

Case Study 271: **23m Catamaran Crew Boat**

SPECIFICATIONS

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| Waterjet: | DJ220-IWJ x2 |
| Engine: | VOLVO D16MH 751 mhp @ 1900 rpm |
| Gearbox: | ZF665 - 1.743:1 |
| Vessel: | 23.0m L.O.A 21.8m W.L.L 85 t (laden) |
| Performance: | 20 knots |



Petrobras Oil and Gas Crewboat – 23m Catamaran, Brazil

Built to transfer crew and equipment to oil the platforms, this fiberglass catamaran operates under charter to Petrobras Brazils targets oil company. The vessel is powered by twin Volvo diesel engines which are coupled to Doen's latest **DJ220-IWJ** (Integrated Waterjets) in this heavy displacement vessel. With a top speed of 20 knots the waterjets provide enhanced maneuverability and most importantly diver safety when operating in the vicinity of the rigs.

The Doen IWJ installation method provides a simple and extremely cost effective method for waterjet installation in fiberglass vessels as it allows the waterjet intake ducting to be laminated with the vessel hull form itself. To simplify the mechanical complexity and to further reduce the installed cost, the waterjet shaft is arranged to thrust directly to the gearbox as per conventional propeller arrangement. These **DJ220-IWJ** have all stainless steel pump assemblies. Fitted with 22" (560mm) single stage high performance axial flow impellers; these waterjets deliver excellent thrust and cruise efficiency.

Steering is by conventional helm using a power assisted hydraulic steering system. Inboard cylinders are mechanically connected to the waterjets inboard steering tiller. This provides the vessel with exceptional and easy control at all speeds

The **DJ220-IWJ** waterjets are fitted with Doen's Rotary Servo Control (RSC) unit; which is a mechanical follow up hydraulic control system providing simple and exact control of the waterjets reverse buckets. The fully integrated hydraulic system uses Pto. mounted hydraulic pumps, in built oil cooling and completely inboard mounted reverse cylinders and hydraulic lines. Reverse operation is by Hynautic control levers.