

Case Study 254: **26m Ambulance Catamaran**

SPECIFICATIONS

Waterjet:	DJ260x2
Engine:	MTU 12V2000 M91 1119bKW @ 2350 rpm
Gearbox:	ZF 2550 2.462:1
Vessel:	26.0m L.O.A 24.8m W.L.L 74 tonne
Performance:	28 knots



Malaysian Marine Department – 26m High Speed Catamaran

Four vessels of this type were recently constructed for the Malaysian Marine Department to provide Patrol and Rescue services in Coastal regions. Designed by Mark Ellis and built by Kay Marine in Malaysia this purpose built vessel has a very low draft of only 1.10m allowing it to navigate in shallow waterways. The vessel is powered by twin 2000 series MTU V12 marine diesel engines, with ZF marine gears coupled to the **DOEN DJ260** waterjets.

For this project the **DJ260** waterjets have been specified with all stainless steel pump assemblies. Fitted with 26" (660mm) single stage high performance axial flow impellers; these waterjets provide excellent high-speed efficiency with superior cavitation margins at lower speeds and cruise conditions. Doen's pre-fabricated aluminium intake design made it possible to customise the inlet ducting and shaft line so as to facilitate waterjet installation into the unusual hull form without any compromise to the vessels' or waterjets performance.

The fully integrated hydraulic system operates the waterjet reverse and steering functions. Twin PTO driven hydraulic pumps supply the tank mounted control valve bank with all reverse and steering cylinders and hydraulic lines completely mounted inboard.

The vessel is fitted with Doen's **ECS-200** Control System. Configured for twin engine single station; this electronic control system provides primary control of engine throttle and gear command with the waterjet steering and reverse functions. Twin levers providing combined bucket and throttle control with steering by conventional helm wheel. Additionally the system provides the operator with all necessary monitoring, alarm and back-up control functions.

The waterjets and control system were supplied to **Bureau Veritas** 1+ HULL. MACH.