NORTH BARENTS

NORTH POMOR as shown, NORTH BARENTS similar

ST-216 ARTIC PLATFORM SUPPLY VESSEL

Vessel Characteristics

Length, Overall:	303.8 ft	92.6 m
Beam:	63 ft	19.2 m
Depth:	27.9 ft	8.5 m
Maximum Draft:	22.8 ft	7 m
Light Draft:	11.5 ft	3.5 m
Minimum Height:	98.8 ft	30.1 m
Freeboard:	5.1 ft	1.6 m
Displacement:	8,250 lt	8,380 mt
Deadweight:	4,920 lt	5,000 mt
Clear Deck Space:	213 x 53 ft	65 x 16 m
Clear Deck Area:	11,300 ft^2	1,050 m^2
Deck Strength AFT:	2,050 lb/ft^2	10 t/m^2
Class Notations:	DNV: +1A1, Battery(Power), Clean(Design), COMF(C-2, V-3), DK(+), DYNPOS(AUTR), E0, HL(2.8), Ice(1B), LFL(*), NAUT(OSV(A)), OILREC, SF, SPS, Winterized(Basic)	

Capacities

Deck Cargo:	2,170 lt	2,200 t
Fuel Oil:	283,000 gal	1,070 m^3
Potable Water:	31,300 gal	120 m^3
Fresh Water:	289,000 gal	1,090 m^3
Drill/Ballast Water:	442,000 gal	1,670 m^3
Bulk Tanks (6 tanks):	12,900 ft^3	370 m^3
Liquid Mud (2.8 SG*): *Max Structural Specific Gravity	5,290 bbl	840 m^3
Methanol:	2,080 bbl	330 m^3
Base Oil:	3,370 bbl	540 m^3
Brine:	2,280 bbl	360 m^3

TIDEWATER

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Further specifications

Machinery

Diesel Electric Hybrid Vessel			620 kWh Battery
Propulsive/Total HP:			7,070 / 11,500
Z-Drives:			Yes
Propellers (2):			SP 35 CRP 2600KW
Primary Generators (3):	2,810 kw	690 v	60 hz
Driven by:			WARTSILA W9L26
Secondary Generators (1):	550 kw	690 v	60 hz
Driven by:			SCANIA GASI 16-05
Emergency Generators (1):	120 kw	690 v	60 hz
Driven by:			NORDHAVN GASI 8
Bow Thruster (3):			2X FU80LTC2250 TT; 1X AR63LNC1650 DD
Driven by:			2x 1100KW & 1x 883KW Electric Motors
Total Thrust:		51.7 st	47 mt

Deck Equipment

Anchors (2):	4,050 KG SPEK TYPE
Anchor Chain:	260 m of 50 mm chain per side
Windlass:	2x NDM AW50-50K3
Crane (2):	3 t @ 15 m
Tugger (2):	15 t NDM TW15-1D

Accommodations

No. of Berths:	40
Cabins:	14x1-man & 13x2-man
Certified to Carry:	40
Galley seating:	18
Hospital:	Yes

Registration

Flag: NORWAY		**Home Port:** SANDNES
Hull Number: 131		**IMO N^{O}:** 9742766
Year Built: 2017		**Call Sign:** LMZN
Builder:		SIMEK A/S
Tonnage (ITC):	4508 GT	1648 NT

Performance*

Fuel Consumption Vs Speed		
Maximum:	27 m³/day (300 gph) @ 16.5 knots	
Cruising:	14 m³/day (150 gph) @ 12.5 knots	
Economical:	12.5 m³/day (140 gph) @ 11 knots	
Standby:	2 m³/day (22 gph) @ 0 knots	
Range @ 12.5 Knots:	22,900 nm	
Transfer Rates		
Fuel Oil:	1,100 gpm @ 300 ft	250 m³/h @ 92 m
Fresh Water:	1,100 gpm @ 300 ft	250 m³/h @ 92 m
Drill/Ballast Water:	1,100 gpm @ 300 ft	250 m³/h @ 92 m
Bulk:	35.8 cfm @ 190 ft	61 m³/h @ 57 m
Liquid Mud:	440 gpm @ 800 ft	100 m³/h @ 240 m
Base Oil:	330 gpm @ 300 ft	75 m³/h @ 92 m
Brine:	440 gpm @ 800 ft	100 m³/h @ 240 m
Methanol:	330 gpm @ 300 ft	75 m³/h @ 92 m

Nav/Comms Equipment

Radar(s):	2
Depth Sounder:	1
Gyro Compass:	3
Wind Speed Indicators:	3
Doppler Log:	1
Radio:	4 x VHF; 2 x SSB
Sat Com:	INMARSAT C

Special Equipment

Dynamic Positioning:	DP-2
Ref. Systems:	3 x MRU; 2 x DGPS 1 x Microwave-based; 1 x Laser-based
Mud Circulation System/ Mud Mixers:	Yes/Yes
Tank Cleaning:	Yes
Rescue Zone:	Yes
Rescue Boat:	Maritime Partner AS700 MK TWIN 10M FRC
Reefer Sockets:	15x 230V 32A; 18x 230V 16A
SPS Compliant:	Yes
Misc:	POLAR CODE COMPLIANT; SHOREPOWER CONNECTION: 2 x 350A; ERN 99.99.99.99; ORO CAPACITY: 1962.8 m3; NOFO SOCKETS: 6x 230V 16A, 2x 230V 32A; MSD - 41 PERSONS; ICE & OIL SPILL RADAR; DACON SCOOP

*Approximate values assuming Ideal Conditions

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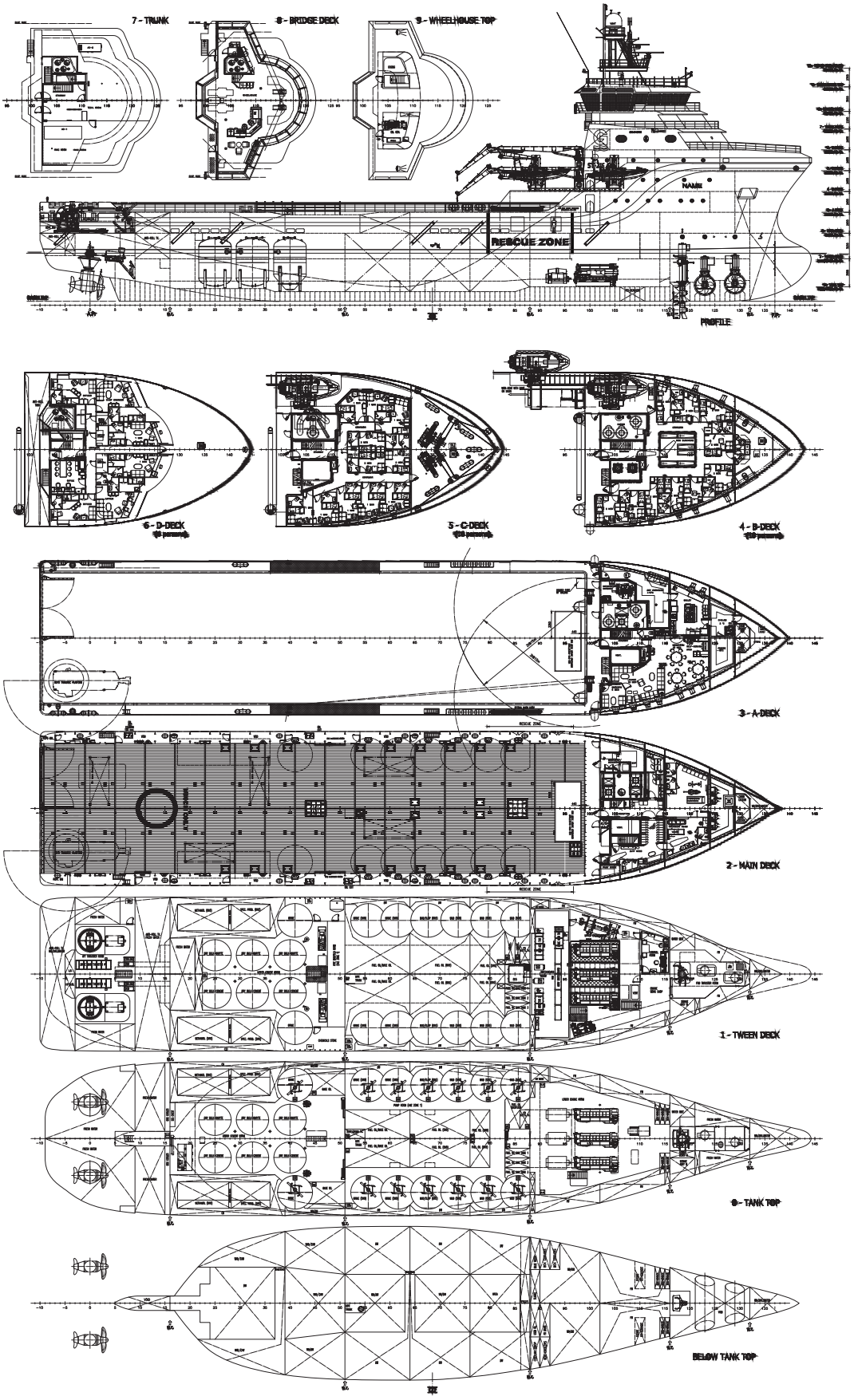
General Arrangement (Current configuration may vary.)



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Capacity Table

Tank	Contents	Volume m^3	Base Oil	Fuel Oil	Dry Bulk	DW/WB	Potable Water	Fresh Water	Brine	Liquid Mud	Methanol	Lube Oil	Foam	Oil Disp.
100C FOREPEAK TK	DW/WB	144.1				144.1								
301P WB/DW DB TK PS	DW/WB	68.8				68.8								
301S WB/DW DB TK SB	DW/WB	65.2				65.2								
330C WB/DW ANTI-ROLL 1	DW/WB	101.6				101.6								
401C WB/DW DB TK C	DW/WB	58.1				58.1								
402C WB/DW DB TK C	DW/WB	60.0				60.0								
420P DW DB/WING TK PS	DW/WB	113.5				113.5								
420S DW DB/WING TK SB	DW/WB	113.5				113.5								
421P DW DB/WING TK PS	DW/WB	109.8				109.8								
421S DW DB/WING TK SB	DW/WB	115.1				115.1								
422P DW DB/WING TK PS	DW/WB	116.8				116.8								
422S DW DB/WING TK SB	DW/WB	118.6				118.6								
501C DW DB TANK	DW/WB	97.4				97.4								
500C WB/DW DB TK C	DW/WB	71.9				71.9								
510P WB/DW DB/WING TK PS	DW/WB	69.6				69.6								
510S WB/DW DB/WING TK SB	DW/WB	69.6				69.6								
620C WB/DW ANTI-ROLL 3	DW/WB	178.6				178.6								
205P FW WING TK PS	FW	50.6						50.6						
205S FW WING TK SB	FW	45.0						45.0						
300P FW DB/WING TK PS	FW	143.6						143.6						
300S FW DB/WING TK SB	FW	140.9						140.9						
310P FW WING TK PS	Ship's FW	50.5					50.5							
310S FW WING TK SB	Ship's FW	67.9					67.9							
560C FW TANK C	FW	84.7						84.7						
601P FW TANK PS	FW	63.0						63.0						
601S FW TANK SB	FW	63.0						63.0						
605C FW ANTI-ROLL 2	FW	246.2						246.2						
610P FW DB TK PS	FW	120.3						120.3						
610S FW DB TK SB	FW	137.7						137.7						
410P FO 1 TK PS	FO/ORO	97.5		97.5										
410S FO 1 TK SB	FO/ORO	97.5		97.5										
411P FO 2 TK PS	FO/ORO	209.8		209.8										
411S FO 2 TK SB	FO/ORO	209.8		209.8										
412P FO 3 TK PS	FO/BO	224.6	224.6	224.6										
412S FO 3 TK SB	FO/BO	212.2	212.2	212.2										
FO OVERFLOW TK	FO	29.1		29.1										
FO DAY TK 1	FO	22.6		22.6										
FO DAY TK 2	FO	24.9		24.9										
FO SETTLING TK	FO	18.4		18.4										
FO DAY TK 3	FO	24.2		24.2										
520P BASE OIL TK PS	BO	49.3	49.3											
520S BASE OIL TK SB	BO	49.3	49.3											
431P MUD TK 1 PS	LM/ORO	72.1								72.1				
431S MUD TK 1 SB	LM/ORO	72.1								72.1				
432P MUD TK 2 PS	LM/ORO	83.9								83.9				
432S MUD TK 2 SB	LM/ORO	83.9								83.9				
433P MUD TK 3 PS	LM/ORO	87.7								87.7				
433S MUD TK 3 SB	LM/ORO	87.7								87.7				
434P MUD TK 4 PS	LM/ORO	88.5								88.5				
434S MUD TK 4 SB	LM/ORO	88.5								88.5				
435P MUD TK 5 PS	LM/ORO/SLOP	88.5								88.5				
435S MUD TK 5 SB	LM/ORO/SLOP	88.5								88.5				
436P BRINE TK 1 PS	BR/ORO	88.5							88.5					
436S BRINE TK 1 SB	BR/ORO	88.5							88.5					
530P BRINE TK 2 PS	BR	92.6							92.6					
530S BRINE TK 2 SB	BR	92.6							92.6					
551P METH/ORO/SP PS	METH/ORO/SP	83.8									83.8			
551S METH/ORO/SP SB	METH/ORO/SP	83.8									83.8			
552P METH/ORO PS	METH/ORO	81.3									81.3			
552S METH/ORO SB	METH/ORO	81.3									81.3			
Cem TK 1 PS	DRY BULK	59.4			59.4									
Cem TK 1 SB	DRY BULK	59.3			59.3									
Cem TK 2 PS	DRY BULK	61.6			61.6									
Cem TK 2 SB	DRY BULK	61.6			61.6									
Cem TK 3 PS	DRY BULK	61.6			61.6									
Cem TK 3 SB	DRY BULK	61.6			61.6									
211C LO BOW THRUSTERS	LO	3.9										3.9		
349S LO HARBOR GEN	LO	1.0										1.0		
445P LO MAIN ENGINES	LO	10.7										10.7		
446P LO MAIN ENGINES	LO	13.4										13.4		
611P LO PROP THRUSTERS	LO	7.3										7.3		
Total Volume [m^3]			535.3	1,170.5	365.3	1,672.2	118.4	1,095.0	362.2	841.2	330.1	36.2	0.0	0.0
Spec Sheet Total Volume [m^3]			535.3	1,069.7	365.3	1,672.2	118.4	1,095.0	362.2	841.2	330.1	36.2	0.0	0.0

*Capacities shown are for lead vessel. Actual capacities may vary slightly.

*Capacities shown in **RED** are excluded from the total volume.

*Capacities shown in **BLUE** are included in another Tank's Capacity.

*Capacities shown in **GREEN** are counted for multiple Tank Capacities.

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KONGSBERG

DP Capability Plot

SIMEK BN129

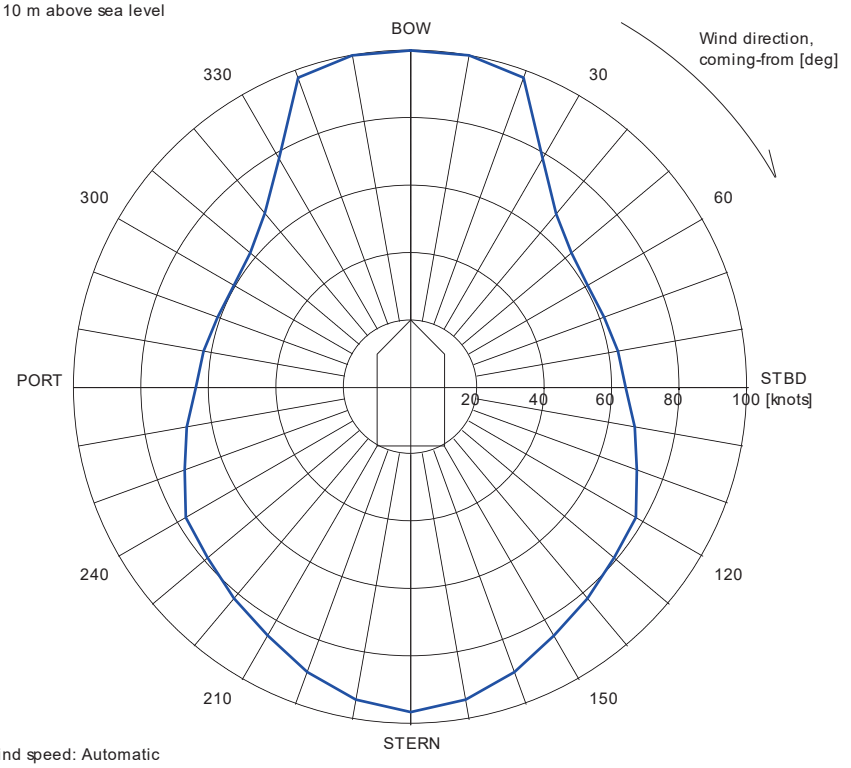
Case number : 1
Case description : Optimum use of all thrusters
Thrusters active : T1-T5
Rudders active :

Input file reference	:	4155_D.scp
Last modified	:	2011-12-23 07.42 (v. 2.8.0)
Length overall	:	92.6 m
Length between perpendiculars	:	82.2 m
Breadth	:	19.2 m
Draught	:	6.0 m
Displacement	:	6800.0 t (Cb = 0.70)
Longitudinal radius of inertia	:	20.5 m (= 0.25 * Lpp)
Pos. of origin ahead of Lpp/2 (Xo)	:	0.0 m
Wind load coefficients	:	Calculated (Blendermann)
Current load coefficients	:	Calculated (Strip-theory)
Wave-drift load coefficients	:	Database (Scaled by Breadth/Length)
Tidal current direction offset	:	0.0 deg
Wave direction offset	:	0.0 deg
Wave spectrum type	:	JONSWAP (gamma = 3.30)
Wind spectrum type	:	NPD
Current - wave-drift interaction	:	OFF
Load dynamics allowance	:	1.0 * STD of thrust demand
Additional surge force	:	0.0 tf
Additional sway force	:	0.0 tf
Additional yawing moment	:	0.0 tf.m
Additional force direction	:	Fixed
Density of salt water	:	1026.0 kg/m³
Density of air	:	1.226 kg/m³ (15 °C)
Power limitations	:	ON
Thrust loss calculation	:	OFF

#	Thruster	X [m]	Y [m]	F+ [tf]	F- [tf]	Max [%]	Pe [kW]	Rudder
1	TUNNEL	36.3	0.0	15.6	-15.6	100	1100	
2	TUNNEL	32.7	0.0	15.6	-15.6	100	1100	
3	AZIMUTH	30.5	0.0	15.7	0.0	100	883	
4	AZIMUTH	-41.4	-4.0	24.1	0.0	100	1850	
5	AZIMUTH	-41.4	4.0	24.1	0.0	100	1850	

VARIABLE WIND AND WAVES
Limiting 1 minute mean wind speed in knots
at 10 m above sea level

ERN = 99.
ERN are subject to DNV approval



Wind speed: Automatic
Significant wave height: DNV (ERN)
Mean zero up-crossing period: DNV (ERN)

Rotating tidal current: 1.46 knots
Rotating wind induced current: 0.000*Uwi knots

Figure 10: DP capability envelope for case 1.