

RV DJILDJIT KAARTADJINY – Custom-designed research vessel for West Australian waters



Shipbuilder:.....**Dongara Marine**
 Designer:.....**Southerly Designs**
 Vessel's name:.....**RV Djildjit Kaartadjiny**
 Owner/Operator:.....**Department of Primary Industries and Regional Development (Western Australia)**
 Country:.....**Australia**
 Flag:.....**Australia**
 Total number of sister ships already completed:.....**0**
 Total number of sister ships still on order:.....**0**
 Contract date:.....**February 2022**
 Delivery date:.....**January 2024**

RV *Djildjit Kaartadjiny* is a joint production from Southerly Designs and shipbuilder Dongara Marine, the duo behind the fishing vessel *Raging Bull* (see *Significant Small Ships of 2021*). This new aluminium monohull will help the Australian government's Department of Primary Industries and Regional Development (DPIRD) to survey and monitor the health of the region's valuable fisheries, including rock lobsters, crabs and demersal fish.

The vessel's main helm is situated in the port-aft quarter of the wheelhouse, so that the skipper is close to the work deck and can see what is happening. A window in the aft bulkhead opens upwards and outwards to help the skipper to see and communicate with the deckhand. RV *Djildjit* also features an external control station and a Vision Pro CCTV system for visual monitoring around the vessel, while an IP68-rated Vision Precision camera permits crew to monitor anchor recovery.

The aft deck features an A-frame, a deck crane, a pot winch and a pot tipper. A removable folding stern launch and recovery ramp enables the crew to deploy and retrieve auxiliary vessels up to 6m in length. RV *Djildjit* can stay out at sea for up to 15 days at a time. A pair of 680litre-capacity tanks are located aft, one on each side: these can store containerised fuel for the auxiliary vessel's outboards, but they are also plumbed for use as live rock lobster tanks.

The vessel is powered by a MAN engine, driving a five-bladed Veem propeller. Sea trials saw a loaded RV *Djildjit* achieve a cruise speed of 18.5knots, increasing to 24.5knots max. A Mase Mariner 3000 genset is also fitted on board, and the vessel can utilise two 1kW/24V solar panel arrays on the wheelhouse roof – each array comprising five panels – for its hotel loads.

RV *Djildjit* is fitted with a large rudder and two Slepner side thrusters, including an SH320 unit forward and an SH240 aft, to bolster manoeuvrability and work with the vessel's DP system to maintain position for extended periods. The vessel is also fitted with a full Humphree active ride control system, and Dongara Marine has provided the option for a gyro stabiliser. The boat's underwater tools include a Furuno BBDS1 bottom discrimination sounder (which uses bouncing soundwaves to identify seabed materials) and a Furuno DFF-3D multibeam sonar. Furuno also supplied the vessel's TZT3 internal fish finder and DRS4D-NXT solid state doppler ultra-HD radar, which provides coverage out to 48nm.

TECHNICAL PARTICULARS

Length, oa 18.6m
 Length, bp 15.8m
 Breadth, moulded 5.4m
 Depth, moulded 2.4m
 Displacement 42tonnes
 Design, draught 1.8m
 Design, deadweight 15tonnes
 Lightweight 27tonnes
 Deck space (total) 30m²
 Service speed 18.5knots (85% MCR)
 Max speed 24.5knots
 Range 800+nm
 Propulsion
 Main engine(s):
 Number of engines 1
 Make MAN
 Model D2862 LE426
 Output of each engine 1,140kW
 Gearbox(es):
 Number of gearboxes 1
 Make ZF
 Model 3000A
 Output speed 2.5:1 reduction
 Propeller(s):
 Number of propellers 1
 Make Veem
 Model Veemstar LC Interceptor
 Diameter 1m
 Material Ni-Al-Bronze
 Number of blades 5
 Speed 456rpm
 Fixed/controllable pitch Fixed
 Open/nozzled Open
 Deck machinery and bridge electronics
 Crane(s):
 Number of cranes 1

Make Maxilift
 Model ML 330.3
 Capacities/SWL 32kNm
 2,350kg@1.36m
 420kg@4.36m max reach

Winch(es):
 Number of winches 1
 Make Dongara Marine
 Model Custom pot winch

Other deck machinery/equipment:
 - A-frame, 3tonnes SWL (Dongara Marine custom)
 - Equipped for (but not with) trawl/wire drum winch or longline reel (owner supply)
 - Folding stern ramp for auxiliary vessel launch and recovery (Dongara Marine custom)

Bridge electronics:
 Radar(s) Furuno DRS4D-NXT
 Autopilot Simrad A2004
 GPS Furuno GP-39 GPS
 Gyro Furuno SCX-20 satellite compass
 Chart plotter TimeZero Professional system with MaxSea charts
 3 x Simrad 19" / 1 x Furuno TZT3 16" screens
 Engine monitoring system Maretron
 Fire detection system Stat-X

Other communication systems
 - Icom VHF
 - Iridium satellite phone
 - Cel-Fi go mobile/cell phone booster
 - Starlink satellite internet

Onboard capacities:
 Fuel oil 7,600litres
 Fresh water 645litres
 Sullage 300litres

Other capacities:
 >5.5tonnes deck cargo
 >6m/2.5tonne auxiliary vessel
 2 x 680litre live fish tanks

Complement:
 Number of crew 2
 Number of passengers 12 for <12 hours
 6 for 12-24 hours
 2 for unlimited hours

Number of cabins 3

Other significant or special items of equipment:
 - Furuno BBDS1 sounder
 - Furuno DFF-3D sonar
 - Airmar 120WX WeatherStation
 - Vision Pro CCTV and Precision Vision anchor monitoring camera
 - Slepner SH320 bow thruster
 - Slepner SH240 stern thruster

Classification:
 Classification society Australian Maritime Safety Authority (AMSA)
 Notations National Standard for Commercial Vessels (NSCV) 2B

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