VESSEL SPECIFICATIONS



Vessel is ideal for all round semi-submersible rig support, the **W** Class vessels have substantial horsepower and winch capabilities to heave anchors and tow rigs. Vessel also offering a sizeable cargo capacity that can carry multiple cargoes. Vessel is equipped with Dynamic Positioning (DP) System Class 2 and a 300-tonne Brattvaag winch. This **Rolls-Royce UT710 Norwegian** designs are also renowned for their excellent station keeping in rough/ harsh environment weather, proving to be reliable and adaptable to serve various offshore operations, including but not limited to anchor handling, ROV support and a wide range of salvage scopes of work.

Top Fe	eatures	Key Specifications	
2. L	Ideal for ROV & Towing operations. Large & comfortable accommodation. High Capability bollard pull for semi-sub anchor handling. Good Economical station keeping during operations.	 Bollard Pull - 141 t Free Deck Area - 471 m² Brake Horsepower - 10657 BHP Winch Line Pull - 300 t 	

VESSEL SPECIFICATIONS



General Information					
Vessel Name	TBD Upon completion of NCNDA				
Built	Brevik Construction A/S Norway, March 2003				
Flag	Singapore				
Call Sign	TBD Upon completion of NCNDA				
IMO No.	TBD Upon completion of NCNDA				
Classification					
Class Notation	DNV-GL +1A1 Fire fighter(I) Tug DK(+) DPS(2) E0 HL(2.5) SF				
Dimensions					
Length (LOA)	68.95 m				
Beam	15.5 m				
Summer Draft	6.0 m				
Deadweight @ SummerDraft	2351 t				
GT	2327				
Length, BP	60.45 m				
Length (Load Line)	62.64 m				
Depth, main deck	7.0 m				
Maximum Draft Midship	6.0 m				
NT	751				
Minimum Draft Midship	4.66 m				
Deck Capacities					
Deck Load Capacity	800 t				
Deck Strength	5 t/m² - General deck 10 t/m² - Aft AH deck				
Free Deck Area	471 m²				
Length x Width	36.8 x 12.8 m				
Tank Capacities					
NLS	See brine/mud				

Fresh Water 448 m³ (dedicated) 947 m³ (Multi usage tanks) Fuel Dedicated 797 m³
Dry Bulk 224 m³ (in 4 tanks) Fresh Water 448 m³ (dedicated) 947 m³ (Multi usage tanks) Fuel Dedicated 797 m³
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947 m³ (Multi usage tanks) Fuel Dedicated 797 m³
Fuel Total 797 m³ (dedicated)
Tank Capacities Details Refer to Tank Capacities Table
Drilling Brine See brine/mud
Ballast Water 101 m³ (dedicated) 1060 m³ (Multi usage tanks)
Drill Water 101 m³ (dedicated) 1060 m³ (Multi usage tanks)
Ship's Stores $ \begin{array}{c} \text{Freezer (-25c)} = 11 \text{ m}^3 \\ \text{Chiller (+4c)} = 9.5 \text{ m}^3 \\ \text{Dry Store (+22c)} = 23 \text{ m}^3 \end{array} $
Propulsion / Bollard Pull
Main Engines 2 x Bergen BRM9 each 3975 kW = 7950 kW (10657 bHP) 2 x CPP propellers in KORT nozzles, with Hi-lift flap rudders
Thrusters 2 x RRM bow thruster each 590 kW / 791 bHP 1 x RRM stern thruster each 590 kW / 791 bHP
Bollard Pull 141 t at 100% MCR
Shaft Generators 2 x shaft generators 1280 ekW (1600 kVA), 450v, 60 Hz
Auxilliary Generators 2 x diesel/gen output 320 ekW (400 kVA), 450v, 60 Hz
EKVV (400 KVA), 450V, 60 HZ
Emergency Generators 1x diesel/gen output 65 ekW (80 kVA), 450v, 60 Hz

Towing / Working Winch	1 x Tow winch 300 t 1st layer @ 0-7.0 m/min Wire capacity 1500 m of 76 mm dia.				
Anchor Handling Winch	2 x AH winch each 300 t 1st layer @ 0-7.0 m/min Wire capacity 1200 m of 76 mm dia.				
Brake Capacity	450 t 1st layer				
Spare Reel Capacity	2 x rope reels for storage pennant/tow wire Capacity of: 1500 m of 76 mm wire Duty 1st layer: 7.5 t at 0-48 m/min				
Wire Storage Reel	1 x wire store reel Capacity of: 1500 m of 76 mm wire Duty 1st layer: 7.5 t at 0-48 m/min				
Chain Lockers	1 x 195 m³ Chain capacity of: 2400 m 76 mm chain or 2000 m 84 mm chain				
Towing Pins	4 x for ships with BP up to 240 t				
Shark Jaws	2 x for wire/chain with MBL up to 500 t				
Stern Roller	RRM single drum with diameter 2.4 m x length 5.0 m @ 450 t SWL				
Capstans	2 x RRM 8.5 t @ 0-20 m/min				
Tugger Winches	2 x RRM 10 t @ 0-38 m/min Storage capacity 100 m of 19 mm dia. Wire				
Provision Crane	1 x electric hydraulic knuckle boom Capacity 5 t @ 10 m, 3 t @ 15 m				
Chain Gypsies	2 x 76 mm + 2 x 84 mm				
Windlass	RRM combined windlass / mooring winch Duty on warping ends, 10.5 t @ 0-13.5 m/min, light line 0-45 m/min. Duty on cable lifters, nom pull 9.5 t @ 0-13.5 m/min, max pull 11.5 t. Duty on mooring drums, stowing capacity 120 m of 40 mm rope, duty on mooring drums 9.5 t @ 0-13.5 m/min, lowering 0-45 m/min.				
Smit Towing Bracket	1 x 200 t SWL located on fo'csle				
Navigation Equipment					
Main Radar	Furuno colour RDP-115 S-band (10 cm), ARPA 28" display, complete with remote display at aft console				
Auxiliary Radar	Furuno FR-2825 colour X- band (3 cm), 21" display				
Auto Pilot	Tokimec PR6000				
Magnetic Compass	Tokimec SH165A1				
Echo Sounder	Atlas 9205				
GPS	Furuno GP-80				

Speedles	Pon Anthon				
Speed Log	Ben Anthea				
Communications	1 x MF/HF - Sailor 6301 MF/HF DSC 2 x INMARSAT-C 1 x EPIRB 2 x SART 1 x Iridium 3 x GMDSS Portable VHF 8 x UHF portable radios 2 x Portable VHF radio				
Navtex Receiver	JRC N-300A				
Weather Fax	JRC JAX-9A				
Satellite Communication	VSAT/FBB				
AIS	1 x Furuno FA100				
VHF	2 x Sailor RT4722 VHF-DSC Duplex 1 x Sailor Compact VHF RT2048				
BNWAS	Martek Marine Navgard				
Discharge Pumps					
Fuel Oil	2 x 150 m³/hr at 9.0 bar				
Sludge	10 m³/hr at 2.0 bar				
Fresh Water	1 x 150 m³/hr at 9.0 bar				
Drill / Ballast Water	1 x 200 m³/hr at 9.0 bar				
Dry Bulk	2 x Screw type air compressors at 23 m³/min, 5.6 bar discharge rate of capacity 80 t/hr				
Special Liquids	1 x 75 m³/hr at 18 bar (Brine Discharge)				
Hose Connections	Fuel oil - 4" Female Weco Potable Water - 4" Female Weco Drill Water - 4" Female Weco Mud - 4" Camlock & 4" Avery - Hardoll Bulk - 5" Camlock & 5" Female Weco				
Performance & Economy					
Economical Speed	Approx. 10 m³/day @ 7 kts (1 ME) Approx. 15 m³/day @ 10 kts (2 MEs)				
DP<20%	Approx. 11 m ³ /day				
DP>35%	Approx. 15 m³/day				
Standby in Field	Approx. 5.1 m³/day @ 1-4kts 1 ME Approx. 9.1 m³/day @ 1-4kts 2 Mes				
Standby in Port	Approx. 1.2 m³/day				
Note	Performance & Economy figures given at mean vessel draft of 5.5 m (1900 t deadweight) & Beaufort Scale 2				
Dynamic Positioning Syste	em				
Туре	GE Energy C-Series DPS-21 Duplex DP System with RRM Poscon Independent Joystick System				

Reference Systems	2 x Sonardyne HPR prepared 2 x Veripos DGPS 1 x Cyscan Guidance 1 x Fanbeam
Motion Reference Units	3 x Gyro Tokyo Keiki 2 x Wind Sensors 2 x VRU TTS DMS / SMC
Control Modes	Auto sail Auto track (Low speed) Joystick auto heading DP DP minimum power ROV follow Mode control Auto station keeping Stand-by (for training)
Joystick	Poscon - electronic control system joystick
External Fire Fighting	
Capacity	2 x 1500 m ³ /hr = 3000 m ³ /hr
Monitors	2 x 1200 m³/hr
Throw Length	120 m
Throw Height	70 m

Foam Tank Rescue Boat

Drenching System

1.1 x Maritime Partner MP660 Springer, 10 person, SOLAS approved FRB with inboard diesel waterjet.

Yes

12.3 m³

Anti-Pollution				
Dispersant Tank	12.3 m ³			
Spray Booms	2 x Booms (1 port , 1 starboard) at 6 m			
Spray Nozzles	2 x Nozzles ber boom			
Accommodation				
Person Capacity	Total 30 10 x 1man cabin 4 x 2man cabins (Including hospital) 3 x 4man cabins			
Offices	2 x Offices			
Hospital	Yes (2 berth)			

Environmental Features

- 1. Cylindrical mud tank free flowing design with external stiffening, sloped floors and fixed agitators.
- 2. Fixed Butterworth type mud tank cleaning system with hot water wash, fitted to all mud tanks and with slop tank reception. Cargo load/discharge station with save all to inboard tank.
- 3. Low residue design bulk tanks.
- 4. Garbage compactor.

Miscellaneous

- 1. Wood sheathed main deck except for aft area, which is steel plated for anchor-handling.
- 2. Ulstein passive roll damping system.
- 3. Deck Power supplies: 1 x 1000A x 440v x 3ph, 1 x 63A x 440v x 3ph, 1 x 32A x 220v x 1ph & 4 x 32A x 440v x 3ph

Tank Capacities Table

Tank		VA/D/DVA/	ELA/	E0	Duimo	N 4	Chical
	Volume 101.7	WB/DW 101.7	FW	FO	Brine	Mud	Glycol
l Forepeak		101.7	107.0				
4 DB/Wing Tk 1P	123.8		123.8				
5 DB/Wing Tk IS	126.1		126.1				
6 DB/Wing Tk 2P	47.6			47.6			
7 DB/Wing Tk 2S	59.8			59.8			
19 DB/Wing Tk 3P	61.6			61.6			
20 DB Tk 3S	34.2			34.2			
26 FO Settling Tk	34.2			34.2			
27 FO Service Tk	37			37			
28 FO Service Tk	37			37			
29 DB Tk 4P	88.2			88.2			
30 DB Tk 4S	88.2			88.2			
31 Wing Tk 4P	58.9	58.9			58.9		
32 Wing Tk 4S	58.9	58.9			58.9		
33 Rig Chain Locker	194.7	194.7			194.7		
35 Glycol/Bri/Mud/WB/DW Tk 1P	73.3	73.3			73.3	73.3	73.3
36 Glycol/Bri/Mud/WB/DW Tk 1S	73.3	73.3			73.3	73.3	73.3
38 Mud Tk 2P	73.3					73.3	
39 Mud Tk 2S	73.3					73.3	
40 DB/Wing Tk 5P	143.8			143.8			
41 DB/Wing Tk 5S	134.9			134.9			
43 Mud Tk 3P	73.3					73.3	
44 Mud Tk 3S	73.3					73.3	
46 DB/Centre Tk 6	34.9			31.4			
47 Wing Tk 6P	50.5		50.5				
49 Wing Tk 6S	50.5		50.5				
50 Wing Tk 7P	43.9	43.9	43.9				
51 Wing Tk 7S	43.9	43.9	43.9				
52 Stab Tk 1	256	256	256				
53 Stab Tk 2	155.5	155.5	155.5		1		
54 Aft Peak P	48.6		48.6		1		
55 Aft Peak S	48.6		48.6				
oo ruci dan o	40.0		70.0				
Dedicated Tanks:	@ 100%	101.7	448.1	797.9		293.2	
With Multiuse Tanks:	@ 100%	1060.1	947.4		459.1	439.8	146.6
		WB/DW	FW	FO	Brine	Mud	Glycol