The baby dragon that really flies

PBO TESTED

Equally happy cruising with the kids or flying two hulls at 20 knots, the new Dragonfly 25 is a versatile trailable tri. David Harding went for a spin

Let's say you want to hop around the coast from Emsworth to Southampton on a Wednesday morning before the boat show – as you do. You step aboard in Emsworth Yacht Harbour, fire up the 6hp outboard and motor out over the sill and down through the moorings. When you have space you round up, hoist sail, kill the engine and set off on a two-sail reach towards Hayling Island at a leisurely 10-12 knots. It all feels a bit too gentle and you want to make progress, so you unroll the Code 0 and your speed picks up to around 15 knots as the apparent wind builds and moves forward.

As you get further down the harbour, the easterly breeze increases to around 16 knots and your boat-speed keeps climbing. You're not focusing on the numbers on the GPS because you're watching the approaching gusts, the bow of the leeward hull (this boat has three), the luff of the Code 0 and how much space you have to bear away, but you see later that you recorded a peak of 17.8 knots and a 10-second maximum of 17.5 knots.

After a brief pause to take some photos, you continue under Code 0 out of Chichester harbour and into the chop of Bracklesham Bay. The boat begins to bounce a bit more but stays remarkably dry. Since it's downwind to Southampton and you need to start sailing some deeper angles, you switch the Code 0 for the spinnaker, put the bow down – maintaining 14 knots but with a better VMG towards your destination – and continue to enjoy the ride.

In an ideal world, the story would end with the boat tied up in Southampton 90 minutes later after a downwind sleigh-ride all the way. In the real world, it did end with the boat tied up in Southampton after a perfectly pleasant passage, though a combination of shifting breezes, the odd technical issue and the desire of the boat-testing member of the two-man crew to do some upwind sailing as well meant that it took a little longer than 90 minutes.

The reason for the trip was twofold – just like the boat, in fact. I wanted to test the new Dragonfly 25 Sport, which the UK distributor, Al Wood of Multihull Solutions, was taking to the Southampton Boat Show for her first public showing. So it made perfect sense for me to sail with Al on the delivery trip, using one stone to kill two birds on three hulls.

Speed log: our maximum (top) and over a 10-second period (bottom)

Fast and foldable

Folding trimarans tend to fold in one of two ways. The Dragonflies' hulls rotate about a vertical axis, swinging in and aft. In the case of the 25, this reduces the beam from 5.8m (19ft) to just 2.3m (7ft 7in), making her narrower than a typical modern 7.6m (25ft) monohull. Inevitably, however, she grows longer in the process, from 25ft to just under 30ft (9m).

This is one of the fundamental differences between the Dragonflies and the other sporty trimarans you're likely to see cruising effortlessly past you, the Farriers and Corsairs. The latter pair (with common ancestry in Ian Farrier) have hulls that rotate through 90° about a horizontal axis. This means that the boats stay the same length when folded, but the topsides of the floats become immersed.

The Dragonflies' mechanism is delightfully simple to operate. To fold each hull in, you release the line marked 'fold out' and pull the one marked 'fold in'. To unfold again, you reverse the process, winching the 'fold out' line the last inch or two to make sure it's tight.

The 25 is the first Dragonfly to sport reverse rake on the bows of the floats. It's functional as well as fashionable

Narrow beam when folded, combined with a weight of just over a ton, simplifies trailing and marina berthing

Open-backed rudder stocks allow the blades to be moved vertically – and, importantly, to kick up on impact

Then the structure is remarkably rigid, as it needs to be on a boat capable of sailing at 20 knots on one hull.

The simplicity of the operation belies the complexity of the calculations necessary to make it all work. Extensive use was made of 3D modelling, followed by CNC tooling to ensure the project moved from concept to completion as swiftly as possible. It was indeed a remarkably swift operation. The Dragonfly 25 was announced to the world at the Düsseldorf Boat Show in 2014. At this stage she existed as little more than a drawing to gauge the public's reaction. A year later she was there in the flesh. Now, more than a dozen have been built and, if you want one, the earliest delivery slot is early next year.

Although 25ft is small by today's standards, creating a lightweight, high-performance folding trimaran is far more involved than designing and building a conventional cruising monohull of similar length. It's nothing new to Quorning Boats in Denmark – headed by Jens Quorning, who is also the designer – because they have built about 650 folding trimarans over three decades. Nonetheless, the folding mechanisms and, of course, the design of the boats as a whole, have continually evolved. For example, the 25 is the first Dragonfly to sport reverse rake on the bows of the floats. Reverse rake has become the norm on performance multihulls in recent years, the logic being that you want to get the buoyancy as far forward and as low down as possible to resist the diagonal forces downwind. Conventional (forward) rake, especially when combined with flared topsides, allows the bow to start immersing before the increased buoyancy further forward and higher up comes into effect. Proponents of reverse rake maintain that, as it immerses, a conventionally-raked bow will meet more resistance and tend to slow down, leading to greater tripping moment.

This is the first Dragonfly to sport reverse rake on the bows of the floats

The idea is that reverse rake and the almost pear-shaped sections of the floats on the Dragonfly place the buoyancy where it's working all the time. In essence, less immersion means less resistance, less tripping moment, greater safety and more speed, while the fine, rounded tops of the hulls mean that if they do spear into the back of a wave they should pop up quickly. Not everyone agrees with reverse rake, but that's the current thinking in performance circles.

As you would expect, the Dragonfly's floats are asymmetric to provide lift to windward. They also extend forward of the main hull in sailing mode, again to place the buoyancy well forward and maximise diagonal stability. In addition to this change with the latest model, the total buoyancy of the floats is greater in relation to the boat's displacement than on any earlier design, allowing her to be pushed harder and – should the fancy take you – sailed on one hull. That's what many trimarans do these days.

Immersion exercises

Sailing with two hulls in the air is not obligatory with the Dragonfly 25. In fact, it's only an option with the Sport version – the one I tested. This has a rotating carbon wing mast just under 12m (40ft) high and – a first for Dragonfly – a rudder on each float. If you're going to fly the centre hull, that matters.

All this flying around might sound a little hairy for some, but what if you still like the idea of sailing at double-figure speeds without effort in a boat that weighs just over a ton and will float on a damp sponge? In that case, go for the Touring version, which comes with an aluminium mast more than 1.2m (4ft) shorter (still rotating) and a rudder on the main hull. By conventional standards it will be blisteringly fast; just not quite as fast as a

Sport version sailed by a crew who know what they're doing.

On our delivery trip, one of the crew knew exactly what he was doing while the other was on a steep learning curve. Nonetheless, our little coast-hop proved yet again that the ratio of boat-speed to manpower on a boat like this is hard to beat in cruising terms. What other sort of trailable, beachable weekender-cum-coastal-cruiser could easily, comfortably and safely sail as fast as or faster than the wind on a day like this with just two people aboard? How many cruiser/racers of any description could do that?

Our speed-of-the-wind sailing came to an end after a spinnaker-related glitch that was easy to fix, but not there and then. Despite the frustration of having to complete the trip under plain sail, I was mindful of the fact that we were finding it thoroughly boring to be ambling along at a mere 10 knots – a speed that would produce white knuckles and racing pulses on many 25-footers. On the Dragonfly it was like being stuck in second gear.

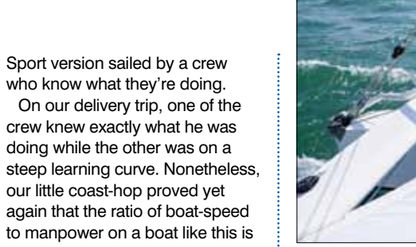
Being without a spinnaker, we decided not to race *Phaedo* (the multiple-record-breaking MOD 70) as she headed back into the Solent from the direction of Nab Tower at 30 knots, so we let her pass. I did want to try some upwind sailing, however, so at the entrance to Southampton Water we hardened up on the breeze. We were carrying the full mainsail and, in around 20 knots, it was at the upper end of what was comfortable, especially given the steep chop that had built up by then. On starboard tack the waves were almost on the beam, meaning that on port they were bang on the nose. Thankfully the little Dragonfly had the power to allow us to drive deep and sail through them, so we still clocked speeds into the 8s and 9s for much of the time.

Now, sailing a sporty 25ft trimaran into a seaway at 9 knots in 20 knots of wind sounds like a good way to get wet – but, strangely, it wasn't. I didn't even don the top half of my waterproofs for the entire trip. The reason is the spray-deflecting shape of the main hull. A flare about 45cm (18in) above the waterline develops into a pronounced return that stops waves from climbing up the topsides. Any that do make it further are met by a second return where the deck and hull mouldings join to form a deep lip between the bow and the forward beam.

Despite some inevitable splashing between the hulls, it's a remarkably dry ride. Another factor is that the helmsman is sitting on a windward float that's well clear of the water. The downside of such a large deflection area close to the waterline is a bit of thudding. Occasionally it felt like a sort of double judder, making me wonder at first whether there was flexing between the beams and the hulls, but the whole structure, from the top of the rig to the tips of the floats, appeared as rigid as can be. Without the wave-deflectors, life in a seaway might become tiringly wet. This way, you get a bit of thudding and stay dry.

LEFT Most of the time the helm station is the windward trampoline…

…but there's a whipstaff in the cockpit too (below)



Controlling rotation: the bottom line limits the mast's maximum rotation and the top one determines its angle in relation to the boom

Dynamic sailing

Downwind at 18-20 knots and upwind at 10 knots in flat water: that's what the Dragonfly is capable of. You have to work to extract the maximum from the Sport version, however. That's in the nature of the beast. With a wing mast and a mainsail 4.27sq m (46sq ft) larger than on the Touring alternative she will power up more quickly and need reefing sooner. You also have to steer more actively downwind, when the windward rudder is dipping in and out of the water and changing the amount of helm you need, This was noticeable on our sail, though had we been under spinnaker the windward rudder would probably have spent most of its time clear of the water.

Because there's a rudder on each float, the two have to be connected: the windward tiller is controlling the immersed rudder nearly 5.8m (19ft) away, Dyneema line does the job and the result is a pretty positive feel, if not quite as direct as with a single central rudder (assuming it's in the water). When you want to steer from the central hull – for manoeuvring with the outboard, or in toodling-around mode – you use the whipstaff in the cockpit. The only way to make the steering feel more direct would be to stiffen the cranked aluminium tiller tubes, but that's a detail. It seems unfair to criticise something like that when the structure has been designed and engineered in such a way that the steering still works perfectly with the floats folded in. That must have taken some serious geometrical jiggling.

Before we move on from performance-related matters for a moment, let's consider this: the Dragonfly 25 was raced in the Round the Island Race this year by a crew of three whose first time sailing the boat together was on the way over to Cowes the night before. Despite this – and having to rig a replacement tack line for the spinnaker after the original one burst off St Catherine's – they finished well up in the MOCRA fleet, their elapsed time of 6 hours 21 minutes being 23rd fastest of all 1,400-plus finishers in the race and faster than all but a handful of the professionally-campaigned grand prix 12m (40ft) monohulls.

In case you're wondering how she compares in performance terms with the Corsair Dash 750 (tested in PBO June 2014), the Dragonfly was just under 9 minutes ahead of the Dash *Nitric* but lost out by 3 minutes on corrected time. Everyone has their 'if only's' in a race like this. Al's are the slow start and broken tack line, meaning they had to overtake *Nitric* twice. Two early versions of the Farrier F-22 were also racing, the first entered by a cruising owner who reckoned he could have chosen a better route and finished in 7h 48m.

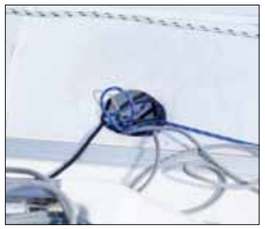
ABOVE Through the hole to the heads. The ring frame between the beams has to be massively strong.

LEFT Down the hatch: no luxury, but the accommodation is fine for coast-hopping and weekending

Clever thinking

Everywhere you look on the Dragonfly it's clear that a lot of thought has gone into the boat. The design and structural sides are pretty impressive – assuming everything hangs together and keeps working, which seems probable given the number of Dragonflies from the '80s and '90s that are still going strong. Hull and deck are hand-laid and cored with Divinycell (except in way of the keel). Weight is kept to a minimum largely through simplicity: nothing is on the boat that doesn't serve a useful purpose.

The rudders are housed in stocks that hold them rigidly but allow them to kick up on impact. Other neat ideas include the halyard-tail pockets built into the trampolines. Open stowage bins are beneath the cockpit seats and there's a large locker under the sole abaft the traveller. Sails, fenders and light kit can be stowed in the centre section of each float between the watertight bulkheads at each end designed to prevent free-flow of water in the event of holing. The boat should stay afloat in any event thanks to the foam-cored construction: she's described as unsinkable.



A rope-tidy pocket is built into the trampoline each side

Hardware is principally from Ronstan, with Andersen winches on the coachroof. Sails on the Sport version are Technora laminates with Ronstan batten cars for the mainsail. The forestay is the torque rope used for the jib-furling system.

Accommodation

You don't buy a sporty trimaran for luxury indoor living. The basics are there: two berths in the saloon (converting to a wall-to-wall double), a narrow V-berth in the bow for one adult or two kids, and a heads underneath it. Stowage for sails or an inflatable is abaft the companionway steps. With a boat of this size and nature you don't even consider standing headroom. More clever jiggling down here keeps the centreboard case out of the way: the berths are slightly offset to starboard and the centreboard is offset too.

It's light, airy and fine for weekending. The cockpit can be enclosed with a tent, and don't forget the large patio each side for dining al fresco, sunbathing, sleeping under the stars, playing badminton or whatever else might take your fanncy.

Tech spec

DRAGONFLY 25 SPORT

Prices: (ex-yard) £72,755. Touring version £60,733

Length sailing: 7.65m (25ft 1in)

Length folded: 8.99m (29ft 6in)

Beam sailing: 5.80m (19ft 0in)

Beam folded: 2.30m (7ft 7in)

Draught, centreboard up: 0.35m (1ft 2in)

Draught, centreboard down: 1.50m (4ft 11in)

Weight: 1,050kg (2,315lb)

Sail area: 41sq m (441sq ft)

RCD category: B

Engine: 4-6hp outboard

Distributor: Multihull Solutions, www.multihullsolutions.co.uk

Curved spreaders eliminate interference with the vertically battened self-tacking jib

Corsair Dash 750

PRICE: from £56,500

Tested in PBO June 2014, she's based on Ian Farrier's F-24 design from 1991 but still looks good and does the business. *Nitric* is the best-known example in the UK, with a successful racing record.

■ **www.multihullworld.com**

Farrier F-22

PRICE (on trailer): £58,000

Described by Ian Farrier as 'a low-cost, entry-level trailable trimaran', she has been in development since 2008 and is now sailing on the South Coast. Available with a range of accommodation configurations and an optional aft cabin.

■ **www.teamvmg.weebly.com**

Astus 24

PRICE: £??,???

Big sister to the Astus 20.2 (also tested in PBO June 2014), she's built in France and uses telescopic beams to reduce her trailing width to 5.25m (17ft 3in). Weighs just 850kg (1,875lb).

■ **www.multihullworld.com**

PBO verdict

Despite her impressive performance, the Dragonfly 25 Sport is surprisingly easy to sail – unless you want to push the limits, when any boat will become more demanding. For many owners, the Touring version will provide more than ample performance and even simpler handling for around £12,000 less. If fast, trailable, beachable fun appeals to you, whether or not you have previously considered a multihull, it might be time let a Dragonfly unfold her wings and show you how to fly.