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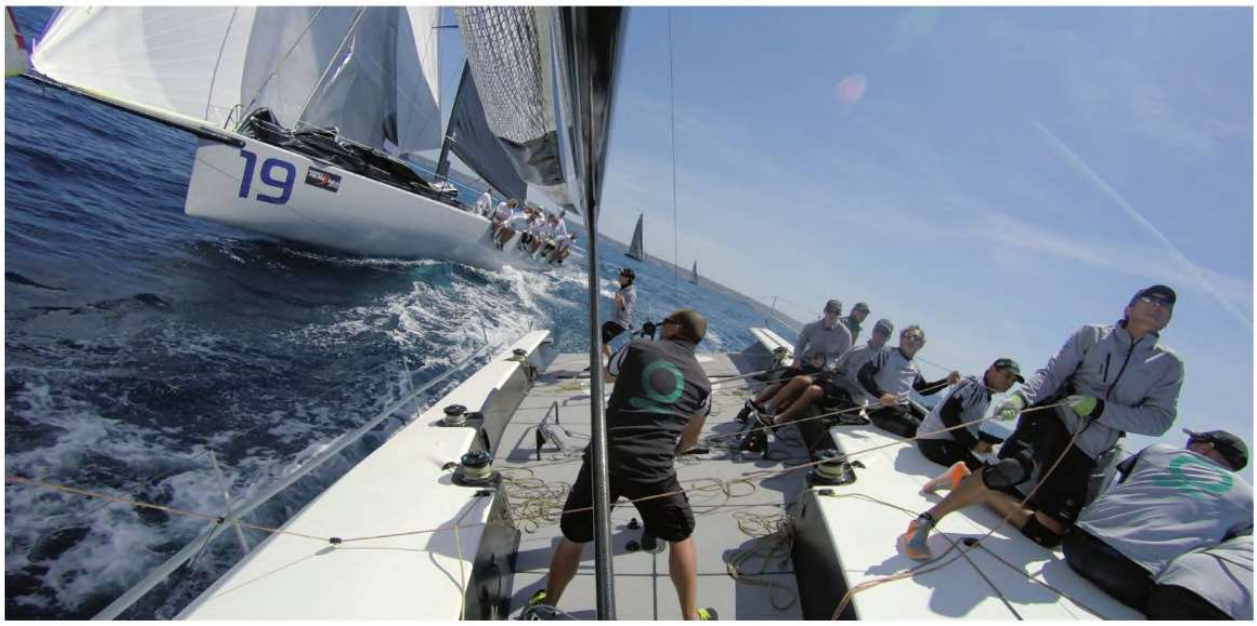


QUANTUM RACING / KEITH BRASH

OCEAN RACERS

INNOVATION IS KEY TO HAVING THE FASTEST YACHTS AND KEEPING IN THE LEAD OF THE RACING GAME. **KEVIN GREEN** REVIEWS THE LATEST TRENDS AND MODELS THAT WILL PROPEL YOU TO THE FRONT OF THE FLEET.

Talking to designers, builders and sailors for this article reveals a few clear trends that are emerging. Downsizing to enjoy smaller, more nimble boats, one design racing to level the playing field while maximising the fun, owner-drivers across the board (even in the heady world of the TP52 circuit) and affordability are just a few of the notable moves in our sport.

Keeping it real for owners requires designers to deliver at the cutting edge, which is where you really need to be if you're to be a winner, and it can be challenging and risky. So this is where our first trend in innovation kicks in. Computational fluid dynamics (CFD) has vastly reduced the guesswork in making an efficient and slippery hull so seeking a technological lead is becoming more difficult. But for a hint of what's ahead, just look at what the 10-year-old *Wild Oats XI* did recently. Yes, we're talking about foils – and lots of them.

Sprouting from the hulls in various shapes and sizes, these appendages are not only creating lift but in the case of the Hugh Welbourn-designed Quant23, the first airborne keeled monohull. So the times really are a'changin, especially if you are an IMOC 60 sailor lining up for the next Vendee Globe, where you'd be crazy not to be looking over your shoulder at what's emerging from the sheds of builders such as CDK Technologies in France.

The big blue *Banque Populaire VIII* from designers' VPLP & Verdier has large upcurved foils that will vastly reduce the hull's wetted area, and who knows what kind of new angles of sail this monster may achieve. Remember also, we're not talking about gliding around a serene bay like those delicate America's Cup 72 foiling catamarans, because these *Banque Populaire VIII* foils have to survive the worst of the Southern ocean. This prompted me to have a chat with Farr president, Patrick Shaughnessy, about the next innovations to enliven the Volvo 65 fleet. "I think it is very likely that the work will include design and conceptual changes." Weight reduction and more performance are key areas that he, along with Volvo Ocean Race yard manager, Nick Bice, will be looking at.

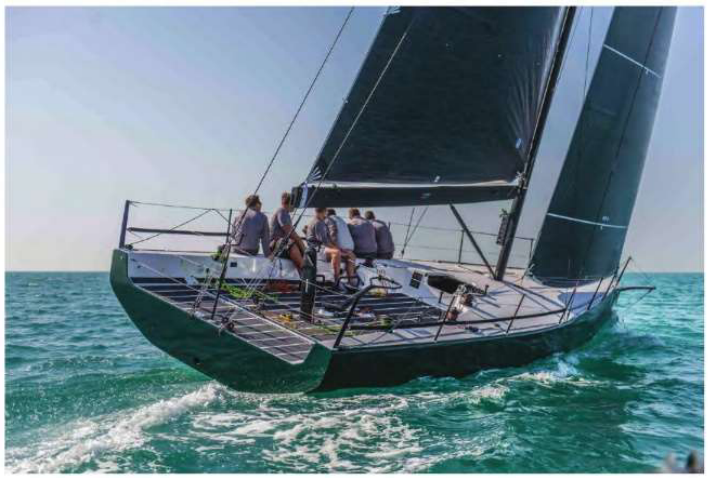
Interestingly, lifting foils are also on the latest Juan Kouyoumdjian design, as are irregular-shaped twin rudders that have nodules on their leading edges, so the new *Rambler 88*'s visit to the Rolex Sydney to Hobart is a must-see for us techno-tragics. Back on the water, there's plenty happening with those leaders of innovation, the Mini Transat 6.5, that pioneered canting keels, rotating masts and bowsprits, plus much more, and who have just completed the Mini Fastnet.

Scow bows were the more recent innovation on the 21-foot Mini, which made me laugh when I remembered my old Fireball. So developing and researching small, before going big, is one way to go.

ALL HANDS ON DECK
The new *Quantum Racing* is leading the TP52 resurgence.

POCKET ROCKETS

Talking of small, there's an armada of cost-effective one design racers emerging that are bringing renewed smiles to former big-boat owners' weathered faces, such as the Farr 280. "It puts a big grin on your face when you're in 21 to 22 knots of wind, hitting 18 knots downwind, surfing off a wave and getting up there to those sorts of speeds so easily," says an owner, Nick Haigh. McConaghy also hope to continue the fun with the Dunning-designed MC31 that should build on the success of the popular MC38. Moving up a notch to that sweet spot of both regatta and offshore boats is the raft of performers that include Shaun Carkeek's carbon 40 MKII speedster that is already selling well, as is the new Mark Mills 41. So, choose your weapon!



A highly optimised grand prix boat that is a popular size for both inshore and offshore racing.

CARKEEK 40 MKII

The new Carkeek 40 MKII has just launched in Dubai, as the third of three hulls built so far. The result of two years' racing the original Carkeek 40, which has proven a winner in the USA, the MKII refines the concept. Based on data and crew feedback, the MKII version of this HP IRC optimised (IRC TCC 1.235-1.269), carbon racer comes with some significant changes. "It's the same concept but with noticeable improvements to hull shape and the layout," explains Shaun Carkeek from his Majorca office. Like hull number two, the third boat is destined for the UK, while the first of these MKII's, named *Esprit*, is already in Japan.

CARKEEK 40 MKII
LOA: 12.2m
LWL: 11.45m
Beam: 3.8m
Draft: 2.9m
Displacement (empty) 3,950 kg
Sail area upwind: 109m²
Sail area downwind: 249m²
IRC TCC 1.235-1.269 (in IRC trim)
1.265 (in HPR trim)
Builder: Premier Composites
Design: Shaun Carkeek
Price: Euro 295,000

Advanced tooling and manufacturing at Premier Composite's yard in Dubai is another major factor that South African Carkeek has spoken fondly about in the past. Designed as a general purpose regatta boat but with enough LOA and freeboard for offshore, the Carkeek 40 should give the owner plenty of variety while keeping costs realistic and crew numbers down to under six. Budgets are also helped by the choice of build in the versions. Race (E-Glass/foam Euro295,000) or Grand Prix (Carbon/foam Euro350,000), and Grand Prix Custom (Pre-preg/Nomex Euro POA).

The rig is high-modulus carbon with rod shrouds and EC6 rigging is optional along with an hydraulic forestay to adjust rake. The sailplan has square topped main and the whole lot fits into a 40-foot shipping container thanks to a lifting cassette keel system and optional two-piece mast. "Our new carbon rig is slightly stiffer and we're seeing higher headstay loads as sail technology improves and resultant load transferral into the boat," explains Carkeek. This has led to improving the light-medium up and downwind performance of the boat; something very handy for our mixed conditions here in Australia – where I watched several boats glide past me in the light airs during this year's Hobart.

The cockpit space is maximised and there's tiller or twin wheels while sail controls can include a central MX Pedestal winch. Below decks, there's up to eight bunks and modularised compartments for storage, sink, racing stove, galley and head. Also, several lightweight modular options are available along with customised graphics to personalise your own boat.
www.carkeekdesignpartners.com

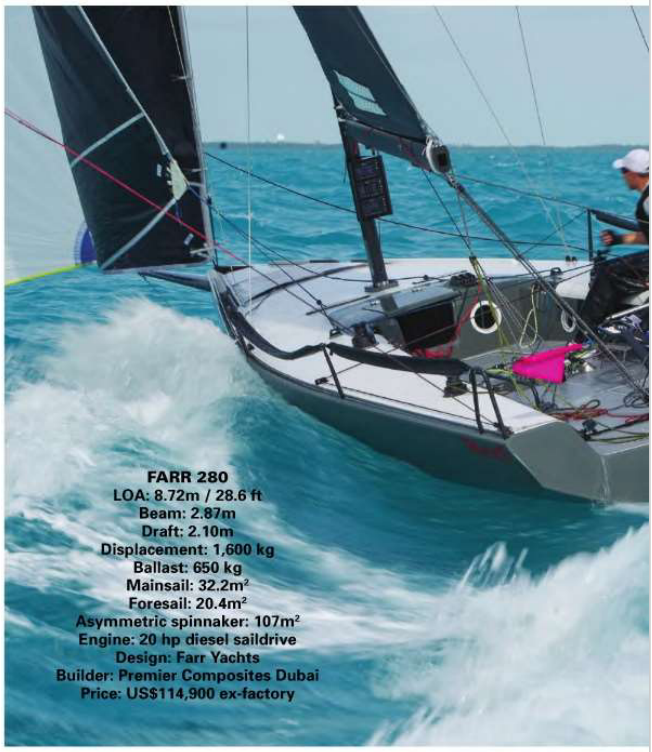
FARR 280

A step up from sports boats but with similar performance, which makes the Farr 280 an interesting new one-design class.

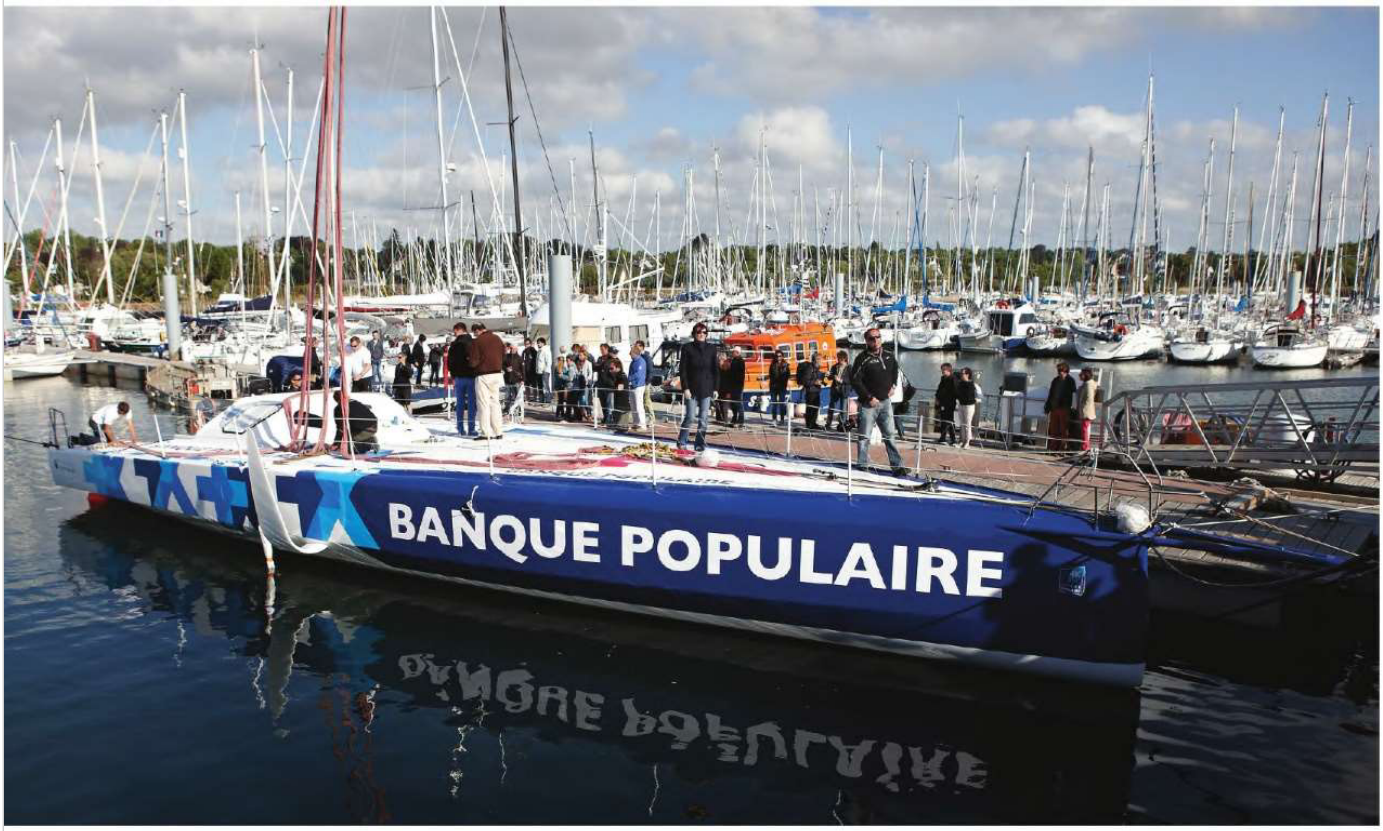
One-design classes are again thriving and already the new Farr 280 is in double digits as owners take delivery in Europe and the USA from Dubai builder, Premier Composites. The new Farr 280 OD is built to perform on all points of sail, said Farr boss Patrick Shaughnessy, with a focus on inshore racing for a moderate crew size of five or six people. The hull shape has a reverse stem, long chine and wide beam carried aft to the transom. Rounded topsides and gunwales look comfortable for hiking.

A two-spreader Southern Spars carbon mast carries a square-headed North mainsail, twin running backstays, and a large asymmetric spinnaker is flown from a fixed carbon bowsprit (removable for transport). The forestay and mast tune are adjusted using rig controls actuated through a cockpit-mounted hydraulic system. The Farr 280 also comes with a below-deck spinnaker launching and retrieval system for quick and easy sail handling. Most control lines are under-deck with a bank of jam cleats for control. The interior is bare, apart from the 20 horsepower inboard diesel engine with sail drive, leaving plenty of room for spinnakers and headsail stacking.

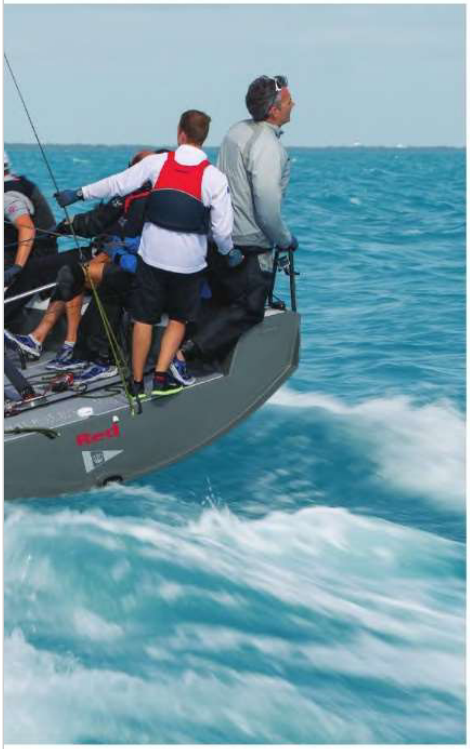
Under the water, the Farr 280 has a fixed T-keel (but removable for transportation) with lead bulb, GRP fin shell and steel fin for a low centre of gravity, low maintenance, and one-design geometric repeatability. A high aspect rudder connects to the tiller via a carbon rudderstock. The Farr 280 is built using e-glass reinforcement, infused with epoxy resin and Corecell lamination. The one-design class controls have been developed alongside the design, adhering to the principle of owner/drivers and limited professional crew.
www.farryachtsales.com



FARR 280
LOA: 8.72m / 28.6 ft
Beam: 2.87m
Draft: 2.10m
Displacement: 1,600 kg
Ballast: 650 kg
Mainsail: 32.2m²
Foresail: 20.4m²
Asymmetric spinnaker: 107m²
Engine: 20 hp diesel saildrive
Design: Farr Yachts
Builder: Premier Composites Dubai
Price: US$114,900 ex-factory



IMOCA 60 DSS



The International Monohull Open Class Association (IMOCA) 60s are some of the most exciting and powerful racing yachts that grace our oceans, and they often lead developments. This is again shown by the latest crop championed by the new foiling *Banque Populaire VIII*.

First tried on that regular testing ground – the Mini Transats – the VPLP & Verdier-designed 60-footer uses upcurved foils to generate lift and therefore reduce the hull's wetted area. The design brief given to Guillaume Verdier and Vincent Lauriot Prévost is of course, squarely aimed at next year's Vendee Globe but the new boat will have a busy year with its skipper, Armel Le Cléac'h.

"The great innovation is the arrival of these foils," says Armel. "The architects have offered these plans from their experience of the America's Cup and the evolution of sailing in general, where the foils appear everywhere, so the idea was to use these new technologies to elevate the hull at certain speeds."

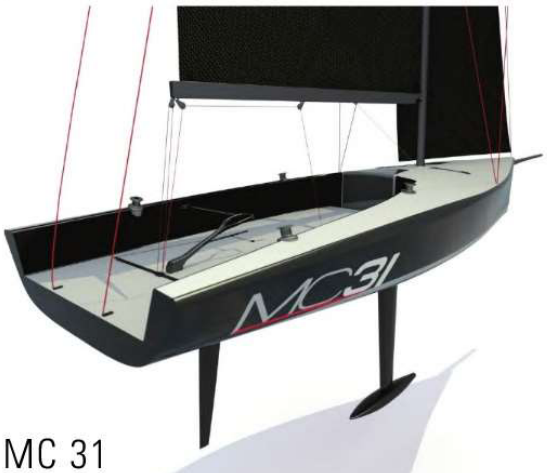
Created from the same mould as the IMOCA 60 *Safran*, that launched earlier this year by the CDK Technologies yard in France, the BPVIII has a powerful deep forward hull that shallows towards the stern where wide, flat sections promote planing. "The boat will not necessarily sail more powerfully but instead move in a lighter way, with less wetted surface because it's buoyed by the new appendages," explains designer Vincent Lauriot-Prévost. This added buoyancy might well affect its polars and wind angles so yet more new ground will be covered by this IMOCA. Their rotating masts are a challenge for instrumentation as well, with the likes of NKE and B&G supplying special sensors.

IMOCA 60 CLASS
LOA: 18.28m (60 feet)
Beam: 5.85m
Draft: 4.5m
Displacement: Between 8,000 – 9,000 kg
Sail area: Upwind between 240 and 330m²
Sail area: Downwind between 460 and 620m²
Keel type: Canting
Builder: CDK Technologies
Design: VPLP & Guillaume Verdier
Price: POA

Known to be brutal boats to sail, skipper Armel has been keen to create plenty of shelter in the cockpit to minimise the submarine effect as they power to windward. For the lone or even double-handed sailors, the skills and physical challenges are immense.

Also, controlling the powerful winged sails puts huge loads on the rigging so trimming and sail changing is endless work. So stay tuned for the Vendee Globe next year!

www.imoca.org



MC 31

The MC 31 One Design promises a similar thrilling ride to its big brother, the MC38, but with more versatility including real offshore capabilities.

Affordable grand prix racing is the aim of the MC31 and McConaghy Boats are keen to continue the momentum of the popular MC38 one-design class that has attracted many of the top sailors from the Farr 40 and larger boats. Again Dunning & Associates' design prowess for fast downwind sleds has been sought and their brief of fast, fun and rewarding sailing looks to be realised in this 30-footer. Having raced against the MC38 and helmed one in the past, I can vouch for their lively performance, so the smaller MC31 should give even more of that skiff-like feel that encourages owner drivers to enjoy close regatta competition. The MC31 Class rules require owner drivers and only one professional (ISAF classification group 3 competitor). Costs are controlled by an annual sail button system and any modifications will be tightly managed by the Class.

Cockpit space is maximised to allow both full regatta crewing and offshore numbers. A hard dodger is available for offshore, for what will inevitably be a wet, but thrilling experience. Building on the four years of MC38 racing, the new MC31 encompasses improvements including a fuller bow, higher topsides and improved deck water-tightness, plus a pneumatic forward hatch. Harken deck gear is used throughout – 40.2 primaries and 35.2 STP for the runners. Mainsheet controls include coarse and fine blocks, giving the trimmer good control near the tiller. The two piece Southern Spars carbon rig reduces weight aloft while giving plenty of power to the sailplan (159.2 square metres downwind and 64.2 square metres upwind). The assy flies from a removable bowsprit for ease of transportation and a cradle is supplied as well.

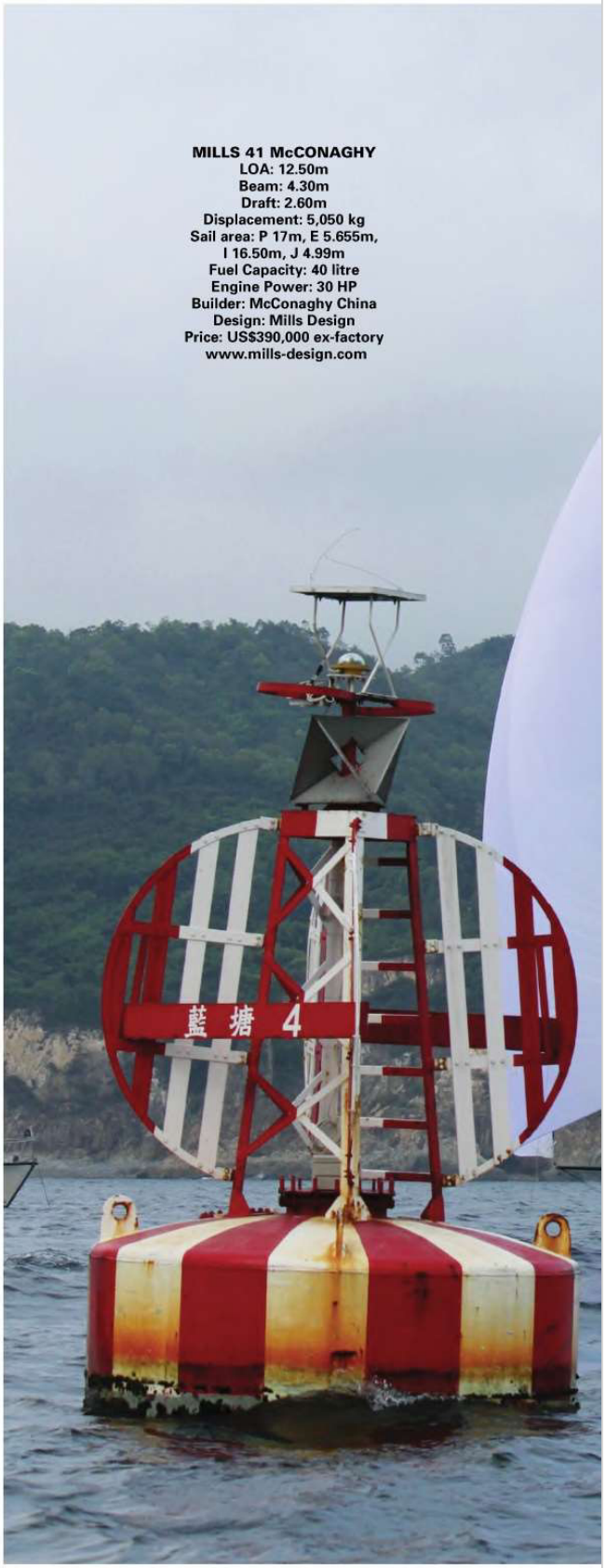
Designer, Dunning has given this 30-footer plenty of ballast and hull form stability to allow the MC31 to cope with a wide variety of conditions, including some offshore capability (ISAF Cat 2). Most usefully, the keel fully retracts for ease of transportation as well. Upwind the deep draft carbon fin and a heavy lead bulb promises good VMG while the flat aft sections will produce quick acceleration and a fun ride downhill. Construction is affordable e-glass with closed cell foam core and vinylester resin is used.

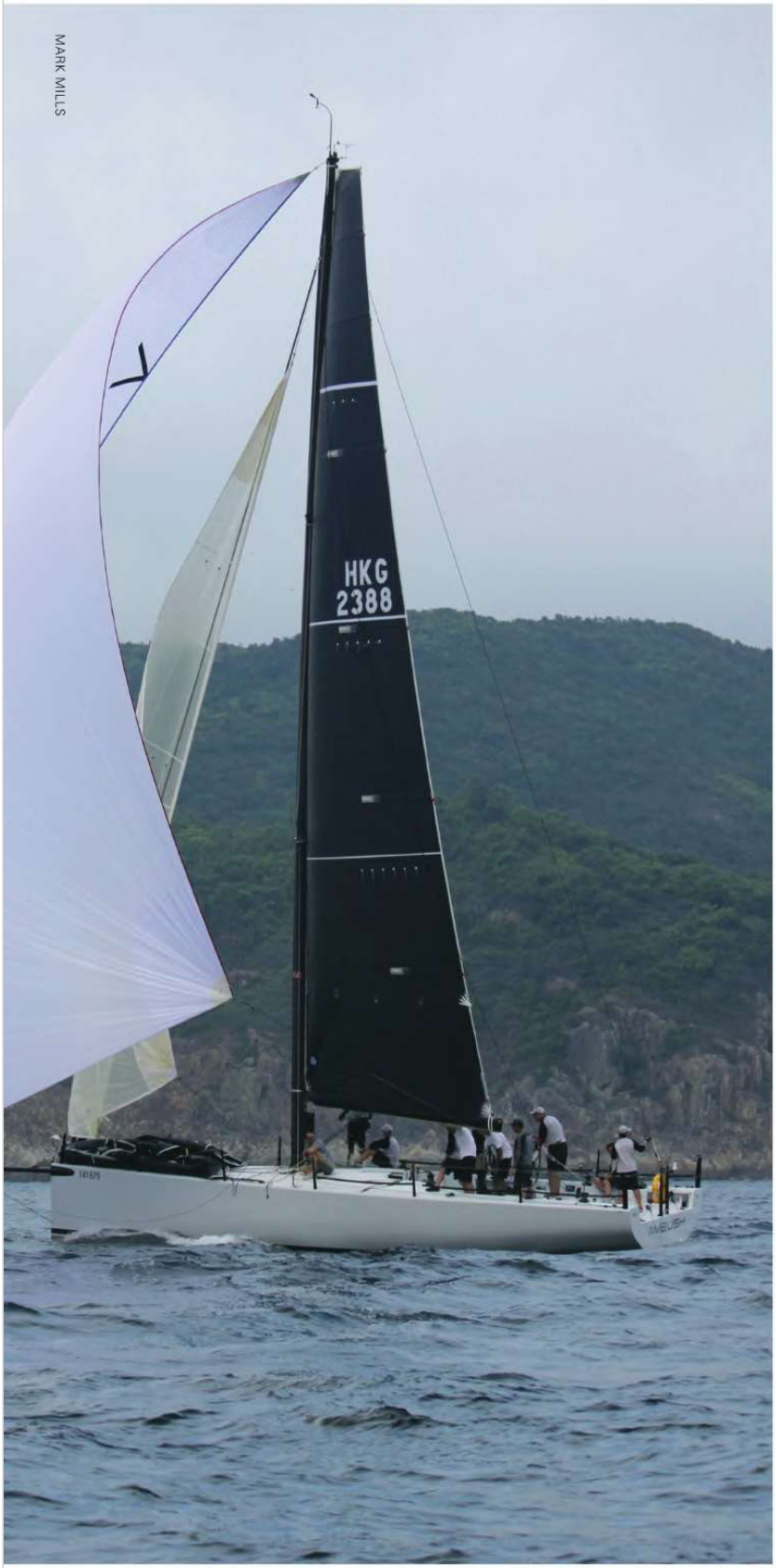
Orders are flowing in already, with new dealer, Rohan Veal in Victoria, supplying two MC31s. He tells me he believes momentum will gather towards the class worlds in 2017. "These one design yachts meet the current downsizing trend of race boat owners and MC31's offshore capabilities plus small crew numbers are other great selling points," says Veal.

www.mcconaghyboats.com

MC 31
LOA: 9.15m
Beam: 3.05m
Draft: 2.60m
Displacement:1,750 kg
Ballast: 788kg
Sails: Mainsail: 37.2m², Jib: 27.0m², Asymmetric: 122m²
Engine: 15 HP saildrive
Fuel: 25 litres
Builder: McConaghy China
Design: Dunning & Associates
Price: USD$125,000 ex factory

MILLS 41 McCONAGHY
LOA: 12.50m
Beam: 4.30m
Draft: 2.60m
Displacement: 5,050 kg
Sail area: P 17m, E 5.655m, I 16.50m, J 4.99m
Fuel Capacity: 40 litre
Engine Power: 30 HP
Builder: McConaghy China
Design: Mills Design
Price: US$390,000 ex-factory
www.mills-design.com





MARK MILLS

A simple and functional grand prix boat that is the optimum size for regatta racing with some offshore capabilities.

MILLS 41 McCONAGHY

The Mills 41 is the latest of a new generation of lightweight high performance designs from Mark Mills and his team, the result of an R&D program aimed at optimising the boat for both inshore and offshore conditions.

This particular hull has been optimised for the conditions typically experienced on the Asian circuit for repeat customers Andrew Taylor and Joachim Isler. But Mark Mills intends for the design to be competitive across wind ranges and sea conditions whilst performing well on IRC (TCC 1.237).

The design process involved a CFD driven VPP study with company KND-Sailing Performance, looking at multiple hull shape options, foil configurations, and sail plan sizes. This work built on Mills previous studies for new designs based on increasing form stability when heeled, resulting in significant performance gains.

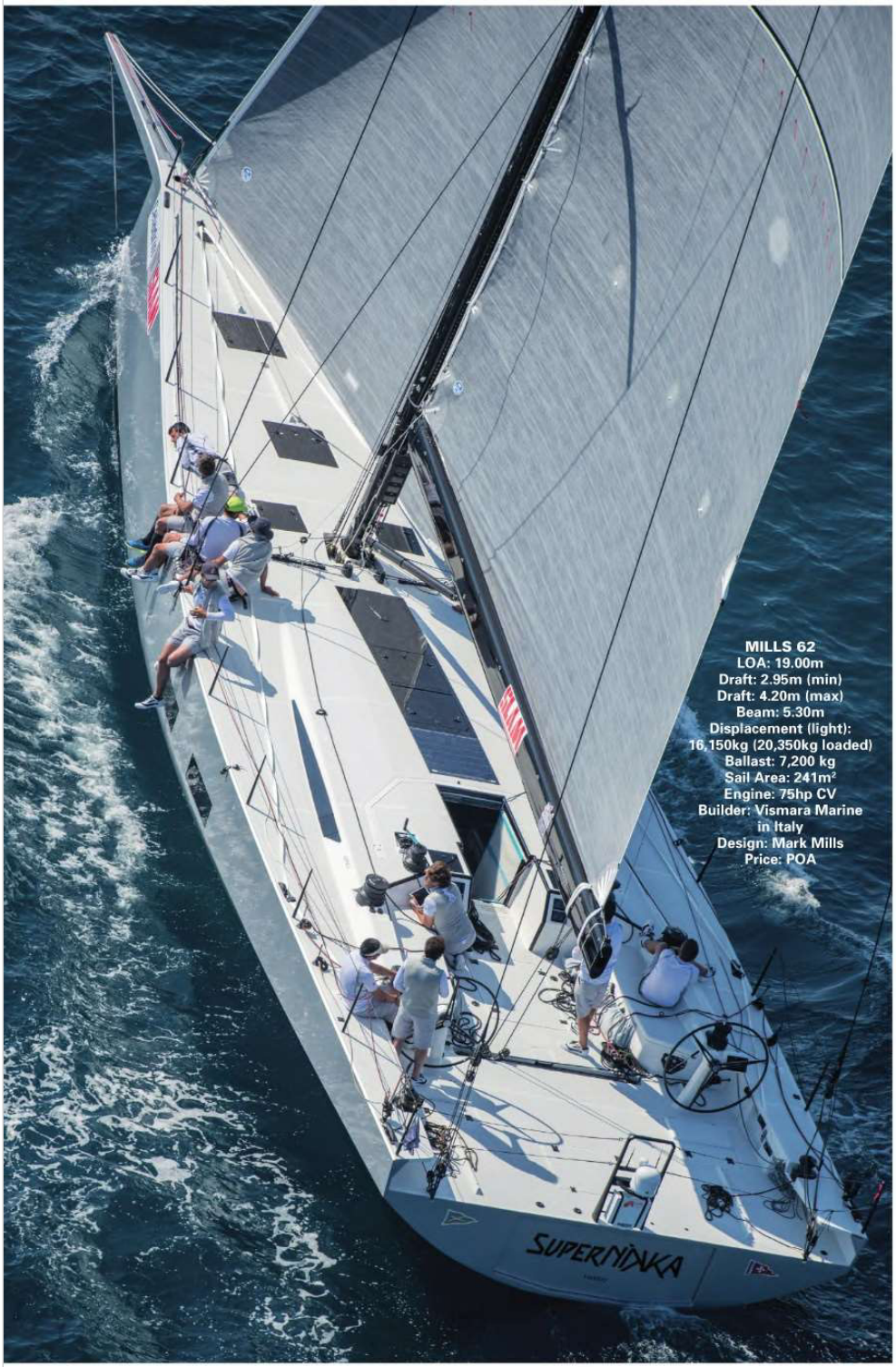
While visiting the yard in China last year I was impressed with McConaghy's two newly installed CNC robotic machines, which has greatly helped in enhancing accuracy, efficiency and weight control according to Mark Evans, who along with Jono Morris is managing director.

Since relocating part of their operations to China, the Australian company has built 1,200 boats and dinghies, an impressive record. McConaghy has partnered with engineering company SDK of Rhode Island, leading race boat engineers with prominent TP52 and Mini-Maxi designs as well as the current America's Cup holder. They have produced a refined structural layout with a focus on weight reduction, stiffness, and ease of movement internally, resulting in a simple interior, which features a basic galley and cooler stowage on either side of the mast with four pipecots for accommodation. The navigation area is on the engine box and there's a head to starboard.

For affordability and optimum rating, hull number one is built of e-glass/epoxy/foam with carbon in the high load keel structure to reduce weight and increase stiffness. Foils are a single spade carbon rudder and T-bulbed lead keel.

On deck, wheels or tiller steering is available while deck gear is from Harken – twin B46.2 winches for pit and mainsheet plus a pair of B35.2 for the runners. For fast hoists, a pedestal can be fitted as well. Other options include a retractable propeller shaft. *Ambush2* has a carbon Hall Spars NZ mast (alloy boom) held up by Nitronic rod standing rigging, with twin top Dynex top mast backstay. A North Sails wardrobe is bent on with assymetrics flying off a fixed bowsprit. Drew Taylor's boat has made a promising start in Asia, coming first in her class in the San Fernando race off Hong Kong during March and another first in IRC Div A of the Typhoon Series Race.

www.mcconaghyboats.com



F. TACCOLA

MILLS 62

Carrying on from his elegant Alegre, the new 62 confirms Mark Mills can build elegant and fast mini-maxis.

"Create a missile!" was the order given by the customer to Mark Mills for this recently-launched 62-foot racer-cruiser and he looks to have succeeded for what is an elegant but powerful IRC optimised yacht. The carbon hull, built by Vismara Marine in Italy, comes with a lifting keel while inside composite integrated furnishings add structure and create an ultra-modern feel.

Customer Roberto Lacorte's brief not only required maximising both sides of the racer-cruiser functionality but being typically Italian, the 62-footer had to be extremely beautiful as well. Aesthetics aside, race plans are for some of the Med's most prestigious events including Giraglia, the Rolex Middle Sea Race, and the Maxi Worlds.

In cruising trim, the requirements included sub-3-metre draft, powered winches, dinghy storage in the transom, a retracting bow thruster and an anchor windlass. While down below, two ensuite double cabins aft and the master suite forward was required.

"We agreed that the basic boat needed to be as aggressive as possible, so concentrated on separating the racing and cruising configurations by making cruising gear removable; based on a target of 16,150-kilogram displacement," said Mills. So this required a retractable bow thruster, removable anchor windlass, and replacing the transom door/swim step with a lighter panel, while draft was gained by lifting keel that lowered the bulb to 4.2 metres.

For this dual purpose yacht, hull shape was regarded as critical as the boat had to perform in a variety of modes and conditions. "Over more than 20 iterations we developed the harder chined hull form until we were happy that it presented minimal negatives in the light air's more upright conditions. This was clearly beneficial when heeled in a breeze, as the balance when drawing hulls of this type is firstly to try and use as much hull length, especially when heeled without a wetted transom that results in a drag increase," explained Mills.

A RANS CFD (computer fluid dynamics) program was used to finalise the shape, which has smooth stern sections with a forward set spade rudder, a relatively high chine aft and moderate bow sections. A North Sails VPP program was used to create a powerful rig that is race biased yet manageable in cruising mode, which should make this Mills 62 a really stylish weapon.

www.mills-design.com

The Pogo 3 continues the company's race dominating designs that makes these 27-foot boats lively and fun to sail.

POGO 3 MINI

The theme of our listing is innovation so including a Mini Transat boat was a must, as this class has pioneered many changes including canting keels, rotating masts, and more recently, scow bows. A 2012 race victory by a large margin of David Raison's self-designed Magnum/Teamwork Evolution proved the case for these blunt bows that give extra buoyancy forward while maximising righting moment. Scows are again part of the Mini Transat this year that leaves France on 19 September with 78 sailors registered. Tending also to have flatter bottoms, which promotes faster planing and reaching, scows are also freed from the displacement rule of waterline length determining speed. The obvious downside is increased wetted area going to windward of course, so boats like the latest Pogo 3 Mini come with fuller bows to optimise reaching while giving upwind capabilities.

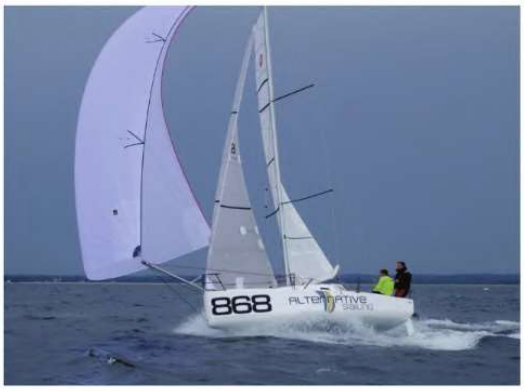
Pogo Structures are the leading Mini Transat builders with 250 hulls launched across the Pogo 1, 2 and now the version 3. Previously designed by Finot-Conq, the 2015 model is a Guillaume Verdier design.

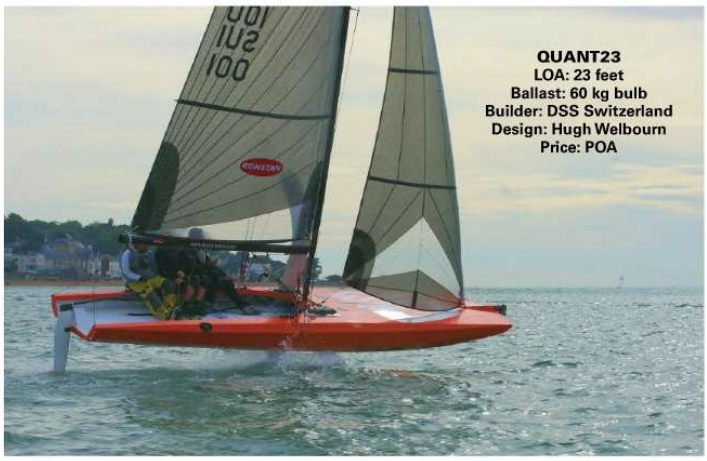
For the Pogo 3, weight has been shed for the same sail area so the latest boat is described as 25 percent more powerful than her predecessor (915-kilogram displacement compared with 985-kilogram for the Pogo 2). The fixed mast (rotating on the Prototypes) has been moved back to maximise the centre of effort. Lightness is achieved from the vacuum sandwich structured GRP hull, which looks to have more rocker, yet stability is retained by the fixed T-bulbed keel.

POGO 3 MINI
LOA: 6.50m
Draft: 1.60m
Beam: 3.00m
Displacement (light): 915 kg
Mainsail: 26m²
Genoa: 20m²
Spinnaker: 70m²
Engine: Outboard
Builder: Pogo Structures
Design: Guillaume Verdier
Price: POA

Sailing these boats is challenging, as acquaintances of mine can attest to but I also know sailors who enjoy cruising these compact yachts, which are built to withstand open ocean weather. The wide flat decks and dog-house sheltered cockpits offer just enough protection to manage the large squared topped sail plans and big assymetrics that fly from the incongruously long bow sprits. The 3.4-metre rotating bowsprits carry giant 900-square-foot spinnakers! Twin rudders keep the wide hulls tracking in the often downhill sled run across the Atlantic. Down below are found basic bunks either side, so for events like the just-completed double-handed Mini Fastnet Race, there is some respite from the action.

www.pogostructures.com





QUANT23
LOA: 23 feet
Ballast: 60 kg bulb
Builder: DSS Switzerland
Design: Hugh Welbourn
Price: POA

The Quant23 proves that foiling systems are reaching a new level, which could radically change racing in the near future.

QUANT23 DSS FOILING SCOW

Now for something completely different: an airborne keelboat no less, from Swiss company Dynamic Stability System (DSS). Designer Hugh Welbourn has spent 10 years developing the patented DSS, which comprises a retractable hydrofoil that is deployed to leeward. The foil provides vertical lift to leeward, improving the yacht's righting moment; an effect similar to having extra crew on the weather rail or a bigger keel bulb, and in turn dramatically increases performance, states Welbourn.

DSS-type foils feature on a wide range of racing yachts and most famously on *Wild Oats XI*. But these systems are also found on the Mini Transats, sports boats and the high performance Infiniti range of racers, to name only some. Seen here however on the new Quant23 scow is the next stage of this development, giving extra vertical lift beneath the boat too, which, in combination with a T-foil rudder, enables the Quant23 to sail fully airborne.

Following on from their foiled Quant28 and Quant30, the new Quant23 literally took off during testing in Cowes during June and marks a major new phase for the company; and it's not just another big Moth. While the Quant23 is a foiler (albeit with a fixed keel), Welbourn is at pains to point out that she is otherwise fundamentally different to a Moth or an AC72. While those are grand prix racers, demanding athleticism, great skill and technique to sail, the new boat does not: "The idea is simply a boat that anyone can leap into and ten minutes later they're flying." The scow bow maximises volume and creates a more stable platform, which helps promote lift.

QuantBoats' Michael Aeppli explains further: "With the Quant23, the aim was not to create the world's fastest foiler, but one of the easiest crafts to fly steadily, providing fun, fast rides, in a wide range of conditions. For us this means that the boat shall do 90 percent of the work and not the crew – mostly this seems to be the other way round with many of the other foiling boats of today, with complicated systems to manage, understand and maintain all the time."

Part of the secret lies in the inherent stability of the new DSS foils, compared to that of the inverted T-configuration foils of, for example, a Moth. The new foils, Welbourn maintains, help promote 'easy foiling' with the section, aspect ratio and length of the foil promoting early lift-off (i.e. full foiling in the least amount of wind) rather than ultimate top speed, which would require smaller foils with a less powerful section. Welbourn anticipates that the new generation DSS foil should be scalable, although ultimately the laws of physics come into play.

www.quant-boats.com

TP 52 2015

Development continues in the TP52 class where more sail area, optimised hulls and increasingly, owner-drivers are enjoying this regatta and offshore boat.

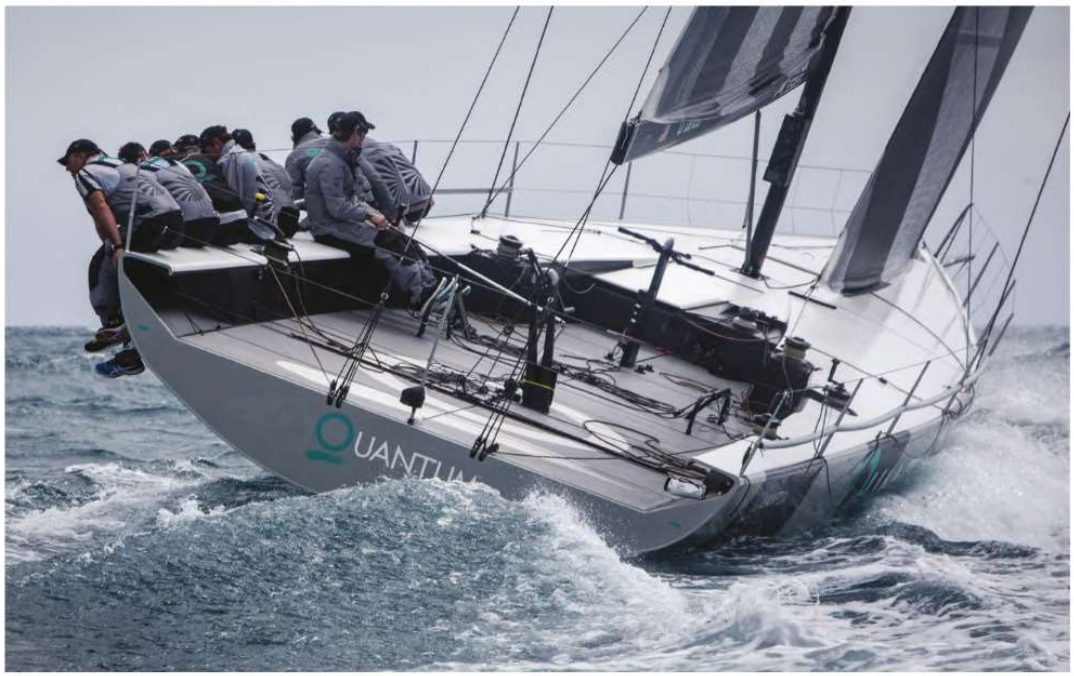
The Transpac 52 continues to attract new owners and has proven a popular race boat here in Australia with Hobart wins (Bob Steel's *Quest*) among the accolades for the class. With large numbers of boats already in the USA and Europe, the 2015 Super Series boosts their numbers by nine this year. The new yachts, built to the box rule that binds them to a key set of dimensions, leaves sufficient leeway to promote development. This has encouraged a steady evolution of the TP52 so that it has progressively become faster and more exciting to sail with fewer crew and less sails, thereby keeping costs down. Despite a dozen or so designers throughout the lifetime of the class – and I've been lucky to race on a few different builds myself – the 2015 season is dominated by only two builders among the nine new boats. Step forward Botin Partners & Judel Vrolijk whose boats have been built in five different yards spread across Spain, Italy, Dubai and New Zealand where Mick Cookson has reached hull number 15.

The development of the class has been fascinating – from the unwieldy spinnaker pole driven earlier boats to the newer generation with increasingly large assymetrics, but the same basic hull design continues. The hulls have no moving foils apart from the spade rudder while on deck the Bermuda rig with its runners is fairly basic but optimised for all wind angles. Initially an offshore design that became more regatta orientated, the TP52 continues to do major offshore events such as the Rolex Sydney Hobart and can be upgraded for TransPac races without too much effort.

The trend, according to the TP52 class association is to "build as light as possible, as strong and stiff as possible, lower the vertical centre of gravity (VCG) as much as possible, minimise windage and come up with a well-balanced all-round design optimised for strong upwind performance." Lightening the hull without compromising the structure is the eternal dichotomy but these boats often perform in rough conditions, so yachts like the latest *Quantum Racing* are expected to be sturdy enough to have a life without the Super Series. Boss Terry Hutchinson told me the new boat is generally more powerful all round with a bigger rig and more slippery hull. Mainsail area is up from 93.5m2 to 98m2 and the spinnaker has grown from 260m2 to 270m2 while weight aloft has been saved by using carbon rigging. To compensate, the bowsprit has grown 700mm longer and a mast deflector has been used to give more rig control. Hull development has reduced drag and reflects the need in 2015 to have a fast first upwind leg to gain the upper hand in the larger fleet numbers found in Europe, illustrating how exciting the class remains.

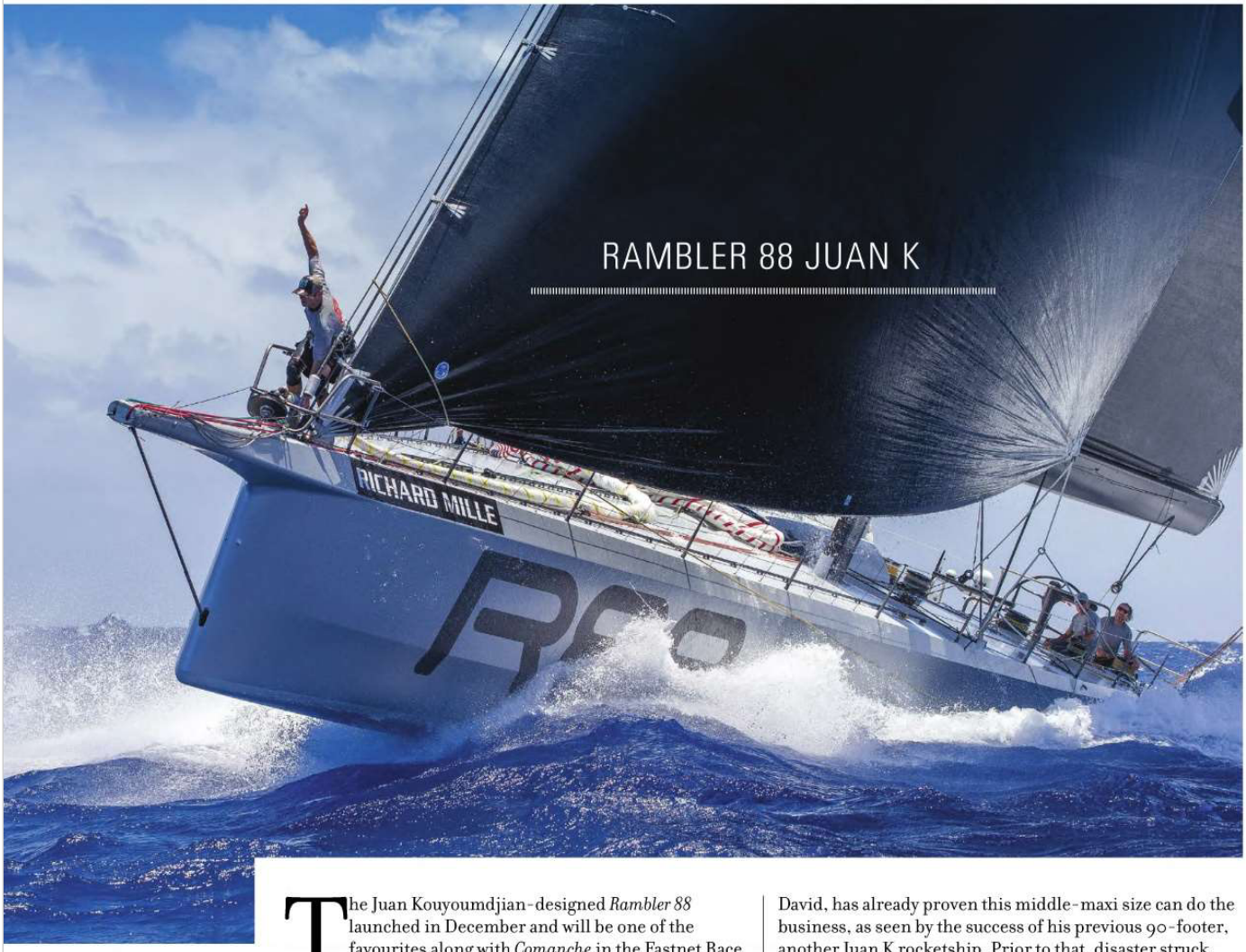
www.botinpartners.com

TP 52 QUANTUM RACING
LOA: 15.85m
Draft: 3.50m
Beam: 4.42m
Displacement: 7,025 kg
Mainsail Area: 98.0m²
Spinnaker Area: 270.0m²
Jib Area: 66.0m²
Engine: Unknown
Designer: Botin Partners
Builder: Longitude Cero (Spain)
Price: POA



SUPER SAILING
Left: The 2015 TP 52 *Quantum Racing*. Right: The innovative *Rambler 88* will be arriving this year for the Rolex Sydney Hobart Yacht Race.

RAMBLER 88 JUAN K



CHRISTOPHE JOUANY

Radical and compact for a maxi but already with some success, Rambler 88 could do damage in the Hobart this year.

The Juan Kouyoumdjian-designed *Rambler 88* launched in December and will be one of the favourites along with *Comanche* in the Fastnet Race this August. Both these monsters were US-built – *Comanche* by Hodgdon and *Rambler 88* in New England Boatworks in Rhode Island – and they share common characteristics. The two rely on huge beam and canting keels for stability while hard chines sharpen their carbon hulls, although *Rambler*'s look softer. I've enjoyed talking boats with the quietly spoken Juan Kouyoumdjian in the past but his modest personality is in stark contrast to his powerful designs that have often been bold, and some may even say brash. But there's been plenty of successes including the Volvo winning ABN AMRO boats and the powerful generation of IMOCA 60s such as *Pindar* and *Hugo Boss*.

Again Juan K has done something interesting with the latest boat, including jagged-edged twin rudders or nodules as I've seen them called. These bumps on the rudder's leading edge are said to create lift while also reducing cavitation. The other unusual feature of *Rambler 88* is of course, her overall length. Midway between the mini-maxis and the super-maxis and therefore handicap racing, rather than line honours will be a major goal for owner George David, as demonstrated at St. Barths, where he finished a long way behind *Comanche*. However, wily campaigner, David, has already proven this middle-maxi size can do the business, as seen by the success of his previous 90-footer, another Juan K rocketship. Prior to that, disaster struck of course when the original *Rambler 100* infamously lost its keel during the 2011 Fastnet. Now Sydney-based and renamed *Perpetual Loyal*, it's a regular Hobart competitor; but yet to be an overall winner.

RAMBLER 88
LOA: 27m
Beam: 7.10m
Draft: 6.0m
Displacement: 22,890kg
Water ballast: 2,800 kg
Sail area: unknown
Sail area/displacement ratio: 67.41
Builder: New England Boatworks
Design: Juan Kouyoumdjian
Price: POA

The new *Rambler 88* has water ballast of 2,800 kilograms, along with 4.84-metre daggerboards, which look more inboard than *Comanche* and angled, to create lift as well as reduce leeway. Further lift is generated by twin 2.08-metre side foils; the latter to elevate the bow and reduce the boat's wetted surface. The 41.47-metre carbon mast supports huge headsails that fly from the long bowsprit, showing that *Rambler 88* is a powerful reaching boat for those long ocean races. The uncluttered cockpit is dominated by the banks of powered winches but leaving plenty of space for the 18 crew to work around. Twin steering wheels are located forward in the cockpit and behind are the mainsail trimmers and obligatory running backstay crew. Accolades so far include line honours in the RORC Caribbean 600 race in February 2015 and overall winner in the prestigious Voiles de St. Barth's regatta in April 2015. After June's transatlantic race, we will see this rocketship for ourselves when she appears for the 2015 Hobart.

www.juanyachtdesign.com