

BOAT REPORT

FLYING
DUTCHMAN

LINSSEN 352



There was a time when buying a 35ft steel-built motorboat consigned you to the ranks of those who prefer to do their cruising at speeds below 10 knots. However, the last three years have been all plane sailing for Linssen.

DUTCH prowess in steel boatbuilding is justifiably renowned, and nowhere more so than at Linssen's yard on the banks of the Maas in southern Holland. Here they produce around 50 craft a year, including traditional round-bilge Vlets, and modern displacement cruisers in the SE series. Their faster SX craft first appeared three years ago at the Düsseldorf Boat Show in the form of an impressive 40 footer, the 115 SX which, with twin Volvo 306hp TAMD 61s aboard, could achieve speeds well in excess of 20 knots.

Southampton last year saw the UK debut of their smaller 35ft 352 SX model, equipped with a pair of 200hp Volvo TAM41 diesels. We lost no time in arranging to test the show craft, actually the prototype, and finished as the most luxurious version — the Royal. Three layouts are available: all have the same aft master cabin and large saloon amidships but offer alternative arrangements forward. These allow for a separate cabin, either with a vee-berth or double bunk, or as in our test boat, an open plan layout with a comfortable dinette. This converts to a further double but makes for a more usable, spacious interior during the cruising day.

Design

Keeping steel hull production costs at a competitive level requires some canny design work to reduce the number of compound curves in the plate. Winnfried Wilke — the German naval architect also responsible for designing the Swedish-built Royal Cruiser range — utilised the Delft test tank facility to achieve a weight conscious, planing hull with simple-to-fabricate convex underwater panels. These sections culminate in wide chine flats running from just forward of amidships to the transom, giving a tight round-bilge section before running into the almost vertical topsides. Although panel curvature is kept to a minimum, Wilke has utilised the chine to achieve a pleasing bow form. This gives plenty of reserve buoyancy forward, with a fine entry and deep forefoot

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that runs into a central skeg.

The result is a seakindly hull, with the added advantage of full standing headroom throughout the vessel without excessive height to the coachroof. The spaciousness of the accommodation is achieved by building a considerable amount of superstructure onto moderate topsides. Its bulk is broken up in well-proportioned steps towards the raised after deck, and this design achieves a creditable air draught — with the windscreen and mast folded — of just over eight feet.

To all intents and purposes, the test boat might have popped straight out of a GRP mould — the hull is that well finished. This is not only due to the hand-sprayed epoxy paint system, but also the computer-controlled plasma arc cutting and welding procedures used in Linssen's almost clinical workshops.

Exterior

Although the 352's freeboard is adequate, its wide, teak-clad side decks are still conveniently low to give safe, easy boarding. Handholds run along the entire length of the

Top left: our test boat featured the open plan layout option, with a dinette forward of the galley. Left: the aft deck steering position follows Dutch practise of not incorporating any fixed seating, but came complete with teak decking. Above: the master cabin aft. Above right: the nicely finished, three-quarter tiled toilet compartment.

coachroof, while 22in-high guardrails top off the extended topsides which form a toe-rail; even the most nervous of guests should be reassured.

The foredeck is easily worked and clear of toe stubbing obstructions. Large stainless steel bollards are sited on plinths incorporated into the toe-rail and well positioned for either headlines or springs. Further bollards amidships also accommodate the latter. A Vetus electric windlass should comfortably handle the 140ft (40m) of chain housed in the foredeck locker. However, a weather eye will have to be kept when letting go, if the chain is not to foul any warps and especially the gas bottle, which also shares this over-used space.

The raised aft deck is again teak-laid to the highest standard and bordered with sturdy guardrails. This area is devoid of any seating, even at the helm position sited to starboard. The Dutch prefer to break out the deck chairs when weather permits. With just the one deck locker forward, some fixed seating providing additional stowage would be an advantage.

Access to the teak-planked bathing

platform is via a wide stainless steel ladder that hinges down into the water. While inspecting the transom, we were pleased to note that the angled topside, above the substantial rubbing strake, has been suitably squared-off to provide a ready, vertical surface to install davits if required.

Solid rubber fendering — which on the test boat ran around both the gunwale and bathing platform — is an extra which costs an additional £2,000. The mooring bollards either side of the transom are well positioned, while the aluminium mast hoop keeps antennas, electronic compass senders and navigation lights out of harm's way. The mast may however need further bracing if fitted with a radar scanner.

The exterior helm position has full Volvo instrumentation including additional ignition switches, log and a compass repeater. The stainless steel wheel enjoys a warming layer of foam and is at a comfortable height — whether you are sitting or standing. Single lever throttles are to the right hand, with your knuckles falling well clear of the robust, folding windscreen.

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◀ Adjacent to the steering position, a companionway leads below. This has a wide but sturdy, solid wood, hinged door and sliding hatch to give good access below, while offering sound resistance to the elements and aspiring intruders alike.

Accommodation

The 352 we tested featured the open plan layout that offers a split level saloon, a serious cook's galley and dinette. This ensures the best possible use of available space for cruising families.

The raised wheelhouse saloon with its helm position to port also offers L-settee seating for five around a free-standing table. Both the windscreen — the centre portion can be opened for additional ventilation — and side windows give an excellent view out for seated guests, also allowing plenty of natural light to brighten the abundance of fine teak joinery.

At the helm, the skipper is well catered for as he sits on a fully-adjustable swivel seat, with a clear layout of engine instrumentation and navigation equipment that includes a VDO log and electronic compass, along with a Seafarer echo sounder. Trim tabs, fused switch board, stereo cassette and control panel for the Webasto heating system — which incidentally is standard — also find niches close at hand. However, this means there is no immediate room for a chart, log or pilot book, so the saloon table has to be brought into play.

All wiring and instrument heads are simple to get at, with the helm console hinging up, and a removable panel, adjacent to the main battery switches by the skipper's feet giving further access. The handsome wood and

stainless wheel is mounted vertically, but drivers with long legs may find it a bit of a stretch to reach the single lever throttles on the console top. Stowage around the helm position is minimal, with a pair of shallow lockers let into the panelling behind the skipper being the only provision. However, for oil-skins and sea boots there is a useful half-height hanging locker opposite.

Those who find boating thirsty work will be relieved to find a small seamanlike bar sited at the bottom of the short companionway leading to the aft cabin. Two sectionalised cupboards safely accommodate bottles and glasses, while on a more serious note, a third door gives access to a locker located in the rear of the main L-settee. This provides a convenient compartment to stow life-jackets, flares and other emergency equipment needed in a hurry. Two lifting panels in the aft portion of the saloon give working access to the shaft logs, shower drain and pressure pumps, along with a calorifier that includes a mains immersion heater.

The galley is made for those that like to use such facilities. Twin enamelled sinks and a fridge (gas, 240 or 12V) are located to port, with the actual cooking facilities — three burner gas hob, grill and oven — over on the starboard side of the central companionway. Outboard of both work surfaces are sliding cupboards for ready use victuals, condiments and hardware, while pots and pans — along with the gas taps — are easily accommodated in a base unit next to the cooker. A row of three deep cupboards, with sensibly fiddled shelves, runs under the sinks to provide stowage for bulk items, a drawer under the fridge takes care of the cutlery. Another locker adjacent to the hob requires a little further



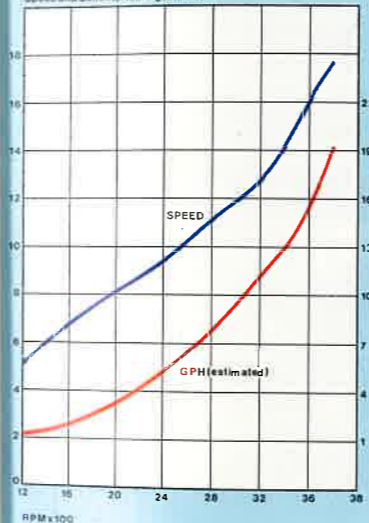
Linssen 352 SX Royal

Engines: Twin Volvo TAMD 41A diesels. 200hp at 3800rpm, 3600cc, 6 cyl.

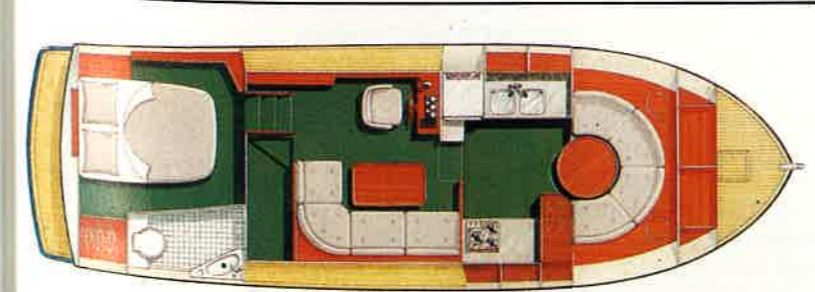
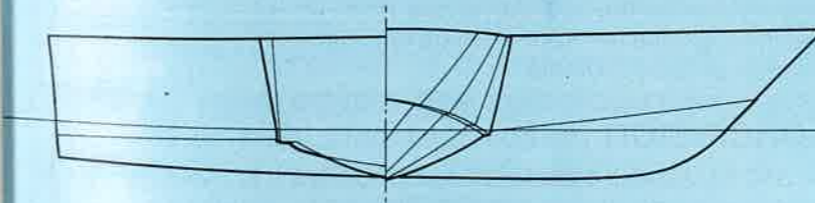
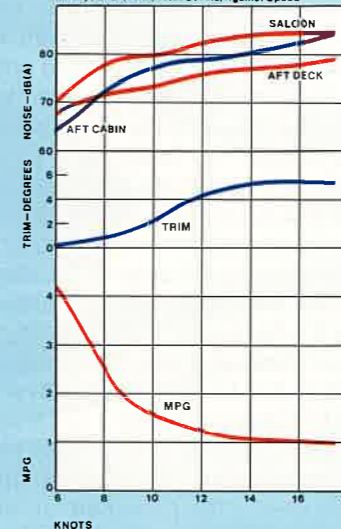
Conditions: Wind SW 2, sea calm. Load: fuel 25%, water 25%, crew 3.

rpm	knots	gph	lph	mpg	range	trim	Sound levels		
							Saloon	Aft cab	Aft deck
1200	5.1	1.1	5.0	4.63	1020	0.0	68	63	65
1600	6.7	1.8	8.2	3.72	819	0.5	73	67	70
2000	8.2	3.4	15.5	2.41	531	0.75	79	74	72
2400	9.1	5.3	24.1	1.72	378	1.5	80	76	73
2800	11.2	7.9	35.9	1.42	319	3.75	81	79	75
3200	12.6	11.1	51.3	1.14	250	5.0	84	80	77
3600	16.1	15.0	73.2	1.07	236	5.75	85	83	78
3800	17.7	19.2	87.3	0.92	203	5.5	85	86	80

Speed and Gallons/Hour Against RPM



Miles/Gallon, Trim, Noise Levels, Against Speed



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LOA	35ft 1in (10.7m)
LWL	28ft 4in (8.7m)
Beam	10ft 3in (3.3m)
Draught	3ft 9in (1.2m)
Displacement	7 tons
Fuel	2 x 110gal (1000l)
Water	100gal (440l)

Price ex VAT: Basic boat with twin Volvo TAMD 41A As tested £76,540 £83,636

Builder:
Linssen Yachts,
Industrieweg 2,
6051 AE Maasbracht,
The Netherlands.
Tel: 010 31 4746-3405.

Supplier:
Boat Showrooms of London,
Shepperton Marina,
Felix Lane,
Shepperton, Middx.
Tel: 0932 243722.

thought though, as its door opens directly over the gas burners. A large floor locker gives yet more stowage, and access to the bilge.

The dinette forward of the galley seats five in comfort around a U-shaped settee, with a further two accommodated on well-upholstered stools. The elegant round table drops to form a double berth, the bedding for which can be stowed beneath the settee. Clothes can be accommodated in a pair of deep lockers behind the seat backs.

As in the main saloon, this lower area is light and well ventilated, with twin opening ports either side of the galley, and a central deckhead hatch. This has the added benefit of an inset, dorade ventilator that allows some air circulation, even when the main hatch and side ports are battened down. Three fixed windows cover the entire width of the forward coachroof. Although these are angled and manufactured of toughened glass, they are exposed should the vessel ship green water over the bow.

The master cabin aft, lies to port, with the toilet compartment taking up the rest of the width across the transom. The cabin offers a centrally-sited double berth with a large hanging locker to starboard. Additional clothes stowage is limited, as the area under the bunk is filled with a 100gal (440l) robust, plastic water tank — fitted with a large inspection plate — along with well-secured batteries, and inspection plates for the steering gear.

Keeping weight to a minimum is all important on a planing boat, so we were surprised to find the toilet-shower

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compartment three-quarter tiled, although this does give a smart, easy clean finish. The compartment is of a practical size, with fiddled surfaces and adequate stowage under the deep basin. Opening ports provide ventilation.

The whole accommodation is superbly finished with great attention to detail — every flat surface including locker shelves is suitably equipped with fiddles. All is of the highest standard, giving a luxurious, yet practical interior.

Engines

The carpeted floor of the saloon is split into several tight fitting sections, the edges are substantially bound with metal strip and backed with a good measure of insulation. Even when giving the twin Volvo 200hp diesels their daily once over, all these have to be removed. The TAMD 41s are a snug fit and although most service points can be reached, dexterity, patience and long arms are needed to reach some outboard parts of the installation. However, Linssen's UK agent, Boat Showrooms of London, have assured us access will be made easier.

The installation itself is well found, with the units flexibly mounted to reduce vibration and associated noise. This, associated with heavy insulation keeps noise to an acceptable level. Cables are all ducted and fuel lines clipped back out of harm's way. Mild steel 110 gallon (500l) fuel tanks located outboard of the engines either side are stoutly secured and feed into a single 'day tank'. This gives the option of drawing and returning from just one tank or both. Large Racor filters are incorporated in the lines and are easily inspected, being located on the forward watertight bulkhead alongside the 2.3kW diesel heater.

On our test boat, bilge pumping was restricted to a single electric unit devoid of a

float switch, but Linssen will be fitting a further unit to service the forward compartment and a manual back-up. Large, capable fire extinguishers in the engine space are of the automatic variety.

Handling and performance

The test day dawned fine and clear with barely a whisper of wind and no swell, so unfortunately we could not judge the 352's seakeeping ability, other than by crossing our own or the hydrofoil's wake. The Linssen threw up no obvious vices, and even with the helm hard over, her angle of heel was surprisingly small — especially for a boat with the heavy top hamper of a steel superstructure. The skeg gives excellent straight line stability at both low and high speed, while manoeuvres were equally precise. The Vetus hydraulic steering was noticeably light and responsive.

Linssen are endeavouring to shave a good half ton off the prototype's eight ton weight, so we would expect a knot or two improvement to the 18 knot top speed we measured. At full throttle, the range is a touch better than 200 miles with consumption just below the 1mpg mark. Dropping the revs to 2800 keeps the 365 just over the 'hump' at 11.2 knots and improves the range to over 300 miles. If you are in the happy position to split your boating between river and sea, then cruising along the former at five knots lets you cover over 1000 miles before topping up.

We have already briefly mentioned the reasonable sound levels within the interior — 85dB(A) being the maximum at full throttle in the saloon. This is achieved by employing quality insulation and tight-fitting engine hatches. High noise levels in aft cabins is often caused by vibration originating from the propellers sited too close to the hull. This is not a problem on the 352 with levels remaining around the 80dB(A) mark at a night cruising speed of 13 knots.

Conclusion

The 352 SX is a well-found boat capable of giving many years of safe, comfortable cruising at a comparable price — even in its most luxurious Royal form — with her GRP competitors. While most plastic-hulled 35 footers may have the edge performance-wise, the inherent strength of steel instills a good sense of security, while epoxy paint systems have largely obviated rust worries.

The Linssen's open plan interior gives a tremendous amount of usable space, but if you do require a separate forecabin, other options are available. Deck locker space could be improved, but generally the whole layout, attention to design detail and excellence of workmanship cannot be faulted. ■

