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Sweet 16

Digby Fox and Barney Sandeman took the user-friendly Dart 16 out for a blast and were surprised by its lively performance. Photos **Ocean Images**.

**Y&Y
TESTED**

'Whatever you do, don't mention the word plastic,

said Dart manager Pete Ewing. Oops!

Actually, the thought of sailing a roto-moulded Tecrothene 109 boat (doesn't exactly slip off the tongue, eh Pete?) didn't fill me with confidence. Surely this would be 'soft', a gimmick, um, boring?

Wrong. Stepping off the Dart 16 at Parkstone YC in Poole, I had no doubt

whatsoever that Dart will sell these cats by the truckload. Worldwide. Over the next 20 years we'll probably see them all over the place. Here's why...

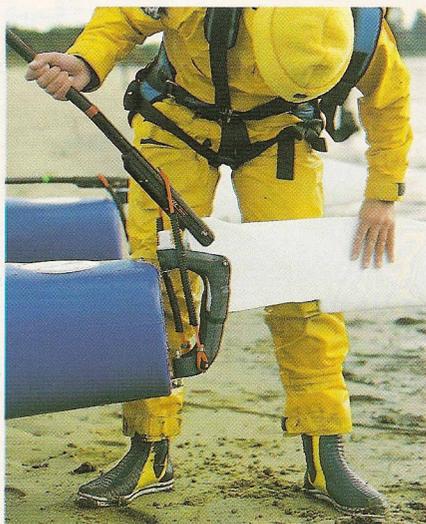
Target market

With cat test pilot Barney Sandeman, a Tornado Olympic campaigner whose credits are far too long to list here, we set out to test the Dart 16 to its limits in the fresh Force 4 in Poole Harbour.

The cat is aimed at beginners, younger sailors, holiday punters going for a jolly etc, so if it twitched with every gust, or pitchpoled if you sneezed, then it could be dangerous.

Conversely, it wouldn't be much fun if it sailed like a dog. Cat sailing is all about exhilaration and the cool feeling of slicing along and lifting a hull with a nutty grin on your face. It's heaps of fun, and once you get into it, you're hooked... sometimes for life.

Unbreakable... Oh yeah?



Dart's new rudder system uses a simple rubber band as a locking mechanism...

'You can't wreck this boat,' said Ewing. The demolition squad, I mean test team, thought about it. Could we throw it from three feet? 'Sure!' (A mad idea – imagine doing that to glassfibre hulls? – but it was his boat). The result? It bounced. The three-layer Tecrothene 109, developed for the Laser Pico dinghy, is so tough you could probably drop it from 30 feet without breaking it. And you wouldn't spend the next 10 years gelcoating.

Since it was blowing Force 4, we tried what most beginners do... to pitchpole (dig the bows in and cartwheel over them).

... giving the rudders as much abuse as possible, we simply couldn't fault them.

Reaching off, we cranked the sails in and buried the hulls without even attempting to let the sheets go. We tried this half a dozen times, really giving it some kamikaze stick, but the Dart 16 wouldn't even capsize. In fact, with so much buoyancy at the front, the hulls popped out at almost the same speed they went in. Impressive.

Next, the rudders. Surely we could trash these. Rudders are the Achilles heel of most cats – they're delicate mechanisms, easy to break. The Dart 16's are different because instead of internal springs and rollers, they have an external rubber band that keeps them down. Unbreakable said Ewing. Right then...

Hammering downwind towards a Poole Harbour beach, with Richard Langdon the photographer a safe distance back, we rode up the sand and they popped up without fuss. 'Not fast enough,' said Ewing. So we did it again from a reaching angle. No problem.

This was a revelation in itself, and when we whacked the bottom of the harbour during our test, it was easy to put them down again, even at speed.

OK, so you it's a rugged boat. Will it sail?

Moggy or missile?

Starting with the reaches, the fastest point of sail, we picked up speed quickly, moving our weight back towards the stern (to keep the bows up). The boat accelerated smoothly, and the high aspect ratio mainsail (tall and thin) gave us plenty of power. The loads on the mainsheet weren't hard, and the jib sheets were easy enough for a five year old.

Hiking out as the windward hull lifted, the toe-straps on the trampoline gave good support. They didn't move around because of a little loop holding them in the middle, a nice touch.

The curved side decks were wonderfully easy on legs and backsides, and at the end of the test we both remarked how comfortable hiking was.

Trying the trapeze, a simple mechanism which isn't adjustable on the wire, the boat felt steady. The decks have little ridges along the side, which help you grip, and only when Barney whacked us into a wave did I stumble forward. In every respect, it's a good platform from which to learn this circus act.

Bearing away to zig-zag downwind (multis are useless dead downwind) the boat simply pointed where you steered. On the whole, this bear-away business can be pretty scary on a cat, they seem to leap about and go faster than seems reasonable, but this little boat felt amazingly steady and safe. We threw in gybes without a twitch, and the soft sail flipped across like a feather duster. No danger of being whacked on the head by

a metal boom here.

What really impressed us going downwind was the ability to do 'Wild Thing'. This is the ridiculous racing practice of sending your crew down into the line-of-fire hydrant spray coming off the leeward bow so the helmsman can lift the windward hull. It's quick, but crazy (particularly if you're the one gulping down Poole Harbour). Many cats, including the most popular in the UK, the Dart 18, won't have it. But the 16? Loves it. Youngsters could have this technique licked before moving on to bigger things.

Upwind, we tried all sorts of ways to tack the boat. With jib, without jib, backing jib, not backing it, weight one side, weight wrong side – in every case the boat spun. We tried to fluff it, but couldn't. Sailing instructors the world over will appreciate this. So will crews with bad tempered helmsmen!

The 6:1 downhaul works well, too, in depowering the mainsail in stronger winds. We had it loaded up to blade off the mainsail, making the boat even easier to handle.

Overall, this is the most forgiving cat we've sailed. It doesn't hammer your mistakes, it tacks on a dime, it won't scare you downwind, and it's even comfortable to hike. That's all lovely, but does it go? Incredibly, yes. It's not a missile, but Barney the Tornado sailor said he had a great time. We both did. It's fast enough to be a lot of fun.

Singlehanded

With a roller-furling jib (no tricky jib battens like the Hobie 16) you can play around on your own without getting into too much trouble. The stick wasn't long enough to helm and trapeze in style, but a longer extension is not hard to come by.

The only caution with this boat is that when I capsized it, it took about five minutes to pull the thing up alone. I weigh 11½ stone (72kg) and I had to wait for a good gust to push the tramp. With two it's easy. But holiday companies and sailing schools should take care here.

The reason is the fairly tall aluminium mast (7.5m), a new section from Sailspar which is more wing shaped than the Dart 18. Also, the bouyant hull shape doesn't 'dig in' when you try to unstick the sail from the water by bouncing on the hull.

No doubt the manufacturer will emphasise that the boat is for two people.

Be warned! Realistically, you will need two people to right the Dart 16.



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Yeegal Barney and Digby crank up and fly. The Dart 16 has plenty of go here to please most speed freaks, including gung-ho teenagers.

The panic button...

The Dart 16 has one of the most simple reefing systems we've used. With no hook at the mast top, which can be frustrating at the best of times, the mainsail halyard uncleats at the mast base and is a doddle to drop.

You tidy the rolled sail with two built-in bungee lines, then rehoist and fix the halyard on a jamming cleat. Next, reattach the downhaul system to the eyelet at the front of the sail. Total on the water reef time: one minute.

This is a neat feature considering the typical holiday scenario of novices taking out a boat and getting caught in winds bigger than they can handle (– been there).

Even better, when it starts to howl, you can roller-furl the jib in seconds. This depowers the boat and instantly calms your nerves. It's handy for beaching too (– unless you go for the cowboy approach).

Design pedigree

Recently, in design terms anyway, cats and dinghies have taken a big step forward. We've seen a wave of wonderful dinghies like the B14, Buzz and RS boats come out with winning characteristics of speed, stability and simplicity.

At the sharp end of the cat scene, one of the best Formula 18 racers to come out has been the 18ft Dart Hawk, which Y&Y tested in our December 13, 1996 issue. We gave the Hawk a double thumbs-up. It's a class boat, as sales in Europe have shown (– 240 to date).

The Dart 16 is a scaled down version of the Hawk, similar in hull shape and sail plan, from the same team – French



The boat felt stable and controllable even at this angle.



Wild Thing?! The 16 is perfect for learning this daft, but fast technique.

The tramp bag zips up to prevent halyards getting in the way. Note the useful 6:1 downhaul and the jibsheet blocks which can be adjusted inboard and outboard.



It's good to see reefing points for this boat, and even better to see the system working so well.



Olympic gold medallist Yves Loday and British master builder Reg White. These two combine instinct with too many years of top level racing experience to mention politely. This time, instead of aiming at the experts, they've put their heads together to come up with a starter cat.

Some jargon for you

The hull material, Tecrothene 109, is the same as used for the Laser Pico. A polyethylene foam is chemically sandwiched between two layers of hard plastic – there goes that word again – then the whole lot is spun round in a single mould, with no joins. The process is worth an article itself, but to summarise the technical characteristics of the material – it's bulletproof.

Dart 16 hulls are symmetrical, and the shape is very Hawk-like, with rounded, buoyant bows. Instead of the Hawk's daggerboards (for upwind grip) the Dart 16 uses skegs at the bottom of the hull, so upwind performance isn't as good, but it isn't bad either. We were surprised at that.

The rudder blades for the Dart 16 make up for the lack of daggerboards by being long and thin. This gives excellent grip at the back, making the boat light to steer. The helm is beautifully balanced.

Sails are woven polyester (like Dacron), a long lasting man-made fibre, cut similar to the Hawk's with the flat top. Yves Loday likes this tall thin shape, and the flat top is better at dumping power in gusts. It has aerodynamic advantages too, according to Yves.

Overall

The photos say it all. We had a ball. To be honest, we expected the Dart 16 to be sluggish. Our experience was anything but. Look at the grins from Tornado man!

Kids are going to love this, as are sailing school punters and holiday jockeys. Mums and Dads will also be delighted to take their children out, and even more so when they realise ownership involves zero maintenance.

In fact, you could leave the Dart 16 in the yard for next year's trip to the coast, and when you get there you'll know you'll have a safe, indestructible boat for the family to thrash. Hole it if you can.

The only sticking point is righting the boat singlehanded. If you're heavy enough and it's windy enough, fine. Otherwise make sure two are on board.

The brilliance of this boat though, and it's only my opinion, is that it will encourage so many more people to try cat sailing. This branch of the sport is so often seen as second rate, particularly in Britain, when really it's first class fun.

For the first time here, the RYA is putting an effort into getting youngsters onto cats using these boats, helped by decent funding from insurers Royal & SunAlliance (Tracy Edwards' backers).

My guess is give it 11 years and we'll see Olympians who started out on the Dart 16.

Dart 16 specs

Length	4.8m (16ft)
Width	2.3m (7.5ft)
Jib	2.7sq m
Main	10.4sq m
Hull weight	38kg each hull

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Answerback

Digby's articles are always exciting – you almost feel you're on board with him – and this boat test is no exception.

On that windy day in Poole Harbour I challenged the testers, Digby and Barney, to break the Dart 16, which they set about with some degree of enthusiasm! To say they couldn't do it is an accolade to the designers and a tribute to the superb new Roto-Tec construction method using Tecrothene 109, an exceptionally strong and stiff plastic (– there, I said it!)

It was good to see two experienced cat sailors enjoying the four or five hours they spent testing the Dart 16. I'm glad they found it great fun to sail. Many adults and youngsters of varying abilities have also sailed the boat, and without exception they've reached the same conclusion.

Already, many leading sailing schools and holiday companies have accepted the Dart 16, which will be at the London Boat Show in January. Why not come and see it for yourself, and book a test sail?

Pete Ewing, Dart Sales Manager