

## Case Study 290: **33m Passenger Ferry**

### SPECIFICATIONS

<b>Waterjet:</b>	<b>DJ260 x2</b>
<b>Engine:</b>	<b>MTU 12V2000 M72 1080 kW @ 2250 rpm</b>
<b>Gearbox:</b>	<b>ZF4540 2.333:1</b>
<b>Vessel:</b>	<b>33m L.O.A 30.6m W.L.L 90 tonne</b>
<b>Performance:</b>	<b>30 knots</b>



### **Wang Tak Engineering** – 33m Fast Passenger Ferry (China)

Two of these 33.0m aluminium catamaran ferries have been constructed by Wang Tak's shipyard in Guangdong Province to Chinese Classification Society rules. Powered by twin MTU V12 marine diesels coupled to the **DOEN DJ260** waterjets, this vessel has an operational speed of 28knots and can carry upwards of 243 passengers.

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.

Each **DJ260** has its own fully integrated hydraulic system providing steering and reverse control. All of the hydraulic equipment including cylinders hydraulic and associated hose connections are inboard mounted. Each hydraulic pump is directly driven from the gearbox PTO's.

The vessel propulsion control is managed using Doen's own **CAN BUS - Control** system. Configured for twin engine - single station, the system uses twin Rotary Speed Control Units (Kwant) as the primary control device for control of engine throttle, waterjet steering and reverse functions. In seat Captain and Coxswain steering tillers are also provided. Split or combined control modes are selectable for precise and intuitive control at high speed, low speed, close quarter maneuvering and docking. Additionally the system provides the operator with gear command and all necessary monitoring, alarm and back-up control functions.

The waterjets and control system are supplied to **CCS ★ CSA CATAMARAN HSC PASSENGER**.