



MERMAID

MERMAID ENDURER DIVING AND ROV SUPPORT

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A purpose-built DNV Classed DP2 DSV with diesel-electric propulsion which was delivered in May 2010. The vessel features a fully built-in and classed 18-man single bell saturation diving system rated to 300m water depth, including a self-propelled hyperbaric lifeboat, and is designed for working in harsh environmental conditions.

Dive gas storage cylinders are located below main deck level, leaving all back deck space for project equipment.

A 100t active heave-compensated knuckle-boom crane enables the vessel to perform light construction operations.

DNV Class notation includes CLEAN DESIGN (strict environmental standards) and COMFORT CLASS (on board levels of noise and vibration in compliance with international standards). The vessel is equipped with numerous offices, a conference room, a hospital, a gymnasium, recreation rooms, an internet lounge, a cinema and a sauna.

Accommodation comprises 86 berths, and all cabins have en-suite bathroom.



OWNERS

Type design	Mermaid Subsea Services (Int). Ltd
Year of build	Skipsteknisk ST254 CD 2010
Classification society	DNV
IMO No.	9484778
Flag	Panama
Port of registry	Panama
Class notation	ICE-C SF COMF HELDK-SH DSV-SAT EODYNPOS-AUTR NAUT-OSV(A) CLEAN DESIGN DK (+)
DNV registry info	ERN (99.99.99)ERS

DIMENSION & CAPACITIES

L.O.A.	95.0m
L.B.P.	82.2m
Beam	20.0m
Depth to tween deck	6.2m
Depth to main deck	9.8m
Summer draft	7.70m
Freeboard	2.115m
Displacement	8850 t
Deadweight	4500 t approx.
Gross tonnage	6365 t
Net tonnage	1910 t
Suez Canal NRT	5358 t
Main deck area	700m ² (deck strength 10t/m ²)
Fuel oil:	1171m ³
Lube oil:	73m ³
Potable water:	1336m ³
Water makers:	2 x 20 tpd
Water ballast:	2896m ³
Anti-heeling system:	300m ³ @1250m ³ /hrs

PERFORMANCE CAPACITIES

Fuel autonomy:	Approx. 90 days in DP, at 90% fuel capacity & 10 t/day consumption
Transit range:	11000 miles at 90% fuel capacity
Potable water:	Self-sufficient, assuming max production of 40 t/day

FUEL CONSUMPTION

At full speed @13.8 knots:	27 tMGO/day
Cruising speed 11 knots:	18 tMGO/day
In DP mode:	7 - 10 t MGO/day
In port or at anchor:	4 tMGO/day

CONTROL ROOMS

Engine control room:	Tween deck
Saturation control:	Main deck
Air dive control:	Main deck
Sat dive control:	A deck
ROV control:	A deck

HELIDECK

Construction:	21m diameter, steel
Capacity:	Sikorski S92- 12.8 t
Compliance:	CAP437 / DNVHELDK-SH
Certification:	UK HCA

MACHINERY & PROPULSION

Main generators	2 x 2188kW 690V 60Hz
	3 x 1901kW 690V 60Hz
Emergency generators	1 x 550kW 440V 60Hz Dive
Emergency generator	1 x 550kW 440V 60Hz
Bow tunnel thrusters	2 x Brunvoll 1400 kW (18.4 t)
Bow retractable azimuth	1 x Brunvoll 1400 kW (23.7 t)
Stern azimuths	2 x Schottel 2400 kW (26.7 t)

CRANEAGE

Main crane – port side	McGregor 100t active heave-compensated knuckle-boom offshore crane. wire dia. 56mm
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MAIN WINCH – DYNAMIC FACTOR 1.3

100t – double fall	9m radius, hook depth 1000m
50t – single fall	15m radius, hook depth 2000m
25t – single fall	25m radius, hook depth 2000m

AUX. WINCH-DYNAMIC FACTOR 1.3

10t	26m radius, 500m hook depth
Personnel lifts	5t to radius 26m

AUXILLARY CRANE PORTSIDE

Dreggen electro-hydraulic	5t knuckle-boom crane
5t	15m radius, hook depth 500m
Personnel lifts	1t to radius 15m

STORES CRANE – PORT AFT END OF HELIDECK

Hella HLRM 50-6S hydraulic crane	
1.6t	18.6m radius

OFFICE & MEETING ROOMS

Conference room	Main deck, 14 seats
Project office	Main deck, 6 work stations
Client office	Main deck, 2 work stations
OCM office	Main deck, 2 work stations
Client/OCM office	C deck, 1 work station
Ship's office	D deck, 2 work stations + large worktable

ACCOMMODATION

Total of 86 persons	Full HVAC in all cabins, offices, mess room, lounges, 28 x 1 pers. cabins, 29 x 2 pers. cabins. All cabins en-suite.
Hospital	1 bed

RECREATIONAL FACILITIES

Exercise room	24m ² gymnasium
Mess room	48 seats, B deck
Duty mess	A deck
Cinema/games room	Main deck
TV room	B deck
Internet café	B deck, 4 stations
Quiet lounge	B deck

WORKSHOPS & SERVICES

Engine room workshop	Tween deck
Dive workshops	Tween deck
Dive equipment stores	Tween deck
Central stores	Main deck
Dive hat workshop	Main deck
Deck workshop	Main deck
Laundry	Main deck
Divers' laundry	Main deck
Incinerator room	A deck
Rigging store	Main deck
Focsle store	A deck

DYNAMIC POSITIONING

Kongsberg K-POS 21 dual redundant dynamic positioning system with DP references as follows:	1 x dual frequency Seatex DPS-132 DGPS, utilising Spotbeam, Inmarsat and IALA corrections 1 x dual frequency Seatex DPS-232 DGPS/GLONASS, utilising Spotbeam, Inmarsat & IALA corrections 2 x HiPAP 500 USBL hydroacoustic systems 1 x radius 1000 1 x Bandak Mk 15T tautwire 1 x fanbeam Mk 4 3 x ship's SPT 319 transponders
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COMMUNICATION EQUIPMENT

C band	VSAT C band 128k/128k dedicated bandwidth, with 10 x direct dial and 2 x crew call telephone lines
KU band	VSAT KU 1mb/1mb dedicated bandwidth with 4 x direct dial and 2 crew call telephone lines
FAX	1 x fax transmitter/receiver (bridge)

GMDSS A3 RADIO STATION

Inmarsat B	1 x fleet 77 +
Inmarsat C	1 x Furuno Felcom 15 incl SSAS
MF/HF transceiver	1 x Furuno Felcom 15 incl LRIT 1 x Furuno 150W MF/HF with DSC
Navtex	1 x Furuno Navtex NX700B 2 x Furuno FM 8800 Simplex
VHF	DSC VHF 4 x Sailor RT2048 Simplex VHF
Lifeboat transmitter	3 x portable VHF - Jotron Tron TR20 3x SART (2 at wheelhouse and 1 in SPHL) 3 x EPIRB (1 float free above bridge, 1 inside bridge, 1 in SPHL)

NAVIGATION EQUIPMENT

ECDIS	2 x TECDIS ECDIS with slave display on both bridge wings & conning display on forward and aft bridge
Chart radar	1 x Furuno FCR2827
Radar	1 x Furuno FCR2827S 10cm 1 x Furuno GP150 GPS
AIS	1 x Furuno FA150 AIS
Gyro	3 x SG Brown Surveyor digital repeaters & rate of turn indicators on forward and aft bridge, and analogue repeaters on bridge wings
Auto pilot	1 x Simrad AP50
Echo sounder	1 x Furuno FE700 with slave display at DP desk
Doppler log	1 x Furuno DS80 with slave display at DP desk
BNWAS	Ulstein bridge navigation/watch alarm system (UBAS)
Searchlights	3 x installed above bridge

THE DNV CLASSED SAT SPREAD

The deep diving system is designed for the following parameter:

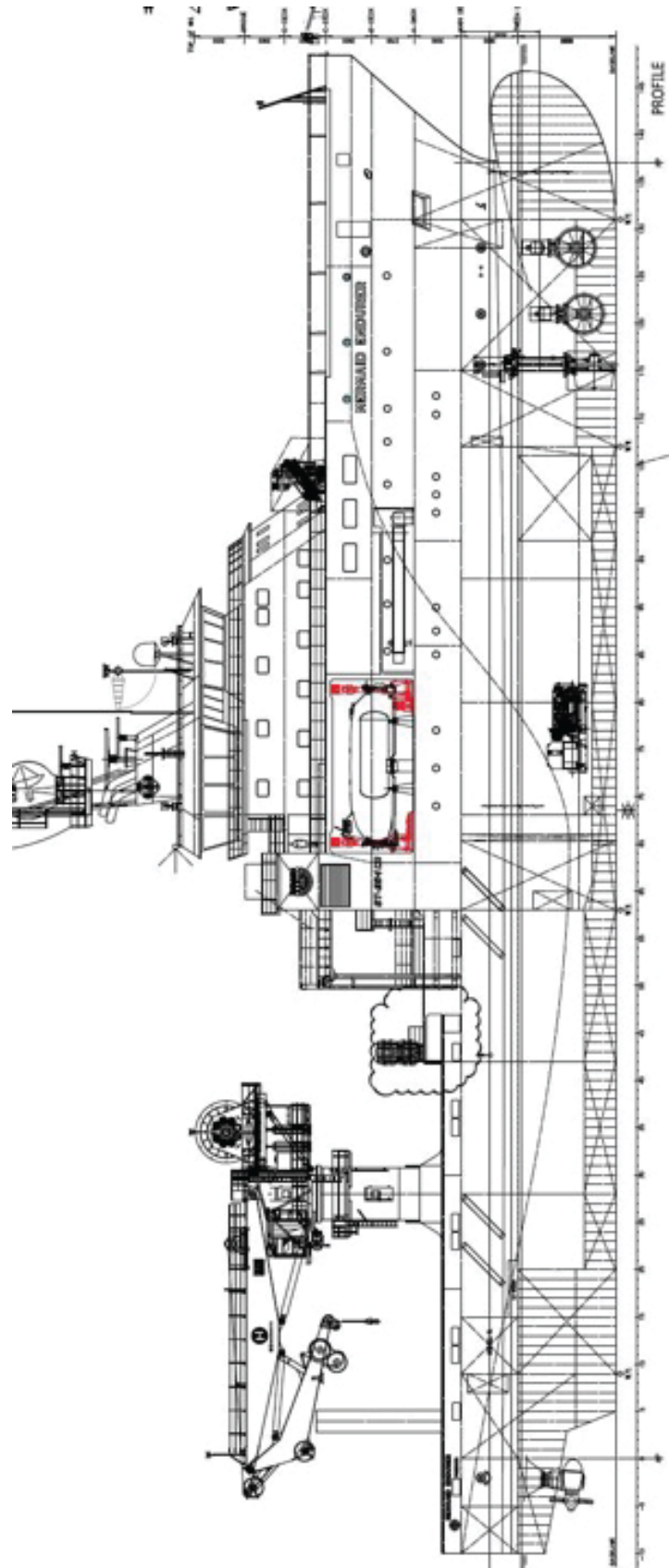
Manufacturer	Drager
Max working depth	300MSW
Design working pressure	40Bar saturation diving
Breathing gas	18 pers.
Capacity	24 hours diving/day
Sea state	H24m
Bell	1 x 3 man@8.23m ³
Bell handling	1 x heave compensated electrically driven LARS system
Chamber system	1 x aerated moon pool 2 x 4 pers. chamber 2 x 5 pers. chamber 1 x TUP chamber 1 x TUP chamber (for bell mating) 2 x external Drager regeneration system
SPHL	1 x 18 pers. davit launch & recovery system & independent power pack
Gas storage	21, 600m ³ of gas storage

AIR DIVE SYSTEM

Air dive system	1 x twin lock chamber Integrated air dive LARS
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SAFETY EQUIPMENT

Vessel is fully SOLAS compliant with state requirements and carries LSA & FFA to flag	
SPHL	1 x 22 pers. (18 divers + 4 crew) self propelled hyperbaric lifeboat, starboard side
Life rafts	8 x 35 pers. life rafts mounted on both sides of the forward main deck
Fast rescue craft	1 x Norsafe jet propelled FRC, port side



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