

## Case Study 247: **18m Catamaran Crew Boat**

### SPECIFICATIONS

<b>Waterjet:</b>	<b>DJ220 x2</b>
<b>Engine:</b>	<b>CAT C18</b> <b>507 kW @ 2100 rpm</b>
<b>Gearbox:</b>	<b>ZF 550, 2.00:1</b>
<b>Vessel:</b>	<b>18.15m L.O.A</b> <b>17.25m W.L.L</b> <b>34 t (laden)</b>
<b>Performance:</b>	<b>28 knots (laden)</b>



### **High Speed Catamaran Crew Boat – Caspian Sea Kazakhstan**

Five vessels of this class are operating from the home port of Aktau in Kazakhstan, ferrying crew and supplies to oil rigs in the Caspian Sea. Powered by twin CAT C18 diesel engines coupled to the **DOEN DJ220** waterjets these vessels have a top speed of more than 30knots light. The waterjets also provide these vessels with outstanding maneuverability and control, essential for working in and around the oil rigs.

For maximum service life in this arduous commercial application the **DJ220** waterjets have been specified with stainless steel pump assemblies fitted with 22" (560mm) high volume single stage axial flow impellers. These waterjets provide excellent high-speed efficiency with superior cavitation margins allowing full power application at any load condition and also at zero speed for maximum possible thrust during docking and station keeping maneuvers at sea. Doen's pre-fabricated aluminium intake duct installation combines maximum vessel integrity with simple installation.

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 - triple station (main + 2x docking stations); 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 **Lloyds +100A1 SSC WORK BOAT HSC (UMS)**