

Case Study 123: Aquaculture Boat

SPECIFICATIONS

Waterjet:	DJ100G
Engine:	Yanmar 6BY 220hp @ 4000rpm
Gearbox:	1.423:1 Integral with Jet
Vessel:	6.2m L.O.A 4.8m LWL 2.0 tonne
Performance:	40 knots



A fast, highly maneuverable aquaculture boat from Australia's Oceantech Design

A single **DOEN DJ100G** waterjet propels this aluminium 6.2m (20.4') craft designed and built by Oceantech Design, Australia. A primary requirement of this boat is to operate, in shallow draft areas, with a very high level of reliability in a variety of load conditions.

Power is provided by a single Yanmar 6BY 220hp diesel engine, which has been close coupled to the transom mount DJ100G waterjet. The DJ100G is just 300mm from the transom to the coupling face ensuring minimal intrusion into valuable onboard space of this boat, where onboard space is at a premium.

The DJ100G 10-inch (254mm) diameter high volume axial flow impeller provides excellent acceleration, load carrying and fuel economy with un-compromised top speed. The integral single step reduction gearbox ensures both the impeller and the engine are optimally matched to provide the highest level of efficiency from the propulsion system.

The DOEN balanced steering nozzle gives fast, precise response with minimal input force allowing simple light duty push pull cable steering to be used. This provides the vessel with unparalleled control for the many close quarter maneuvers that this boat has to accurately perform many times in daily operations.

This DJ100G waterjet is fitted with DOEN's Electric Reverse Control (ERC) option utilizing a high force electric actuator to provide follow up, position sensing, control of the reversing bucket. The inboard mounted electric actuator simplifies the installation, set up and maintenance of the waterjet while retaining performance and reliability. This system simply interfaces with the standard Yanmar engine control system providing a simple single lever throttle and reverse bucket control.