AUSTAL

mmm

# OFFSHORE SOLUTIONS

. .

000 00

# AUSTAL

Austal is a global shipbuilder, defence prime contractor and maritime technology partner of choice; designing, constructing and supporting revolutionary defence and commercial vessels for the world's leading operators.

For nearly 30 years, Austal has designed and constructed over 250 vessels for over 100 operators in 44 countries, gaining an enviable reputation for innovative shipbuilding using advanced design technologies and modern, modular construction techniques.

From shipyards located in Australia, the USA and the Philippines - and service centres located around the world -Austal offers naval, government and commercial operators the highest quality ships, systems and support.

# **OFFSHORE SOLUTIONS**

Austal's range of customised offshore support vessels are designed for efficiency, safety, versatility and economy and are successfully adding value to to offshore logistics operations around the world.

From the fast, reliable delivery of personnel, equipment and supplies to offshore oil and gas platforms – to the facilitation of essential maintenance of windfarm installations, Austal's portfolio of offshore solutions offer many benefits.

### EFFICIENCY

- Short transit times with speeds of up to 40kts, even in a seaway.
- Improved crew productivity resulting from more comfortable transfers utilising larger, faster and more stable catamaran platforms featuring Austal's proprietary ride control system reducing motions by up to 50%.
- Greater vessel availability "on-charter" with a broad wave-height operating window; enabling regular operations during extreme weather conditions, including monsoons.
- Proven, reliable on board marine systems that ensure the smooth operation of vessels based on Austal's 25 years-plus experience of high speed catarmaran operations.

• Significant redundancy and separation of vital systems through twin hulled, catamaran designs; affording best possible intact and damage stability.

### SAFETY

- Safe transfer of crew offshore with proven "Walk-to-Work" (W2W) technology (active motion compensated gangway) offering fast, efficient and comfortable transfer of personnel between vessels and rigs, backed up by robust Frog-XT capsules certified for use up to 4m Hs waves.
- Minimised relative motion between vessel and rig (or floating offshore unit) laterally by way of dynamic positioning (DP-2) and vertically by way of natural heave damping from the underwater ride control T-foils provide a safer and more efficient transfer of personnel, equipment and supplies.
- Capability for a full rig evacuation of People on Board (POB) in one move as opposed to helicopters which need multiple return flights (6 or more for a 100 crew rig).

### VERSATILITY

- Capabilities include alternative missions such as dive support, Search and Rescue (SAR), Fire Fighting (FiFi) and Oil Spill Response; maximising the utilisation of the asset and allowing for highly competitive Daily Charter Rates (DCR) and the best possible returns for owners.
- Scalability and flexibility that allows the transfer of vessels to offshore operations anywhere in the world with designs and class that are meet all applicable international standards.

### ECONOMY

- Fastest possible method for delivering fast track cargo to offshore operations with downtime measured in the millions of dollars per day.
- Operating costs that are as much as 80%\* cheaper than comparable helicopter transfers.
- Vessel range that exceed current and planned offshore operations; delivering personnel, equipment and supplies to multiple rigs in one trip; generally well beyond helicopter range, which must often carry out hazardous refuelling "in-field".
- Competitive vessel acquisition costs and low through-life capability management costs from Austal's established, highly efficient shipyards and global support network; delivering quality vessels much quicker than competitor shipyards and providing local support when you need it.

\* based on Austal modelling

# WINDFARM

Combining fuel efficiency with advanced seakeeping characteristics, Austal's 'Wind Express' platforms are the premier transportation solution for the offshore wind farm industry. Utilising Austal's world-renowned advanced hull design and engineering capabilities, each vessel is specifically designed to provide offshore wind farm operators with a rugged, reliable and efficient multi-purpose platform. Characterised by their optimum personnel comfort and safety, each vessel in the Wind Express series can be further customised to suit specific sea conditions, routes, and payload requirements.

# **CREW BOAT**

Crew Boats are the workhorses of the offshore industry and Austal's crew boats are a low cost, multi-purpose vessel capable of delivering both crew and fast track cargos to offshore installations. These rugged vessels also have capacity for transferable fluids such as diesel oil and drilling mud.

# CREW TRANSFER VESSEL (CTV)

The Austal CTV focusses on crew comfort with large seat pitch and 45 degree recline on "Executive" style seating. Seating capacity of the vessels can customised to match the 'People on Board' (POB) number of the offshore unit - whether rig, FPSO or FLNG. Putting the well-being of the transferring personnel front and centre, these high speed catamarans minimise time at sea and provide a comfortable ride - even in challenging sea conditions - by virtue of Austal's proprietary Ride Control system. Safety briefings can take place enroute, eliminating the time spent on pre-start handovers that helicopter transported crew must undergo.

# LARGE CREW TRANSFER VESSEL (LCTV)

At the forefront of the offshore transportation industry today are the large crew transfer vessels (LCTV) developed by Austal, in conjunction with Incat Crowther. These high speed (40kts) vessels are configured with 'Dynamic Positioning' (DP-2) providing for safe and controlled operation within the 500m safety zone. The versatility of these vessels adds significant capability beyond the core task of transferring personnel safely offshore - and reducing and sometimes eliminating the need for helicopters. These capabilities include a large aft deck suitable for a variety of cargos (eg urgent, fast track cargo) with deck strength of 5 tonne/sqm (or larger if required), oil spill response, FiFi and Search and Rescue (SAR). The large aft deck is also "Walk-to-Work" (W2W) ready, with the space and capacity for the popular active-motion compensated gangways such as the Ampelmann.



WIND FARM



CREW TRANSFER VESSEL



LARGE CREW TRANSFER VESSEI

# POINT OF DIFFERENCE



### Advanced Hull Designs and Engineering

Austal's team of industry leading naval architects have developed some of the worlds most iconic commercial ships (such as the 102m Condor Liberation and 127m Benchijigua Express) – and can customise a proven vessel design to suit your specific requirements – or develop an entirely new design – that delivers the optimal balance between passenger comfort, speed and efficiency over a range of operating conditions.

Supporting this product development are expert, in-house teams of marine and mechanical engineers, HVAC engineers, electrical designers, interior designer and drafts people. Utilising advanced design technology, including Computational Fluid Dynamics, Seakeeping Analysis, three dimensional modelling and detailed Global Finite Element Analysis, the Austal team can develop an effective, customised design based on a proven monohull, catamaran or trimaran hull.



MONOHUL

### Aluminium - Delivering Strength, Speed and Economy

As an acknowledged global leader in aluminium vessel construction, with an intrinsic understanding of the material's qualities and characteristics, Austal is at the cutting edge of aluminium structural design. The desire to optimise vessel strength for minimum weight - particularly important for the large high speed platforms - led to the development of Austal's own highly specialised in-house Finite Element Structural Analysis procedures. These procedures ensure every Austal vessel meets the highest quality standards for structural (hull) performance and integrity.

### **Ride Control - Motion Control**



CATAMARAN

Austal offers improved seakeeping capabilities and a more comfortable journey through an advanced, computer-controlled motion reduction system, available on every Austal vessel.

### Walk-to-Work (W2W) Ready

The active-motion compensated gangways from companies such as Ampelmann are transforming the offshore industry by providing a safer 'walk to work' personnel transfer solution between vessels and offshore platforms. The closed-loop control system (the smarts of the stabilisation) maintains a constant, stable base for the gangway, even as the vessel pitches, rolls and heaves below. Austal's Large Crew Transfer Vessels (LCTVs) have aft decks designed to accommodate these game changing devices and are a key influence in decisions being made to transitioning crew changes away from traditionally more expensive helicopter transfers.



TRIMARAN

# WIND EXPRESS 21 Foryd Bay, Malltraeth Bay, Aberffraw Bay & Beaumaris Bay

The Wind Express 21 catamarans are used to transport service crews and equipment to the many offshore wind farms that are located off the coastlines of several European countries.

The Wind Express 21 wind farm service vessels are specifically designed for operation in rough sea conditions, and offer stability and fuel efficiency through the highly-refined catamaran hull form which requires less power and fuel to meet operational requirements.

In association with a high tunnel height, Austal's advanced Z-bow chine hull form enables the vessels to operate at speeds of up to 30 knots with targeted seakeeping ability in up to 2.0 metres significant wave height.

The Wind Express vessels' practical arrangement enables comfortable transits for up to 12 wind farm personnel, with a high quality interior fitout, good visibility and ample fore and aft cargo stowing, as well as accommodation for the vessel's crew.

ARTICULARS
21.3 m
7.3 m
1.4 m
28 knots @ 90% MCR
nm (with a 20% reserve)
3
12
5.0 tonnes
12.5 tonnes
6,000 litres



# WIND EXPRESS 27 Bull Bay, Church Bay & Mill Bay

The 27 metre Wind Express wind farm service catamarans were constructed for UK-based Turbine Transfers to support wind turbine installation and maintenance activities in European waters.

Rugged and versatile, the Wind Express 27 catamarans are able to transport 12 personnel and 10 tonnes of equipment/stores to and from turbines. This includes containerised items on forward and/or aft decks.

Austal's advanced Z-bow hullform coupled with high tunnel clearance allows the Wind Express 27 to maintain higher speeds in waves than competing catamarans, reducing both exposure to seasickness and service times per turbine.

The design includes four single berth cabins making it possible to operate around-the-clock with two crews of two. The cabins are in the superstructure, which is resiliently mounted to reduce noise and vibration transmitted from the hull.

😹 PRINCIP	AL PARTICULARS
Length:	26.5 m
Beam:	7.5 m
Hull draft (approx.):	1.4 m
Speed:	
Range:	680 nm (with 20% reserve)
Crew:	3
Wind Farm Personne	:12
Deck Cargo:	10.0 tonnes
Maximum Deadweigl	nt:22.0 tonnes
Fuel:	



# OFFSHORE SUPPORT 20 Anggor Jaya

Offshore Support 20 was selected by Pertamina-Japex North Sumatra Ltd as a support vessel for their maritime support services fleet in Indonesia. Anggor Jaya was delivered in 2000 and continues to provide integral logistics and other support to Pertamina's oil and gas operations in North Sumatra. The vessel's large deck and firefighting capability make it an ideal solution for a variety of offshore petroleum operations and support services.



### OFFSHORE SUPPORT 20

PRINCIPAL PARTICULARS

Length:	20.1 m
Beam:	6.0 m
Hull draft (Full Load at Full Speed):	0.9m
Speed:	20 knots
Crew:	13



OFFSHORE SUPPORT 20

# OFFSHORE SUPPORT 33 Kurnai Tide

Leading provider of Offshore Vessels, Tidewater, operates a fleet of 350+ vessels that transports crews and supplies, equipment and infrastructure to offshore operations, worldwide. The Offshore Support 33 Kurnai Tide was designed for the rigours of the Bass Strait and was subsequently extended for offshore work globally.



### ▲ OFFSHORE SUPPORT 33

-	PRINCIPAL PAR	TICULARS	
Length:			32.9 m
Beam:			8.0 m
Hull draft	t (approx.):		1.8 m
Speed:		20 t DWT, 100	% MCR
Crew:			4 + 4
Fuel:		20,00	0 litres
Fuel Con	sumption:270	0 litres/hr @90	% MCR
Propulsio	n System:2 x Va	riable Pitch Pro	pellers



# CREWBOAT 45 ANAPAULA & VERONICA

The Offshore Crew Supply 45 was designed and constructed by Austal for Otto Candies LLC of Louisiana, to play a critical role in their transportation fleet. Two vessels were delivered in 2002 and continue to provide offshore personnel and cargo transportation services in the Gulf of Mexico. With a large cargo deck, seating for 80 personnel and a speed of 25 knots, the Offshore Crew Supply 45 is an effective, multi-purpose offshore transport solution.



		CREW	BOAT	45
--	--	------	------	----

D	DINI	CIDA		
<b>Г</b>	KIIN	CIFA		LAKS

Length:	45.8 m
Beam:	8.2 m
Hull draft (approx.):	1.9 m
Speed:	100% MCR
Crew:	4
Passengers:	80
Deck Cargo:	150 tonnes
Fuel:	8,425 litres
Transferable Fuel:	7,900 litres
Transferable Water:7	5,800 litres



# CREW TRANSFER VESSEL

The Crew Transfer 45 was selected by ADNOC to provide fast, comfortable and reliable oil rig crew transfer services in the challenging climate (and seas) of the Arabian Gulf. The all-aluminium catamarans, ordered in 2014 and delivered to ADNOC in August 2015 are the ideal solution to safely and efficiently transporting crew and cargo at high speed to offshore facilities.



### CREW TRANSFER VESSEL 45 INTERIOR

### PRINCIPAL PARTICULARS

	. – .
Length:	45.6 m
Beam:	12.3 m
Hull draft (max.):	2.2 m
Speed:3	5 knots @ 90% MCR
Crew:	12
Passengers:	
Maximum Deadweight:	56.4 tonnes
Fuel:	



# LARGE CREW TRANSFER VESSEL 57



In June 2015 Austal secured an offshore vessel contract for the construction of one 57.6m High Speed Catamaran Crew Boat for an undisclosed operator based in South East Asia.

The advanced, multi-task crew boat is capable of quickly and safely transferring 90 offshore personnel plus cargo at up to 40 knots and shall be wholly constructed at Austal's Philippines shipyard.

In addition to a large, 200sqm cargo deck (allowing up to 100 tonnes of cargo to be transported), the vessel features DP2 'Dynamic Positioning' that allows stable, heave-compensated walk-to-work transfer of personnel to offshore facilities. The vessel also has search and rescue capability, with an on-board Fast Rescue Craft (FRC) available for launch quickly when necessary.

LARGE TRANSFER VESSEL 57M 🕨

# PRINCIPAL PARTICULARSLength:.57.6 mBeam:.12.5mHull draft (approx.):.2.17mSpeed:.40 knots @ 90% MCRRange:.604 nm (@ 40 knots)Vessel Crew:.12 - 20Passengers:.90 (150 standby)Deck Cargo:.100 tonnes (5t/sqm)Maximum Deadweight:.160 tonnesFuel:.50,000 litresChemical Dispersant:.5,000 litres

# FEATURES: DP-2 (DYNPOS - AUTR)

CONFIGURED FOR WALK TO WORK (W2W)

# LARGE CREW TRANSFER VESSEL 70



In June 2015 Austal entered into a contract with Caspian Marine Services Limited of Azerbaijan to construct one 70 metre Fast Crew Boat.

The 30 knot, 150 passenger catamaran shall be jointly built in Austal's Philippines and Henderson shipyards.

Caspian Marine Services Limited operates a fleet of offshore marine support vessels, serving the offshore oil and gas exploration and production industry in the Caspian Sea region. The 70 metre Fast Crew Boat shall transport crew and cargo to offshore platforms, operated by the State Oil Company of Azerbaijan (SOCAR) and British Petroleum (BP).

LARGE CREW TRANSFER VESSEL 70M

### $\mathbf{\times}$

### PRINCIPAL PARTICULARS

Length:	70 m
Beam:	67.6 m
Hull draft (approx.):	2.32 m
Speed:	30 knots @ 90% MCR
Range:	400nm (@ 30 knots)
Vessel Crew:	16
Passengers:	
Deck Cargo:	6 x 10ft containers
Maximum Deadweight:	148 tonnes
Fuel:	

# FEATURES:

- DP-2 (DYNPOS AUTR)
- CONFIGURED FOR WALK TO WORK (W2W)



# POWERFUL PRODUCTION CAPACITY

## Multi-vessel orders delivered on time and on budget.

With a dedicated commercial vessel shipyard in the Philippines, operated by a highly skilled local workforce and supported by Austal Australia's design and construction resources, Austal has the global production capacity to offer fast, on-time delivery - even on multiple vessel orders. Austal's advanced, modular shipbuilding techniques provide unequalled levels of efficiency and productivity within its shipyards, which translates to reduced costs and faster construction times. Applying ISO9001 and ISO14001 standards for quality and environmental sustainability, Austal produces vessels that consistently meet and exceed the highest international quality requirements.

CONSTRUCTION AT AUSTAL PHILIPPINES FACILITY

# CUSTOMISED, QUALITY INTERIOR DESIGN AND FITOUT

### Tailor made for any commercial application.

Whether you're after a practical, utilitarian fitout - suited to the demands of short commuter journeys - or a sophisticated and comprehensive fitout required for more luxurious operations - Austal's interior design team and fitout departments can design and produce a wide range of fully customised vessel outfits to meet any operational requirement and budget.

Austal's interior design team liaise closely with you, or your preferred interior designers to create the desired atmosphere on-board the vessel to achieve the ideal passenger experience. From the design stage to installation, consideration is always given to the dynamics of space and weight - to ensure the vessel always achieves performance specifications.

CREW TRANSFER VESSEL 45 INTERIOR LAYOUT

# THROUGH LIFE CAPABILITY MANAGEMENT

### **Delivering Global Service and Support.**

Austal recognises the need to maximise the operational availability and capability of every vessel we deliver. Our global support teams work closely with every customer to understand their individual ship and fleet operations so that effective, through-life product and service support can be provided to them.

Austal Australia offers an extensive portfolio of 'throughlife capability management' (TLCM) services that ensure customer's vessels are available for operation in accordance with their planned operational profile.

Austal's 'through-life capability management' services take into account vessel usage requirements and can include guarantees to ensure operational targets are met.

Austal support services include:

- Integrated Logistics Support (ILS)
- Contract Maintenance
- Technical Management and Systems Support
- Through Life Capability Management (TLCM):
  - Maintenance Management & Scheduling
  - Preventative & Corrective Maintenance
  - Dockings, Refits & Refurbishment
  - Ship Management Support Services
  - Training Services
  - Spare Parts Management and Supply
  - Consultancy Services



NEXT GENERATION 102 TRIMARAN IN DRY DOCK

MOBILE, ALABAMA, USA

HENDERSON, WESTERN AUSTRALIA

AUSTAN

BALAMBAN, CEBU, PHILIPPINES

.....



SHIPS . SYSTEMS . SUPPORT

HEAD OFFICE: 100 CLARENCE BEACH RD HENDERSON 6166 WESTERN AUSTRALIA

EMAIL: sales@austal.com TELEPHONE: +61 8 9410 1111

WWW.AUSTAL.COM