



HYBRID DEMONSTRATOR CATAMARAN

VESSEL DETAILS

Owner	Private - NEW ZEALAND
Year Built	2021
Length (LOA)	15.0m - 49.20ft
Beam	5.40m - 17.70ft
Construction	Aluminium
Ship Designer	TECHNIKRAFT Ltd
Shipyard	Q-West Ltd
Engines	Diesel 530kW @ 2300rpm
Class	DNV

PARALLEL HYBRID SYSTEM

This parallel Hybrid Demonstrator foil-assisted catamaran vessel has been designed and built for test and demonstration purposes, operating in four modes:

- Electric Mode at lower speeds.
- Electric-Boost Mode engaging both electric and diesel power for higher speeds.
- Generate Mode to charge the batteries during transit.
- Diesel Mode for the longer-range requirements.

HAMILTONJET SUPPLY

Propulsion	2 x HTX30 waterjets
Control System	AVX propulsion control system
Hybrid System	EHX Hybrid Integration
Electrical Control System	Danfoss (ECS)
Electric Motors	2 x Danfoss 100kW e-machines
Electrical	Danfoss DC Link
Batteries	CORVUS Batteries

If shore charging infrastructure was available, electricity from the grid (preferably from green sources) could be used to reduce overall energy costs. Total savings would be dependent on the available time on-dock at turnrounds. Engine hours reduction would be expected while running on electric-only which would reduce maintenance costs by up to 50%. The Hybrid system configuration is a fuel efficient and flexible system, with high redundancy.

The vessel is also equipped with advanced control systems i.e. Virtual Anchor / Station Keeping for vessel manoeuvrability and easy stand-by operations.