

Mom and Pop Go Sailing

Long after their new boat, Beowulf, was ready for sea, Skip and Linda Dashew held their patience and studied the weather maps. As the systems marched across the Tasman Sea to New Zealand and on into the Pacific, Skip said, "What we want is a big high to go through and then we will leave on the back of it."

Nothing the matter with waiting for the right departure weather. After all, on a long passage, it is the only weather you get to choose. But, more than just comfort was at issue here. Their 80ft water-ballasted ketch is fleet-footed enough to keep pace with most weather systems. If they picked their departure right, they could ride the north-westerlies far out across the Pacific on their passage to the Austral Isles in the southern part of French Polynesia.

With just the two of them on board, their goal was to reel off regular 300-plus mile days and, with the right conditions, there was every likelihood they would achieve it. Skip likes to deprecate his latest creation as a "Mom and Pop motorsailor," but, in truth, it's much more than that.

Having designed and built 45 yachts between 58-80 ft (probably the best known being their Deerfoot range) and having sailed just under 200k000 miles, Skip and Linda had an awful lot of experience to distill into Beowulf. The result is a quite singular yacht: long and lean with plumb bow and stern, a generous sailplan set on a ketch configuration of nearly equal masts - both of which carry asymmetrical spinnakers - and an articulating bowsprit to achieve the optimum angles downwind.

To describe Beowulf as the Dashews' "new" boat is somewhat deceptive. By the time they left New Zealand, the boat had already completed a 7000-mile Pacific crossing. The aluminum hull was built in the Sierra Nevada Mountains of California. The entire exterior is finished in raw, unpainted aluminum. Although the French have been doing yachts like this for years, it is something of a culture shock elsewhere, where more manicured finishes are the fashion. But of course, from a maintenance point of view, it makes perfect sense. Painting a hull this size is a \$100,000 job - and, once you have done it once, you have to keep doing it.

When the hull was completed, a plywood mockup of the interior was installed and, in this quite livable, but less than concours state, the yacht was sailed out to New Zealand. There were two reasons for this: it would allow them to test and refine the interior plan in a liveaboard situation and they wanted New Zealand boatbuilder Kelly Archer and his team of craftsmen to do the full interior.

Here again, Beowulf weaves a deception. From the outside, the boat is almost brutally workmanlike with its grey, unpainted surfaces and aggressive lines. Inside, it is a picture of elegance. Beautifully finished teak furnishings with beige upholstery and fine artwork on the bulkheads - it is all very refined, m'dears, as genteel and elegant as you could wish for.

While the contrast between exterior and interior is as obvious as it could possibly be, the two personalities of this vessel also have a great deal in common. In their own ways, they are each as sophisticated as the other.

Huge amounts of thought and computer-assisted designwork have gone into the hull shape, sail plan, foils and sailing systems. "On the performance front I had felt for some years that we were tantalisingly close to a critical mass of design parameters that would allow us to jump to a new level of cruising boat speed in a configuration that Linda and I could handle by ourselves," write Skip in a soon-to-be-published book.

"For me this was the driving force - I wanted to see if we could come up with a cruising yacht which allowed us to sail at 300 miles per day in average trade-wind conditions. With this broad-brush outline we started on a two-year design odyssey. As time went on we tried one thing, then tossed it aside and went in another direction. Everything except for the basic concept of the boat was on the table. We challenged every assumption we held about large cruising yachts."

By the end, they had drawn seven distinct families of hull shapes with more than a thousand variations on these different themes. More than 2,500 VPP projections were done during the design cycle, consuming more than 20,000 pages of paper.

The final hullshape features a fine entry (10.9 degrees half-entry angle) quickly opening up to a relatively lean 16.25ft maximum beam which is carried well back, tapering only slightly towards the squared-off stern. The length to beam ratio on deck is 5:1, while it is 6:1 on the waterline. The canoe body is shallow, drawing only 20 inches in cruising trim with a fin keel drawing 7.5ft. With 7,500lbs of water-ballast on either side, the boat is extremely stiff. As the Whitbread and BOC sailors can attest, this can be a recipe for exhilaration but bruising, sailing. But, just as the latest crop of Whitbread yachts has tended to go deeper in the bow to soften the ride, so has Dashew, with the bow immersed nine inches at rest.

Driven hard downwind, a deep fine bow could be a recipe for disaster, tending to dig in and steer the boat from the front. However, Dashew has devoted a great deal of attention to the bow shape and the heeled geometry of the hull to promote lift both off the wind and in hard reaching conditions. He says the behaviour is very mild-mannered: "We have had long periods of sailing at 20 knots hard downwind with the WH autohelm maintaining perfect control."

The water ballast is split in to two tanks on either side and, in cruising trim with full stores on board, the tendency is to only fill the aft tanks, giving 4,500lbs of leverage. Full ballast reduces the angle of heel from about 18 degrees to 11 degrees and in beam reaching conditions can boost performance by as much as three knots.

The sail plan features heavily roached mainsails set on similar sized masts, which are well separated to optimize the use of mizzen spinnakers. Spreaders swept at 25 degrees remove the need for standing backstays. The boom are controlled on circular travelers, more often seen on multihulls. Primary sail trim is on the travelers, with the main sheet controls used to adjust twist. The curved travelers also remove the need for vang, easing the loads on the goosenecks and allowing the booms to be set low on deck, making reefing and stowing much easier and safer. With a boat that reaches easily at 15-16 knots, pulling the apparent wind forward, this configuration works superbly.

These factors equally favour asymmetrical spinnakers, with the forward sail setting on an 85ft articulating bowsprit, which can be hauled 45 degrees to windward to

achieve lower sailing angles. Spectra preventers can be rigged, so that if the control line lets go for any reason the bowsprit will not go beyond the centreline. Electric winches take care of the grunt work and, even with only one person in the cockpit, tacking and gybing all works remarkably smoothly and easily. Even greater ease could be accomplished by reconfiguring the working jib into a self-tacking arrangement.

Although the boat is very efficient, often sailing at close to the true windspeed, there are times when even the purest of purists must resort to the engine. With Beowulf, the Dashews have sacrificed some underwater drag in exchange for the motoring efficiency of a Hundestadt variable pitch propeller, which makes close quarters manoeuvring possible without bow or stern thrusters and, driven by a 170hp Yanmar, pushes the hull along at a good 12 knots for a cruising range of 2000 miles.

Many of the sailing features on Beowulf derive from a series of multihulls of the same name that the Dashews raced and cruised in the 1960s and '70s. Another legacy of this association is a strong commitment to keeping everything light, which extends to their fresh water regime. They prefer keeping their fresh water tanks low, keeping up with consumption by using a 50 gal/hour watermaker. Watermaking also determines the use of the 50hp Yanmar genset. With a massive bank of traction batteries (designed as part of the ballast) giving a usable quota of 1000 amp/hours, Beowulf can run for a week without generating power, but the more regular pattern is to fire the generator up for about an hour and a half every three days.

In New Zealand, Kelly Archer and his team set about rebuilding the interior. This follows a slightly unusual, but highly efficient arrangement. The owner's suite is forward ("better ventilation and I like to be able to hear the anchor at night," says Skip), with a large bed on the port side, a settee to starboard, a modest ensuite toilet and shower and a large walk-in dressing room forward, surrounded by copious shelving and lockers, one of which encloses the washer/dryer.

The main saloon is conventional, with table and in-line galley to port, a settee to starboard and an unusual office area opposite the galley. Office and galley are separated by a central island, which doubles as the floor of the pilothouse and contains the refrigeration's units. The office features an extended stand-up desk, with a small sit-down desk at its aft end. The standup area provides extensive working surface for spreading documents and projects, and accommodates Skip's preferred mode of working even at home. "After all, even Hemingway used to do all his writing standing up,:" he notes.

The central area of the yacht is bright and spacious with light streaming down from the pilothouse and expansive views through a line of rectangular windows set into the sides of the hull. Two double cabins aft, each with its own toilet and sharing a common shower on the centreline, complete the accommodations.

Behind these cabins is a vast engine room - a source of great pride and satisfaction for the owner - with everything extremely accessible for servicing and maintenance.

In a yacht full of intrigue, the treatment in the pilothouse design is no exception. Instead of separating the pilothouse from the interior by closing off the floor space, this pilothouse "floats," giving great visibility and air flow. A kind of mezzanine area is created on either side of the pilothouse with single watch berths

on each side. Dashew explains: "One of the trade-offs with mid-cockpits and pilothouses is that the footwell, the area where you stand, intrudes into the interior living space. Regardless of what you do design-wise to mitigate the impact, this significantly reduces the visual space in the saloon. We'd wrestled with this problem for years and were determined to try something new. Rather than surround the footwell with vertical walls, as is the norm, we left it open all around the area where you stand."

As a liveaboard vessel Beowulf has all the comforts and of a large yacht. As a passagemaker, she has already rewarded all that design and research. Crossing the Pacific, she exceeded 300 miles in the second 24-hour period at sea, made a best day's run of 347 miles and, despite being heavily laden with tools, spares, supplies, and equipment, averages 286 miles a day for the California to New Zealand run. Not bad for a "Mom and Pop motorsailor."

by Ivor Wilkins