

Case Study 137: **RESCUE BOAT**

SPECIFICATIONS

Waterjets:	DJ120Z
Engines:	YANMAR 6LY3-STP 440hp@3300
Gearboxes:	ZF280-1 (1.300:1)
Vessel:	8.5m L.O.A 7.4m L.W.L 4.2 tonne
Performance:	34 knots



Marine Rescue NSW – 8.5m Fast Rescue Boat

This 8.5 meter rigid hulled inflatable boat (RHIB) designed by the renowned Mark Ellis, is built by one of the Australian industry leaders, Britton Maritime Systems for the Marine Rescue NSW; the commissioning of this RHIB was part of the organization's comprehensive modernization program to provide its personnel with uniform, quality fleet of purpose-designed and built rescue vessels tailor-made for their local conditions and specifically equipped for rescue operations.

Power is provided by a single Yanmar 6LY3-STP diesel engine, which is coupled to the DOEN DJ120 waterjet through ZF marine transmission. A reduction ratio is used to optimise the waterjet impeller selection and the gearbox also provides the vessel with disengagement and a back flushing capability. The DOEN 12.2-inch (310mm) diameter high volume axial flow impellers provide excellent cruise capability at reduced fuel consumption whilst delivering top speed of 34 knots.

The DOEN balanced steering nozzle gives fast and precise response. It is controlled using a conventional helm, manual hydraulic steering system. Inboard cylinder is mechanically connected to the waterjet inboard steering tiller. This provides the vessel with exceptional easy control at all speeds and especially when maneuvering around rigs and alongside other vessels.

The DJ120 waterjet is fitted with DOEN's Rotary Servo Control (RSC), which is a proportional hydraulic control system providing simple and exact follow up control of the waterjet reverse bucket, by conventional lever. This system has fully integrated hydraulics with in-built cooling; bulkhead mounted reverse cylinders and all connections inboard and protected from corrosion. RSC interfaces with standard 33C push-pull cables system, which enabled DOEN to offer a single two-lever control panel for this vessel for the reverse, engine throttle as well as marine gear.