

BY KEITH INGRAM

he significance of maritime search and rescue at Sumner, a seaside suburb of Christchurch, dates back to the 1840s, making this an important date alongside the signing of the Treaty of Waitangi for our southerners. The little Port Cooper whaling station on Banks Peninsula also had a lifeboat during its tenure until whaling ceased.

In 1867, Joseph Day was appointed signalman and later pilot at Sumner for the Lyttelton Harbour Board, which was then responsible for ships crossing the Sumner bar at the mouth of the Avon Heathcote estuary. In keeping with maritime tradition, Day used his pilot boat and sometimes a scratch volunteer crew of locals to save lives when the occasion arose.

He is credited with personally saving 25 lives, including a crewmember who almost certainly would have died but for Day's fearlessness when a lifeboat capsized crossing the bar in 1875.

In the 1890s, the Lyttelton Harbour Board recognised that maritime rescues would be an ongoing obligation, so in 1898 it imported a lifeboat from England. Christened the Rescue, this boat was originally berthed underneath Cave Rock and later on the end of the Sumner Pier. Day was in command and she was crewed by volunteers from the Sumner village.

The Sumner Lifeboat rescue service dates its inception from the arrival of Rescue and celebrated its centenary in 1998. It is widely accepted that the Sumner Lifeboat Institution is the oldest organised voluntary maritime search and rescue organisation in New Zealand.

In 2002 Sumner Lifeboat introduced a management plan for the period to 2012, which called for the modernisation of all the institution's assets. It was decided that the inshore vessel would be replaced and the buildings upgraded as stage one of the project.

Hamilton Jet Rescue, designed by Richard McBride, was built by CWF Hamilton to replace the Caroline Nicholson, a Naiad that had served Sumner for 15 years. This step was significant in further cementing Hamilton's relationship with the lifeboat service and the people of Sumner. Alongside this project the buildings were upgraded and expanded to meet future operations.

Stage one was completed in late 2005. Hamilton Jet Rescue met all expectations of a well-found rescue craft and has proven to be a very robust vessel for inshore search and rescue.

Planning then focused on replacing the Thames class vessel moored at Lyttelton, as it was important to be able to provide a backup pilot vessel for the port of Lyttelton. The organisation's wish to return all of their operations back to the lifeboat station meant they would be looking for a slipway-launched vessel.

As in the past the Sumner executives at first made inquires for a suitable vessel that might be available second-hand offshore in the United Kingdom or Canada. Nothing suitable was found to be available in an acceptable condition that would meet New Zealand safe ship management requirements without the risk of spending a lot of good money after bad.

6 Professional Skipper September/October 2010









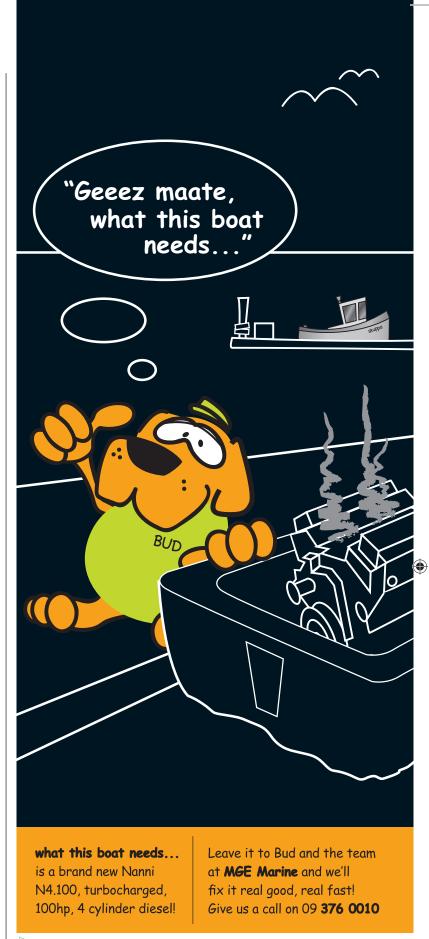
They also inquired as to what vessel plans might be available from overseas and the cost of building such a vessel. It soon became apparent they should look to local designers and seek advice from respected industry associates.

Long-time supporters CWF Hamilton put the Sumner executives in contact with Rob Gendal of Lyttelton Engineering and designer Tim Barnett. From those meetings they approached key suppliers in Christchurch to see if they would be interested in supporting the project. All were supportive and helped with

Because of building constraints of the existing boat shed, any future design of a rescue vessel had to be able to fit inside the building and be launched from the existing ramp. The boat would also need to meet the demands of launching into and getting out through the surf at Sumner.

A new cradle would be required to keep her as low as possible to preserve the restricted height in the doorway. Stark Brothers donated the new cradle in memory of the late Frank Stark, a very generous gift. Stark Brothers has supported Sumner Lifeboat for a long time, offering valued help and advice over the years from ship repairs to maritime operations for this mainly volunteer organisation.

After much to-ing and fro-ing, Tim Barnett developed a design and construction drawings that would work. This vessel not only had to be suitable for rescue work and working with rescue helicopters and aerial hoisting, she also needed to be available









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as the port's back-up pilot boat.

The contract to build was let to Altec Boats in Christchurch in two parts, hull construction and then vessel fit-out.

The decision to fit twin-engine Hamilton water jets was not questioned, and she was to be powered by twin Megatech MB926PE electronically controlled marine engines based on the



Mercedes 0M926 series diesel from TransDiesel.

These engines were purchased purely on being the best available within the budget constraints of the contract. With an in-line six-cylinder configuration and 7.2 litre capacity, rated at 500hp at 2800rpm, these engines provide continuous power through ZF gearboxes driving Hamilton HJ322 water jets with their blue ARROW electronic control system.

Construction is of Sealium marine alloy with 6mm hull bottom and chines and 4mm sides and cabin structure. To maintain full head height in the main cabin the cabin sole has been lowered with a sill at the door before the step down. The interior is finished in soft, dark shades of paint and Frontrunner fabric.

For ard, a vee-berth with stowage beneath is a comfortable rest area for survivors, passengers or crew. The main cabin is open and airy with the main helm station to port, interestingly.

But clearly the blue ARROW control system remains prominent. Both throttles and reverse ducts are on separate levers to give the skipper flexibility to apply higher revs when operating at low boat speeds using the reverse ducts to control ahead or astern thrust or when they are balanced to hold the vessel on station.

This provides very quick helm response when operating in surf or large sea states when the skipper doesn't necessarily want high boat speed but does need the boat to react instantly to the helm.

Alternatively, the skipper can switch control to the







We've Made Our Mark

Now We're Helping Sumner Lifeboats Make Theirs

HamiltonJet is proud of its long association with The Sumner Lifeboat Institution, which continues today with the launch of its new vessel "blue ARROW Rescue".

HamiltonJet waterjets, used together with the company's blue ARROW electonic control system, give this innovative new vessel enhanced manoeuvrability, range and safety for all its search and rescue duties.

HamiltonJet has made its mark around the world. Now we want to help you make yours.

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MouseBoat docking controller, which is ideal when operating around other vessels or in confined spaces. The MouseBoat controls steering and reverse duct positions on both jet units so the Hamilton Jet Rescue "mimics" movement of the hand piece.

For example, if the MouseBoat is moved sideways, the computer software within the blue ARROW system interprets the signal and positions the water jets' steering nozzles and reverse ducts so the vessel will move sideways.

With twin water jet propulsion, a skilled operator can do the manoeuvre with the throttle and reverse levers, but the MouseBoat means anyone driving the vessel can perform such feats with ease. What's more, operating the MouseBoat is very intuitive, so a skipper under pressure can safely control the vessel without having the added stress of thinking about what combination of levers and helm is needed to complete the maneuver safely.

Opposite the helm is the navigation/comms position with a full suite of electronics supplied and installed by Ocean Electronics. This includes two VHF radios, an HF SSB radio, two 15in Furuno NAVnet plotters, a sounder and a radar with

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CMap displays. The Hamilton Jet Rescue is fitted with a Furuno autopilot and a truckload of other safety and rescue equipment. Four KAB sprung-loaded crew seats are fitted in the main cabin along with safety harnesses.

She carries two 2000 litre fuel tanks and a 150 litre potable water tank. There is a small but functional galley and an equally functional head for when the crew need to clear lower deck at sea

This rescue craft has been set up for extended times at sea and is capable of staying on station in search areas for lengthy periods of time. She has been designed to work with search and rescue aircraft and has a helo winch platform at the stern, which extends past the jet units, giving added protection and doubling as a large, low boarding platform for transferring survivors or personnel.

Hamilton Jet Rescue is painted in full rescue colours. A fold-down mast for the shed, the clip-on safety track, the clear foredeck and central grab rails are giveaway signs of her other duty as a pilot boat. Two easily deployed life rafts are stowed on the cabin top.

For anyone leaving the safe confines of the fenced aft deck area to go for ard, even when clipped on to a safety car, there is a comforting toe rail around the side deck.

Both engines are positioned under the aft deck area. The intakes and exhaust are built into the rear of the deckhouse and are protected by large Seaworth Defence ventilator grills. These not only keep out the wet but also allow air to flow easily in and out of the machinery space. Centrally mounted aft above the transom is the aft capstan and a large, robust towing post.

The standard of workmanship carried out by Altec Boats and the pro-active relationship developed between the builder, sub-contractors and Sumner Lifeboat is reported as being outstanding. While this project was not without its challenges, the boys are happy.

Sea trials conducted as this issue went to press have shown that the Hamilton Jet Rescue meets the design speeds, achieving 39.8 knots at 2600rpm at 85 percent power. That's not bad. She handles well in the limited sea conditions experienced so far, with further sea trials to be conducted and a full survey to be completed. Her crew have found she handles very well in a following sea, and using the blue AROW controls makes it very easy to put her on the cradle, even with a two metre swell running at Sumner.

In summing up, this is the latest rescue craft to enter service on our coast. Clearly, the requirements of the Sumner Lifeboat Institution are different from most Coastguard units. They operate from a lifeboat shed and ramp off a surf beach with an extensive SAR area.

They are fortunate to be able to supply the back-up pilot boat for the Port of Lyttelton, so multiple tasks are demanded of her. She is well thought out, the finish of workmanship is great and she will remain a credit to the community she serves.

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Length	12.45m
Beam	3.75m
Draft	600mm
Displacement	11 tonnes approx
Power	2 x Megatech MB926PE marine diesels
Propulsion	2 x Hamilton Jet HJ322 water jets
Service speed	35 knots
Designer	Tim Barnett
Builder	Altec Boats
Insured value	\$1.4 million