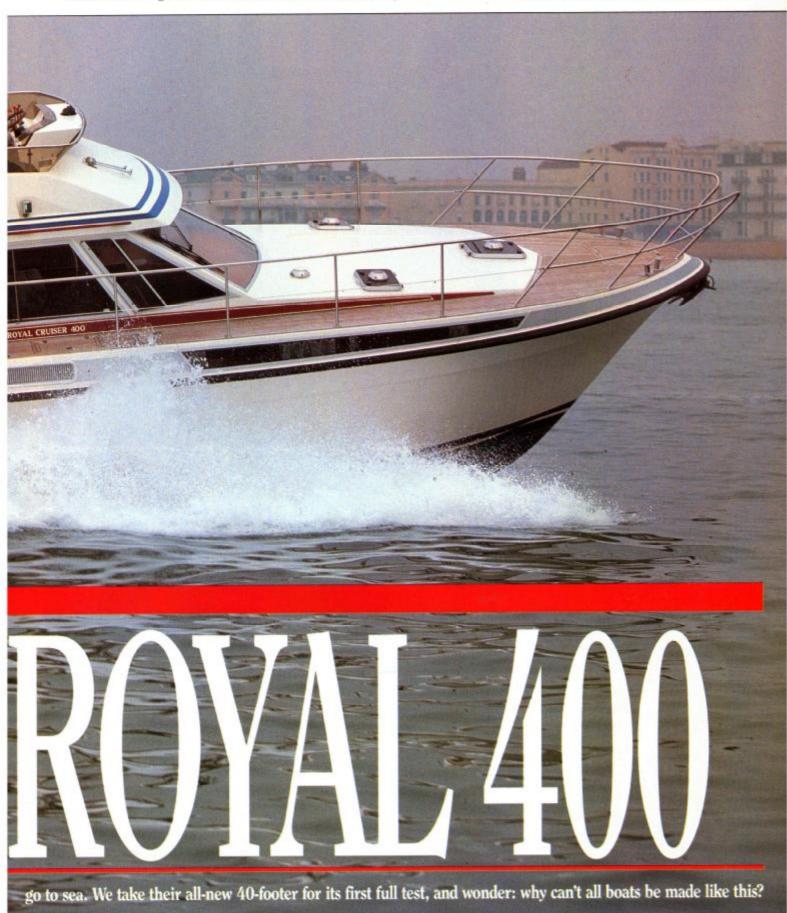
Like the rest of the range, the 400 has a semi-planing hull from the drawing board of Winnfried Wilke.

Wilke seems to regard naval architecture

as an art form, rather than a science: he talks of water flow in much the same terms as an artist might discuss the quality of light. So his underwater sections for the 400 are composed of sweeping, slippery curves, broken only by a couple of small spray rails and moderate chine flats to help water separation at speed, and a shallow skeg for directional stability.

Above the chines, the topsides are concave, with a pronounced flare which continues right aft almost to the transom.

On such a conservatively-styled hull, anything radical in the way of superstructure would look out of place. Besides, with twenty-year- old boats regularly commanding higher prices than when they were built, Storebro's philosophy of sticking to the con-



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ventional must have its advantages; by 2010 some of today's more avant garde designs could look as dated as an Austin Allegro.

Like most of the Scandinavian boats we have come across, the 400 had received type approval from det Norske Veritas, and even by Swedish standards, the specifications and quality of construction were high.

Lay-up weights, for example, are considerably in excess of the 'table shell weights' specified by Lloyds, the interior surfaces were smooth and thoroughly gelled out, all the hidden woodwork had been painted, and every section of the bilge was well-ventilated. Unfortunately, though, it seems even Storebro's plumbers can't resist cutting the odd hole for pipework after the painters think they've finished!

## ACCOMMODATION

The 400's 'Baltic' layout means that the owner's cabin is in the stern, under a fairly high aft deck, while two guests can occupy a slightly smaller cabin in the bows. The galley is on the starboard side, just forward of the saloon, and faces a convertible dinette which could sleep another couple of guests. A seventh person might, at a pinch, sleep on the saloon settee, but essentially this is a boat for comfortable cruising with two or three couples, rather than a waterborne charabanc.

At only just over nine feet square, the saloon is not particularly large for a boat of this size. But it's clear and uncluttered, and with plenty of accessible stowage space, it should stay that way. There's even a custom-made chart store, big enough to take an Admiralty chart folded in four, and a bar with its own fridge and neatly tucked-away sink.

The starboard side is occupied by a Ushaped settee, long enough to seat six
around a bolted-down drop-leaf table. The
forward end of this settee converts into a
double forward-facing seat: a cunning but
overcomplicated arrangement. To port, the
helm position has an adjustable double
seat, behind a traditional wheel and a halfsize chart table. There's an imposing array
of instruments in a walnut fascia, twin-lever
controls and, by the helmsman's left elbow,
an array of switches controlling the boat's
electrical system — not to mention a
purpose-made fitted ashtray and glass
holder.

The chart table lifts, uncovering more chart stowage space, or a separate flap can be opened to reveal the radar set, buried in the console under the chart store. One thing puzzled us though: with charts on or in the chart table, how do you see the radar?

A central companionway leads down to the galley and dining area. The galley is a compact but very practical three-sided





Clockwise from top left: the saloon; the excellent galley; the boat's tool kit, stowed under the mattress in the aft cabin; and the helm, with its chart stowage space.





arrangement, including a fridge, 1½-bowl sink, two-ring cooker and oven all set into a mahogany worktop. Here too, there were clear signs that this boat was built with the sea in mind: masses of locker space with secure catches, fiddles round the worktop, pot-holders on the stove, and teak and holly sole boards to make the inevitable spillages less catastrophic than they would be on carpet.

Opposite, the 6ft 4in x 4ft 2in (1.93m x 1.27m) dinette is on a raised, carpeted platform, with yet more stowage underneath.

The forward cabin seems to extend further forward than many, so the flare of the topsides inevitably makes the foot of the bed rather narrow. Nevertheless, as the bed follows the shape of the hull to reach a maximum width of 6ft (1.83m) this shouldn't prove too much of a drawback.

The plus side of the arrangement, of course, is that it leaves plenty of room further aft, for a pair of good-sized hanging lockers, a useful amount of standing room, and completely separate compartments for the toilet and shower.

Curiously, perhaps, separate compartments are not a luxury accorded to the owner. Instead, the aft shower is separated from the toilet by a folding screen. This more conventional layout seems to make more of the available space, and leaves room for masses of stowage — ideal for extended cruising.

### ENGINES

Lifting the steps between the galley and the saloon reveals not the engineroom, but a second barrier – a slab of soundproof wadding. Once that is moved aside, there is easy access to the engines themselves, in this case a pair of Volvo TAMD 71As, capable of developing 357bhp each.

Almost all engine compartments under saloon soles suffer from a lack of headroom, and this one was no exception, with the sole boards only just clearing the tops of the engines. In this case, however, the engine mounts were fairly high, and plywood panels had been laid over the hull stiffening to leave a clear passageway between the engines, making routine maintenance a simple and unusually pain-free undertaking.

We were surprised to find flexible hoses throughout the fuel supply system: these would not be accepted by Lloyds, although they are admissible under det Norske Veritas rules. That, however, could be considered nit-picking – as we had come to expect, the standard of engineering was otherwise high.

Every cable and wire was colour coded and properly supported, and every seawater hose had been double clipped, whether or not it was below the waterline.

What particularly impressed, yet again, was the care that had been taken over practical details such as remote header tanks >

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for the cooling system, that could be filled through a locker in the saloon instead of having to grub up the saloon sole; stowage in the engineroom for spare oil and rags; and thick insulation, screwed in place with huge washers to make sure that it stays put.

### DECK

Getting around the 400 was safe and easy

not that it could really have been otherwise in the generally gentle conditions of our test. But the wide, laid-teak side decks are almost completely flat, with just a gentle slope up towards the stern, and are entirely surrounded by 2ft 4in (0.71m)

stainless steel guardrails.

Lockers, their lids fitting flush with the surrounding deck, are provided for warps and fenders, with the forward one also concealing the anchor winch. The anchor – a reasonably substantial-looking variation on the Danforth theme – is self-stowing in a hawse pipe just below the stem-head. It's a neat arrangement, which leaves the foredeck beautifully clear, but wouldn't make securing to a heavy swinging mooring easy. For this reason alone, we would have liked to see a conventional bow roller as well.

The flybridge is reached by a ladder from the aft deck, with a well-placed grabrail running up the edge of the superstructure. Up there, there's an L-shaped seat for four or five passengers, and a double seat for the helmsman facing a compact, well laid out console.

Even here, it was the details that caught our attention most: someone had had the forethought to build a tube into each side of the flybridge, to stow a couple of boathooks so that they would be out of the way, but instantly available. And they had covered the instrument panel with a smoked perspex visor to protect it from spray and reduce glare.

Below: the anchor locker, leaving the foredeck clear and unobstructed. Bottom: the view from the top.





# HANDLING AND PERFORMANCE

It was when we actually took the boat out to sea that we began to appreciate all these refinements – and particularly the efforts Storebro had made to keep noise levels down. Thanks to the thickness of insulation around the engine compartment, and the fact that every sole board rests on rubber seals to prevent rattles, noise levels in the saloon were some 5 dB(A) below those we might have expected.

Because the dB scale is logarithmic, that drop of 5dB represents a threefold reduction in noise levels – no mean feat. But what's more, the use of five-bladed propellers and engine exhausts which stay underwater even at full speed have led to similar noise reductions in the aft cabin and flybridge.

Despite the relatively small wheel at the flybridge helm position, the 11-ton boat handled very positively and without undue effort from the helmsman. A pronounced inward heel under full helm made the turning circle feel tighter than it really was, but otherwise the boat felt solid and surefooted, even when crossing the wake of our camera boat – the roughest water we could find.

In close-quarters manoeuvring we were very much aware of the weight of the boat, especially as even at tickover our speed was almost five knots. But the five-bladed props gave a very positive response, and twin lever controls the required degree of finesse: by taking things slowly we found it a remarkably simple matter to back into a marina berth, and, later, to ease her into an alongside berth which left only a couple of feet to spare at each end.

# CONCLUSION

Storebro admit that their boats are expensive — with a wide choice of stylish boats ten feet longer on offer at comparable prices, they could hardly do otherwise. But Storebro show no inclination to bring their standards down to match the competition, preferring instead to sell to 150 customers a year who are prepared to pay what it takes to get a boat that's right in almost every respect.

And on a long passage, those 5dBs alone could be worth a king's ransom.

# TECHNICAL DATA

# DIMENSIONS

Length overall	41ft 6in (12.65m)
Hull length	39ft 5in (12.01m)
Waterline length	33ft 6in (10.10m)
Beam	13ft 4in (4.05m)
Draught	3ft 11in (1.20m)
Displacement	11 tons
Fuel capacity	352gal (1600lt)
Water capacity	132gal (600lt)

# ACCOMMODATION

Two double cabins with ensuite toilets and showers, convertible double dinette. Saloon and galley. Flybridge and aft deck.

# **ENGINES**

Twin Volvo TAMD71A diesel inboards, driving 5-bladed 25in x 29½in (635mm x 750mm) propellers through Twin Disc MG 507A 1.98:1 reduction gearboxes.

Capacity	6731cc 6	
Cylinders		
Max rpm	2500	
Max bhp	357	

# PERFORMANCE

Top speed	24.8 knots
	(Full tanks, 3 crew)
Cruising speed	18-22 knots
Cruising range	280 miles

# CONSTRUCTION

Hand laid woven rovings and chopped strand mat in polyester resin. Foamcored frames and stringers, foam sandwich deck and topsides.

Lay-up weights (reinforcement only)		
Keel	42oz/ft2 (12.90kg/m2)	
Bottom	29oz/ft2 (8.80kg/m2)	
Chine	33oz/ft2 (10.00kg/m2)	
Topsides	14oz/ft2 (4.20kg/m2)	
Deck	11oz/ft2 (3.45kg/m2)	

# PRICE

From	£237,000 ex	VAT
As tested	£251,250 ex	VAT

# BUILDER

AB Storebro Royal Cruisers, S-59083 Storebro, Sweden. Tel: 010 46 492 30160.

# SUPPLIER

Paul Hadley Boat Sales, 30 Westgate, Chichester, West Sussex PO19 3EU. Tel: 0243 785031.

### DESIGNER

Winnfried Wilke, 1988.

