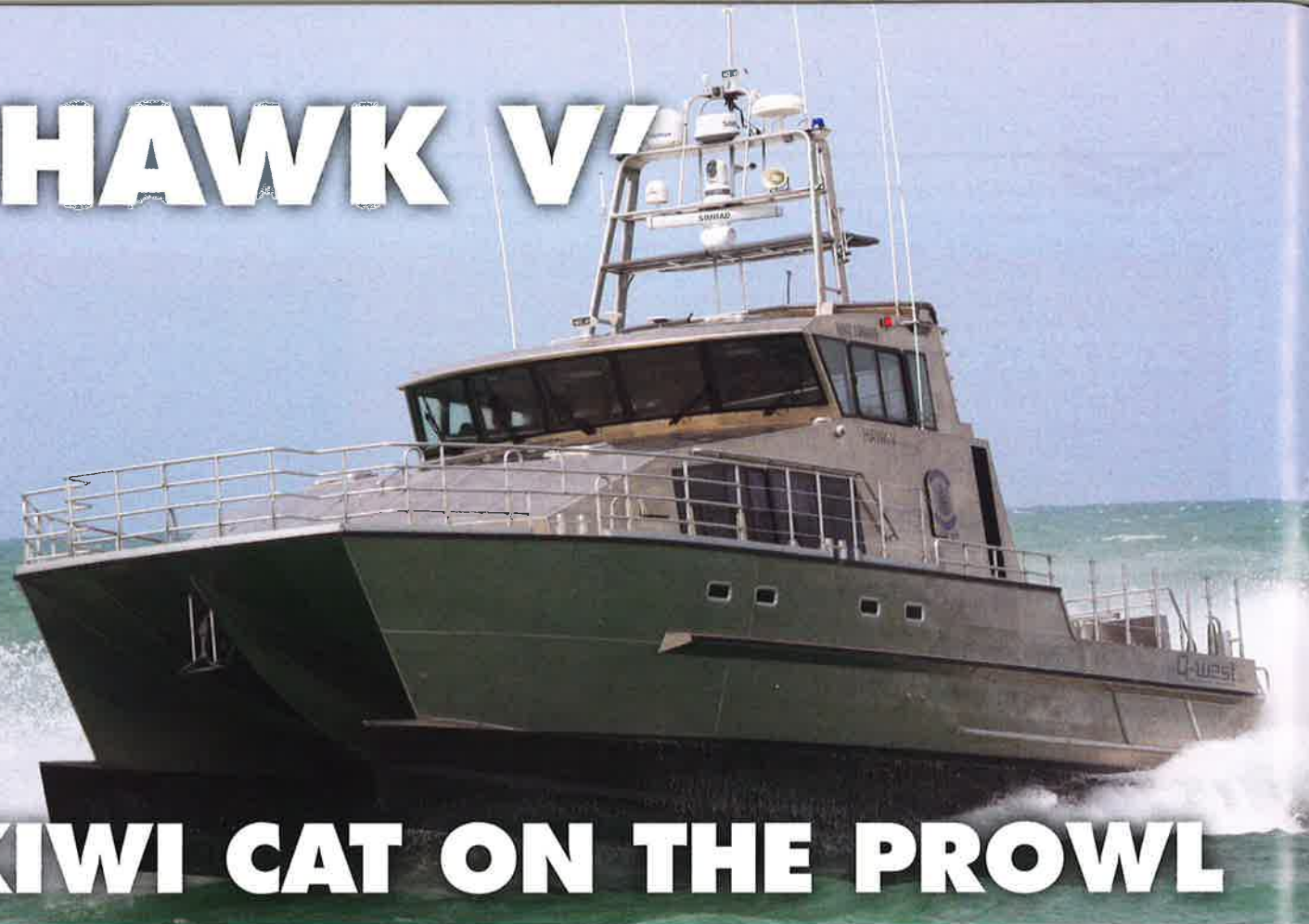


# 'HAWK V'



## KIWI CAT ON THE PROWL

January 26 2018 was International Customs Day, and was considered a suitable day for Q-West Boat Builders to officially handover to the New Zealand Customs Service their newest vessel the 18.6 metre Teknicraft-designed *Hawk V*.

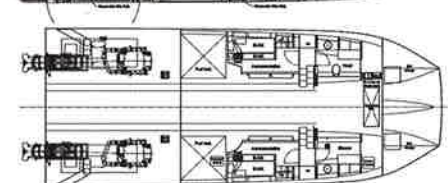
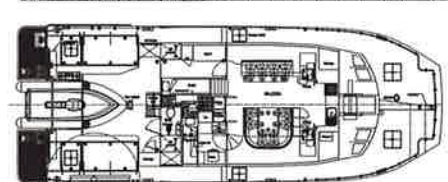
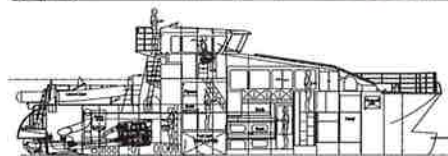
Following a quick 12 month construction period, *Hawk V* has already settled into her new role based out of Auckland from where she is running seven day patrols of the NZ coastline.

Typical duties include inspections of sailing vessels newly arrived from Polynesia and other islands of the South Pacific as well as suspect commercial vessels such as fishing boats.

The history of *Hawk V* goes back to a plan in the mid-2000s whereby the NZ Police and Customs would order a trio of identical vessels, taking advantage of a bulk order to get the best deal. The plan fell through and the Police decided to find vessels on their own and received Teknicraft/Q-West catamarans in 2007

and 2010, Deodar III and Lady Elizabeth IV respectively.

Having experienced the NZ Maritime Police's patrol catamarans operating in Auckland and Wellington, it was a clear-cut decision for the NZ Customs Service to obtain a similar vessel for their operational requirements. The Police vessels had proved themselves in extraordinary circumstances and sea conditions to be the perfect platform for search and rescue as well as high-speed interception, diving, recovery, and towing operations.



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Teknicraft spent significant resources on research and development, and *Hawk V* was designed to incorporate various improvements made over the last 10 years, including Teknicraft's latest hull shape. The signature hull form has remained, except that the bows of the demi-hulls have been extended with wave-piercer-like bows that increase the forward buoyancy to significantly improve the ride and comfort in choppy sea-conditions typical around the coastline. The extended waterline length also allows higher loitering and towing speeds and even better stability at rest.

*Hawk V*'s fuel consumption is typical of Teknicraft's foil-assisted hulls whereby the vessel can operate at 26 knots, fully laden, using 7.7 lt/nm and all the way up to 32 knots, still only using 7.8 lt/nm. This provides a large cruising speed range without affecting economy. Even at 40 knots the fuel consumption only

increases by 10% to 8.6 l/nm. Range at cruising speed is 350 nm.

The all-important foils that contribute enormously to the ride comfort and efficiency are of two varieties; a mid-ship variable pitch foil that extends the full beam between the hulls, and a pair of winglet foils aft on the outer sides of the hulls. The winglet foils extend approximately 600mm out from the hulls and are used as transition foils that aid at medium speeds before the vessel is supported by the main foil at which point the winglets are entirely out of the water.

The main foil is machined from a single block of aluminium and has a hydraulically-controlled pitch thanks to a central hydraulic ram. Pitch is normally negative to lift the vessel out of the water however in choppy conditions the foil can be given positive pitch which effectively sucks the hull down closer the water, smoothing out the rough edges of the chop.



Propulsion for *Hawk V* comes from an 809kW diesel located in each hull with each engine producing peak power at 2,300rpm. HamiltonJet HJ403 waterjets are coupled to each diesel and provide the thrust the hurls the boat across the waters. An added benefit of using HamiltonJet equipment is the availability of the blueARROW joystick control system which the customer wisely selected for installation. The blueARROW system is a 'fly by wire' style system that takes the operator inputs such as step sideways or rotate in position and uses a computer to deliver the appropriate commands to the engines and waterjets, offering incredible levels of precision control to even inexperienced operators.

The wheelhouse is equipped with a full suite of Simrad electronics including Halo 4 radar and RS35 and RS90 radios as well as multiple large screen plotters. Electrical supply is courtesy of a single Kohler 20.SEFKOZD diesel genset in the port engine room producing 11kW.

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## JETAnchor







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KAB seating in the wheelhouse provides a comfortable and safe ride in all conditions with seats installed so that everyone has excellent visibility at all times. Further seating at the starboard rear of the wheelhouse is provided by a bench seat whilst a chart table and storage cabinets are to port.

At the rear of the wheelhouse is a door that provides access to the flying bridge that is equipped with complete sets of steering controls to both port and starboard, ideal for coming alongside another vessel for an inspection. Access to the flying bridge is also via a ladder from the aft deck.

Back inside the wheelhouse, a stairway leads down forward through a gap in the console to port to the main saloon. A bench and a U-shaped dining lounge with dining table are available along with the cooking facilities forward. Stairways leading down to port and starboard from

the forward part of the saloon take you to twin cabins in each hull as well as the head unit in the port hull and the shower room in the starboard hull. Behind the saloon on the main deck is another cabin with a further two bunks as well as the small arms locker.

An important requirement for a vessel like *Hawk V* is the ability to quickly reach and board another vessel using the 4.8 metre Naiad designed and built RIB tender. The RIB is mounted in a cantilevered cradle from OceanLift with a hydraulic system that can launch it in only a few seconds. Recovery is just as quick and can be done in rough seas and whilst the mother ship is traveling at up to 12 knots.

*Hawk V* carries 6,000 litres of fuel as well as 600 litres of water. She is certified to Maritime NZ Part 40C, Res. Coastal and can carry 12 day passengers in addition to the six crew.



## Hawk V SPECIFICATIONS

<b>Type of vessel:</b>	Patrol Catamaran
<b>In survey to:</b>	Maritime NZ Part 40 C, Res. Coastal
<b>Home port:</b>	Auckland, NZ
<b>Owner:</b>	New Zealand Customs Service
<b>Designer:</b>	Teknicraft Design, NZ
<b>Builder:</b>	Q-West Boat Builders, NZ
<b>Construction material:</b>	5383 H116 marine grade aluminium Sealium
<b>Length overall:</b>	18.6 metres
<b>Length waterline:</b>	17.2 metres
<b>Length:</b>	17.4 metres
<b>Beam:</b>	6.9 metres
<b>Draught:</b>	0.75 metres
<b>Main engines:</b>	2 x diesels, each 809KW @ 2,300RPM
<b>Propulsion:</b>	2 x HJ403 Hamilton water jets
<b>Generator:</b>	Kohler 20.5EFKOZD diesel, 11KW
<b>Steering:</b>	Hamilton Jet blueARROW
<b>Exhaust system:</b>	Powerflow 12" Waterlock fibreglass mufflers
<b>Maximum speed:</b>	42 knots
<b>Cruising speed:</b>	30 knots @ 80% MCR
<b>Range:</b>	1,100nm @ 7 knots
<b>Hydraulic equipment:</b>	Dynaflow NZ
<b>Electronics supplied by:</b>	Advance Trident
<b>Radar:</b>	Simrad Halo 4
<b>Radios:</b>	Simrad RS35 & RS90
<b>Compass:</b>	Ritchie FB500
<b>Windlass:</b>	Hypac custom
<b>Anchor:</b>	68kg manson anchor and 60kg sand anchor
<b>Capstan:</b>	Lofrans 1,700w Capstan (lighthouse)
<b>Cranes:</b>	Oceanlift Custom Davit 2F2024
<b>Air Conditioning:</b>	CruisAir
<b>Watermaker:</b>	Spectra Farallon 1800
<b>Specialty Equipment:</b>	Custom tender retrieval system
<b>Tender:</b>	Naiad inflatable with Yamaha outboard
<b>Paints/coatings:</b>	Azko Nobel NZ, International Paint System applied by D R Marine Limited
<b>Windows:</b>	Glass supplied and installed by Central Glass. Sliding windows by Windows West
<b>Seating:</b>	KAB514C
<b>Lighting:</b>	Hella Duraled, Euroled, Seahawk and Naviled
<b>Fire Insulation:</b>	Sorberbarrier
<b>Panelling:</b>	Ayrlite (Ayres Australia)
<b>Safety equipment:</b>	Hutchwilco
<b>Fuel capacity:</b>	6,000 litres
<b>Freshwater capacity:</b>	600 litres
<b>Crew:</b>	6 berths
<b>Passengers:</b>	12 day passengers
<b>Operational area:</b>	MNZ Part 40C
<b>Date of delivery:</b>	January 2018





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