

Case Study 239: **25m Motor Yacht**

SPECIFICATIONS

Waterjet:	DJ220-IWJ x2
Engine:	CAT C32 1670 bhp @ 2300 rpm
Gearbox:	MG 6557SC 1.66:1
Vessel:	25.6m L.O.A 24.2m W.L.L 54 t (laden)
Performance:	35 knots



Continental CNM80 – 25m Fibreglass Motor Yacht, Italy

This luxury fiberglass motor yacht was the first vessel built by this new Italian shipyard who's focus is on low volume high end quality products. Powered by twin Caterpillar diesel engines coupled to the **DOEN DJ220-IWJ** waterjets the vessel has a top speed in excess of 35knots in light condition. At trials this vessel demonstrated significantly reduced noise and vibration levels attributed to the Integrated Waterjet system.

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 hullform 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.

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 - twin 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.