



# Polar Onyx

## Vessel & equipment specification

**Polar Onyx is a high-capacity flexible pipelay and construction vessel designed for operations in harsh conditions and deep waters. Built to the highest standard for dynamic positioning, DP3 (Operation+), equipped with a 250mt AHC offshore crane and a 275mt Vertical Lay System from Huisman.**

### Previous vessel experience:

- Extensive experience from ROV construction work and survey
- VLS/SURF operations in a wide range of depths including up to 1750m
- Above sea crane lifts with state of the art Sealift Compensation System, providing in-air relative compensation between two moving vessels
- Various IMR and Construction work for O&G clients
- Installation of PLET/PLEM/Jumpers
- Installation of Suction Anchors
- Open Water Well Intervention

*Specification is subject to change. This version is updated in november 2019.*



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## GENERAL

<b>Classification and society</b>	DNV, SF, E0, DYNPOS-AUTRO, CLEAN DESIGN, NAUT-OSV(A), COMF-V(3),DK(+), HELIDK-SH, CRANE, SPS, VIBR, BISDNV, SF, E0, DYNPOS-AUTRO, CLEAN DESIGN, NAUT-OSV(A), COMF-V(3),DK(+), HELIDK-SH, CRANE, SPS, VIBR, BIS
<b>Flag</b>	Norway (NIS)
<b>Design/Type</b>	Ulstein Design, SX 121
<b>Built</b>	2014 Ulstein Yard, Norway
<b>Planned dry-docking</b>	February 2024
<b>SPS Code</b>	2008
<b>IMO</b>	9664706

## MAIN DIMENSIONS

<b>Length O.A</b>	130 m
<b>Breadth</b>	25 m
<b>Depth</b>	10 m
<b>Design draft</b>	7.6 m
<b>Deadweight</b>	abt. 7200 t (in SURF mode)
<b>Tank capacity MDO</b>	2000 m <sup>3</sup>
<b>Tank capacity FW</b>	1400 m <sup>3</sup>
<b>Baseoil/Fuel</b>	230 m <sup>3</sup>
<b>MEG</b>	310 m <sup>3</sup>

## MACHINERY

<b>Main engines</b>	6 x 2700 kW / Total 16.2 mW
<b>Main propulsion</b>	3 x Azimuths 3000 kW
<b>Tunnel thruster</b>	2 x 2140 kW
<b>Azimuth thruster</b>	1 x 2000 kW
<b>OPERATION +</b>	Additional redundancy in DP2/AUTR. Propulsion and Power Systems arranged to tolerate occurrence of a "single failure". Vessel to keep position and remain redundant as defined by class (DYNPOS-AUTR) after such "single failure".

## PERFORMANCE

<b>Speed / consumption (fair weather):</b>	
<b>Max speed</b>	15 kts., abt. 50 t/day
<b>Service speed</b>	abt. 13.5 kts., abt. 32 t/day
<b>ECO speed</b>	abt. 10.5 kts., abt. 18 t/day
<b>DP operations</b>	abt. 13 t/day (sea state and weather dependent)
<b>Max endurance</b>	80 days (weather dependent)

## DYNAMIC POSITIONING SYSTEM

<b>DP System</b>	DP3 Class DNV DYNPOS AUTRO (OPERATION+), Kongsberg
<b>Reference system</b>	2x DPS 132, 1x DPS 232 Radius system (360 degrees) 2x HiPAP 501 1x SpotTrack
<b>ERN</b>	DYNPOS-AUTR: 99,99,99,99 DYNPOS-AUTRO: 99,99,99,85

## NAVIGATION AND COMMUNICATIONS

Equipment according to GDMSS regulations, Area 3 and Naut-OSV notation.  
VSAT high speed, broadband satellite communications.

## HELICOPTER LANDING DECK

<b>Designed for</b>	Sikorsky S-92
<b>Certified according to</b>	CAA CAP437 / DNV
<b>Helideck D Value</b>	20.88 m (total size 26.1 m - 1.25 D)
<b>Max take-off weight</b>	12.8 t

## SAFETY EQUIPMENT

<b>MOB/Rescue boat</b>	Mare Safety 600
<b>Enclosed lifeboats</b>	2 x 80 pax
<b>Davit Launch life rafts</b>	4

## ACCOMODATION

<b>Total capacity</b>	130
<b>Maritime Crew</b>	14 single cabins + 11 double cabins <b>Total capacity for crew: 36</b>
<b>Charterers' personnel</b>	34 single cabins + 30 double cabins <b>Total capacity for charterer: 94</b>
<b>Client offices</b>	4
<b>Lounges</b>	3
<b>Auditorium</b>	33 seats, with video cannon
<b>Other</b>	On-line room, off-line room, conference room, OIM office, helicopter reception, hospital, fitness room, male and female wardrobe.

## LIFTING EQUIPMENT

<b>Primary deck crane</b>	NOV 250 t AHC / 3000 m wire
<b>Max lifting capacity</b>	250 t, outreach 16 m, 100 t at 36 m
<b>Additional features</b>	Sealift Compensation System Providing in-air relative compensation Between two moving vessels.
<b>Aux hook</b>	20 t, 1 fall, with personnel transfer
<b>Secondary deck crane</b>	Port side
<b>Knuckle boom</b>	12 t @ 15 m
<b>Max outreach</b>	21 m
<b>LARS x 2</b>	For deployment of Work ROVs through moonpool and starboard side. SWL 12 t.

## DECK

<b>Open deck area</b>	1700 m <sup>2</sup> (1150 m <sup>2</sup> free area)
<b>Deck load capacity</b>	abt. 5800 t (with crane stowed)
<b>Deck strength</b>	10 t/m <sup>2</sup>
<b>Main moonpool</b>	8 m x 8 m
<b>Work ROV Moonpool</b>	4.9 m x 4.9 m in hangar
<b>Tugger winches midt</b>	2 x 14 ton first layer
<b>Tugger mooring aft</b>	2 x 12 t on first layer
<b>Utilities:</b>	
FW	0-50 m <sup>3</sup> /h
SW	0-74 m <sup>3</sup> /h
MEG	100 m <sup>3</sup> /h – 9 bar
Air	200 m <sup>3</sup> /h – 7,15 bar
El.	690V 320-1000Amp /440V 32-460Amp 230V 16Amp /110V 16Amp



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