Lean Machine

Steve and Linda Dashew sailed the world with their young family. Now, as Ivor Wilkins discovers, their unique FPBSs mean that others can enjoy safe, efficient passage-making too - with or without a crew.

Globe-girdling voyagers Steve and Linda Dashew have the unusual distinction of achieving sail stays on both sides of the boating divide.

When advancing years forced them to contemplate a change from a lifetime of designing sailing yachts and switch to motor yachts, it amounted to a seismic shift - the nautical equivalent of Bob Dylan's 1965 defection from acoustic to electric sound.

Yet, a decade later, the small but dedicated band of Dashew motor yacht disciples is solid testament to their success. Their latest launch, an imposing 35.5 metre called Fjordberg, follows a successful run of 80 40.6 metre yachts. Number 11 is under construction at Circa Marine in Whangaparaoa, New Zealand, alongside a new series of three 23.7 metre.

The Dashews have never been content to follow the herd. That was the example set by Steve's father Stanley Dashew, the multimillionaire US investor and entrepreneur, whose work helped bring about the first onboard credit card, Stanley also took his young family to California by yacht, sailing from Chicago to the West Coast by way of the St. Lawrence River and Panama Canal. Steve and Linda decided something even more ambitious: a seven-year circumnavigation with their two young, home-schooled (or rather boat-schooled) children.

Rewind: their final sailboat was a powerful 287 420-knot cento. With just the two of them on board, the Dashews decided big daily runs - 300 miles and more - as they sped across the oceans.

Their belief has always been that speed, achieved with the least possible effort, is the voyager's best friend. Boats capable of 270 to 300, mile-days have a good chance of wicking with weather systems that are desirable and moving out of the way of those that are not.

Although the change to power brought with it a new following, the design approach remained rooted in a drive for safe, efficient and comfortable long range passage-making. The result has been a series of motor yachts that are dubbed FPBSs (Functionally powered boats) which bear a strong resemblance to their sailing sisters.

The first was a 25.4 metre called Windflower, which the Dashews used as a test bed for their concept. Long and narrow, just like their sailboats, the vessel was eye-catching for its purposeful lines, raw aluminium plating and tough, almost military appearance.

With only two 850hp engines and 11,300 litres of diesel, Windflower could achieve passage averages of 11 knots and cover 5,000 miles without refuelling. Fjordberg, dabbled with a FPBS, is powered by two 300hp six-cylinder diesels providing a top speed of just under 15 knots. It will cruise at 12.6 knots, burning only 56 litres per hour for a similar range.

"Apart from opening up ocean crossing capability, one of the big advantages of change is that you are no longer constantly worrying about your next fuel stop," says Dashew. "That has a big impact on your flexibility and allows you to enjoy your time on board.

In terms of safety, the goal is to combine speed with prudent passage planning and careful weather routing to avoid trouble where possible. But a great deal of thought has gone into managing heavy weather conditions that can't be avoided.

First, the boats are built to be tough. Close framing and progressively more solid plating - from 4mm through 6mm to 25mm towards the submerged portions of the hull - combined with several watertight bulkheads and minimal hull penetrations, provide a stiff, strong, protective shell. In several instances, the scantlings are double the Lloyd's classification requirements.

The hull forms itself, with its distinct canoe body shape and weight concentrations low and amidships, encourages good seakeeping characteristics.

When Dashew ventured into the powerboat world, he was concerned as what he regarded as an inherently unsafe proposition in the conventional market. An analysis of hull shapes led him to believe that the majority of powerboats, from launches to large tankers, would not survive a roll past 60 to 70 degrees. "At that point, they will capsize and not come back again," he says.

His approach was to come up with a shape and form that would resist capsize to about 135 degrees. Then, if it did go beyond that, a combination of narrow hull, high topsides and superstructure and careful distribution of weight would provide very little inverted stability, so the boat would roll back upright.

"When we first started working on the powerboat designs, we said there was no way
we were going to cross oceans unless we had a vessel that would recover from a capsize,” says Dushoe. “We have established that you can have self-righting monohull yachts that are comfortable, at the expense of some volume.”

The line wave-piercing bow entry, balanced by a tapering stern, would also allow the boat to run before following seas for far longer than conventional powerboats, which would risk broaching in similar conditions. This has been amply demonstrated in practice, with the boats regularly surfacing and tracking effortlessly under autopilot.

“In more than 250,000 miles at sea in our boats, I have not seen a condition where we could not continue to run downwind,” Dushoe says. “That extends the conditions through which you can progress without having to heave-to and start jogging upwind.

“If it is blowing 30 to 35 knots on the stern quarter, you just say, ‘Let’s go!’ It will surf and surfing it fore.”

This ability in following seas is further assisted by oversized rudders. “We do pay a small drag penalty for that,” says Dushoe, “but it is in safety and control.” A byproduct is also improved slow-speed control when manoeuvring in close quarters, eliminating the requirement for a stern thruster.

In 1988, on its extended sea trial that all the Dushoe boats go through, completed close to 2,000 sea miles before delivery and on one offshore passage had winds of 35 knots gusting to 50 knots on the stern.

“The wind was directly astern, but the waves were off the port quarter,” says John Richards, who was in charge of the trial. “We steamed along at 12.5 knots with the boat tracking really well. The bow never threatened to take over and we were never in danger of losing the autopilot.”

Englishman Peter Watson has the distinction of buying an FP64 and signing a build order for a 78 on the same day. He recorded 22 knots surfing in big seas during an epic 34,000-mile delivery of his 64, Grey Wolf, from New Zealand to Guernsey. He completed the voyage in three months against the trade winds at an average speed of more than nine knots. On the bridge (4,000 mile) leg, from French Polynesia to Panama against the wind, Grey Wolf arrived with sufficient reserve fuel to go another 1,200 nautical miles.

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It has been fantastic! I have been delighted with it,” Watson says of the 64, while talking completion of the 78, which he intends taking into very high latitudes. “I was looking for a powerboat that provided comfort, safety, reliability and range. You don’t find many boats that can do all of that.”

All of Dushoe’s FPBs are built on the basis that they can be handled by experienced owners without crew. The design intent with ferbery is similar; although it is reckoned this will probably move in theory than in practice. The likelihood is slim of an owner of a boat such as this having the inclination – not to mention the multi-disciplinary know-how – to immerse themselves in the day-to-day minutiae of his myriad systems without professional help. A two-tiered crew cabin is located aft in case the owners choose to continue having a captain/engineer and builder combination on board.

For the rest, the owners and their family have the boat to themselves. And there is plenty to enjoy. The volume progression up the size range is exponential but, fundamentally, they are all scaled up or down versions of the original Wind Horse. They all share a similar look - outside and in - with the main deck area comprising what is known as the “great room”. This is
central to the concept of having the social and functional areas of the boat integrated on a single level. The galley, dining area, lounge and navigation stations all share this space. The accommodation spaces are split, with the owner's suite forward and down a level from the great room and the guest suites down a level and aft. The engine room is right aft, isolating both noise and vibration from the social spaces.

Above the great room is the flybridge, referred to as the "Matrix deck". In a playful reference to the virtual reality world of the film, *Matrix*, this is an expansive area, with full control and monitoring functions, plus plenty of room to lounge and relax forward of the command centre, while the space aft accommodates exercise equipment.

Visibility from the great room and the Matrix deck is outstanding. Operating from the upper level gives the helmsman direct lines of sight for virtually 360 degrees. For docking, small wing decks either side of the helm station allow a full-length view of the side of the boat.

On the accommodation deck, *Iceberg*’s owner’s suite is magnificent, occupying 25 percent of the hull, stretching out on nearly eight metres in length and using the full beam. The two aft cabins are also generously proportioned.

*Iceberg* was built for an adventurous American couple with their young family. They are extremely private and declined to allow the interior of the boat to be photographed. Suffice to say, however, that the utilitarian exterior of the Dashew boats does not imply privacy or sacrifice for the occupants. The cold, hard surfaces of the exterior contrast with the warm invitation of soft fabrics and timber furnishing inside.

The mattresses are finished to a high standard, with finely executed joinery and all the home comforts. Because of the glass - comprising tough laminated panels split by slender mullions - the aesthetic is necessarily minimalist. No space for hanging your favourite Picassos, but who cares when you have million-dollar views on every side.

Dashew’s obsession with efficiency has extended to the engine room. *Iceberg* is equipped with a massive solar array: 20 panels ranged across the rooftops of the great room and the Matrix deck deliver up to

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240 amps. The idea is to minimise the use of generators and to delay as long as possible the need to use air-conditioning.

For a start, the hull is massively insulated. The glass pavilion enclosing the great room is shaded by overhanging eves and the glass panels angle in from the roof to minimise solar heating and glare.

An effective natural-air ventilation system also keeps the interior fresh and cool. Vents in the side coamings deliver fresh air, boosted by fans, into the lower deck guest and owner accommodation. There is enough flow to provide six or eight air changes an hour in the bedrooms. Even more effective are vents in the forward coachroof overhang and Matrix deck coaming, which ram natural air into the great room.

“If you can do without air-conditioning – or at least significantly reduce your usage – you could go for days, perhaps even weeks, without running gensets,” says Dashew.

“That makes for much more relaxed onboard living, not to mention for good neighbourly relations in busy anchorages.”

It is all about a rational approach to high levels of performance both for crossing oceans and for living in without resorting to high horsepower and energy consumption.

It is an approach Dashew has consistently applied throughout his long and productive design career, during which he has attracted a knowledgeable following. His devotees attest to the practicality and excellent seakeeping properties of his boats. They also respect the fact that his ideas are born of first-hand experience as he and his wife have reeled off hundreds of thousands of miles at sea.

But, by his own admission, these boats are not for everyone. Those drawn more to glossy form than to function should maybe look elsewhere. Serious passage-makers, however, seeking tough, go-anywhere vessels that do not require large crew numbers and have been designed with efficiency, comfort and safety as their primary considerations, might consider looking at these Dashew boats.

Strength and purpose are written in every line and angle of their uncompromisingly assertive appearance. They represent function elevated to alpha status – and that has its own powerful appeal. It is, as they say, all in the eye of the beholder.