

# IMR / TSV Vessel Polar King



**Polar King is a multipurpose subsea vessel specially designed for operation under severe weather conditions with high manoeuvrability and station keeping capabilities. The vessel provides services including inspection, maintenance and repair (IMR) operations, and trenching support (TSV). The vessel is complete with a 150 ton Active Heave Compensated (AHC) offshore crane, two WROVs, accommodation for 112 persons and offers a flexible deck space of 960 sqm for a range of operations. Currently the vessel is mobilised with 2 trenching spreads. It is designed with environmental features for worldwide service, compliant with SPS 2008 and with a Clean-Design and a Green Passport.**

## 1) GENERAL

### Classification and society:

DNV +1A1, ICE-C, COMF-V(3)C(3), HELDK-SH, E0, DYNPOS-AUTR,  
NAUT-OSV(A), CLEAN DESIGN, DK(+)  
Flag: Cyprus (CY)  
Design / Type: ST-254 LCD  
Built: 2011 / Freire Shipyard - Spain.  
Next planned dry-docking: April 2021  
SPS Code: 2008  
IMO: 9523366

## 2) MAIN DIMENSIONS

LOA: 110.6m  
Breadth: 20.0m  
Depth: 9.8m  
Max draught: 7.6m  
Design draft: 6.0m  
Deadweight: abt. 4358 mt  
Tank capacity MDO: 1 722 m3  
Tank capacity FW: 1 200 m3

## 3) MACHINERY

Main engines: 6x 1800kW / Total 10.8MW  
Main propulsion: 2x Voith Schneider 3800 Kw  
Thrusters:

- i. Tunnel thruster: 2 x 1 350 kW
- ii. Azimuth thruster: 1 x 1 400 kW

Voith Roll Stabilization (VRS) System

## 4) PERFORMANCE

Speed / Consumption (fair weather):

- i. Service speed: abt. 14,5 kts., abt. 39 mt / day
- ii. ECO speed: abt. 11 kts., abt. 27 mt / day
- iii. DP Operations: abt. 8 – 13 mt / day  
(weather & sea state dependent)

## 5) DP SYSTEM

Dual redundant DP-System (AUTR/DP2), Kongsberg  
Reference system

- i. 2 x HiPAP 500, Kongsberg
- ii. One Seapath 200, Kongsberg
- iii. One DGPS 122
- iv. 1 x Seapath 300
- v. 3 x SeaStar diff. modulator
- vi. Three MRU's

One Radius 1000 QUAD System

DYNPOS-AUTR: DYNPOS-AUTRO: 99,99,97,76 (2015)  
DYNPOS-AUTRO: 99,99,99

## 6) LIFTING EQUIPMENT

TTS 150t AHC / 3000m wire

- i. Max lifting capacity: 150 mt, radius 7-10m
- ii. Max lifting capacity: 25 mt, radius 35m
- iii. Active lifting capacity at 2000m: abt. 100 mt
- iv. Aux hook: 12.5 mt, 1 fall, radius 7-36m, 550m

2 x ODIM LARS (AHC) for deployment of (W)ROVs through moonpool  
and starboard side. SWL 12t

Deck crane: 2 x foldable cranes, capacity 1,1 mt each

Provisions store crane: Foldable crane, max lifting capacity 1,1 mt

## 7) DECK

Open deck area: 960m<sup>2</sup>  
Deck strength: 10t/m<sup>2</sup>  
Tugger winches: 2 x 5t  
Main Moonpool: 7.2m x 7.2m  
Power Supply: 2 x 2.5MVA

- i. 1 Power supply connection cabinet is installed on the Main Deck in the ROV Hangar at Frame 82, port
- ii. 1 Power supply connection cabinet is installed on the Main Deck by the main crane pedestal at Frame 35Work ROV Moonpool in hangar: 5.4m x 5.4m Both Moonpools have Flush Deck Covers

## 8) ACCOMMODATION

Maritime crew: 31  
i. Single cabins: 15  
ii. Double cabins: 8  
Charterers' personnel: 81  
iii. Single cabins: 7  
iv. Double cabins: 37

Facilities: On-line room, Off-line room, client offices (3), conference room, lounges (3), hospital, fitness room, Sauna, Solarium

## 9) NAVIGATION, SURVEY AND COMMUNICATION

Equipment according to GMDSS regulations, Area 3 and Naut-OSV notation  
VSAT high speed, broadband satellite communications  
2 x 10cm LRTK GNSS positioning systems (GPS / GLONASS)  
2 x HiPAP 501 USBL subsea positioning systems, 1 upgraded to Cymbal  
wideband technology  
2 x Seapath GNSS heading and motion systems  
Navisuite Online control, logging and processing software  
Options and visualsoft video logging software, complete geophysical survey  
suite on the ROVs.

## 10) HELICOPTER LANDING DECK

Designed for: Sikorsky S-92  
Certified according to: CAA CAP437 / DNV  
Helideck diameter: 20,88m  
Max weight: 12,8 mt

## 11) SAFETY EQUIPMENT

MOB/Rescue boat: Maritime Partner Weedo 700  
2 x enclosed lifeboats, 80 pax each.  
4 x 20DKF Davit Launch life rafts.  
4 x 35DK+Throw overboard life rafts

## 12) ROV Equipment

Both ROVs are located in enclosed hangar with workshop

1 x Triton XLX 57 / Perry Top Hat Type V

- i. Available power: 1508HP / 130 kW
- ii. Ops depth: 3000m
- iii. Umbilical length: 3100m
- iv. Tether length: 650m

1 x Triton XLR 02 / Perry Top Hat Type IV

- i. Available power: 1258HP / 145 kW
- ii. Ops depth: 3000m
- iii. Umbilical length: 3450m
- iv. Tether length: 370m

## 13) Trenching Equipment

One or optionally two powerful Capjet 1000kW jet trenching systems for  
cable, umbilical and pipeline trenching.

Fully integrated control rooms in vessel

High seastate LARS systems

Operating depth 1000m (deeper optional)

Back fill plough optional

As-trenched survey

