### Walk to Work/ Accommodation Vessel with ROV & Subsea Survey Capabilities - DP 2 Class



Accommodation vessel, including W2W gangway with hydraulic pedestal, ROV and subsea survey capabilities

Design: UT 717 CDX

Year of built: 2018

Class: DNV +1A1, EO, SF, DK(+), HL(2.8), LFL\*, DynPos AUTR, Clean Design, COMF-V(3), NAUT-OSV(A), Ice-C, SPS

#### **TYPICAL WORK**

- W2W
- Accomodation: 100 persons
- Subsea survey
- ROV
- Air & SAT Diving Operations
  - \*There is no diving system installed on board.

#### PRINCIPAL DIMENSIONS

LOA: Lpp. :	86.00 m 76.20 m
B mld.: Max draft PSV/SPS: Deck area:	18.50 m 6.10 m/5.4 m Approx 290 m2 uncovered/ Approx 210 m2 covered
Deadweight:	2732 t
Gross tonnage: Displacement (SPS)	4703 (GRT) 6031.5 t

### **Technical specification**

The accommodation facilities provide for a number of 100 persons including crew:

14 x single client cabins (in case of full vessel) 32 x double client cabins (in case of full vessel) Connected sanitairy facilities in all cabins x office 2 1 x conference room 4 x dayroom 1 x gymnasium 1 x outdoor swimming pool 1 x large mess room 3 x wardrobe 1 x hospital 2 x stores x large store/workshop 1 TV in all cabins 8/4 Mb/s possible

CARGO TANK CAPACITIES		
Drill Water:	2000 m3	
Fresh Water:	711 m3	
Fuel Oil:	1021 m3	
Special prod/Methanol:	190 m3	
Base oil	280 m3	
Dry bulk	265 m3	
Note: All tanks can not be filled simultaneously		

CARGO DECK		
Cargo deck area:	Approx 290 m2 uncovered/ Approx 210 m2 covered	
Deck Load: 5t per m2		
Good space for 20' containers		
- ASFA (Automatic Sea Fastening system)		

#### MEZZANINE DECK

- 70m2 permanent mezzanine deck for LARS/ ROV and RIB (Diving)- 5t per m2

CRAN	VES
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#### AHC Crane:

- SWL: 20t@20m - single line / wire length 1200m, wire diameter 32mm

Highspeed constant tension

Ship-Ship certified

#### Deck cranes:

1x Foldable crane lifting approx. 1t/10m

1x HS Marine AKC 100/21 HE4 foldable telescopic knuckleboom 3.26t/15.95m,  $\,$  2.35t/20.15m

#### WALK-TO-WORK GANG WAY

#### -Type: Uptime Gangway

- Gangway mean length from pedestal: 19.40m - Minimum outreach from pedestal: 15.40m
- Minimum outreach from pedestal: 15.40m - Maximum outreach from pedestal: 23.40m

#### Landing solutions:

Elephant foot or Bumper mode

#### MAIN PROPULSION/ THRUSTERS

Main propulsion:

#### 2x 750 AGHC-KP50H 1920kW

Bow thrusters:

2 x TT 1850 DPN CP 760 kW

1x swing up azimuth thruster TCNS 73/50-180 CP

#### Stern propulsion:

2x TT1650 DPN CP 590 kW

MAIN GENERATOR SETS

Engines:
2 x RRM Bergen C25:33L9 CPD- 2880 kW each
Generators:
2 x Aux.generators- 500 ekW each
1 x Emergency Generator- 165 ekW
2 x Shaft generators- 2400kVA

DYNAMIC POSITION / REFERENCE SYSTEM		
Type: Marine Technologies		
Class: Definition: DYNPOS AUTR.		
ERN: 97.97.96.89		
2 x GDPS		
2 x Cyscan		
Radascan		
Radius scan - OPTION		

#### SAFETY EQUIPMENT

The life-saving appliances provide for a total number of 100 persons.

#### ANTI ROLL

Active anti-roll system Frank Mohn AS- 600m3/h

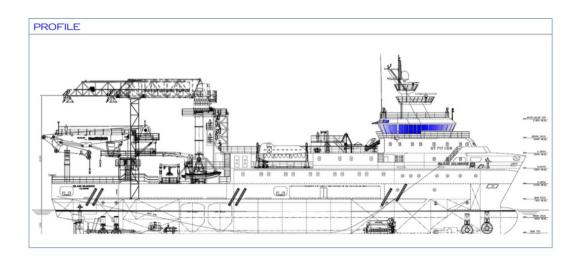
Passive anti-roll system Rolls-Royce- 1x passive tank 153m3

#### WATER PRODUCTION

Osmosis system 2x 20m3/24hrs

#### UTILITY STATIONS

Deck utility cabinet for ROV systems/diving equipment



#### CABIN PLAN

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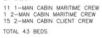
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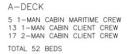
















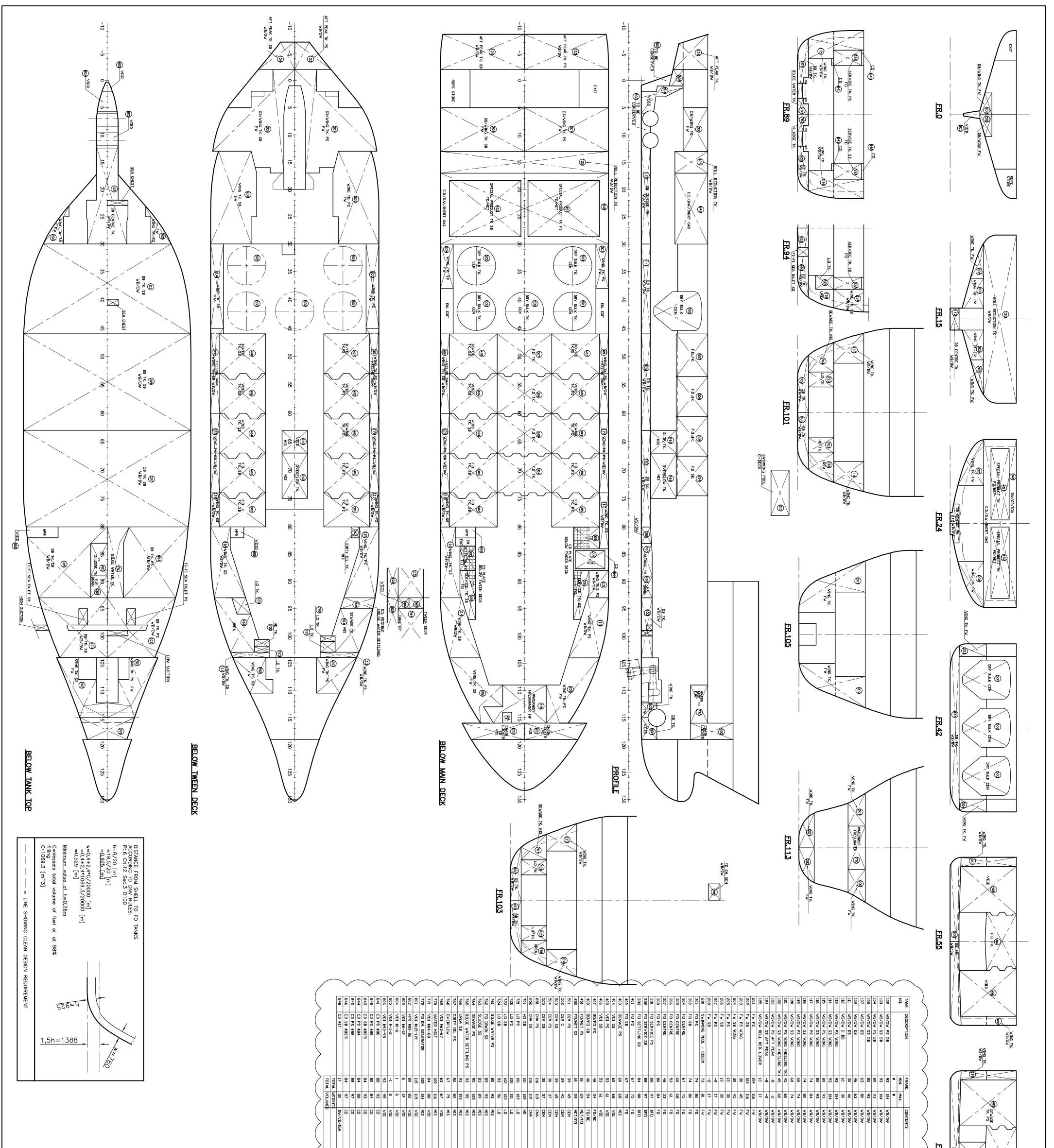
OFFICE

### **Gallery**



### Vessel Presentation

- Slide 3: Main particulars
- Slide 4: Track record
- Slide 5: Vessel power and engine management
- Slide 6: Fuel indications
- Slide 7: Reference Systems
- Slide 8-17: Gangway operations
- Slide 18: Boat landing
- Slide 19-23: Crane and deck
- Slide 24-26: Client facilities and cabin plan Interior
- Slide 27-44: description with photos Vessel
- Slide 45: Network / Internet



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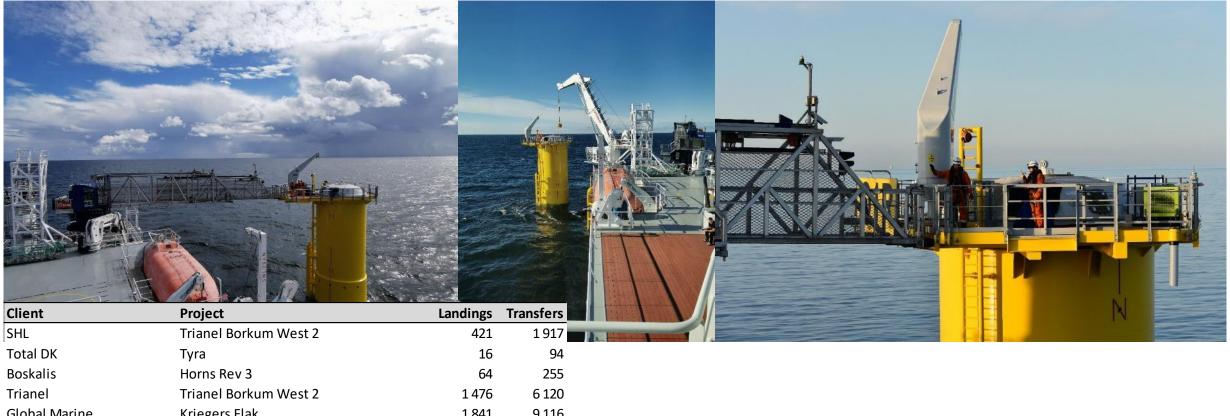


Class: DNV +1A1, EO, SF, DK(+), HL(2.8), LFL\*, OILREC, DYNPOS AUTR, CLEAN DESIGN, COMF-V(3), NAUT-OSV(A), ICE-C, SPS

### Main particulars

UT 717 CDX (Kongsberg)
2018
86,00 m
18,50 m
5,40 m
2.730t
4.764t
9759903
Approx. 290 m <sup>2</sup> uncovered / 210 m <sup>2</sup> covered
100 POB
UPTIME 23.4
MacGregor 20t AHC subsea

### W2W Track Record



	Total pr 06.12.2023	7 694	36 607
Van Oord	Oord Baltic Eagle		3 255
Asso.subsea	Vesterhav	1 020	4 909
Asso.subsea	St.Brieuc	899	4 218
Equinor	Hywind Tampen	523	2 092
GE/TenneT	DolWin Gamma	39	1 019
ODE	Tolmouth/Blythe	114	902
SBM	Guyana FPSO	10	2
Prysmian	St Nazaire OSS	90	866
Vattenfall	DanTysk / Sandbank	600	1842
Global Marine	Kriegers Flak	1 841	9 116
Trianel	Trianel Borkum West 2	1 476	6 120

### **Vessel power and engine management**

#### **Engines:**

2 x RRM Bergen C25:33L9 2880kW each – Generator set

#### Main propulsion:

2 x 750 AGHS-KP50H - 1920kW each

#### **Bow Thrusters:**

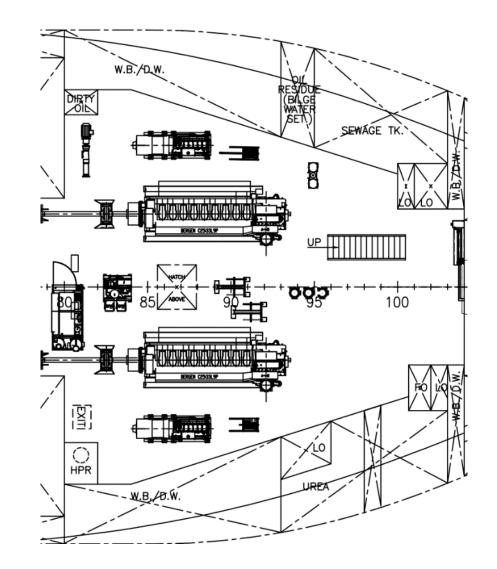
2 x RRM Kameva Ulstein TT 1850 DPN CP – 760kW each 1 x RRM Ulstein Aquamaster TCNS 73/50 – 180 CP – 883kW

#### **Stern Thrusters:**

2 x RRM Kameva Ulstein TT 1650 DPN CP – 590kW each

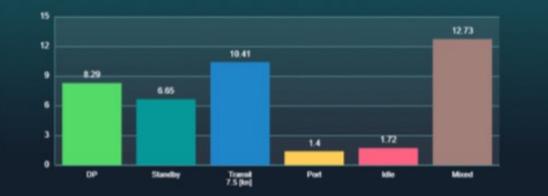
#### **Engine Management**

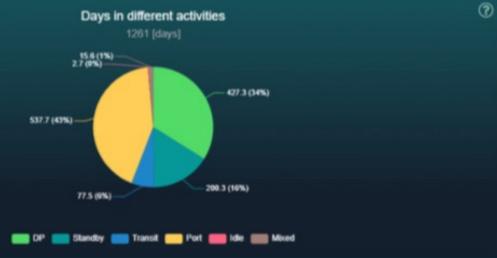
- 2 Generators available to provide power to all consumers incl. propulsion plant and gangway
- Load dependent automatic start/stop of generators controlled by Power Management System (PMS)
- Means of control and priority of consumers in PMS to ensure secure and continuous operation of station keeping system and gangway implemented



# **Fuel indications**





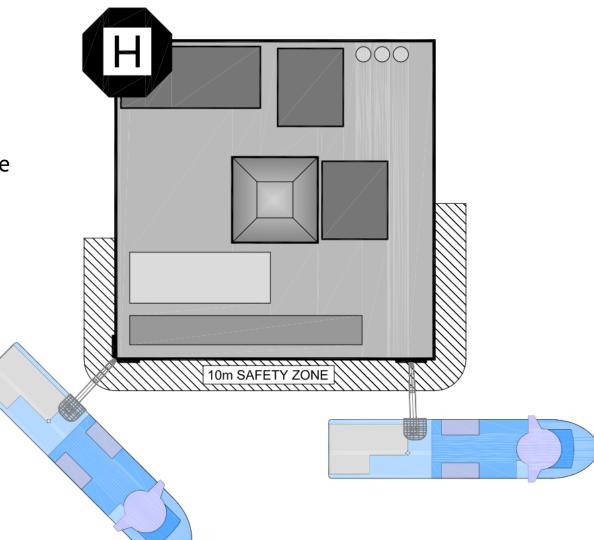




## **Reference systems**

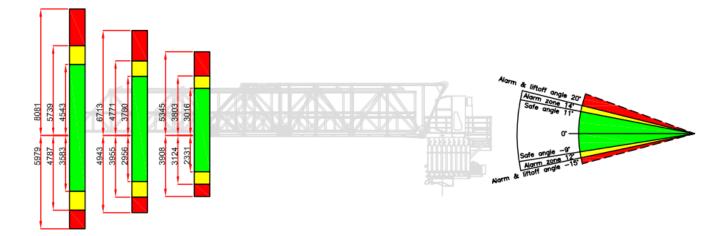
The vessel is equipped with the following DP and reference systems:

- DP 2 DYNPOS AUTR from Marine Technologies
- 2 x DGPS
- 2 x CyScan
- RadaScan



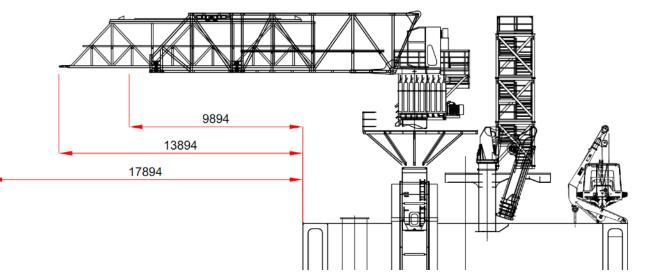
# **Gangway operational area**

The green area shows the safe work angle of the gangway. The green area is 11° upwards and 9°downwards.



The numbers shows the length of the gangway from the ships side

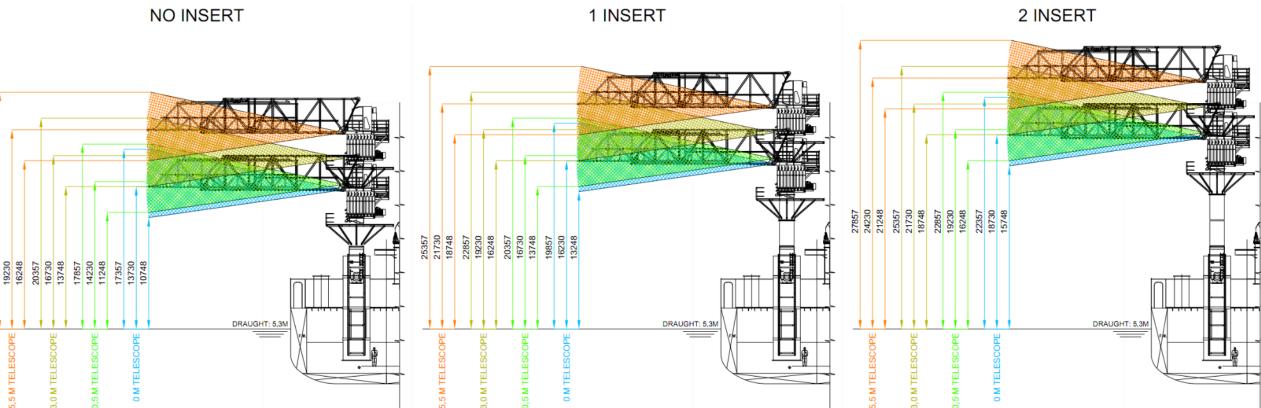
- Approx. 9,9m minimum outreach from ship side
- Approx. 13,9m start position
- Approx. 17,9m maximum outreach from ship side



# **Stepless adjustable pedestal with inserts**

Pedestal specs:

- 5,5m stepless adjustment
- 2 inserts à 2,5m each can be fitted

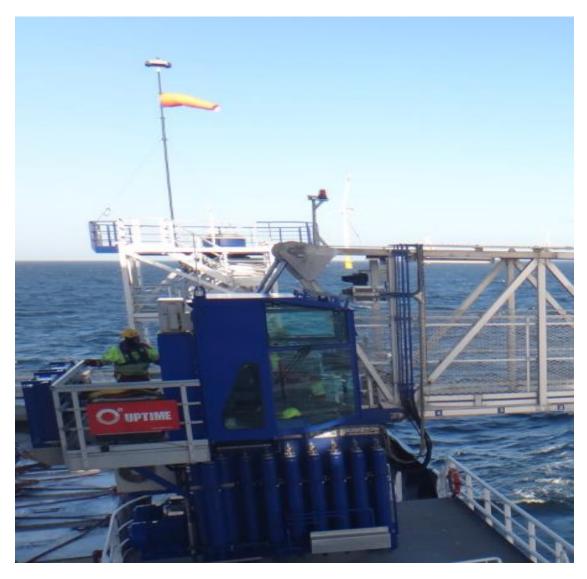


Each telescopic height is given 3 numbers: 11 degrees upward inclination on gangway – flat – 9 degrees downward inclination on gangway

### **Time estimates**

- Set up DP-mode: Perform DP trial at Wind Farm arrival approx. 1 hour (Only upon arrival, arrival to be part of planning)
- Manoeuvre from 100 m distance to WTG/DP location: Enter 100m zone and connect the gangway 10-15 minutes
- Gangway connection: When vessel is in transfer position, connection time with gangway will be 1-3 min
- **Transfer personnel, 4 persons ready on the gangway entrance:** Transfer of personnel will perform according to Charterer's requirements. On previous operations the vessel operated with 2 pax per minute, may be increased.
- **Disconnect the gangway/prepare for cargo transfer:** Disconnecting and parking the gangway: 1 min, and prepare crane operations (Operator moves to crane) approx. 3-5 minutes
- **Transfer cargo:** Crane operations will be performed according to Charterer's requirements and will depend on amount and weight of cargo.
- Move to 100 m distance from the WTG: Max 5 minutes

### **Operation criteria – Weather**



•	Significant wave height:	Guidance Hs	= 2,5
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Guidance Vc

- Wind speed:
- Current speed (surface):

Guidance Vw = 16-20 m/s

= 1,5 knots

*Subject to conditions (wind, current, swells, heading, access etc)* 

### **Landing Solutions**

### Cone ("Elephant foot")



### Bumper front



The elephant foot is pressing against the landing platform with a force of 2,8 tons

## **Customised bumper front**

Bumper fronts can be modified for optimal connectivity if special requirements on your project. Examples:



Borkum West



Not used



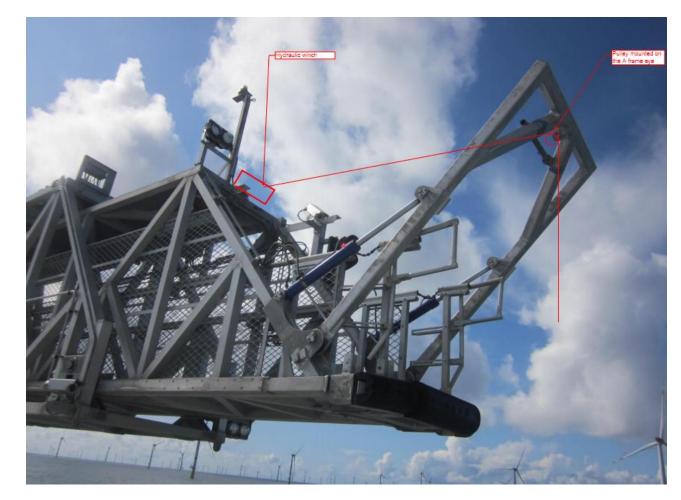
Baltic 2 Sandbank



Gode Wind

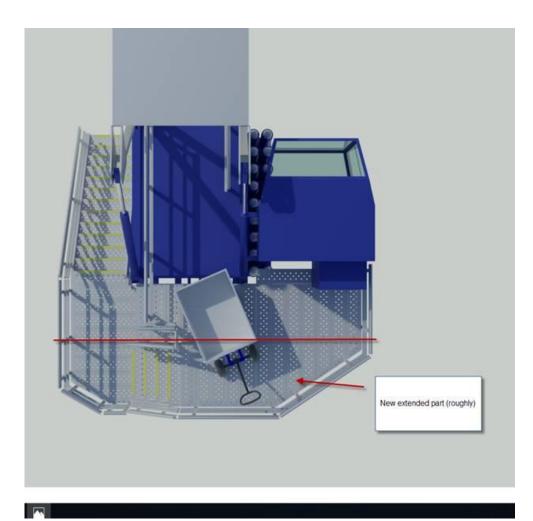


# Lifting cargo with A-frame on Gangway



- Up to 500kg lift (recommended max <u>350kg</u> in most weather conditions due to winch capacity and gangway structure)
- 3D compensated
- Can only be used in bumper mode

### **\*OPTION\* Upgrade Gangway platform (More space)**



- 4-5 days to fit in port
- Lead time production 3-4 weeks

## **\*OPTION\*** Trolley system

Trolley system being used onboard today

### Specification:

Footprint: Weight Payload Drive Inclination **Experience:** 

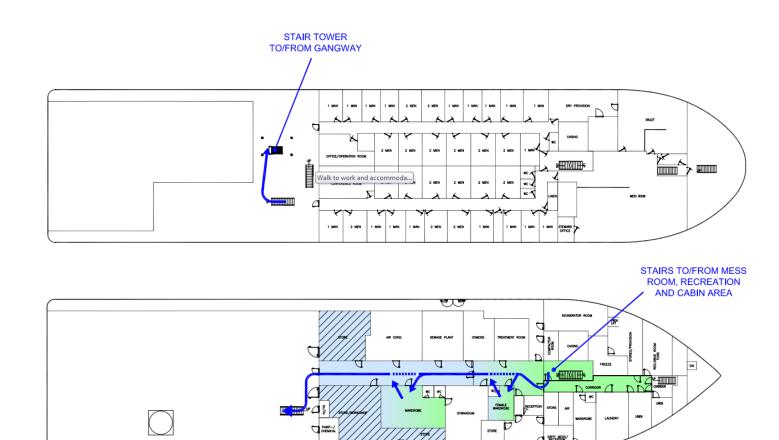
1.672 x 797mm
200 kg
500 kg
DC motor
10 degrees, reduced payload
Pull bags!





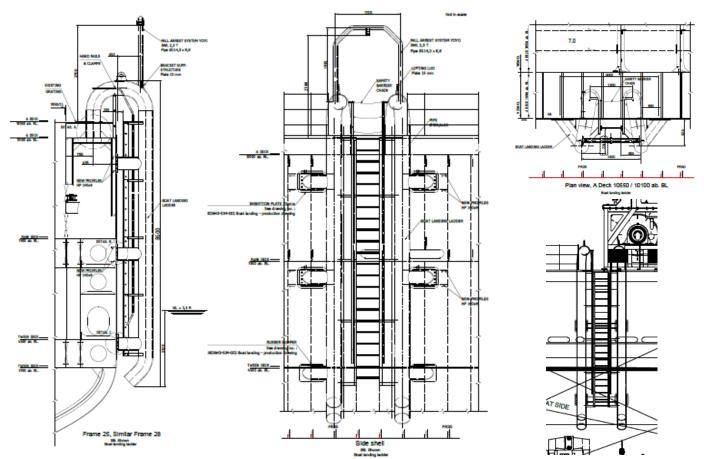
## **Technician Workflow**

- Easy access from recreational area are to the wardrobe
- No passing through recreational area with work clothes
- Outer staircase to access gangway without entering the Main deck



# **Boat landing**

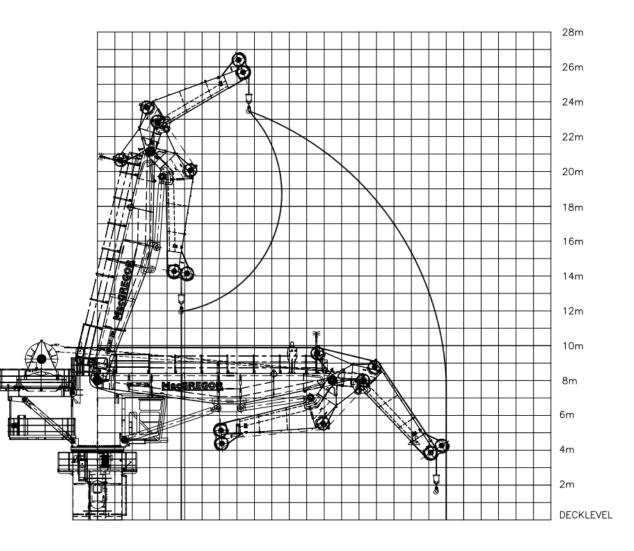
- Permanently fitted on the starboard side of the vessel.
- Designed in cooperation with Siemens originally for operations at the Gode Wind field.

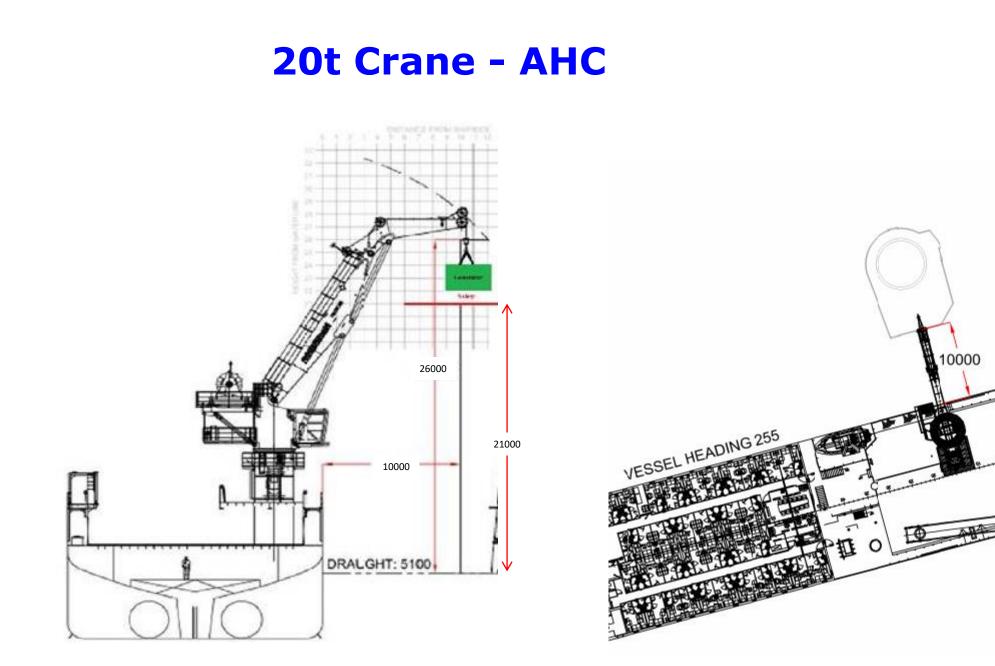


## **20t Crane - AHC**

- Capacity 20t @ 20m (outreach from pedestal) Single line
- Wire length 1200m Wire diameter 32mm
- Maximum height above sea level 28,5m
- High speed constant tension
- Ship-Ship certified
- Emergency pay-out function: MOPS and AOPS
- Emergency Power system: EPS
- Operators cabin

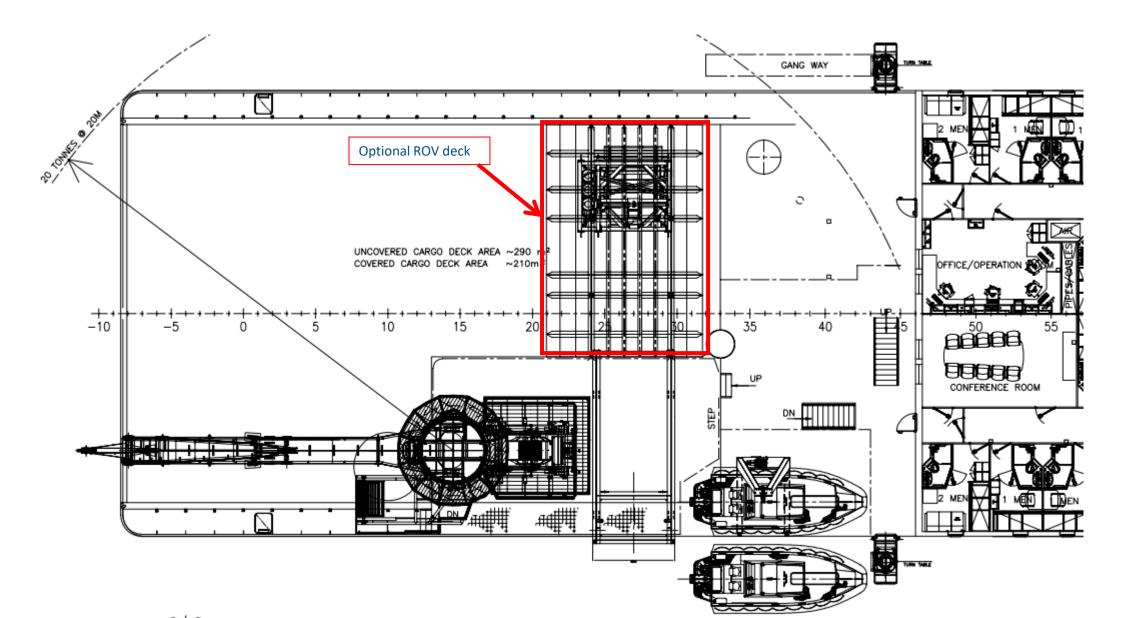
Depth	Remaining hook lifting capacity (t)	Estimated deployment capacity (dry t)		
0	20	20		
500	17,5	20		
1000	15,5	17,5		
1200	14,5	16,5		



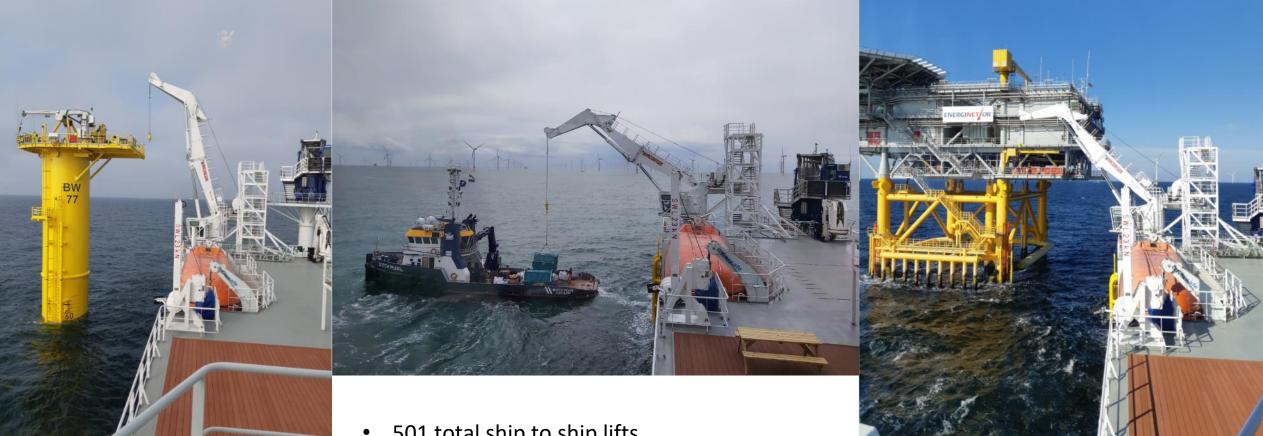




### **20t Crane - Placement**



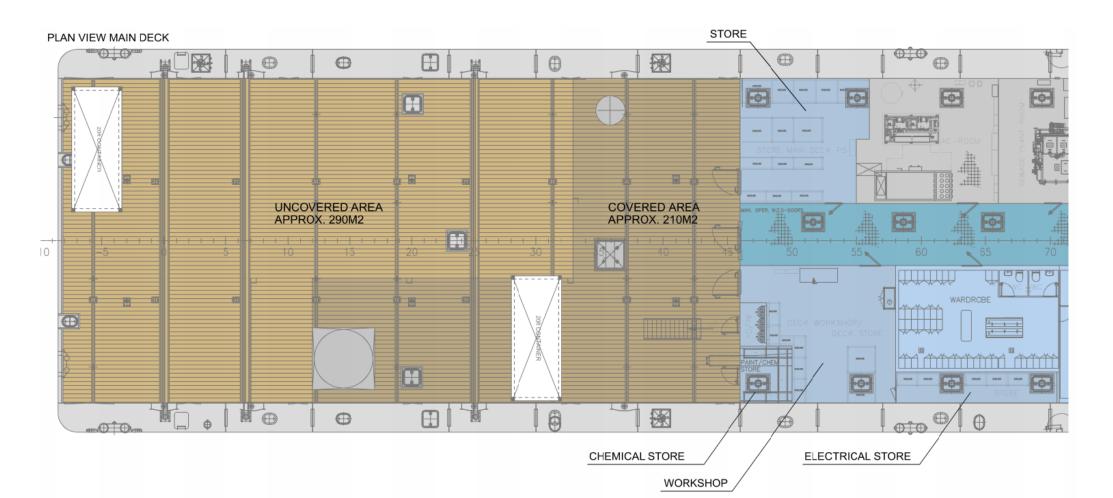
### **Examples - Crane ops**



- 501 total ship to ship lifts
- 12 lifts per day in ٠ average

## **Deck arrangement**

- Ample space for 20' containers
- Owners will assist in finding an optimum placement for containers



## **Client facilities**

2 x Office 1 x Conference room 3 x Dayrooms 1 x Internet lounge 1 x Gymnasium 1 x Swimming pool 1 x Large mess room 3 x Wardrobe 1 x Hospital 2 x Stores 1 x Large store/ workshop TV in all cabins TV channels and Bazeport film service TBD Good internet!

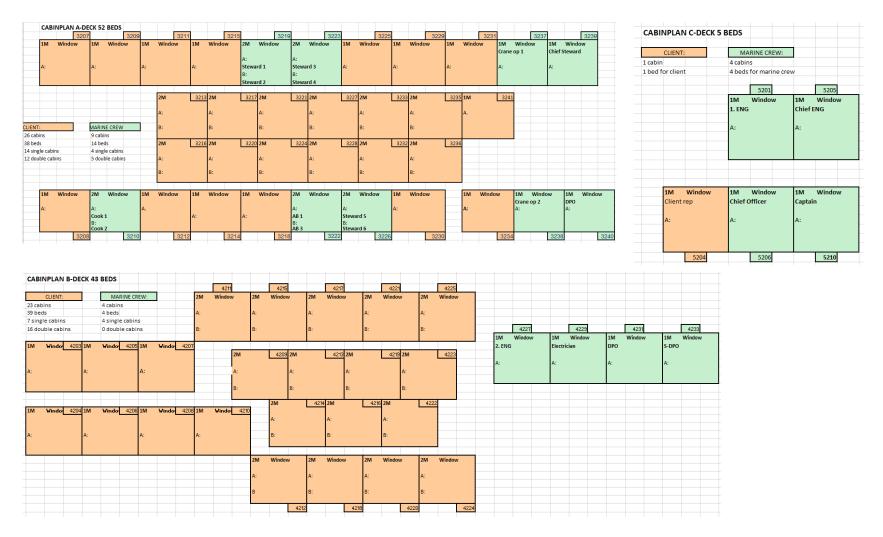
## **Cabin plan**

Cabin plan is based on a full ship with a total of 78 clients and 22 marine crew. This includes 8 in catering crew. See below for positions included.

- Captain
- Chief Officer
- 1 x 1<sup>st</sup> Officer
- 2 x DPO
- Chief Engineer
- 2<sup>nd</sup> Engineer
- 3<sup>rd</sup> Engineer
- Electrician
- 4 x AB/crane/gangway operator
- Chief Stewart
- 2 x Cooks
- 4-6 x Housekeeping

Scenarios:	
Full vessel including double cabins and marine crew:	78 clients / 22 marine crew
All clients in single cabins:	48 clients / 21 marine crew
33 client cabins with daylight	

### **Current cabin plan**



C-DECK						
CLIENT:				MARINE CREW:		
1	cabins			4	cabins	
1	bed			4	beds	
B-DECK						
CLIENT:				MARINE CREW:		
23	cabins			4	cabins	
39	beds			4	beds	
7	single cabin	S		4	single cabins	
16	double cabi	ns		0	double cabins	
A-DECK						
CLIENT:				MARINE CREW:		
26	cabins			9	cabins	
38	beds			14	beds	
14	single cabin	S		4	single cabins	
12	double cabi	ns		5	double cabins	
TOTAL						
CLIENT:			Ī	MARINE CREW:		
50	cabins			17	cabins	
78	beds			22	beds	
22	single cabin	s		12	single cabins	
28	double cabi	ns		5	double cabins	



### • Table for 14 persons

2

2

Large flatscreen for presentations etc.

**CONFERENCE ROOM (A-DECK)** 

• Wide selection of IT solutions with full connectivity







CONTRACTOR OF THE OWNER

DAY ROOM (B-DECK)

• Seating for approx. 8 persons

### DAY ROOM (B-DECK)

- TV / Game Room
- Armchairs and couches
- Pantry with coffee & food facilities
- Seating for approx. 16 persons

# DAY ROOM (B-DECK)

- TV / Game Room
- Armchairs and couches
- Pantry with coffee & food facilities
- Seating for approx. 16 persons

 Large flatscreen TV with entertainment system, VOD & Music SMOKERS (B-DECK)

DAY RO

• Seating for approx. 8 persons

2

# WORKSHOP AND STORAGE

Large workshop with good storage capabilites

Exit 🕅

#### CHANGING ROOMS (MAIN DECK)

- Separate changing room for men & women
- Separate WC



#### **CABINS – OIM/CLIENT REPRESENTATIVE**

Facilities as per all other cabins including:

- Private office with all necessary connections
- Separate sleeping quarter with window
- Extra large TV
- Armchair with table
- Double Wardrobe & storage possibilities

#### CABINS - 1 PAX WITH WINDOW

- Large flatscreen TV with entertainment system, VOD & Music
- Work desk
- Couch
- Wardrobe & storage possibilities
- Private WC & Shower

#### **CABINS – 2 PAX WITH WINDOW**

Large flatscreen TV with entertainment system, VOD & Music Work desk

possibilities

- Couch
- Wardrobe & store
- WC & Shower

# CABINS – 2 PAX WITHOUT WINDOW

- Large flatscreen TV with entertainment system,
   VOD & Music
- Work desk
- Couch
- Wardrobe & storage possibilities
- WC & Shower

- Heated pool on C-deck
- 24 hours operation
- Continuous circulation of fresh water

**POOL AREA (C-DECK)** 

Water heated by waste heat-recovery

### DINING ROOM / MESS HALL

ENDS -

.....

Seating for 42 persons

# GYM (MAIN DECK)

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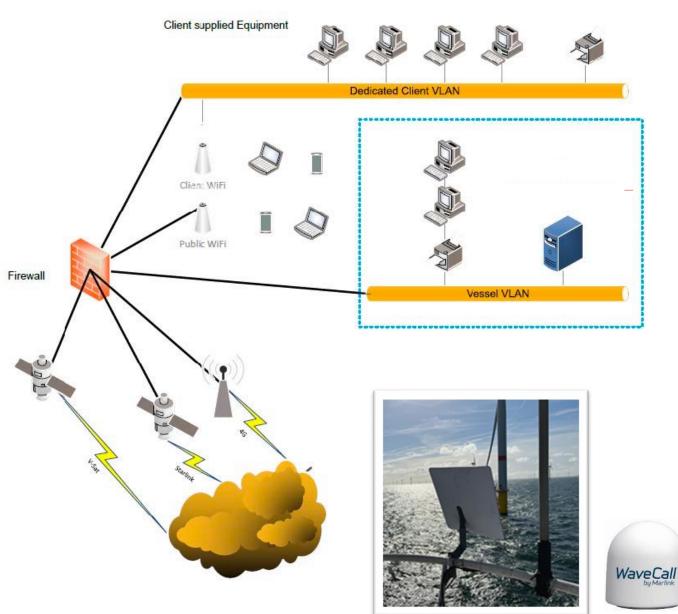
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#### Wide variety of equipment

# **General Vessel Network**



- 4/5G equipment with 4-modem bundling for increased coverage and stability
  - Quay-side land based
  - Offshore speed depending on coverage at site
- STARLINK could be installed for increased offshore connectivity and transfer rate
- High capability V-SAT available as back-up offshore.
- Capacity split according to charterers specification (normal 50% to Client Office – 50% to welfare)
- Separate Onboard Client Network with Wifi extension, plus Onboard Public WiFi

