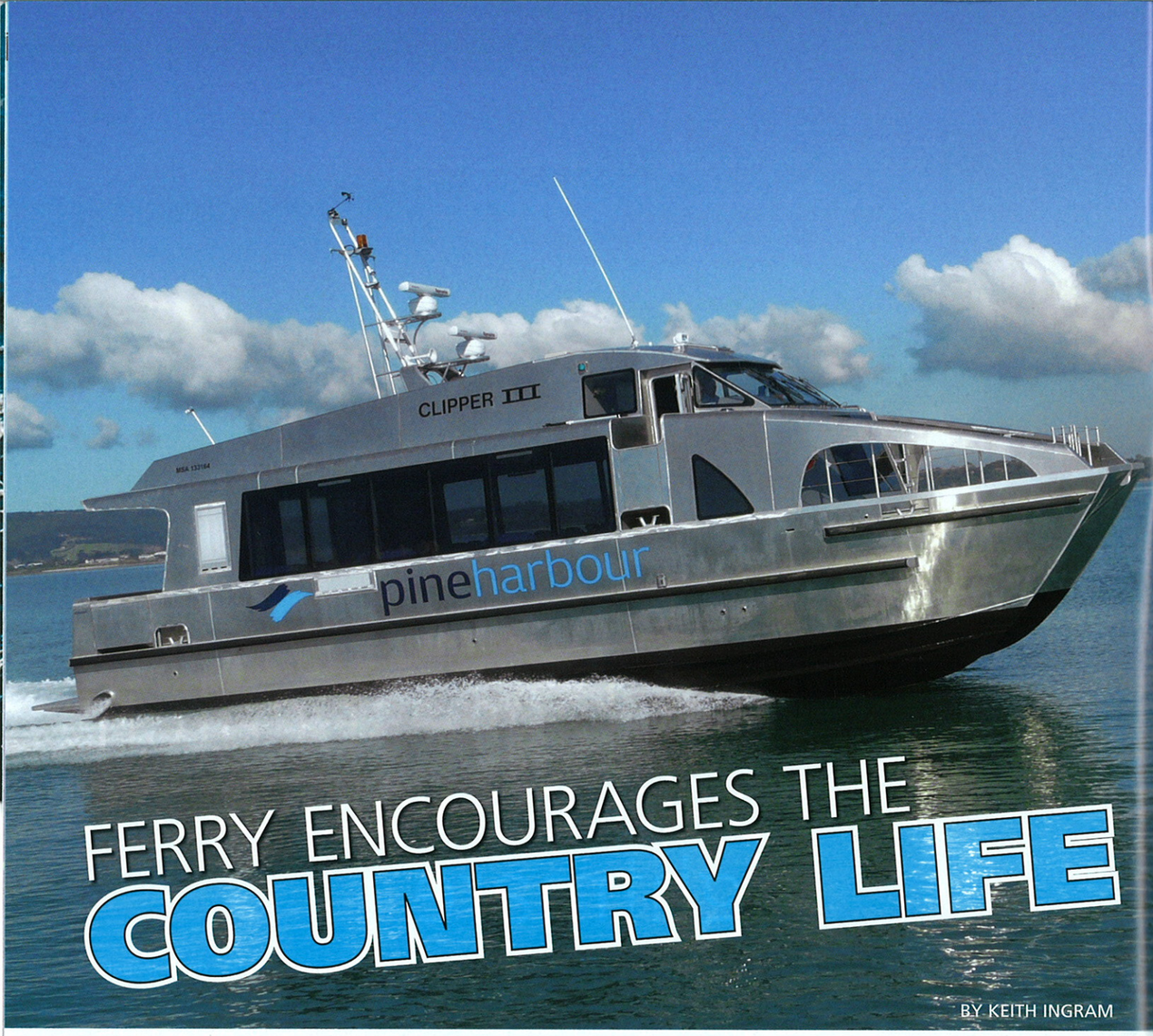


FERRY ENCOURAGES THE COUNTRY LIFE

BY KEITH INGRAM

Since Auckland's Pine Harbour ferry service was introduced in January 2002, with a patronage of around 50 per day, the service has grown to where the company is now taking over 350 passengers per day, doing 11 return trips.

This growth has been exponential because of two factors. The community of Pine Harbour, Beachlands and Maraetai is booming, as people choose to move out of Auckland city and live in a local country area close to the sea.

Along with this growth we have seen an increase in demand to use the service for business people and university students commuting to Auckland via its 35 minute trip in all weathers.

In fact, it is on record that these new ferries, designed by Teknicraft, can keep going when some of their counterparts struggle or cancel sailings in rough conditions.

A reliable service is an important factor to encourage any growth, and with new subdivisions like Spinnaker Bay selling fast, the company should continue to prosper. Clearly, the Pine Harbour development strategy of residential, marina and marine precincts and a commuter service is a complimentary mix.

Pine Harbour Ferries' first vessel, *Clipper I*, was a 49-seat fast foil-assisted catamaran. Since entering service six years ago she has logged over 16,000 hours at an average speed of 26 knots.

The larger *Clipper II* entered service in 2006 and has proved to be the ideal small, fast ferry. This 49 passenger, foil-assisted fast ferry, of a new Teknicraft design, is equipped with Hamilton Jet's waterjets and Blue Arrow control technology, and requires only a solo operator.

So, when the demand increased for a third ferry, the *Clipper III* was launched, and she is essentially identical to the *Clipper II*, with only two changes. The company now has two virtual sisterships, apart from their age.

The *Clipper III* has been fitted with the latest Raymarine E series digital radar, and her hull is coated with the new Intersleek underwater coating from International Paints, which improves her underwater efficiency.

Intersleek® 900 is a unique, patented fluoro-polymer foul-release coating for vessels operating above 10 knots. The absence of biocides reduces costs during drydocking or hull cleaning, as the cost of disposing wash water should be minimal.

The *Clipper III* is also indicating up to a 10 percent improvement in both speed and fuel economy, a significant factor in this age of high fuel costs.

Outwardly these twins can be identified because the *Clipper III* is sporting Pine Harbour's new corporate livery. This will change as the new signage is applied to the rest of the fleet.


The compact and fully equipped bridge


Main cabin


Lifejackets are stowed under the seats

But to give passengers the comfort of knowing which vessel they are on, the colour of the interior upholstery has changed to a mixture of blue and olive tones.

The *Clipper III* was designed by Nic de Waal of Teknicraft Design and built by Q-West of Wanganui of Sealium marine alloy, which gives a greater strength-to-weight ratio compared with standard marine aluminium.

We noted that the exterior aluminium, apart from the underwater areas and signwriting, had been left exposed in its natural state to develop a natural patina and grey look.

"Painting just adds weight," we are told. "Besides, if we need to do any welding it is much simpler, as you don't have to repaint again. From experience, we have found that there is always a need to weld little fittings or forgotten things after the vessel is finished."

As we step aboard the ferry, we note another minor change with a second bow belting at the deck level.

Moving through into the cabin, the interior layout remains the same with a mix of café tables and seats on each side and theatre seating in the centre. ▶

This quarter view shows the clean stern


Clear foredeck


Natty bridge steps

Metal lockers under the seats contain personal lifejackets, which are easily accessed through a sprung flap to protect the lifejackets when not in use. Additional safety buoyancy aids are provided in the form of life rings across the transom, and solid Carley-type rafts on the cabin roof. We move for'ard through the watertight door and note that this has been a significant improvement, with a proper dog-clipped watertight door.

The foredeck is essentially the same, with a Maxwell winch and a Fortress anchor designed by Nic de Waal, which looks similar to a danforth, but on closer inspection the flukes and shank are moulded and built in alloy.

"They weigh nothing, but boy do they hold," says senior master Mike Roycroft.

Back inside, the head to starboard is fitted with a handbasin and a sanitising, air-powered hand drier. As we step up into the wheelhouse we note the use of alternative single steps. This gives a greater rise without protruding into the

The diesel-fired demister unit for the bridge windows

Emergency fuel stops

cabin. But make sure that you always put your left foot forward, as to do it the other way soon gets the legs tangled.

Inside the wheelhouse she is designed to be compact with all the instruments, switches and electronic aids close to hand for the master. The autopilot is now positioned above the windscreen, which has now been altered on the *Clipper II* to maintain commonality.

Another minor change is the use of a smaller, closed-circuit colour television screen to give the skipper a view of the stern, the external cockpit and the main cabin. This is an important feature so that the skipper can keep an eye on the passengers for their own safety.

The demisting and heating unit in the wheelhouse is powered by a Wallis diesel-fired generator, while airconditioning for the main cabin, both heating and cooling, is provided by a Mitsubishi heat pump unit powered by a three-cylinder 7kVa genset located on the cabin roof behind protective shields.

Once again, twin radars have been provided, using the Raymarine E 120 series digital radars. "The reason for two radars is an important safety factor," says Mike. "We travel at an average speed of 28 knots, in all conditions, daylight, rain and dark. The radar is the eyes of the ship." Having two operating conjointly also allows for better definition on the two screens and/or redundancies if one fails.

To operate the service, the skipper must navigate the *Clipper III* from the furthest internal corner of the Pine Harbour Marina out through the confines of the marina fairway and down a very narrow dredged channel to the open water of the Tamaki Strait.

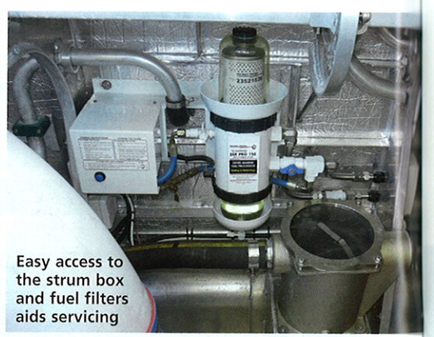
Her route to Auckland then takes the ferry between Musick Point and Browns Island, across the shallows at the entrance to the Tamaki River and up the passage inside Bastion Reef, passing the eastern bays to Auckland.

"Our shoal draft, foil-assisted waterjet cats are ideal for operating in these conditions, which means that even when it is rough, for most of the time we are operating in sheltered conditions," said Mike.

The main hulls are divided into three, with a collision ▶


This MTU sits as snug as a bug in the hull


The internal access to the Hamilton Jet unit


Easy access to the strum box and fuel filters aids servicing

bulkhead for'ard, a central compartment containing fuel, water and grey water tanks, pumps and so on, and an aft compartment.

"To keep the weight down, we carry 1100 litres a side of fuel, 150 litres of potable water and 180 litres of grey sewage, as the new rules require that your grey water and sewage capacity be greater than your water tankage," Roycroft said.

The after space houses the engines and waterjet propulsion units. The *Clipper III* is powered by twin MTU 60 Series 740hp six-cylinder diesels driving two Hamilton 364 waterjets with Blue Arrow controls. She has a top speed of 45 knots, while in service she operates at 28 knots at 1850rpm, using 60 percent of her available power. She has a deadweight of 19 tonnes, making this a very efficient ferry for the purpose she is used for.

In the engineroom, the engines are devoid of raw water pumps, as cooling water is supplied directly to a bypass pipe from the waterjets, eliminating an additional maintenance problem. The water supply pipes are full-sized to allow for volume and flow, but are fitted with a 20mm restrictor to ease the pressure from the waterjets.

The enginerooms are fitted with a fire suppressant system in case of emergencies, and there are lever-operated flaps on the intake air and manually fitted flaps to the engineroom exhaust air across the transom.

The outside aft deck remains covered, with external fold-down wooden seats for passengers seeking fresh air. Once again there is no smoking on this commuter service. Between the cabin doors is a locker for safety equipment, fire buckets, boat hooks and cleaning gear. In the corners are the two fuelling points with a safety overflow catchment in case of any blowback.

Inside the starboard cabin door in behind the first seat is the emergency fuel shut-off valve, covered by an alarm-activated Perspex cover to dissuade mischievous fingers.

During sea trials her manoeuvrability using the Blue Arrow is just incredible. As the manufacturer says, it's child's play, and makes even a poor ship handler look good. Berthed in our layup berth with a moored vessel a metre ahead, and the other ferry a metre astern, our skipper was able to manoeuvre the ship out of the berth about 10m sideways out into the main fairway without the need for a bowthruster.


Functional handbasin and air blow handryer

Once we were clear of the marina and up to service speed, the hydraulically operated foil quickly lifted the hull to reduce the wetted hull area and improve her performance. Once again, we asked the skipper to do an emergency stop, and were pleasantly surprised to see her go from 28 knots to dead in the water in a boat length – pretty amazing stuff, and comforting to know, as part of her route passes through a high-use area off the eastern bays frequented by small canoes and kayakers that in many cases fail to display identification marks.

The effect on passengers during an emergency stop will still test one's balance, but the ferry operates in an, "It is recommended that passengers be seated" mode, with 55 comfortable internal seats for the 49 passengers at maximum loading.

Commuters advise that the ferries are wonderful to travel on and soft-riding, even in Auckland's choppy conditions. The journey between the city and Pine Harbour passes with ease when compared to one hour, sometimes two, for the same trip by car. And besides, the view is much better, there is always something happening on the harbour, the air is clean and there is no stress. Take into consideration that a 10-trip ticket costs $75 and there is no comparison.

Why fight Auckland traffic, pay $20 for a park, arrive at work stressed and growl at secretaries, and then return home equally stressed and beat up on the cat.

Clearly, Pine Harbour has set the standard for small, fast and economical people-movers, and one can only ask why our local authorities are not encouraging this sort of public transport to service other areas of the city bordering the Waitemata Harbour.

SPECIFICATIONS

Type	Adjustable foil-assisted catamaran
Length	14.95m
Beam	5.6m
Draft	700mm
Displacement	19 tonnes
Engines	2 x MTU 6-cylinder Series 60
Power	2 x 740hp
Jet units	2 x 364 HamiltonJet
Electronic controls	HamiltonJet Blue Arrow
Top speed	45 knots
Service speed	28 knots @ 1850rpm @ 60% power
Genset	Kohler 7kVa, aircooled
Fuel	2200 litres
Water	150 litres
Black water	180 litres
Builder	Q-West
Designer	Teknicraft Design Ltd