

ALFA ROMEO 3



Builder :	McConaghy Boats, Sydney, Australia
Naval architect :	Reichel/Pugh, USA
Engineers :	Reichel/Pugh Yacht Design, Inc
Type :	Mini Maxi - Sail No NZL 8
Year :	2008 / 2009
Lying :	La Ciotat – South of France
Flag :	New Zealand
Price :	2.500.000 €- Euro

COMMENTS : The 'new' Alfa Romeo 3 is the outcome of owner/skipper Neville Crichton's ultimate confidence in his designers, US-based Reichel/Pugh to completely modify the existing project and to virtually replace their original concept of a boat built in 2008 to the then new Mini Maxi rule and in his builders, Australia's McConaghy Boats, to achieve a practical result within a tight time frame.

That she is back on the sailing circuit, and already winning, is a tribute to the boat's small professional crew led by Murray Wade, to designer RP's Jim Pugh, and to the team of shipwrights at McConaghy Boat's China factory where the 'new' boat was ultimately built.

Alfa 3 has grown in hull size, strength and weight during her eight month re-build. LOA is now 71 feet 6 inches as against an original LOA of 69 feet. She is 5.4 metres wide, approximately 38 cm wider than before and her weight is up by about 1 tonnes, a combination of her increased size and a heavier bulb. The new hull is more rounded in shape, fuller at the bow and narrower at the stern. The rig is unchanged other than a six inch increase in the J measurement. The original mainsail has been recut, but for the moment is the same size. To achieve stability with the fixed keel, the beam is almost the same as the 100-footer. The rig is sweptback, thus eliminating backstay runners, but adding new challenges in rig set-up before each race.

Like her predecessors, Alfa Romeo 3 is in every respect at the cutting edge of yacht design, engineering and construction, and in rig and sail design and in sailcloth. With a conventional bulb keel, she is a striking-looking racing boat, with a long bowsprit protruding from a powerful, beamy hull driven by a tall sweptback spreader rig.

Winner of the Copa del Ray 2009

Winner of the Mini Maxi Event at the Maxi Yacht Rolex Cup

Classification :	IRC Mini Maxi
	IM 27.95 m
	J 8.45 m
	P 29.30 m
	E 10.30 m
	BAS 2.17 m
	ISP 31.65 m
	STIL 11.85 m (sprit length)

Construction :	
*hull :	Carbon composite
*superstructure :	Carbon composite
*deck :	Carbon composite

Colour*hull :	White
*roof :	Black
*deck :	White

Length overall :	21,80 meters
Maximum beam :	5,40 meters
Draft :	5,00 meters
Displacement :	15.600 kg

Appendages :	2 x Rudders
	2 x Bulbs
	1 x Fin

Spars : 33 m above deck 3 spreaders mast by Southern Spars, Auckland, New Zealand
Standing rigging : EC6 carbon

Sails : North Sails (Australia) Pty Ltd, Sydney, Australia
Sail area *upwind : 314 m²
*downwind: 642 m²

Deck hardware : HARKEN (Harken AC winch Package)
NAVTEC Hydraulics package
CARIBONI Rotary Pump

Engine : 100 HP lightweight FIAT Marine Diesel
McConaghys lifting propeller system with CCHE thrust bearing. Extremely lightweight and reliable.

Batteries Lithium

Electronic *instruments : B&G WPT2 (Many fids and 2020)
*self steering :
*gyrocompass :
*AIS Classe A :
*computer : Panasonic tough book and deck screen
*screens :
*fleet 77 :
*standard C :
*mini M :
*VHF radio :
*meteo :
*GPS :
*chart plotter :
*radar :
*Epirb :
*stereo :

THE 'NEW' ALFA ROMEO 3

DESIGN

Discussions followed with John Morris of McConaghy Boats and Jim Pugh of Reichel Pugh Design. Re-building options considered including sending a team to France to undertake the rebuild or shipping the boat back to Australia. The task was going to be bigger than first considered and eventually Alfa Romeo 3 was packed up and sent to McConaghy Boats operation in China, its workmanship in re-building high tech yachts already proven.

Alfa Romeo 3 arrived in China fully stripped down with all parts carefully packed in the container and the McConaghy team immediately began dismantling the boat in preparation for major surgery. The team then started the devastating task of literally cutting up a boat that they had spent countless hours in building and finishing to such a high standard just a few months before.

Within a couple of weeks all that remained was a deck suspended in the air with a few bulkheads hanging off it, surrounded by piles of carbon dust and old hull panels. Next door, however, a new hull was underway, being prefabricated on the vacuum tables.

Reichel Pugh had designed an entirely new hull, longer to better suit the tall rig which was to be retained unaltered, but more rounded in shape with no chines. "The hull shape is completely different," Crichton explained. "She has more rocker, is fuller at the bow and narrower at the stern; she is also stronger for offshore racing. And she has a lower IRC rating than the original boat."

During the re-building the original deck was moved aft on the new hull, keeping intact the mast gate, halyard runs and traveller positions on the existing deck. The forestay has been slid forward slightly with the headsails recut, adding a thin wedge up the luff.

The rudder position has been moved, using the existing bearings and structure, with McConaghy Boats in Sydney constructing a new rudder to a new design by Reichel Pugh. The keel position relative to the mast has also been changed, but the keel fin and bulb are the same. Surplus weight has been saved in every possible way. The same lightweight foam has been used in the sandwich construction of the new hull, while almost every metal fitting on the boat is titanium, including the pulpit, pushpit and deck stanchions. The weight saving has even been extended to the colour of the hull, which, unlike the silver-painted Alfa Romeo maxis, is plain white - saving 15 kilos in the weight of paint.

INTERIORS

The striking concept below decks has been retained with the 2009 version of Alfa Romeo 3, although clever geometry was needed to fit it into the new hull. One of the most striking features of Alfa Romeo 3 is the stylish interior created by John Morris of McConaghy Boats in Sydney, with some clever solutions during the rebuild of the hull. Below decks Alfa Romeo 3 is quite remarkable, in style and colour. The engine box paint is a rich metallic red from a direct view, but it appears black from an obtuse angle. Visually the paint is constantly changing. Sitting at the navigation console is like being in the driver's seat of the limited edition Alfa Romeo 8C sports car and it is from the preproduction concept 8C that the engine cover's colour is taken. The Alfa concept can be seen throughout, even to car badges at strategic places on the deck and a companionway that looks like the grille of an Alfa.

THE REBUILDING

HULL & DECK: Apart from the rig, the deck has been the only part of the original Alfa Romeo 3 to escape the surgeon's knife. The deck layout, retained in the 'new' boat, is simple, with a long flat cockpit running from the open transom through to the companionway and a short, low coach house. The cockpit is clear except for the two black carbon fibre steering wheels, which have their pedestals canted outboard, and three coffee grinders. All deck gear is by Harken with hydraulics by Nautec. To accept the bigger hull, the deck has been moved aft but retaining the mast gate, halyard runs and traveller positions.

CONSTRUCTION: With New Zealand-based High Modulus as the engineers, McConaghy Boats of Mona Vale in Sydney, built the hull, their fourth big boat for Neville Crichton and their 14th maxi or mini maxi yacht built in carbon fibre composite by the internationally renowned boat builders. Using a male mould, the hull is carbon fibre over Nomex honeycomb, with Corecell foam in high load areas. Weight has been saved wherever possible, with titanium used in all metal fittings. The original hull has been totally cut to pieces at McConaghy's china operation. A new hull has been built - longer, wider, stronger and heavier - quite different to the original hull with a fuller bow and narrower at the stern.

KEEL & RUDDER: The Weldox 900 stainless steel keel and the bulb for Alfa Romeo 3 have been built in Italy. With the re-build of Alfa Romeo 3, McConaghy Boats have also built a new rudder blade to a different design by Reichel Pugh.

ENGINE: The engine is a Fiat marine diesel. As they did for Alfa Romeo 2, McConaghy Boats have designed a propeller retraction unit, which lifts the four-blade fixed prop back into the hull, leaving a flush surface when under sail.

MAST & RIGGING The superbly finished and shaped carbon fibre mast, which will tower 31.5 metres above the deck of the 21.4 metre hull, has been built by Southern Spars of New Zealand. They have also made the EC6 carbon rigging which is 30 per cent lighter than the once conventional stainless steel rigging and even lighter than carbon fibre rigging. With sweptback spreaders, no backstay runners are required, but the crew has the ability to adjust mast rake for before a race with the use of a shims under the mast step and by adjusting the forestay for tensioning or softening the rig. No change has been made to the height of the mast but the forestay has been moved forward. As a result, the boat now has a longer J measurement and the mainsail has been re-cut.

SAILS: North Sails Australia have once again provided the 16-sail inventory for Alfa Romeo 3, designed by their principal designer Keith Lorenz and project managed at the Sydney loft under the watchful and experienced eye of Alby Pratt. The 3DL working sails were constructed in the US and downwind panel sails at their company's recently expanded loft in the Sydney suburb of Mona Vale. Lorenz combined his spinnaker design expertise with another North designer Steve Calder, a member of North International's Performance Resources Group (PRG), who was in charge of sail development for the Ericsson Volvo Race team. Keith and Steve spent a week in 2008 at the Auckland University's wind tunnel, synonymous with America's Cup sail development and testing. The spinnakers for Alfa Romeo 3 have been made from Cuban Fibre, a hand-made, high-load material developed by a company recently taken over by North Marine Group.

Michael Coxon, managing director of North Sails Australia and also tactician aboard Alfa Romeo, explained that the sail engineering and design specifications for the beamy fixed keel of Alfa Romeo 3 vary considerably from her larger big sister, the streamline 100'er, with canting keel.

"Unlike the 100-foot canting keel Alfa Romeo, the apparent wind will not be as far forward, so we have made deeper spinnakers," Coxon said. "It will be a much different boat to sail, a very powerful hull in which crew weight and the beam of boat will be the key to stability, rather than a canting keel."

Coxon said that the sweptback spreader rig means it would be more complex in tuning the rig for specific conditions.

"Before the race, we will be able to adjust mast rake and rig tensions via hydraulic rams which adjust the forestay length and shims under the mast step, increasing the tension or softening the rig according to the wind forecast." he added.

CREW: Thanks to the keel design, Alfa Romeo 3 will use its wide beam and crew weight for stability and it is likely she will carry a crew of 21 sailors, much the same as the 100-foot canting keel Alfa Romeo. In a highly experienced combination of America's Cup and regular Alfa Romeo crew, the "brains of the boat" are Briton Ben Ainslie and Australian Michael Coxon, with Wade Morgan as the board captain.

MINI MAXI DIVISION The concept of a Mini Maxi Division within the Maxi Yacht Rolex Cup came into being at a meeting of maxi yacht owners following the 2007 event at Costa Smeralda, Sardinia, in which the 98-foot Morning Glory covered the smaller 63-foot Loki in the final and deciding race to the extent that Loki was forced back down the fleet and out of an overall win. As a result, two divisions have been created for the Maxi Yacht Rolex Cup - the Maxi Division is now for yachts between 80-feet and 100-feet LOA, the Mini Maxi Division for yachts between 60 feet and 79-feet.

MISCELLANEOUS

Cradle

Galvanised engineered shipping cradle able to be assembled in High or Low mode. Narrow enough to be transported on European trucks. Top Quality.

2 x McConaghy wands
Float switch Bilge pumps
Front Hatch compressor
Diverse head stay load cell

Misc.

12' wide Lifting slings custom built to lift the boat level
Removable Center point lift bracket, Shackle and sling.
Mast lifting slings
Sheer protectors
Torque Multiplier and Torque wrench for keel bolts.
Dummy keel and rudder able to be on when shipped on cradle in low mode. (the baot has been delivered 180mile in this configuration.

The boat will NOT be sold with its container or tools but all spares associated to the boat will be provided, as Stated above the boat is ready to race and is in working order.

VAT STATUS

VAT not paid.

Detail given in good faith with no guarantee nor warrant for accuracy or conditions. A Buyer should instruct his surveyor to investigate such details as he desires validated. This is NOT a contractual document.







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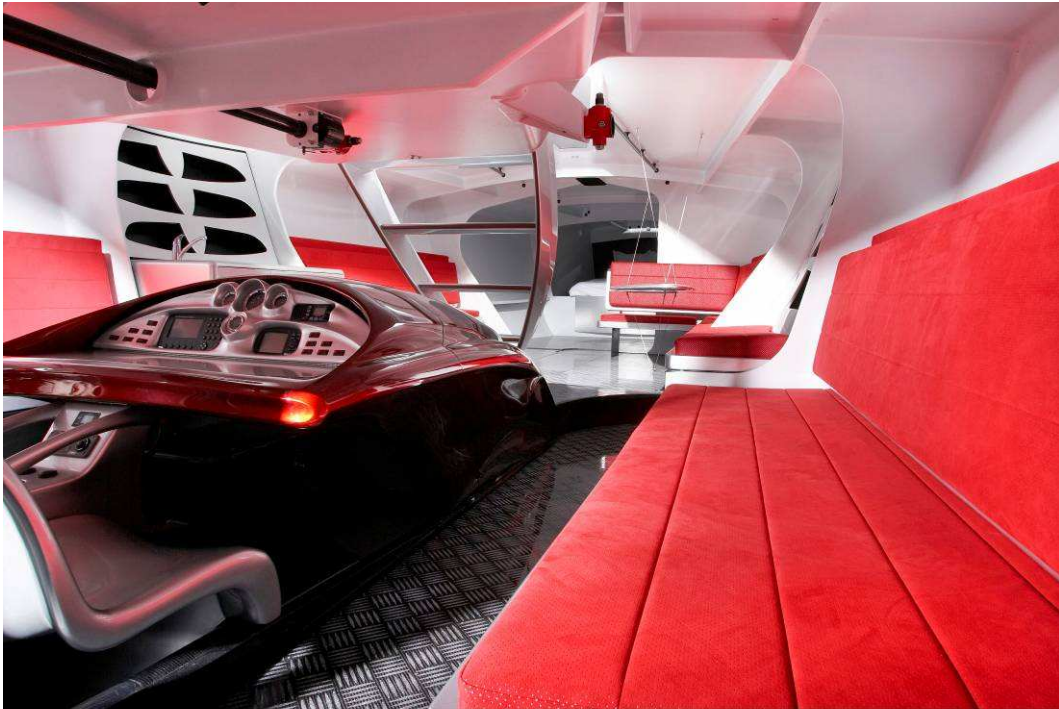


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