



Whale chaser is a smooth OPERATOR

BY LINDSAY WRIGHT

The excitement of seeing whales feed and frolic in the Kaikoura Trench within 12 miles of the shore has created a successful business for Whale Watch Kaikoura.

These modern whale boats leave the baleen and blubber where they belong and instead allow passengers to harvest indelible memories after sighting these majestic mammals.

Whale Watch has some of the quickest and most manoeuvrable boats of their type around, but at certain times of the year the whales move out to over 15 miles off the coast.

For their newest boat, the *Wawahia*, the company returned to Q-West Boatbuilders in Wanganui, who also supplied four other vessels for their six-boat fleet and have a long relationship with the South Island tourist operator.

"They have a 10-year boat replacement programme. The

Wawahia will replace the *Whekete*, which we launched almost 10 years ago to the day," said Q-West's managing director, Myles Fothergill. Another four replacement boats are planned over the next decade.

For the *Wawahia*'s design, Whale Watch Kaikoura went back to Teknicraft, the Auckland designers who had also drawn her predecessor and a fleet of multihull ferries and tour boats in use around the world.

Her overall length was set at 17.9m, with a beam of 6.4m and a draught of 750mm. The shape would be Teknicraft's signature asymmetrical catamaran with its proven performance, ride and load-carrying qualities.

One of the main criteria was that the new boat enter restricted coastal survey for 56 passengers, comprising passengers, a skipper, three guides and trainees. Whale Watch Kaikoura is also upgrading their skippers' tickets to suit.

The skipper has a well-designed wheelhouse to work in, with a central helmstation accessed by a short flight of stairs to port and starboard. There are two seats and a central console for throttle handles plus the electronic engine and jet unit controller.



Myles Fothergill of Q-West during sea trials



The graphics were locally designed

Furuno Navnet screens fall straight to eye on the dash panel and can provide colour 3D chartplotting with radar overlay, colour echo-sounder or colour radar. ICOMVHF and SSB radios on the port side of the panel also fall easily to hand; all supplied by Electronic Navigation Ltd.

All-round visibility is good from the helm seats except aft, as the aft bulkhead is the for'ard termination of the observation deck. When she's at work, passengers board straight over the *Wawahia*'s bow at the company's own 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 Graphics and applied by Image Signs in Wanganui.

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

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.

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

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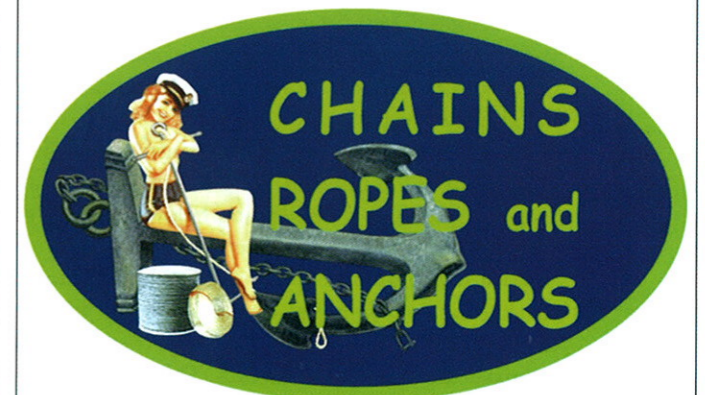


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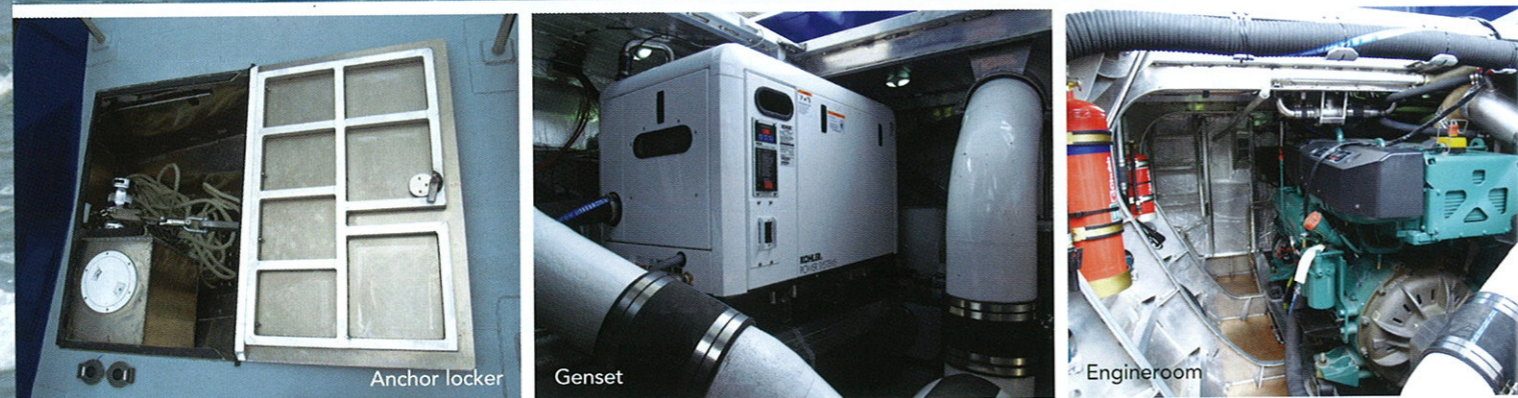
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Her two Volvo D16 MH, in-line six-cylinder diesels, supplied by Volpower (NZ) Ltd, produce 551kW each at 1900rpm and are harnessed to a pair of Hamilton HJ 403 jet units to get the boat up and boogying. The Volvos were the first of their kind to be used in New Zealand on a commercial passenger vessel.

The *Wawahia* was the name of the first catamaran built by Whale Watch Kaikoura back in 1992. She was also the company's first catamaran to have Volvo Penta engines and Hamilton jets. So it is apt that the new *Wawahia* incorporates Volvo's D16 MH engines and is the first to be fitted with Hamilton Jet's Blue Arrow controls.

"The jets are perfect for the work we do," says Whale Watch Kaikoura's sea operations manager, Roger Williams. "There are no gearboxes to go wrong, there are no propellers or drive gear hanging below the boat, they're very manoeuvrable, low maintenance and quiet."

What Hamilton calls a "split duct astern deflector" holds the key to the *Wawahia*'s nimble handling. It's a tricky development of the buckets that drop over the jetstream 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.

As we head out of the Q-West boatyard down the Whanganui River toward the Tasman Sea at about 10 knots, we put the boat astern and she stops so suddenly it feels like we've run aground. She also moves sideways with ease and spins in almost her own length.

Powering out of the river entrance into a metre or so swell on the bar, I expect to experience the "bridge deck slap and bang" pounding many catamarans turn on in those conditions and the jerky motion that often goes with it.

But the *Wawahia* skips across the turbulence, performs well beam-on and turns predictably without any slapping or other shenanigans, helped, I suppose, by the extra buoyancy for'ard provided by the asymmetric hulls. Handholds are placed where you need them and the boat is as well behaved as a Russian ballerina dancing a command performance at the Kremlin.

The Blue Arrow controls provide a seamless transfer of orders from the skipper to the engines and jet units. The units are rated for up to 900kW at 2400rpm, so they're not working hard, but still power the 26 tonne boat to about 35 knots.

"At her service speed of about 28 knots she's using about 82 litres per hour per engine," says Myles. Electronic engine management systems monitor the engines, including synchronising both installations and displaying data on 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 couplings at each end to do the job.

Fuel is drawn from two independently mounted tanks holding about 1000 litres in the hulls just for'ard 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 presents a challenge to even the most supple, mechanically minded midget. All the regular inspection points such as fuel and oil filters, oil dipsticks 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 and make it easy to take the Volvo out if needed. Big scuppers and healthy rubber gaskets in the hatch channels ensure no water sloshing around the deck finds 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 20kVa to power the operating and domestic systems. If it all gets a bit hot under the hatches, a dousing system can be activated for fire-fighting.

The *Wawahia*'s hulls are plated with lightweight aluminium Sealium developed for high-speed ferries and has about 15 percent more welded strength than conventional 5083 marine alloy. The topsides are 5mm Sealium plating and the 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 is stronger over a given area. "It means a lot more welding, but it's lighter than normal plate and doesn't need as many deck beams to give the same rigidity," Myles said.

Weight has got to be an issue upstairs, with 48 paying punters craning over the side for one last look as the whales raise their tail fins and head 1000m down to search for a feed of giant squid. The stanchions on the observation deck's bulwarks have holes drilled in them for lightness, and stainless steel grab rails fall to hand everywhere.

A 500 litre fresh water tank supplies the two toilets, one on either side on the aft deck, and a drinking 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.

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



Comfortable seating

Refuelling anti-spill collection

Whale Watch is all about professionalism. Many of the skippers advance to administrative positions and bring a hands-on perspective with them, 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 are now in a joint venture managing, crewing and operating a 24m catamaran on whale-watching expeditions with Sea World on the Queensland Gold Coast.

But the company 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 very proud.

specifications		Sealium alloy
Construction		Sealium alloy
Length		17.9m
Beam		6.4m
Draft		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
Designer		Teknicraft Design
Builder		Q-West Boat Builders



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