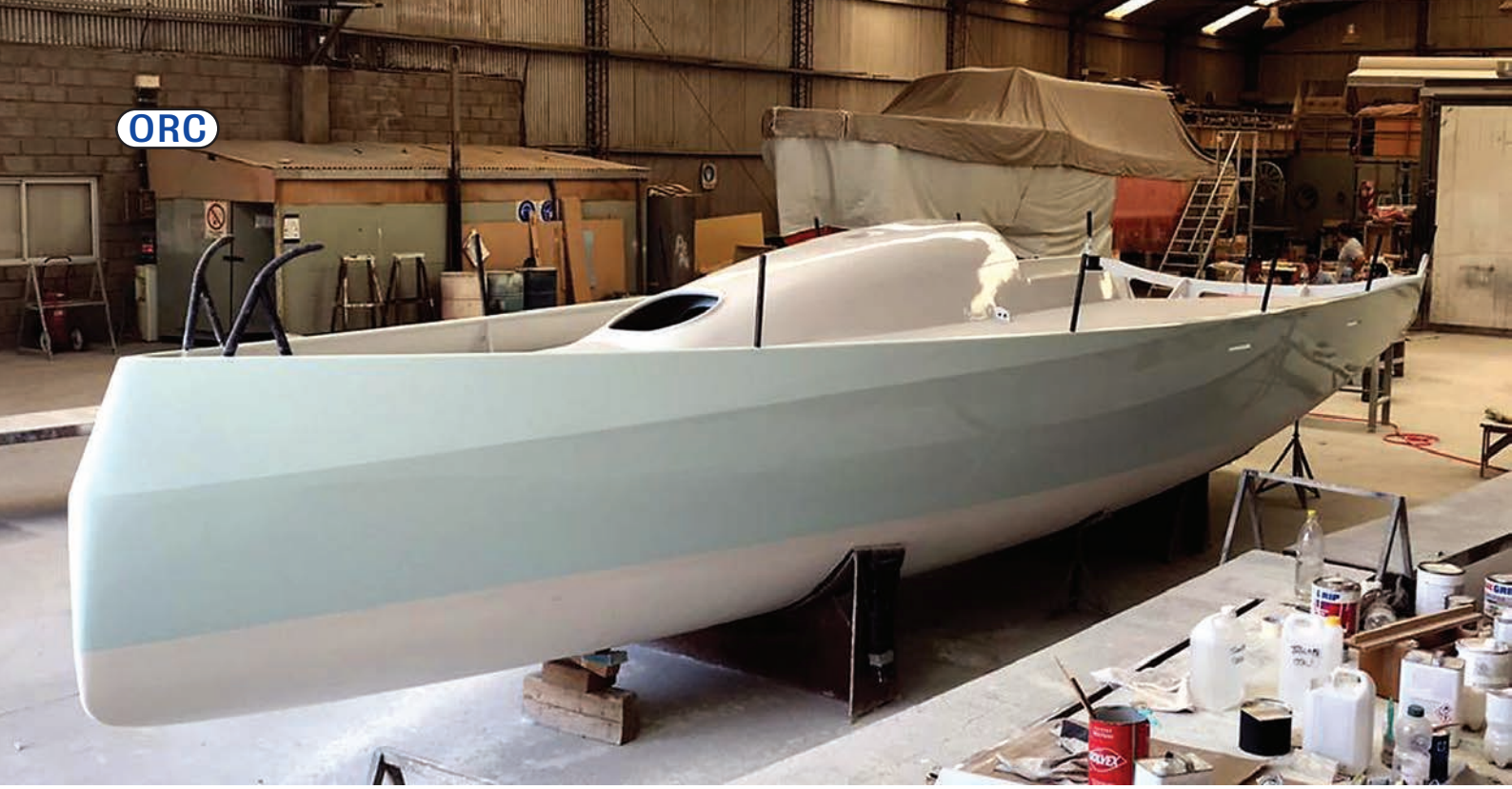

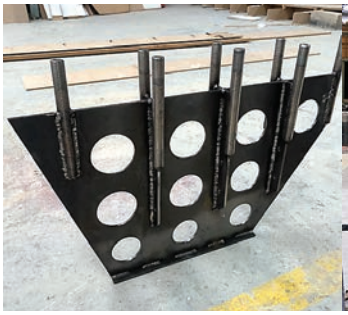

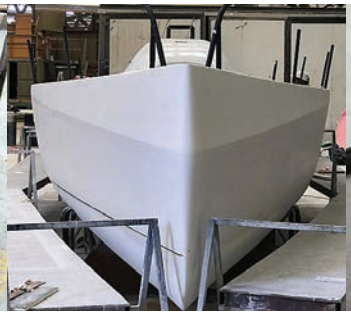

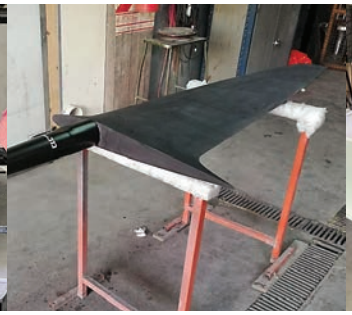

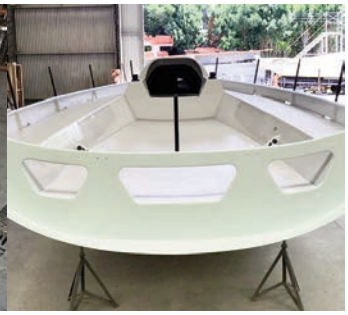

One for us

Argentina-based Martin Billoch is well-known for his decades-long design and build talents, in diverse projects ranging from competitive Quarter Ton designs, to the Skud 18 (with Chris Mitchell and Julian Bethwaite) used in Paralympic racing, to box rule GP26s. Recently he joined the classics movement with a current passion for racing *Cippino II*, the 1948 wood 15m sloop designed by the elder Germán Frers, patriarch to the dynastic design house based in Buenos Aires and Milan, as well as the classic 8-Metre *Delphis*.

Billoch's best-known intersection with ORC was in the noughties, when the rating system devised three new classes of boat types intended to attract interest in developing custom and semi-custom designs focused purely on performance – and not the dual-purpose cruiser-racers using the VPP-based system for handicap racing.

The GP (Grand Prix) classes were established at 26, 33 and 42ft in length, with varying tolerances for use of high-tech materials appropriate for the likely market for each class. Whereas GP42s were all-carbon projects that attracted interest from well-funded pro teams, intent on winning class events held alongside the Audi Med Cup, Billoch and others focused on design and build projects in the GP26 class where materials were controlled in an effort to deliver high performance at low cost.

The idea had traction, with a good number of boats built over the years in Argentina, Europe, the USA and Asia, many of which remain active in local racing. Their wide geographic distribution hindered any chance of widespread box rule racing, but their favourable ratings in ORC have kept them competitive and helped support the now popular ORC Sportboat class (this year's European championship in Istanbul is expecting 50 entries at last count).

Billoch's latest project, however, has strayed away from GP26s to larger dimensions suitable to his later-in-life interest in racing with his grown sons and daughter both at home and abroad. And not just sailing: they are helping him in the build process as well.

Billoch teamed up with Joaco Zerbo for the design of the new Billoch-Zerbo 33 now taking shape at M Yachts in San Fernando, Argentina, 20 miles northwest of Buenos Aires at the western extremity of the muddy Río de la Plata. The Billoch family's direct involvement makes this a very organic, family-friendly project, quite reminiscent of the time decades ago when raceboat design and boatbuilding could be home town affairs and not solely in the hands of a small handful of designers working with even fewer builders.

The goal of the Billoch family effort is to get the boat to Newport, RI in late September to compete in Class C at the ORC/IRC World Championship. 'Family is important,' says Billoch. 'We have been having a lot of fun both sailing in the classics and other boats over the years, and with this project we have the chance to be together and involved at every stage. This is our project so it has challenges, but it's very fulfilling.'

In a personal one-off project like this the designer/builder has more of a free hand to experiment, unconstrained by notions of what a series builder may want to sell, so this boat has some rather novel innovations to enhance both performance and practicality.

The first item is what appears to be a deck sunken below the gunwales and an oversized cabin house – and this is precisely what Billoch intended. The house size only looks high but is in fact at a minimum height for below-deck access, while the lowered deck surface pushes its weight down 25cm to help lower the boat's centre of gravity.

The low deck also helps with offshore special regs by reducing the span between guard rail and 'gunwale' to allow the use of just a single guard rail to meet the OSR maximum vertical span of 38cm.

The deck edge treatment also permits a much stronger stanchion attachment, the stanchions now being secured at both the deck itself and the top of these 'bulwarks'. And while the configuration looks unusual for a racing boat, and seems to inhibit hiking, the

Martin Billoch's latest design is coming together at M Yachts in Argentina with help from Billoch's family who are staying tightly involved in the creation of a very personal yacht for themselves. It will be fascinating to see how a relatively free-range design like this performs at the worlds in Newport, RI against optimised IRC and ORC designs. Interestingly, Billoch has gone for a trapezoid fin keel with no bulb, as remains the preferred choice on the best small to mid-sized IRC designs – especially from French names like Nivelt, JPK, Lombard and Jeanneau. The rather attractive sunken-deck arrangement lowers the CG – though it cramps headroom a little – and allows one guard rail to meet the offshore special regs requirements for a maximum vertical span of 38cm. With a 4in gunwale hiking in Newport may prove fairly limited…

top of the rail is kept at 10cm wide where some hiking may be needed – tapering to flush forward and aft where it's not relevant.

Maybe 10cm is a little narrow a hiking perch for some of us with old arses, but for the young and athletic Billoch thinks it's just fine… but he's also fitter than many of us his age, having represented Argentina in the 470 class at the Savannah Olympics where he finished in a respectable eighth place.

The Billoch-Zerbo 33 has other on-deck innovations to ensure simplicity without losing function, such as a floating tack arrangement that allows easy regular adjustment to headsail luff tension without the use of a winch. In fact, the entire deck layout is designed to reduce weight, expense and above all complication with only two winches handling all the headsail and spinnaker sheets, while for the mainsheet a purchase system without a traveller is employed, with leech tension controlled using a powerful vang.

Interestingly, one notices a lack of a bowsprit on this boat, which means the downwind sail plan relies on (gasp) a symmetrical spinnaker with pole. Billoch explained this is intentional as well, given that the ORC/IRC Worlds (like most ORC championship events) will consist of six windward/leeward course races and only two offshore races in the format, and being in Newport probably raced in light to moderate non-planing conditions.

'I look at this boat as having a nice forgiving design, easy to sail with a good crew and rewarding for those who know how to shift gears in these conditions, but ready also to keep going offshore if the weather gets rough,' he said. 'This is not a sportboat, and even though it's built light the dry displacement is over 3,000kg.'

Yes, that's right, more than 3,000kg on a 33-footer, not light. Yet this weight will not be put into a bulb to enhance stability: in fact, the keel in planform looks rather old-fashioned in trapezoid-shaped lead with no bulb, reminiscent of the old IOR keels from decades ago. Even the top of the high-aspect carbon rudder starts to resemble the keel with the addition of elongated fairing fillets.

Billoch expects to add up to 500kg of lead internal ballast at the boat's CG to set her on lines optimised for VMG racing.

And on a theme of minimal complication and expense, the hull and deck are built in E-glass, foam and epoxy – all of course vacuum bagged to ensure good saturation and adhesion. In addition, the hull has an impressive internal sub-frame structure with carbon reinforcement to take the rig and keel loads, which along with the bulkheads were fabricated with help from the local composite engineering talent that for years was actively producing raceboats, structures and spars for King Marine, King Composites, M Yachts and others – many of them remaining active providing composite components and structures for marine, agriculture and other sectors.

It is this talent that has also produced the boat's carbon spars and associated parts, carbon standing rigging, pre-preg carbon rudder and tiller, and the boat's carbon bulkheads. This represents a sensible use of expensive high-tech materials: carbon is only used where strength and light weight are paramount.

As for design guidance, Billoch said, 'I like working within the ORC rule. Personally it is my favourite rule formula because it's fair and predictable and is able to rate features in the design that other rules either ignore or penalise. By comparison, having a single number is to me like the old IOR days where you either get it right or you get it wrong.'

We look forward to seeing photos soon of the Billoch family sail testing their dream. I hope that when they get to Newport they're able to realise that if this boat is fun to sail, keeps the family together, raises some eyebrows and is reasonably competitive at the world championship, then for sure they got it right.

Martin Billoch and Dobbs Davis ❑