

TE HAA

BY MIKE BROWN



RESILIENT PILOT BOAT



When the Port of Wellington took delivery from Q-West of their new pilot boat *Te Haa*, it replaced a vessel from the same builder 25 years earlier. The older vessel has not retired, it is merely taking on the stand-by role with an expected working life of at least ten more years.

The designer was Scottish company Camarc Design, and *Te Haa* (it means "the breath") is number 150 of the same fundamental hull form. The boat is a 19.5-metre aluminium construction of nominally conventional hull form.

Propulsion is by Hamilton water jets, as is so for roughly 50 per cent of Camarc pilot boats. The original order specified shaft drive, the strong preference of the boat's future coxswains. They had sampled the performance of the jet driven Camarc design Q-West had recently delivered

to Taranaki without being convinced of its merits.

That was until a final trial in the appalling weather Wellington seems so often to produce. It was a road to Damascus moment for the coxswain. Besides the vessel coping well with the seas, he reported superb tracking up and down wind and astonishing manoeuvrability, particularly at the low speeds usual when working alongside ships. The order changed to water jet propulsion.

Hamilton commented that a common problem limiting water jets' all round performance is poor choice of jet size. *Te Haa* is powered by a pair of Scania D116076Ms, putting out 661kW. Typically, these motors might be paired with Hamilton's 403 (millimetres of impeller diameter) units. Q-West's Camarcs have

461s, meaning something like a 30 per cent greater jet area. The increased output of water volume sharpens response markedly.



Capability in a wide range of sea conditions was a prime requirement of Wellington's harbour master, who plans for pilots to board further to sea than previously. With longer passage times on board this workplace, comfort for crew and pilots assumes even greater importance.

Resilient mounting of the wheel house plus quantities of acoustic insulation dealt with two key fatigue factors by practically eliminating vibration and holding the sound level down to 68db at operating speed. This is normally 24 knots at 80 per cent MCR, half load (maximum is 31 knots).

The roomy wheelhouse features a large area tinted glazing band, surface mounted to eliminate the loss of clear area by frames. The forward raked, triple panel windscreen is topped by matching upward vision glazing. As well as for the

crew of two there are suspension seats for seven pilots or other passengers. Pilot boats are usually the best available vessels for urgent crew transfers or medical emergencies, particularly in poor weather, and this level of seating gives useful adaptability.

The superstructure slopes forward from the bottom edge of the windscreen to provide extra volume and headroom to the lower deck mess room. This is a well equipped space including a washroom-toilet, basic galley, mess table and settee. The fairly generous quantity of 200 litres of freshwater is laid on. In usual pilot boat style, via watertight doors there is access on this deck to all the machinery spaces.

A feature of *Te Haa's* profile is an absence of diagonal fendering aft, just

the single band at the gunwale being present. This tidy arrangement was possible because the flaring of the upper hull makes its beam considerably greater than at the waterline.

The customer's determination to have the best possible vessel continued throughout construction, the builder willingly accepting the running modifications. The choice of aluminium rather than GRP for construction allowed these to be major if necessary. The final modification, though, was small if vital: to fit an enlarged radius pilot's handrail.

That detail typifies the micro attention paid to the pilot transfer process; and, of course, to pilot rescue. The cradle system is up to the minute, though even so a potential user of its services would still be glad to have water jets ahead of him instead of propellers.



Te Haa SPECIFICATIONS

Type of vessel:	Pilot boat
In survey to:	Maritime New Zealand
Home port:	Wellington, New Zealand
Owner:	CentrePort, New Zealand
Operator:	CentrePort, New Zealand
Designer:	Camarc Design, UK
Builder:	Q-West Boat Builders, New Zealand
Construction material:	Marine grade aluminium
Length overall:	19.5 metres
Length waterline:	15.8 metres
Length:	17.0 metres
Beam:	5.7 metres
Draught:	1.0 metre
Main engine/s:	2 x Scania D116 076M, 661kW @2,300rpm
Gearboxes:	2 x ZF500
Propulsion:	2 x HM461 Hamilton jet waterjets
Generator:	Kohler 17.5EFKOZD 50Hz
Steering:	Hamilton Jet
Exhaust system:	Halyard Silencer DC
Maximum speed:	31 knots @ 100% MCR half load
Cruising speed:	24 knots @ 80% MCR half load
Range:	150nm or less
Hydraulic equipment:	Dynaflow NZ
Electronics supplied by:	ENL (Electronic Navigation)
Compass:	FN201 Ritchie
Winches:	Vetus Maxwell RC12-12
Anchor:	28kg SHHP
Air conditioning:	CruisAir (Freezotec Australia)
Specialty equipment:	MOB cradle
Paints/coatings:	Azko Nobel NZ
Windows:	Central Glass
Hydraulics:	Dynaflow NZ
Seating:	KAB514C
Lighting:	Hella
Fire Insulation:	Firemaster (Forman Building Systems)
Panelling:	Ayrlite (Ayres Australia)
Safety equipment:	RFD Survitec
Fuel capacity:	3,000 litres
Freshwater capacity:	200 litres
Crew:	2
Passengers:	7 pilots or passengers

