



GENERAL INFO	
<b>Basic Function</b>	Dive support & offshore services, lifting, utility, berthing, towing.
<b>Design</b>	Macduff Ship Design Ltd.
<b>Class Notation</b>	BV I ✦ HULL • MACH, Wind Farm Service Ship – M2 Tug standardized bollard pull 17 tons Unrestricted Navigation, • AUT-UMS, • DYNAPOS AM/AT
<b>Year of Build</b>	2024 (UK Delivery Q1)

MAIN PARTICULARS	
<b>Length Over All (LOA)</b>	26.95 m
<b>Breadth (B)</b>	11.00 m
<b>Depth (D)</b>	4.35 m
<b>Draught (Max)</b>	2.90 m
<b>Air Draught (Max)</b>	18.50 m
<b>Bollard Pull</b>	17 TBP
<b>Speed</b>	11.0 Knots
<b>Endurance</b>	5 days (full capacity)
<b>Accommodation</b>	6 Crew 12 Passenger

CAPACITIES	
<b>Fuel</b>	77 m <sup>3</sup>
<b>Fresh Water</b>	40 m <sup>3</sup>
<b>Black Water</b>	15 m <sup>3</sup>
<b>Grey Water</b>	11 m <sup>3</sup>
<b>Sludge</b>	4 m <sup>3</sup>
<b>Lub Oil</b>	4 m <sup>3</sup>
<b>Bilge</b>	10 m <sup>3</sup>
<b>Clear Deck Area</b>	70 m <sup>2</sup>
<b>Deck Loading</b>	5 t/ m <sup>2</sup>
<b>Moonpool</b>	1.45 m x 1.45 m

FIRE & SAFETY	
<b>Safety Equipment</b>	2 x 20-man inflatable Life raft
<b>Fixed Fire Fighting System</b>	Novec 1230 System
<b>Fire &amp; Smoke Detection Systems</b>	For E/R, Accommodation and all compartment monitored from wheelhouse & call (alarm) points at several locations' c/w general alarm system from the central alarm panel
<b>Rescue Boat</b>	4.42m Aluminium Rescue Boat, 6 Persons, 40 HP outboard

ACCOMMODATION & NAVIGATION	
<b>Accommodation</b>	2 x 1-man Cabin (en-suite), 8 x 2-man Cabins (en-suite) Galley & Mess & Lounge Survey/Dive Control Room Embarkation Lobby
<b>Air Condition</b>	15 kW heating capacity 18kW cooling capacity. Fan coil in each cabin
<b>Chairs (Helmsman)</b>	2 x Helmsman
<b>Search Light</b>	2 x 1000 W
<b>Navigation &amp; Communication Equipment</b>	1 x DP1 System 2 x Radar (X & S Band) 1 x Echo Sounder 1 x Speed Log 1 x AIS 1 x Auto Pilot 1 x GPS Receiver 1 x BNWAS 1 x S-VDR 1 x Magnetic Compass 1 x INMARSAT MINI C 1 x NAVTEX 1 x VHF Sets 1 x MF/HF 3 x GMDSS VHF 1 x EPIRB 1 x SART 1 x VHF 1 x VSP Telephone 1 x Talkback system 1 x Internal Telephone 1 x CCTV

MACHINERY	
<b>ASD Propulsion</b>	2 x Schottel SRP 210 FP
<b>ASD Prime Mover</b>	2 x 500 kW, VEM Permanent Magnet e-motor
<b>Main Generators</b>	3 x MAN D2676 3 x 340 ekW, 400V, 50Hz
<b>Harbour Generator</b>	1 x Baudouin 4W105 ES 1 x 76 ekW 400V, 50Hz
<b>Bow Thruster</b>	1 x Veth VT-90 1 x 99kW
<b>Service Air Compressor</b>	2 x 1.5 kW 10 bar Air Compressor, 1 x 18 m <sup>3</sup> /h dryer, 1 x 300 lt air receiver
<b>Oily Water Separator</b>	1 x 0.5 m <sup>3</sup> /h and 15 ppm.
<b>Sewage Treatment System</b>	1 x for 20 persons
<b>GS &amp; Bilge &amp; Fire Pump</b>	2 x 25 m <sup>3</sup> /h x 4 bar
<b>Oily Water Transfer Pump</b>	1 x 3.5 m <sup>3</sup> /h x 2 bar
<b>Sludge Pump</b>	1 x 3.5 m <sup>3</sup> /h x 2 bar
<b>Fuel Transfer Pump</b>	1 x 10.4 m <sup>3</sup> /h x 2 bar
<b>Fuel Oil Prufier</b>	1 x 1000 l/h
<b>FW Pump</b>	1 x 3 m <sup>3</sup> /h x 2 bar

<b>Black &amp; Grey Water Transfer Pump</b>	1 x 5 m <sup>3</sup> /h x 2 bar
<b>LO Transfer Pump</b>	1 x 2.27 m <sup>3</sup> /h x 2 bar
<b>FW Cooling Pump</b>	2 x 17 m <sup>3</sup> /h x 2.5 bar 2 x 17 m <sup>3</sup> /h x 2.9 bar
<b>Emergency Fire Pump</b>	1 x 25 m <sup>3</sup> /h x 2.5 bar
<b>FW Hydrophore Set</b>	2 x 3.2 m <sup>3</sup> /h - 200 lt with UV, 160 lt 2X3kW heater

DECK MACHINERY	
<b>Anchor &amp; Chain</b>	4 x 750 kg Delta Flipper Anchor 4 x 600m Ø20mm wire rope
<b>4-Point Mooring Winches</b>	Electric driven, deck and bridge controlled. Single Drum, storage capacity 600m for 20mm dia wire rope. Band brake holding load 25 tons. Duty on drum 1st layer nominal pull 4-8 tons @ 7.5-12 m/min. Length Tension Monitoring System. Tension, length, speed monitoring system.
<b>Aft Towing Winch</b>	Electric driven, deck and bridge controlled. Single Drum, storage capacity 600m for 34mm dia steel wire. Duty on drum 1st layer nominal pull 25 tons @ 10m/min, 8 tons @ 20m/min. Length Tension Monitoring System. Tension, length, speed monitoring system.
<b>Offshore Crane</b>	Hydraulic driven, locally and remote controlled. Maximum Outreach 12.7m Lifting capacity SWL @ Sea State 3 13,000 kg @ 4.0 m 8,400 kg @ 7.3 m 6,500 kg @ 9.1 m 5,300 kg @ 10.9 m 4,400 kg @ 12.7 m
<b>A-Frame</b>	Hydraulic Driven Onboard 1,000 kg @ 4 m Outboard 5,000 kg @ 3 m
<b>Stern Roller</b>	1 x 30 tons SWL 3000mm x Ø 500 mm



**TOR  
GROUP**

# TOR BOREAS HYBRID UTILITY VESSEL

