



16M “TANAGA” PATROL BOAT

DIESEL POWER	FPT-IVECO N67-45 331kW/ 2100 RPM X 2
PHT MODEL	PHT300A901X 2 ratio 1.47
E-POWER	52kW E-MACHINES X 2

TANAGA – SINGAPORE’S FIRST HYBRID PILOT BOAT WITH ESCO POWER’S PARALLEL HYBRID TRANSMISSION

Built by Singaporean builder Penguin Shipyard 12m patrol boat named Tanaga is the first ever hybrid boat to be used by the pilotage fleet of parent company Penguin International alongside other workboats in support of Shell Eastern Petroleum’s oil and petrochemicals refinery activities at Pulau Bukom island.

In this project Penguin Shipyard has chosen ESCO POWER to supply its unique Parallel Hybrid Transmission to benefit from the ratio advantage and the electric hybrid propulsion system and controls by BH Global Corporation subsidiary Sea Forest Power Solutions.

The boat is capable of running on pure electric mode at seven knots and at 24 knots in diesel mode, and had the boost feature built in.

The hybrid installation allows the batteries to be charged while the diesel engines are in operation which is planned for high-speed sailings, with a use of E-power in low-speed sailings.

The option to sail at low speeds is a critical ability for duties that require long endurance rather than quick response, such as escorts and inspections being conducted in the busier areas of the port. This then frees up the more powerful diesel propulsion for use in time-sensitive situations like interceptions of smugglers and assisting in emergencies.

