

'AMG WINYAMA'

DONGARA DELIVERS TO DAMPIER'S PILOTS

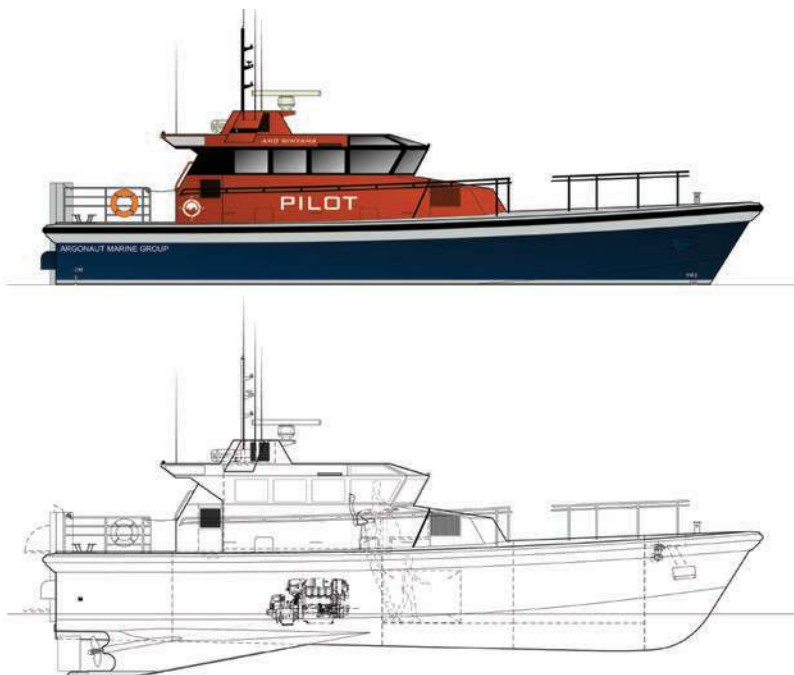
Having seen the successful construction, delivery and operation of the pilot boat 'Berkeley' for the Port of Fremantle in June 2015, Argonaut Marine Group ordered a sistership, named the 'AMG Winyama', to work out of the Port of Dampier.

Developed to enhance safety and comfort for marine pilots, the design leverages the more than 40 years of experience with high-speed fishing, patrol and offshore crew boats that resides within Southerly Designs. The design's ability to safely transfer marine pilots to

ships in heavy weather has been proven by 'Berkeley'.

The vessel design's generous waterline length contributes to its seakeeping performance, while also improving propulsion efficiency.

Twin keels and full-size pintle-hung rudders provide exceptional directional stability, increased manoeuvrability, and roll damping. The stern gear and propellers were supplied by local WA company M&J Engineering. Coupled with extra wide side decks and fendering system, these attributes make for a very safe working platform for pilots and crew.



'AMG Winyama'	
SPECIFICATIONS	
Type of Vessel:	Pilot boat
Classification:	NSCV 2B and 2D
Port of registry:	Dampier, Western Australia
Flag:	Australian
Owner/Operator:	Argonaut Marine Group
Designer:	Southerly Designs, Western Australia
Builder:	Dongara Marine, Western Australia
Hull construction:	Niche Marine, Western Australia
Hull and deck construction material:	Aluminium
Superstructure construction material:	Resin infused composite
Length overall:	19.2 metres
Length waterline:	17.4 metres
Beam:	5.4 metres (moulded), 6.1 metres (maximum)
Draught:	1.8 metres
Main engines:	2 x MTU 8V 2000 M72 diesels, each 720kW
Gearboxes:	2 x Twin Disc MGX 5146A
Propellers:	2 x Nakashima five-bladed fixed pitch props
Generators:	2 x Kohler 17EKOZD
Steering system:	2 x rudders
Maximum speed:	30 knots
Cruising speed:	25.5 knots
Radios:	Icom
Compass:	Ritchie
Plotters:	3 x 14.1" Furuno TZT multi-function displays
Anchor winch:	Muir Storm 3500
Anchor:	Mansom Hiding Anchor
Paints/coatings:	Awlcraft 2000 (external), Phoenix Maxicoat (internal)
Windows:	Windows West
Lighting:	Hella Australia
Liferaft:	6-man Ocean Safety
Fuel capacity:	2 x 2,000 litres
Freshwater capacity:	400 litres
Seating:	6 x Shockwave 1001 suspension seats
Crew:	2
Passengers:	4



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'Berkeley' operated for more than 3,000 hours in its first year, and the heavy workload pilot boats face is reflected in the specification of proven equipment that is rated for intensive commercial use. An example is the selection of twin MTU 8V 2000 M72 main engines at MTU's 1B (heavy duty) rating.

"This rating is specifically intended for fast vessels in high load factor applications operating some 5,000 hours per year," explained Southerly Designs founding director, John Fitzhardinge.

"While some pilot boats use engines rated for yachts and other low load profile applications, we firmly believe the engines

and ratings we specify provide end users with greater long term value and performance as a result of their reliability, extended time between overhaul (TBO), and construction quality," he continued.

Completed by Twin Disc gearboxes and Nakashima propellers, the propulsion package gives 'AMG Winyama' a fully loaded cruising speed of 25.5 knots and 29.5 knots at 100 per cent MCR.

To deliver 'AMG Winyama' quickly, Niche Marine was contracted to fabricate its robust aluminium hull, which was trucked to Dongara Marine as a bare shell ready for the mechanical installation, fitout, and addition of the resin infused composite wheelhouse. This approach resulted in a build time of just over seven months.

The use of composites results in a lightweight yet durable cabin that is protected against corrosion issues throughout its life. It also provides insulation from the extreme heat 'AMG Winyama' will experience in the Pilbara.

Further enhancing conditions for those onboard, the wheelhouse is resiliently mounted resulting in very low noise and vibration levels, while Dongara Marine's composite construction techniques provide a near superyacht finish inside and out.

Also contributing to providing pilots and crew with a quiet, comfortable work place is Dongara Marine's high quality interior fitout. This is evident in features such as padded vinyl linings and the carbon fibre and leather dash. Direct glazed windows provide unrivalled 360-degree visibility and are fitted with reflective blinds to reduce heat transfer.

Six Shockwave military specification shock-mitigating seats add to the exceptional ride provided by the Berkeley-class hullform, whilst the ergonomic dash enables the skipper to easily access the full array of electronics. These electronics include two Furuno Navnet multi-function – plotter, sounder, and radar – displays with 14.1" (37-centimetre) glass touchscreens. There is also a third screen at the dedicated pilot position.



Above: The wheelhouse featuring Shockwave's shock-mitigating seats

Below: The twin MTU 8V 2000 M72 engines powering the 19.2-metre 'AMG Winyama'





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Dash clutter is reduced by a customised FinScan IntelliCORE digital switching system that enables switching for all circuits that require wheelhouse control – such as electrics, tanks gauges, vessel alarms, and electrical supply – to occur on a single 10” (25-centimetre) touchscreen.

Since it is lightweight and resiliently mounted, the wheelhouse can be simply removed if it is necessary to remove the main engines. John Fitzhardinge says this feature allows for a more optimal pilot boat design.

“Whereas some designs have to compromise on the positioning of engines and superstructures to provide for full engine access, our design locates the engines in the best place as far as vessel balance and performance are concerned, while simultaneously positioning the wheelhouse for optimal functionality, visibility, and personnel comfort,” Fitzhardinge explained.

“The design provides an amazing ride at speed, especially in heavy weather, and is

very dry,” noted Argonaut Marine Group’s managing director, Captain Kim Lyons.

As an example, Fitzhardinge points to the added functionality the more spacious aft deck and cabin of the Berkeley-class pilot boat provides. “It enables, for example, a stretcher-borne patient to be easily manoeuvred on the sheltered aft deck and then into the safety and comfort of the cabin, something that is not possible on many pilot vessels,” Fitzhardinge said.

Hella Australia lighting throughout the vessel, both inside and out, ensures that she can perform capably 24 hours a day.

The high level of thought that went into construction, and regard for through-life reliability and maintainability, is evident in the spacious engine room, where polished copper nickel piping is used throughout the sea water system due to its higher corrosion resistance.

“The piping, and the choice of man-overboard recovery platform, are some of a handful of detail changes Argonaut...

and Dongara Marine agreed would enhance the original Berkeley design for operation and maintenance in the harsh Pilbara environment,” Argonaut’s Kim Lyons explained. “To their credit Dongara Marine worked extremely cooperatively to achieve our specific requirements. We would have no hesitation in going back to them for future projects.”

Dongara Marine’s General Manager, Rohan Warr, said combining talents was a key to the project’s success.

“To deliver a vessel of the highest standard, Dongara Marine drew not only on our in-house capabilities but also those of specialist contractors who have gained their experience with the hard working vessels used in the demanding Western Australian rock lobster fishery,” he said.

“The contributions of all parties have combined to provide a first class pilot boat that will provide significantly lower operating and maintenance costs over its lifespan,” Warr concluded.



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2 Carrol St Port Denison Western Australia (618) 9927 2750 www.southerly.com.au