

MV "REM ARCTIC"

SHIP DESIGN
CLASSIFICATION
BUILDER
PORT OF REGISTRY
FLAG
MMSI
IMO NUMBER
DELIVERY
CALL SIGN

VS 485 MK III Arctic
DNV-GL
KLEVEN, NORWAY YARD No 374
FOSNAVÅG
NOR
257982000
9731250
2015
LNVA3

OWNER: Rem Offshore AS
REGISTERED OWNER: Rem Service AS

MANAGER: Rem Maritime AS
N-6090 Fosnavåg

MAIN DIMENSIONS:

LENGTH O.A	87,22 M
LENGTH P.P	77,70 M
BREADTH	20,00 M
KEEL TO MAST	36,70 M
MAX/SUMMER DRAFT	7,16 M
DEPTH MOULDED	8,60 M
SUMMER DEADWEIGHT	5340,2 T
SUMMER DISPLACEMENT	8697,4 T
LIGHTSHIP WEIGHT	3357,21 T
GROSS TONNAGE	4609
NET TONNAGE	1718

CLASS NOTATIONS:

DNV X 1A1, Ice-C, DYNPOS AUTR Clean Design, Comf-V(3), EO, LFL*, SF, Oil Rec, Standby vessel (s), dk+, hl(2,8), Naut-OSV(A), ICE-1B, Winterized Basic

Stand by NMD 200



OUTLINE SPECIFICATION

MACHINERY AND PROPELLER PLANTS

Main Engines/Generators:	4 x Wartsila 9L20 1665kW
Emergency Generator:	1 x Volvo Penta 196 kW
Main Propulsion, fixed pitch:	2 x Steerprop propellers 2200 kW
FWD Azimuth:	1 x Brunvoll 880 kW
FWD Tunnel Thrusters:	2 x Brunvoll 1200 kW

CARGO CAPACITIES NOFO 2009 FULL / USABLE

Deck Cargo (max load):	2500 Tons (Max 50% FO & FW)
Deck Area:	abt 1000 m ² (1 st deck/wooden deck) 59,8 m x 16,8m free space
Deck Strength:	10 Tons/m ²
Fuel Oil (MGO):	888,2 m ³ / 780 m ³
Liquid Mud (SG 2.8):	694,8 / 625,3 m ³ , Agitators in all tanks (6 tanks)
Brine (SG 2.5):	418,0 m ³ / 376,2 m ³ , (2 tanks)
Base Oil:	203,8 m ³ / 183,4 m ³ , (2 tanks)
Pot Water:	1083,6 m ³
Drill Water/Ballast:	2215,9 m ³
Special Product/Methanol:	2 x 73,2 m ³ / 65,9 m ³ , 2 x 55,6 m ³ / 50,0 m ³
Slop:	2 x 93,4 m ³ / 84,1 m ³
ORO:	1760,9 m ³ / 1584,8 m ³ , (16 tanks)
Cement/Barite/Bentonite:	330,0 m ³ / 297,0 m ³ , (6 tanks / silos)

ENVIRONMENT AND CARGO CONTROL PLANTS

Incinerator:	Ulmatec Pyro
Cement plant:	Van Aalst Marine and Offshore BV
All pumps:	Ing. Per Gjerdrum AS
Electrical Boiler:	Parat Halvorsen AS
Equipment on deck:	Norwegian Deck Mach AS
Tank Cleaning:	Ing. Per Gjerdrum AS
Special Cargo Tanks:	Stainless Steel Tanks for Methanol
Inert Gas System:	Wilhelmsen TS, Unitor-Generon N2 Membrane inert Gas System
Cargo Manifolds:	Midship SB & PS and Aft, all as per GOMO recommendation

NAVIGATION

DP System:	Kongsberg K Pos DP 22
Joystick System:	Kongsberg C-Joy Constant
DP Motion System:	3 x Sea Tex MRU 5
DGPS:	2 x Kongsberg Seatex DPS 700
Cyscan:	Lazer Mk 4 (+ 2 reflect. Cylinders on board)
Radius:	RADius 1000 Interrogator & 700X Transponder
Bearing System(ADF):	1 x RT 300
Non-Directional Beacon(NDB):	1 x TS-1B
Wind Sensor:	2 x Kongsberg Maritime
Bridge Consoles:	Steinsvik Aft, Fwd and both Wings
Operation Control Office:	Located on Bridge
Autopilot:	Raytheon Anschütz Nautopilot NP5000
Radar 1:	Furuno FCR-2139SBB 1 x 10 cm / S band
Radar 2:	Furuno FCR-2119BB 1 x 3 cm/ X band
Oil Radar:	According to NOFO Standard 2009
Echo Sounder:	Furuno FE 800
Gyro:	3 x Raytheon Anschütz NG002
Speed Repeater:	Northrop Grumman Sperry 4891-CA
Speed log:	Furuno DS-80
VDR:	Consilium VDR F2 MU
VDR acoustic beacon:	1 x PT9
GPS:	2 x Furuno GP 170
Bridge Watch:	Telemekki AMS/BNWAS
ECDIS:	Furuno Tecdis T – 2138A

INDICATIVE SPEED & FUEL CONSUMPTION

Full speed:	15,0 knots 19,8 mt/24hrs
Service speed:	12,5 knots 10,0 mt/24 hrs
Economic speed:	11,0 knots 8,5 mt/24 hrs
DP operation:	5,3 mt/24 hrs at position keeping 1,6m Hs
St-by at field:	2,9 mt/24 hrs at one engine
Harbor mode:	2,0 mt/24 hrs

CARGO HANDLING/MOORING/ANCHOR SYSTEMS

Deck Crane:	1 x Red Rock knuckle crane, SWL 3T – 18M
Cargo Securing winches:	6 x NDM, CSW-3 Type, SWL 3T
Tugger winches:	2 x NDM, TU-15 Type, SWL 15T
Capstans:	2 x Pull 100kN, NDM
Windlass:	2 x AW50-50K30, Pull 16T, NDM
Bollards:	11 pcs (10 – SWL 32T / 1 – SWL 46T Fwd)
Rollers:	12 pcs, NDM, 300 NS2585
Anchor Chain:	Total 522.5m / 10x27,5m & 9x27.5m
Anchors:	2 x 4050 kg SPEK TYPE

LIFE SAVING EQUIPMENT

Ship Certificate:	25 persons
Life Rafts:	4x 25 persons, (2 on each side)
MOB boat:	WEEDO 700 MK II FRB (28 ft.)for min 15 pers.
MOB Davit:	Red Rock RDA036 SOLAS approved
Survival Suits:	3 x Full dry insulated Survival suits according to rules

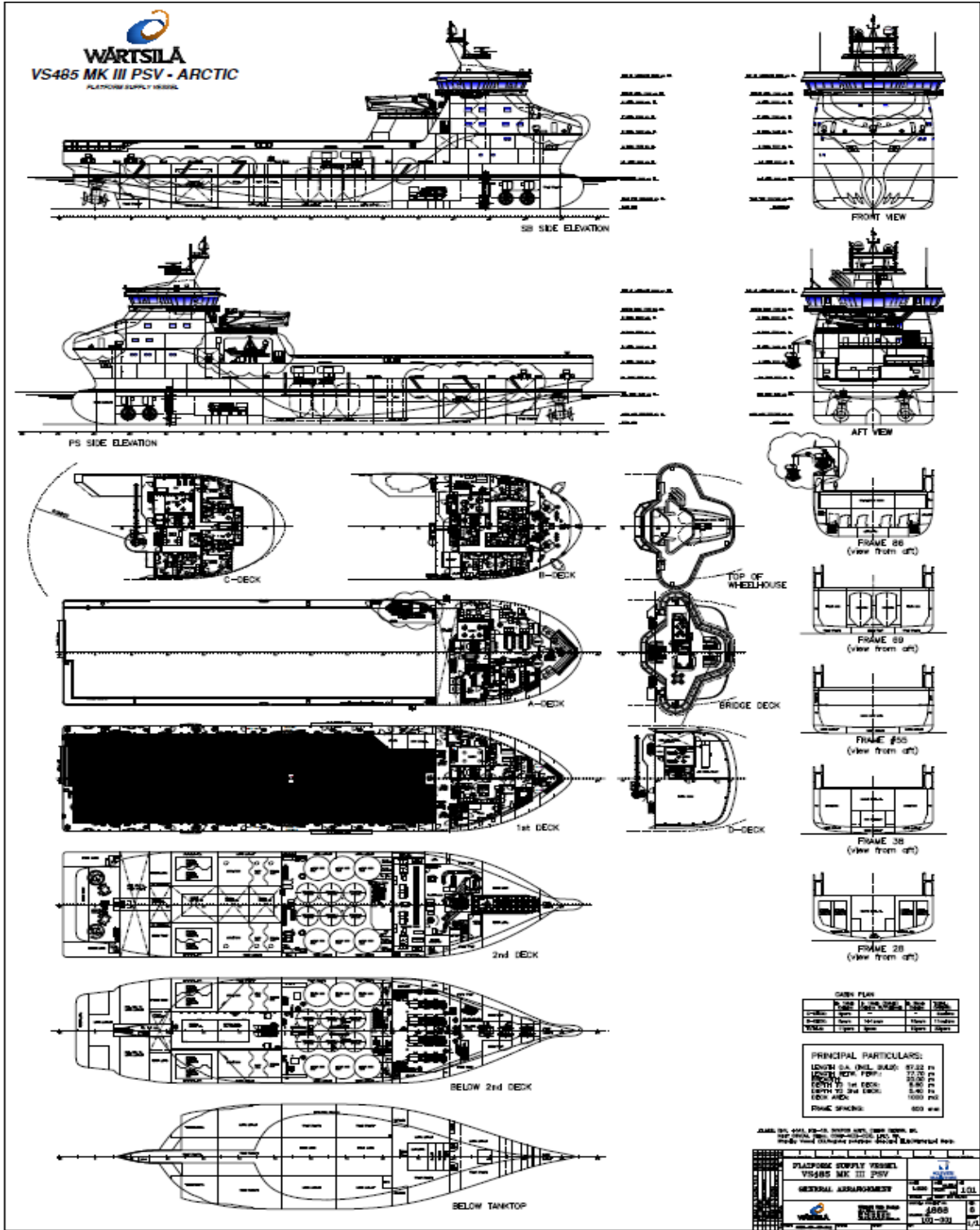
COMMUNICATION

Navtex:	Furuno NX-700
Radar Transponder:	2 x Jotron Tron SART20
DSC Terminal:	Thrane & Thrane Sailor TT6222A
AIS:	Furuno FA 150
EPIRB:	2 x Jotron Tron 60S GPS
EPIRB/VDR:	Tron 40VDR
Radio Station SSB, MF/HF:	2 x SAILOR 6300 MF/HF Radiotelex
VHF Portable GMDSS:	2 x Tron TR 20 / 1 x TRON TR 30
VHF DSC transceiver:	2 x Sailor RT 6222
VHF transceiver:	3 x SAILOR 6210
VHF Portable:	3 x DP 4801 ex VHF / Motorola
UHF Portable:	11 x Motorola DP 4801
UHF transceiver:	5 x Motorola DM 4600
VHF Air Band Transceiver:	1 x ICOM IC-A6E
Inmarsat C:	1 x Thrane & Thrane AS Sailor 6110 Mini-C / Inm C No: 425798215
SASA / LRIT:	Blue Tracker SASA / LRIT
Intercom:	Zenitel ACM 144 66/VO
Sound System:	Vingtor VSS V2
Emergency:	Vingtor VSP 211 L
PA System:	Zenitel VPA 120, 240 and 400
Satellite Communication:	VSAT:+47 23 67 68 00 Iridium : + 881677744733 captain@arctic.remoffshore.no bridge@arctic.remoffshore.no
Vessel E-mail:	

ACCOMMODATION

Outfitted for 25 persons in spacious and comfortable facilities	
Single Cabins:	11 with bathrooms
Double Cabins:	4 with bathrooms
Four men Cabins:	2 with bathrooms
Hospital:	1 Highest standard
Office:	1 fully outfitted
Day Room:	2 comfortable outfitted
Gymnasium:	1 fully outfitted
Entertainment:	In Day Rooms and all Cabins
Antiroll Tank:	1 x Tank aft below 1st deck 1xTank between A and B deck

PARAMETER	STATUS	COMMENTS								
DNV GL Notation	Ice(1B)	<p>Winterized basic- Occasional operation in cold climate for short periods</p> <p>DNVGL-RU-SHIP Pt.6 Ch.6. - Table 6 Typical design environmental conditions</p> <table border="1"> <thead> <tr> <th>Qualifier</th> <th>Air temperature (t_a)</th> <th>Sea water temperature</th> <th>Wind speed</th> </tr> </thead> <tbody> <tr> <td>Basic</td> <td>≤ -10°C (-10°C is default)</td> <td>+4°C without ice class -2°C with ice class</td> <td>20 m/s</td> </tr> </tbody> </table> <p>Rem Arctic has winterized basic class and all equipment is tested to be able to operate to -20degrees.</p>	Qualifier	Air temperature (t _a)	Sea water temperature	Wind speed	Basic	≤ -10°C (-10°C is default)	+4°C without ice class -2°C with ice class	20 m/s
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Polar Code Category	Category C	<p>Ref. Polar Code/Introduction/2.Definitions -</p> <ul style="list-style-type: none"> Category C ship means a ship designed to operate in open water or in ice conditions less severe than those included in categories A and B. Ice of land origin means ice formed on land or in an ice shelf, found floating in water Open water means a large area of freely navigable water in which sea ice is present in concentrations less than 1/10. No ice of land origin is present <p>Ref.-https://www.canada.ca/en/environment-climate-change/services/ice-forecasts-observations/latest-conditions/glossary.html</p> <ul style="list-style-type: none"> Bergy water - An area of freely navigable water in which ice of land origin is present. Other ice types may be present, although the total concentration of all other ice is less than 1/10. 								
Ice Operations	Open waters only									
High latitude - GMDSS	A1+A2+A3+A4+blue SSAS+blue LRIT	Suitable for high latitude								
High latitude - DGPS corrections	GPS, GNSS, Radius, Cyscan	GPS could be unreliable in high latitude, and GNSS , Radius , Cyscan shall work sufficiently.								
MDLT Barentz	-10 deg Celsius	<p>Ref. Polar Code/Introduction/2.Definitions -</p> <ul style="list-style-type: none"> Mean Daily Low Temperature (MDLT) means the mean value of the daily low temperature for each day of the year over a minimum 10 year period. A data set acceptable to the Administration may be used if 10 years of data is not available 								
PST Rem Arctic	-20 deg Celsius	<p>Ref. Polar Code/Introduction/2.Definitions -</p> <ul style="list-style-type: none"> Polar Service Temperature (PST) means a temperature specified for a ship which is intended to operate in low air temperature, which shall be set at least 10C below the lowest MDLT for the intended area and season of operation in polar waters. 								
Icing	Ocasionally	Campaigns are planned to start July till end of October. Icing is expected during the last month of the operations.								
Ice breaker eskort operatins	NA	Not planned								
Ice navigation operational risk assessment	POLARIS	<p>IB = Category C/Winterized basic RIO shall be equal or grater than 0</p> <p>RIV-Ice Free=3</p> <p>RIV-New Ice=2 RIO=(C1xRIV1)+(C2xRIV2)+.....(CnxRIVn)</p> <p>RIV-Gray Ice=2</p> <p>RIV-Gray white Ice=1 C1...Cn - concentrations in thenths of each Ice type</p> <p>RIV-Thin first year Ice 1st stage=0</p> <p>RIV-Thin second year Ice 2nd stage=-1</p> <p>RIV-Medium first year less than 1m thick=-1</p> <p>RIV-Medium first year =-2</p> <p>RIV-Thick first year=-3</p> <p>RIV-Second year=-5</p> <p>RIV-Light muly year=-6</p> <p>RIV-Heavy muly year=-6</p>								
Rescue time	5 days	Polar code minimum								
Remoteness	Yes	The operations are in remote area. The operations involve a couple of vessels which can assist each other till assistance from shore arrives								
Operation in darkness	Ocasionally	Campaigns are planned to start July till end of October.								
Evacutaion to Land/Ice	NA	Operations in open waters								
Environmenta l sensitive area	Yes	Arctic areas - Vessel is Clean Class and Clean design and will comply.								





"Details believed to be correct and given in good faith, but without guarantee"

