DJ110 Waterjet

Performance **Reliability** Simplicity

Case Study 119: **Thursday Island Reef Pilot**

SPECIFICATIONS

Waterjets:	**DJ110 (Twin)**
Engines:	**Cummins 6CTA 8.3M 430hp @ 2600 rpm**
Gearboxes:	**N/A direct couple**
Vessel:	**12.6m L.O.A 10.2m L.W.L. 9.2 tonnes**
Performance:	**35 knots**

Launched in 1998, this pilot vessel is still going strong on her second set of engines

Launched in 1998 this aluminium RHIB 12.6m pilot vessel, propelled by twin **DOEN DJ110** waterjets, operates in the warm tropical waters around Thursday Island off the far North Australian coast. During this time it has logged more than 15,000 hours and has provided exceptional reliability at all times.

Originally launched with Volvo 420hp diesels these engines were subsequently replaced by twin Cummins 6CTA 8.3M 430hp diesels after many years of hard work. The current engines are direct coupled to the DOEN DJ110 11.0-inch (279.5mm) diameter high volume axial flow impellers. The waterjet units provides excellent cruise capability and fuel economy with un-compromised top speed under arduous sea and varying load conditions; all of which are extremely important for a pilot vessel.

The DOEN balanced steering nozzle gives fast, precise response with minimal input force. This is simply controlled using a conventional manual hydraulic steering system with inboard cylinder , which is mechanically connected to the waterjets inboard steering tiller. This provides the vessel with exceptional easy control at all speeds and especially when maneuvering alongside a moving ship for pilot transfer. both high and low speeds. A simple mechanical tie bar is used to connect the waterjets providing synchronized steering at all times.

The DJ110 waterjets are fitted with DOEN's Jogstick Reverse System (JRS); an electro hydraulic control system that provides non-follow up jog lever control of the waterjets reverse buckets. An analogue indicator is used to show the reverse bucket position. This robust, simple and cost effective system remains very popular with operators in remote and rugged use applications.

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