

NATIONAL 12



PHOTO: JEREMY EVANS

After 70 years of development, the National 12 is a refined racing machine, **Jeremy Evans** tried the latest championship-winning 'Feeling Foolish' design from Winder Boats and Pinnell & Bax.

The National 12 has a 70-year history as a development class which has produced scores of different designs, with three major updates to class rules to keep pace with the times: 'Vintage' boats are the original clinker National 12s from the glory days of the class which started in 1936; 'Admirals Cuppers' are single-floored boats with hull shapes based on

simple four-plank plywood construction, though just as likely to be built in glassfibre; and 'Double Bottoms' are the latest self-draining designs, first introduced in 1996. All three styles of National 12 get their own trophies at major events.

Bim Daser's 'Feeling Foolish' is probably the most successful design of modern times, having won the class championship seven times in the

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Right Fore and aft trim is important – some boats have a transom mainsheet as there's less to obstruct the crew's dash for the back of the boat downwind!

Far right The National 12 is a very open class with choices of sailmakers, hull designs, foil materials, and mast builders making each boat unique.



last nine years, mostly thanks to Tom Stewart who won this year's Burton Week championship once again with Elizabeth Ross crewing. However, the National 12 is still an open class in every respect with six different designs, three sailmakers, three mast builders (all carbon fibre) and a crew weight range from 17.5 to 22.5 stones filling the top 10 places at the 2006 championship, including one boat which was both home-designed and home-made. Married couples accounted for 20 per cent of the championship fleet while 25 per cent were parent and child combinations, one-third of the crews were aged under 21 and one-third over 40 which surely demonstrates true mixed appeal!

Rig and layout

We were lucky enough to sail Tom Stewart's six-month-old championship winning National 12, a great looking boat with a feisty blue hull and all the go-faster accessories you would expect on a top spec racing machine. The double bottom carbon hull is built by Winder Boats, with 13kg of lead bringing the weight up to 72kg. Tom favours a featherweight fixed rudder and tiller built in carbon by Winder, but the centreboard is rather more standard glassfibre – it doesn't need to be super-light when the hull is fitted with correctors, although it does need to be super-stiff.

The Superspar carbon mast is both extremely

Right The super-slim bow flares out to a wide and stable transom with comfortable rolled side decks for hiking.

Below Capsize recovery was undemanding, with the 12's low freeboard making it easy to roll back in.



light and slim, unlike the carbon boom which boasts an oversize diameter for maximum stiffness but is quite fantastically light! Sails are by Pinnell & Bax, with Tom favouring Kevlar for his own design mainsail and Dacron jib. He has tried Kevlar jibs, but apart from the usual longevity problem – mainly caused by flapping – rates this ultra-stable material as ‘too hard for the crew to read’.

Controls are designed to allow absolute mastery of the rig, which has adjustable shrouds, lowers; cunningham; 16:1 kicker and 12:1 mast ram led to both sides of the boat for either crew to tweak; 12:1 rig tension on the jib luff led aft for the helm to tweak; plus barber-haulers both sides for the crew. It may look daunting and gives the crew plenty of responsibility – not least getting the leeward shroud back on to avoid breaking the mast in a gybe – but Tom claims that it’s really quite straightforward, based on the premise that you need to be able to change gears from a straight, upright mast for full power offwind to a curved, raked-back mast for depower upwind.

He describes the technique as follows: ‘Upwind set the boat up with rake as in the P&B tuning guide (the class association also produce a copious amount of information). Pull on enough shroud tension so the leeward shroud just pants in the breeze. As the wind increases, use more kicker and shroud tension. If you are sailing with the boom eased all the way out to the quarter, rake the mast back and pull more shroud on. Sail the boat flat – they go fast that way.

‘Downwind ease kicker and outhaul, with jib stick deployed to leeward to get all jib telltales streaming. Ease the leeward shroud completely which straightens the mast and powers up the mainsail. If it is not too windy, pull the mast forwards with the forestay/jib halyard. Pull the lowers on to power up the bottom of the mast. On a run, goose-wing the jib with the stick. Leeward shroud off but outhaul back on a bit for greater projected area. Balance the boat with helm and crew on either gunwale which enables you to sail lower and faster if the boat is balanced.’

Launching and sailing

The basic design requirements of a National 12 hull are that the hull is no more than 12ft long and 6ft 6” wide, weighing no less than 78kg with mast and centreboard. A riser floor measurement governs minimum waterline width halfway down the boat, ensuring it doesn’t become a Moth with zero stability. In fact, it’s surprisingly easy to step on board without rolling the boat and even our test capsizes didn’t seem too demanding, with one crew ready to balance the boat while the other flipped in easily over the low freeboard.

That’s at the super-wide back of the boat where everything is predictably nice and stable. Tom advises that most problems are likely to occur on a fast reach or run, if the crew fails to get weight right back in an instant when the super-slim bow takes a dive down the mine. It’s one good reason why Tom’s boat has a transom mainsheet while other helms favour sheeting off the boom – nothing to obstruct the crew’s dash for the back of the boat!

We had neither enough wind or waves to experience problems with bows going down the



PHOTOS JEREMY EVANS

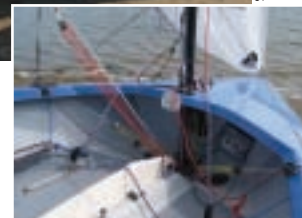
mine or anything else. In a light and pleasant breeze, Tom’s boat felt pretty easy to sail – maybe a touch roly, but easy to correct with crew weight in a cockpit that is beautifully sorted, providing loads of space for two reasonably lightweight crew who have controls sited for instant tweaking with comfortable rolled decks to hike off. Everything you would expect from a pure-bred racing machine that’s had 70 years of development!

An overall light weight combined with fairly minimal wetted area guarantees a super-sensitive ride in any direction. You need precision to extract maximum performance upwind, but the experience will be rewarding. You need around Force 3 to start planing hard on a reach and we were lucky enough to get 10 minutes of blasting around. Tom warned that the boat can get twitchy, but in those conditions it was easy to control. In stronger winds it would clearly pose a challenge without being unsailable. Providing the helm has reasonable ability at keeping a short, wide, light, fully powered boat on-line, racing a boat like this should never be less than exciting.

One curiosity is that while this is a state-of-the-art racing machine, Tom reckons a good helm could pick an inexperienced crew off the beach, go racing and do quite well. However the crew does need to be agile and quick around the boat, ready to tweak centreboard or rig controls which include a slick carbon flyaway jib stick – loaded under shockcord tension with a single control line to set it to windward (goose-winged) or leeward for optimum foot and leech tension.

The verdict

The most obvious difference from most popular modern dinghies is that there’s no asymmetric kite. Tom Stewart thinks it could transform the National 12 into a truly awesome beast, with a monster kick in downwind performance balanced by a different style of racing. But despite the example of the International 14 which underwent a complete three-sail transformation, the National 12 seems unlikely to take that direction. The class prefers to stick with the tried and



Above The rig is extremely adjustable with controls for shrouds, lowers, cunningham, kicker, mast ram and jib luff tension led to either side of the cockpit.

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ANSWER BACK

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tested concept of a superbly refined 12ft dinghy that sets owners apart from the crowd and can be raced in all locations – from open sea to narrow rivers and small lakes – with a unique sailing experience guaranteed.

Tom rates 'Feeling Foolish' as a particularly good all-round design which shows no sign of becoming outdated in a class where development is gradual. If you want loads of feedback through tiller, sheets and thighs, this is a wonderful boat for a fairly lightweight crew who can respond to the challenge of concentrated tweaking and perfect trim. ■

Above The carbon flyaway jib stick is loaded under shockcord tension and can be goose-winged or set to leeward for optimum foot and leech tension.

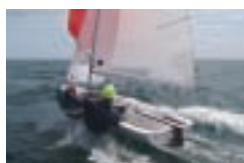
Thanks to Cobnor Activities centre (CAC) for providing facilities for this test. CAC runs a full programme of residential and non-residential sailing courses and activities in Chichester harbour. Visit www.cobnor.com for more details.

N12 (P&B/Winder) specifications

DESIGN:	Bim Daser – Feeling Foolish		
LENGTH:	3.66m		
BEAM:	2m		
HULL WEIGHT:	(inc correctors)	72kg	
IDEAL CREW WEIGHT:	115-135kg		
SAIL AREA:	MAIN	8.4sq m	
	JIB	2.22sq m	
PN:	1093		
PRICE:	(foam sandwich, alu spars)	£6,910	
	(all-carbon, championship spec)	£9,392	

BUILDER:	Winder Boats		
SUPPLIER:	Pinnell & Bax Ltd Heathfield Way Kings Heath Northampton NN5 7QP		
TEL:	01604 592808		
EMAIL:	info@pinbax.com		
WEBSITE:	www.pinbax.com		
CLASS ASSOCIATION:	www.national12.org		

COMPARISONS... Where does the N12 fit in? Here are some alternatives...



■ LARK

Popular traditional one-design based on designer Mike Jackson's experience as a top helm in N12 and Merlin Rocket. Forty years young next year!

LOA:	4.07m
BEAM:	1.65m
HULL WEIGHT:	95kg
CREW WEIGHT:	125-145kg
SAIL AREA:	Upwind 9.75sq m Spinnaker 7.4sq m
PN:	1073
GUIDE PRICE:	£6,314*



■ RS200

Launched in 1995, now one of the UK's strongest twin-crew classes, drawing on designer Phil Morrison's extensive experience in the N12.

LOA:	4m
BEAM:	1.83m
HULL WEIGHT:	78kg
CREW WEIGHT:	115-145kg
SAIL AREA:	Upwind 11.52sq m Spinnaker 8.2sq m
PN:	1059
GUIDE PRICE:	£6,150*



■ MERLIN ROCKET

Big sister to the N12, requiring considerably more crew weight with a symmetrical spinnaker increasing both performance and crew input.

LOA:	4.27m
BEAM:	2.2m
HULL WEIGHT:	98kg
CREW WEIGHT:	140-170kg
SAIL AREA:	Upwind 9.96sq m Spinnaker 10sq m
PN:	1024
GUIDE PRICE:	£10,500*