

Yachts

• French designer and solo sailor team up to create



Power cruiser

For all their huge power, there is an admirable simplicity about solo ocean racers. And they are massively strong, able to take incredible punishment in atrocious conditions and quite forgiving when overpowered. So the idea of a short-handed fast cruiser drawn from the pedigree of Vendée Globe experience like the new JP54 feels right. It makes even more sense when you see how the project team behind this boat have used the deadweight of batteries and machinery as ballast and opted for a hybrid drive. These ideas are brilliant.

Where I might question the translation of short-handed racer to cruiser is in the use – not here alone – of canting keels. On paper, the moving ballast of the keel bulb

A canting keel introduces risks

looks attractive. But remember that these boats spend more time in refit or maintenance than they ever do sailing and that the budgets to keep them in tip-top condition are huge.

The performance advantage of a canting keel does introduce some risks and inconveniences on a cruising boat that mightn't be immediately obvious. One is regular servicing of these crucial moving parts – service intervals for keel rams on racing yachts can be as frequent as every three months.

Canting keels are much more expensive, whatever material is used to make them, and great care also has to be taken when lifting, storing or handling canting keel boats ashore. Expert inspection is essential after a grounding.

Elaine Bunting



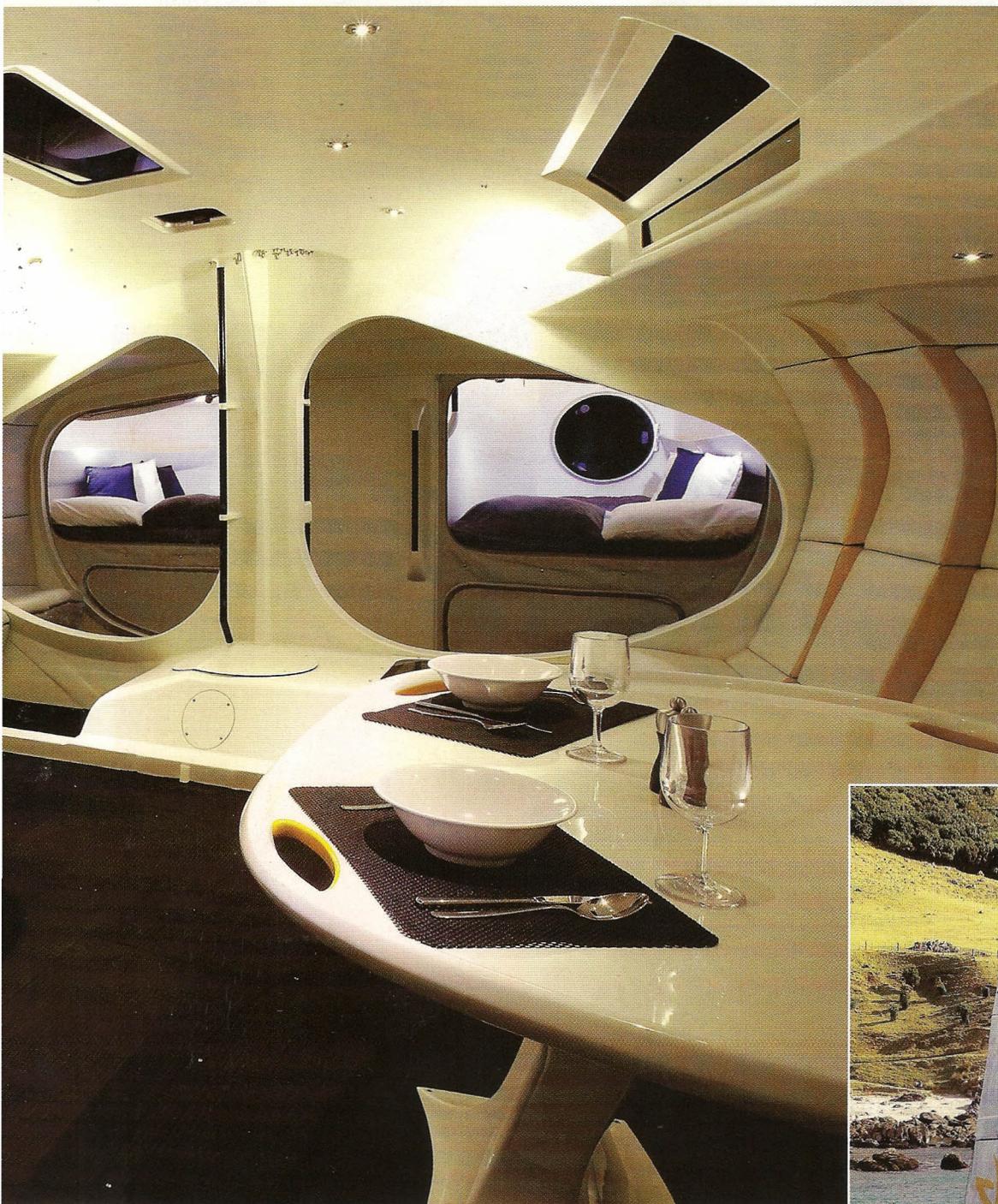
French sailors differ from their counterparts elsewhere in the world in lots of respects, and one of them is that they love cruising with friends and family almost as much as racing. Almost every famous French sailor you can think of has built his or her own boat, modified one or designed one for their own private adventures.

This stunning fast cruiser is the result of a collaboration between top

The interior of the JP54, showing the revolving nav table carousel to port, behind which batteries and keel hydraulics are carried. Right: under sail in New Zealand

French solo sailor and former vet Jean-Pierre Dick and designer Guillaume Verdier. Dick's new IMOCA 60, which he will race in the two-handed Barcelona World Race later this year and the Vendée Globe in 2012 has recently been launched in New Zealand (see On the Wind, page 17) and is a new design from multihull experts VPLP and Verdier. This is a parallel project with Verdier and his colleague Hervé Penfornis.

a fast, modern cruiser • Rotating chart table • Canting keel for cruising?



that you need a mainsail that is not too big and some bigger foresails," says Guillaume Verdier. "So you need a high aspect ratio to do that."

At the front there are only three working sails: a solent and genoa on two permanent furlers and a hanked storm staysail, though adding a code sail or sails using a continuous furler is also an option.

Unlike the IMOCA 60s, the JP54 does not have water ballast. Extra stability comes from the canting keel. When the keel is fully canted on racing boats, the lateral resistance is provided by daggerboards, but because Dick and Verdier considered the combination too complex for a cruising boat – another two sets of actions to perform each tack as one board is lifted and the other lowered – Verdier designed the keel to cant only as far as 20-25°, giving the fin an effective projection area.

"Upwind, you don't need [to cant] more than 25°," he explains.

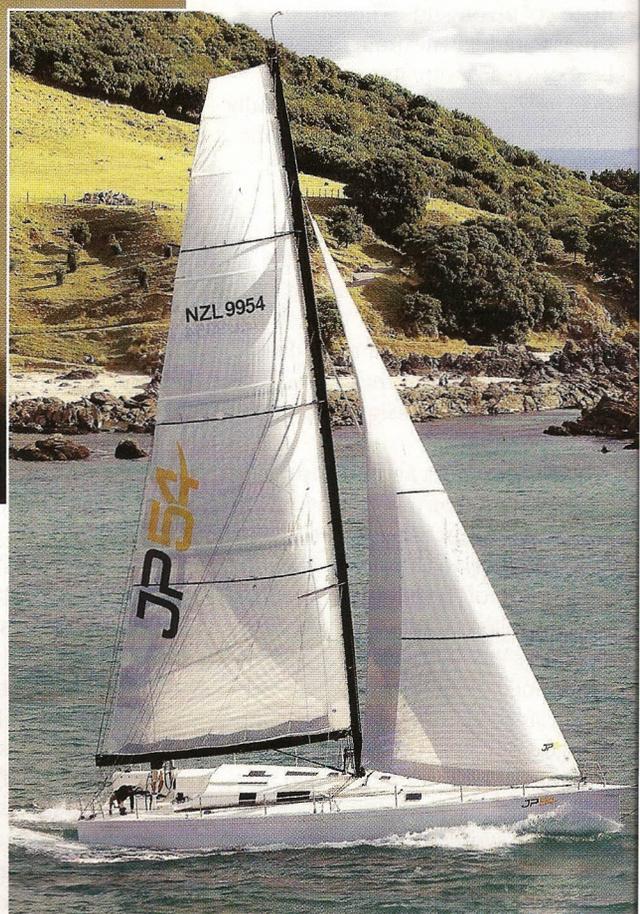
Ingenuously, however, the keel canting mechanism is asymmetrical,

JP Dick wanted to take some of the strengths of the IMOCA 60, particularly their speed, superb balance and ease of handling and translate that into a cruising boat that he could market as the JP54, which might perhaps seed a wider range. The LOA has been scaled to 54ft because that is a popular size for owner-skippers.

A balance of simplicity and power was required, so although the boat

has a canting keel, it has limited electric winches and hydraulics. There is an electric winch for the main halyard and a hydraulic ram for the canting keel, but everything else can be done by hand.

The mainsail is high aspect ratio, but with an area of 108m² compared with the 180m² of her bigger racing sisters. "One of the things we have in common with the 60s is that the boat is easy to manoeuvre and for





Left: the ergonomic galley 'pod' unit. Below: a clean, simple canting central heads compartment



so that it is possible to cant the keel up to 50° on one side. The purpose of this is to reduce the draught so the boat can reach a greater range of marina berths. The keel is canted fully on the opposite side of the berth and a small ballast tank can be filled to keep the boat level.

Big questions have been raised about keel fin materials and safety margins after failures in the last couple of Vendée Globes. Verdier opted for a keel fin of fabricated steel because it was one of the cheaper options and it was designed to minimise welding.

On deck, JP Dick and Guillaume Verdier worked on an inventive idea for incorporating a tender into the stern of the boat. The original plan to have "a part of the bottom and sides of the transom that detaches to form a boat", as Verdier explains it, was abandoned because of time constraints. Instead there is a dinghy garage, with the dinghy simply launched using rope and tackle.

At the bow, JP Dick didn't want a complex pivoting arrangement to secrete the anchor below deck. But having it permanently stowed on a

bowroller presented a problem: what to do about the bowsprit and bobstay. Verdier came up with two parallel bowsprits and the anchor and stem fitting sit between them. The bobstay is detachable from the deck.

But it is down below that the JP54 is most revolutionary, and not just in her spectacular interior design. The most unusual feature is a rotating navigation table.

This is a large carousel that rotates round an axis in the centre of the saloon. The rear of this so-called 'satellite' carries heavy items such as the boat's batteries, the hydraulics and most of the electrics, allowing them to be turned round to windward and treated as movable ballast. The boat has a 7kW hybrid engine made by Steyr in Austria; the boat's batteries are consequently very heavy. "We didn't want water ballast so it made sense to use this deadweight," explains Verdier.

The hydraulics and batteries are housed on a shelf behind the navigator's seat, which swings out over the keel box and, when fully rotated, extends right out to the side of the hull. The boat also has a canting

Dimensions

LOA	18.23m	59ft 10in
Hull length	16.45m	54ft 0in
Beam	5.3m	17ft 4in
Air draught	25.10m	82ft 4in
Draught	3.5m	11ft 6in
(with the keel canted)	2.5m	8ft 3in
Displacement	9 tons	
Engine: Steyr Motor MO54 Hybrid (saildrive)		
Diesel engine	55hp	
Electric propulsion	7 kW	
Sail area upwind	216m ²	2,325ft ²
downwind	434m ²	4,672ft ²
Designer	Guillaume Verdier	
Interior designer	Stéphanie Marin	
Concept	Jean-Pierre Dick	
Builder	Absolute Dreamer	

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heads compartment between the double forecabins.

This idea led to the futuristic design inside the boat, the work of interior designer Stephanie Marin. Her work appealed to Dick and Verdier because it echoed natural shapes. Rather than covering over the structure of the boat, they wanted to accentuate it.

As for performance, the boat looks as if it will sail close to Verdier's VPP predictions. Project manager Luc Bartissol has been cruising the boat in New Zealand with his family and reports that it reached 9-10 knots in eight knots' true wind at 75°TWA. www.jp54.fr