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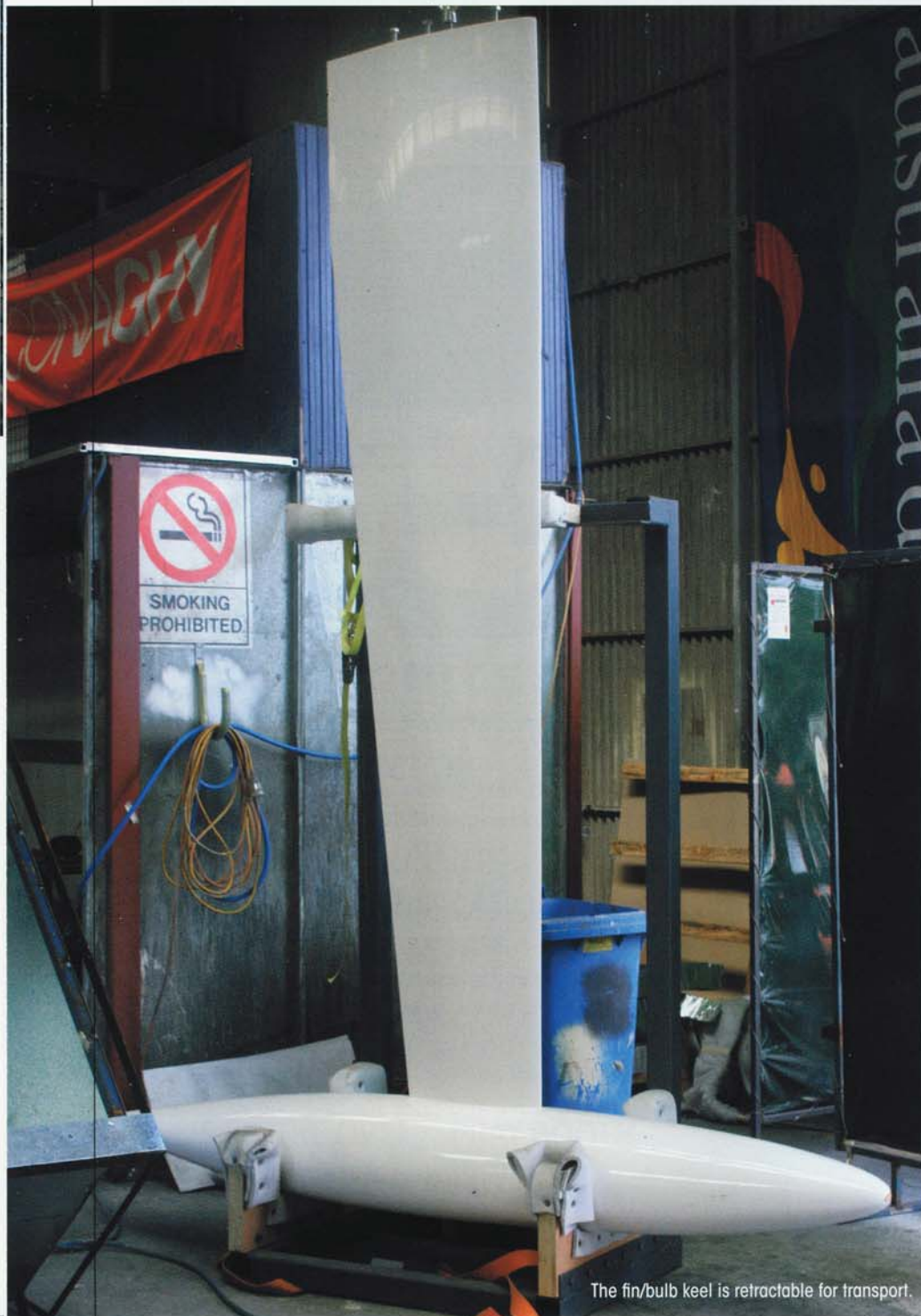
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One-design Weapon

McCONAGHY'S BOLD MOVE TO CREATE A NEW ONE-DESIGN CLASS OF 38-FOOTERS, BY BOB ROSS.



Deck and cockpit layout is flat, clean and simple.



The fin/bulb keel is retractable for transport.

THE McConaghy 38 One Design is a bold new international venture by the Australian-based custom boatbuilder McConaghy Boats to create a new class of strictly one-design fast racers.

McConaghy tapped into the expertise of America's Cup design, construction and engineering in producing the boat at its China-based manufacturing facility.

An initial set-back was severe damage of the first boat out of China, for experienced Sydney offshore racer James Neill, on the last stage of its delivery.

It brushed an overhead concrete bridge while aboard a transporter on the road to Sydney City Marine for commissioning by McConaghy's Mona Vale factory staff.

While McConaghy was still waiting for the insurer's report, it conceded that the boat would probably be written off and worked on a replacement, which is due to arrive in mid June.

A second boat has been ordered by an Australian owner and Rob Brown, general manager of McConaghy's sales and marketing arm McConaghy One, says considerable interest has been expressed in the boat internationally as well as in Australia.

The boat is light, has a simple flat, clean deck layout and promises to be fast yet easy to manage under a tall rig and to be affordable to run and to transport.

Designer Harry Dunning formerly worked for the Reichel/Pugh office where he was involved in the design of the successful canting keel maxis *Alfa Romeo* and *Wild Oats XI*.

He has also been part of four America's Cup design teams, including being principal designer for the Mascalzone Latino-Capitalia team's 2007 America's Cup challenge.

Dunning's original concept was in response to an approach from an American Farr 40 owner, Alexis Michas. "He didn't want to continue the arms race that was going on," said Brown.



The good side of the damaged first M38, clear-finished carbon, mirrors McConaghy's run of Optimist dinghies.

Deck and cockpit are flat; layout extremely simple.

"His brief to Harry was to come up with a day sailer that was affordable, modern, with increased performance and that didn't have all the equipment on board that is rarely used, like bunks, sinks and toilet."

When that project stalled as the global financial crisis bit, McConaghy took it over as an investment in a new international class.

On the recommendation of the Alinghi's America's Cup team design co-ordinator Grant Simmer, it sought expert help in the construction from two Alinghi engineer-designers: Dirk Kramers, who was responsible for Alinghi's structural engineering, and Kirst Feddersen, who engineered the rig.

"We had a meeting with those two guys in China that lasted a week," said Brown. "We went through the whole boat and came up with what we've got today."

Design and construction

The hull shape is shallow with fine yet buoyant underwater forward sections broadening into beamy rounded after sections and heavily flared topsides from amidships aft.

Deck and cockpit are flat; layout extremely simple. Apart from a stowage area forward, accessed from a companionway forward of the cockpit, there's nothing below. The engine is a 12hp Volvo diesel with sail drive, accessed from a hatch in the cockpit floor.

The hull has carbon fibre and E glass skins vinyl ester resin-infused over a Corecell foam core, with elevated temperature post curing. The female moulds for the hull, deck, bulkheads and structural framing are computer-controlled CNC milled for precision.

Keel fin and rudder are also constructed one-piece in CNC-milled steel female moulds of solid carbon cured in an autoclave oven.

This means no costly subsequent fairing is necessary to perfect hull and foils, which is indeed banned under the class rules.

The standard boat has a white gelcoat finish. Clear-finish to the carbon topsides

is available as an option; one chosen by James Neill.

The hull structure is very simple with thicker core and thicker skins and less framing. Spars are McConaghy-built carbon and the rigging is Navtec PBO. Even the streamlined deck stanchions are carbon-fibre moulded.

Forestay and twin backstays are Dyneema. The mast is in two pieces that can be separated for ease of transport. The spinnaker prodder is retractable. The boom has an outhaul and one-reef control system utilising a Spinlock jammer.

All-up weight is 3200kg. "Add a crew weight of 600kg and you have a very hot mix to out-perform larger boats," says Brown.

Portability

Portability is a feature of the boat. The 3.5m beam width is road legal and the bulbed fin keel retracts in a centrecase so that the boat can be transported on a low loader or flat-top truck to save costs and avoid damage.

"I can see it travelling to regattas like Geelong, Sydney Audi, Gold Coast, Hamilton Island and in time overseas to attend international regattas," says Brown.

Tiller steering is standard with an upgrade to a dual wheel system available.

The sail plan has a flat-head 68sq m mainsail with a reef that will go in at around 23 knots of true wind speed, two headsails with soft hanks, to expedite hoisting and lowering and to retain the sail when it's dropped, and two asymmetrical spinnakers set from the 3m retractable prodder.

The mainsail has an Antal halyard lock and genoa a custom-made Feddersen lock.

Deck hardware in the standard price package includes Harken fittings and winches, Spinlock jammers and McConaghy's sliding hatch system.

The price, including rig, deck hardware, running rigging and the Volvo 12hp diesel with sail drive but excluding sails, electronics


and safety gear ex China, is \$US235,400.

The delivered boat is guaranteed to comply with strict McConaghy 38 one design class measurement rules. All equipment supplied with the boat including hull, foil, spars, deck hardware, engine, sails and rigging are class registered and cannot be changed or altered.

Brown said that TP52 circuit stalwart Marcus Blackmore was keen to see the MC38 added as a second class if the TP52 class circuit gets going in Australia.

Besides one design racing, the boat appeals to people who like to race and day sail on an affordable, simple, fast, easily-crewed and maintained package. "While the one-design element is a strong part of the appeal, we've got about 40 per cent of the people interested in the Australian market wanting to do club and twilight mid-week type social racing," says Brown.

While the MC38 is not intended to race offshore, a trial certificate run has shown that it will be category 4 capable under Yachting Australia's Special Regulations.

"The boat is built to handle all the structural loads but obviously it is not designed to do Hobarts and races like that, although some crazy people may want to," said Brown. 

Specifications

Length overall	11.35m
Length waterline	10.5m
Beam	3.50m
Draft	2.80m
Displacement	4000kg
Bulb	1600kg
Sail dimensions	I 15.90m, J 4.63m, P 16.50m, E 5m.00m
Sail areas	Mainsail 68sq m; genoa 33sq m, spinnakers 180sq m
Engine	Volvo diesel 12hp 130s with sail drive