

KEEPING UP WITH TRADITIONS

BY LINDSAY WRIGHT



PHOTO CREDIT: ROGER WILLIAMS, WHALE WATCH

Ever since they were lightly built in wood and powered by a bunch of blokes heaving on oars, whale chasers have been some of the leanest and meanest boats around.

The new generation whaleboats leave the balcan and blubber where they belong and harvest the indelible memories and profound awe that a sighting of these majestic mammals inspires in the people they have on board. But some things haven't changed. Whale watch boats are still some of the quickest, most manoeuvrable, purpose built boats around and Whale Watch Kaikoura's new *Wawahia* maintains the tradition.

For the newest addition to their fleet, Whale Watch Kaikoura returned to Q-West Boatbuilders in Wanganui, who also supplied four other vessels for their six boat fleet and has a long standing relationship with the iconic South Island tourist operator. "They have a 10 year boat replacement programme – this one will replace *Wheketera* which we launched almost 10 years ago to the day," Q-West managing director, Myles Fothergill, explained. Another four replacement boats are planned over the next 10 years.

To draw *Wawahia*, Whale Watch Kaikoura went back to Teknikraft, the Auckland designers who had also drawn her predecessor, and a fleet of multihull ferries and tour boats in use all over the world.

Overall length was set at 17.9m with a beam of 6.4m with a draught of 0.75m and the shape would be Teknikraft's signature asymmetrical catamaran with its proven performance, ride and load carrying qualities.

A main criteria was that the new boat could enter restricted coastal survey for 56 passengers – 48 paying guests, skipper, three guides and trainees. Most of the year the whales feed and frolic in the Kaikoura Trench within 12 miles of shore, but at certain times of the year they move out to 15 plus miles and *Wawahia* had to be surveyed to follow them.

Whale Watch Kaikoura is also upgrading their skippers' tickets to suit and providing them with the workspace for the job. The central helm station is accessed by a short flight of stairs to port and starboard and has two seats with a central console for throttle handles and the electronic engine and jet unit controller. Furuno Navnet screens fall straight to eye on the dash panel and can provide colour 3D chart plotting with radar overlay, colour echo sounder or colour radar. ICOM VHF and SSB radios on the port side of the panel also fall easily to hand; all supplied by Electronic Navigation Ltd.



Q-West's Myles Fothergill at the helm during sea trials with Jason Narayan from VolPower



The foil gives good lift to the hull at speed

All round visibility is good from the helm seats except aft – the aft bulkhead is the forward termination of the observation deck.

When she's at work, passengers board straight over *Wawahias* bow at the company's purpose built marina in South Bay and walk down to where watertight doors at the for'ard end of the house provide access to the passenger space. Her eye catching graphics were designed by Dean Whiting and applied by Image Signs in Wanganui who have both done all the company's six boats.

Eyeballing is the name of the game for this whale chaser and large reinforced glass windows give those who prefer to remain indoors an uninterrupted view to port and starboard. Ayres composite panels, which use an aluminium honeycomb core with exterior finish bonded to it, give the space a bright (and lightweight) ambience which is thoroughly modern and hard wearing.

Blue patterned carpet completes the cosy feel and the space is dominated by a large communications screen mounted on a for'ard bulkhead and the console where the voyage narrator sits to deliver safety briefings and information.

The guests are accommodated in aircraft style Beurteaux seats which are upholstered in stylish dark blue leather. Continuing the airliner theme, each seat has a lifejacket neatly stowed beneath it. The firm feel of the leather means that there's no slipping and sliding even in the tightest turns that *Wawahia* is capable of.

And *Wawahia* is capable of some pretty tight turns. Two Volvo D16 MH, in line six cylinder diesels, supplied by Volpower (NZ) Ltd, produce 750 horsepower (551 kW) each at 1900 rpm and are harnessed to a pair of Hamilton HJ 403 jet units to get the boat up and boogying. The Volvos are the first of their kind in to be used in New Zealand for a commercial passenger vessel application ▶



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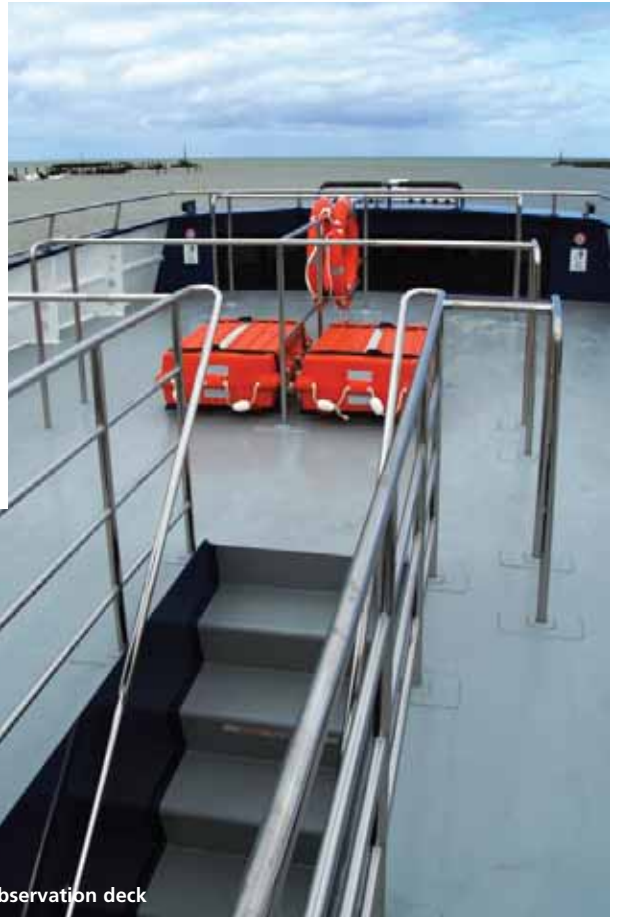
Main saloon



A pair of bits above the unique hull graphics



Anchor locker



Upper observation deck

What Hamilton calls a “split duct astern deflector” holds the key to *Wawahias* nimble handling. It’s a tricky development of the buckets that drop over the jet stream to make the boat go backwards – the split ducts funnel water down away from the transom and away from the intakes so the units develop about 60 percent of their total forward thrust when going astern.

Heading down the Whanganui River at about 10 knots, we put the boat astern and she stopped so suddenly it felt like we’d run aground ... a handy knack when working around marine mammals. The boat also moves sideways with ease and spins in almost her own length.

Powering out the Whanganui River entrance into a metre or so swell on the bar, I expected to experience the “bridge deck slap and bang” pounding that many catamarans would turn on in those conditions and the jerky motion that often goes with it. In the event, *Wawahia* skipped across the turbulence, performed well beam on and turned predictably without any slapping or other shenanigans ... helped, I suppose, by the extra buoyancy forward provided by the asymmetrical hulls. Hand holds are placed where you need them and the boat’s as well behaved as a Russian ballerina dancing a command performance at the Kremlin.

The Blue Arrow controls provide a seamless transfer of engine room orders from the skipper to the engines and jet units. The jet units are rated for up to 1200 hp (900 kW) at 2400 rpm, so they’re not working hard but still power the 26 tonne boat to about 35 knots, Myles explained. “Service speed is about 28 knots,” he added, “and she’s using about 82 litres per hour per engine at that.” Electronic engine management systems monitor the engines, including synchronization of both installations, reporting back to a panel at the helm station.

One drawback of *Wawahia*’s asymmetrical hull form is that it’s not possible to line the engine coupling and jet unit up in a straight line. Q-West solved that problem by installing intermediate shafts about 1.5m long with a universal joint and Vulkan flexible

and the integration with the Hamilton Blue Arrow electronic control system is also the first of its kind in this country.

Wawahia was the name given to the first catamaran built by Whale Watch Kaikoura back in 1992. She was the company’s first catamaran to have Volvo Penta engines and Hamilton Jets, so it is fitting that this new generation *Wawahia* incorporate the new Volvo D16 MH engines with the Blue Arrow control systems as another first for the company.

“The jets are perfect for the work we do,” Whale Watch Kaikoura Sea Operations Manager, Roger Williams explained, “no gear boxes to go wrong, there’s no props or drive gear hanging below the boat, they’re very manoeuvrable, low maintenance and quiet.”



The engine room, while tight, still affords room for servicing



Kohler gen set

couplings at each end to do the job.

Fuel is drawn from two, independently mounted, round 1000 litre tanks in the hulls just forward of the engine rooms. "It's a bit of a departure for us," Myles said, "normally we build integral tankage but it proved more cost effective to fabricate these tanks and drop them into the hull."

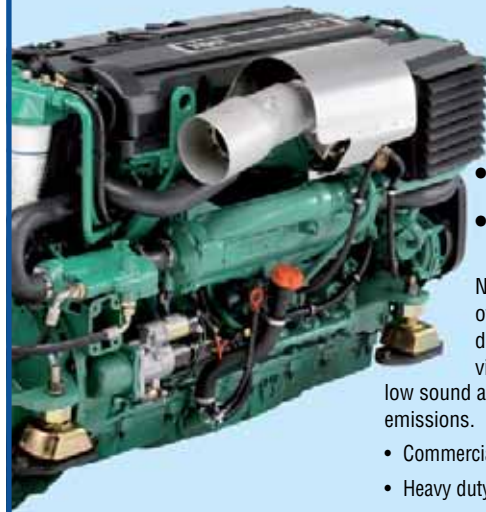
Access around the engine is also limited by the hull form and the inboard side of the main engines would present a challenge to even the most supple, mechanically minded midget. All the regular maintenance expendables; fuel and oil filters, oil dipsticks and fillers and zinc anodes, are mounted on the outboard side however, where the convex shape of the hull allows plenty of working space. Large opening hatches in the deck allow plenty of light and air into the engine rooms, or plenty of Volvo out if needed. Big scuppers and healthy rubber gaskets in the channel which the hatches fit into, ensure that no water sloshing around the deck will find its way below.

A Kohler 20EFOZD generator, in a sound insulated casing, hums away from a pedestal mounting just inboard of the jet unit in the port engine room, pumping out 20 kVa to power *Wawahias* operational and domestic systems. If it all gets a bit hot under the hatches, a dousing system can be activated for fire fighting.

Wawahia's hulls are plated with 6mm Sealium plating, a lightweight aluminium plating which was developed for high speed ferries and is said to have 15 percent more welded strength than conventional 5083 marine alloy. The topsides are 5mm Sealium plating and decks and deckhouse are built of 4mm Sealium.

The other tricky bit of technology in her build is the G James extrusion decking on the top observation deck. The extrusions are like 2mm thick aluminium planking which is longitudinally welded and work out being stronger over a given area. "It means a lot more welding – but is lighter than normal plate – and doesn't need as many deck beams to give the same rigidity as normal plate," Myles said. ▶

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And weight has got to be an issue upstairs with 48 paying punters craning over the side for one last look at those big black tail fins as they head 1000m down for a feed of giant squid. The stanchions on the observation decks thigh high bulwarks have holes drilled in them for lightness and stainless grab rails fall to hand everywhere.

A 500 litre fresh water tank supplies the two toilets – one either side on the aft deck – and a drink fountain in the passenger space.

A 20kg Manson anchor is snugly stowed in a chock welded between the hulls and restrained by a chain hook onto the Maxwell electric windlass, all neatly mounted in a locker under flush hatches on the foredeck.

Wawahia may be the first exception to Whale Watch Kaikoura's 10 year boat replacement plan and a spokesman said that, with her slightly heavier construction and use of Sealium, the \$2.5m whale chaser should be in service for 12 years. Build time was about 10 months and, like all their boats, she will be regularly upgraded to keep pace with technology.

The company's all about professionalism – many of the skippers advance to administrative positions and bring a unique hands on perspective, emphasis is placed on thorough training for all employees and respect for the Kaikoura coast's marine life, from humpback whales to stormy petrels, is the guiding principle. The company's reputation has spread and they've just started a joint venture managing, crewing and operating a 24m catamaran on whale watching expeditions with Sea World on the Queensland Gold Coast.

But with an eye to the future, Whale Watch Kaikoura still has a foot in the past. The vessel is named after Rangi Wawahia Solomon, the father of Bill Solomon, a kaumatua (elder) of Kaikoura's tangata whenua, Kati Kuri hapu, who was instrumental in setting the company up in 1987.

They would both be proud, very proud.



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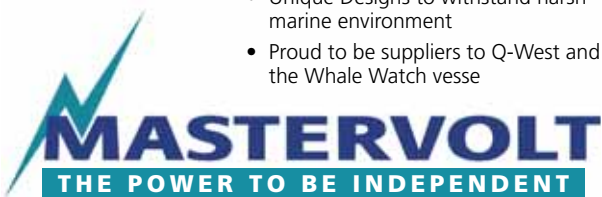
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SPECIFICATIONS

Construction	Sealium alloy
Length overall	17.9m
Beam	6.4m
Draught	750mm
Engines	2 x Volvo D16 MH
Power	2 x 551kW
Drive	2 x Hamilton HJ 403 jet units
Top speed	35 knots
Service speed	28 knots
Fuel	2000 litres
Water	500 litres
Designers	Teknicraft Design
Builders	Q-West Boat Builders