

Case Study 258: **35m Motor Yacht**

SPECIFICATIONS

Waterjet:	DJ260 x3
Engine:	CAT C32 ACERT 1670 bhp @ 2300 rpm
Gearbox:	MG 6599SC 2.04:1
Vessel:	35.3m L.O.A 34.0m W.L.L 108 tonne
Performance:	35 knots



Shama Yachts Egypt – 35m Luxury Motor Yacht

Founded in 1994 in Egypt, Shama Yachts builds luxury fiberglass motor yachts up to 36.0 metres in length. This vessel model is known as “116 OPEN” and is powered by triple Caterpillar C32 diesel engines coupled to the **DOEN DJ260** waterjets. The waterjets are configured as two steering and reversing wing waterjets with a central booster waterjet. With all three engines running the vessel has a top speed of in excess of 35knots. Running on the wing engines only she is able to sustain a long range cruise at up to 18knots.

The **DJ260** waterjets have been specified with stainless steel pump assemblies fitted with high volume single stage 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 ducts were provided in a bolt in format for simple installation into the fiberglass vessel hull.

Each of the wing **DJ260** waterjets 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. The hydraulic oil reservoirs themselves are integrated with the waterjet ducting providing passive cooling and compact packaging. All hydraulic pumps are directly driven from gearbox PTO’s.

Vessel propulsion control is managed using Doen’s own **CAN BUS - Control** system. Configured for triple engine - twin station; the system simply combines primary control of engine throttle and gear command with the waterjet steering and reverse functions. Additionally the system provides the operator with all necessary monitoring, alarm and back-up control functions.