



**Sealion**

**TOISA POLARIS**

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# **MULTI PURPOSE DIVE SUPPORT OFFSHORE CONSTRUCTION AND PIPELAY VESSEL**



# TOISA POLARIS SPECIFICATION

## GENERAL

Built	May 1999
Flag	British
Class	Det Norske Veritas +1A1 , E0,DSVIII / DSVI, SF Dynpos AUTRO, ERN (99,99,98) HELDK, (DK+)
Description	Diving Support Vessel Compliance with MODU Code and MOU Regulations
GMDSS	Area A3
Official No.	901941
Call Sign	M Y K R 6
IMO No.	918 7526
MMSI No.	232 585 000
DnV No.	20600
Selcall No.	47425
Gross tonnage	8234
Nett tonnage	2471
Deadweight (summer)	about 5,500 tonnes

## DIMENSIONS

Length OA	113.57 m
Length BP	107.35 m
Breadth mld.	22.00 m
Depth mld.	9.50 m
Draught (summer)	6.75 m

## PERFORMANCE / CONSUMPTION

Service speed	abt. 13.25 knots
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## CARGO AREAS

Working deck dims.	35 m x 21 m (abt.)
Working deck area	700 m <sup>2</sup> (abt.)
Deck strength	5 tonnes / m <sup>2</sup>
Deck load	1,500 tonnes (abt.) One Carousel installed below aft deck

## TANK CAPACITIES

Fuel oil	1,300 m <sup>3</sup> (abt.)
Potable water	460 m <sup>3</sup> (abt.)

## STABILISATION

Intering Active Roll Reduction System (1 x tank)

## ACCOMMODATION

Wheelhouse and accommodation fully air conditioned.	
Total Berths	98 in single and double berth cabins.
Hospital	1 Berth
Gymnasium	Yes
Charterer's spaces including Suites, Operations areas and Survey / Work Type areas.	

## HELIDECK

Load Capability	Suitable for a Super Puma Type AS332L2
D value	19.5 metres
Heli-reception and full emergency equipment.	

## MAIN MACHINERY

Diesel Electric Installation comprising of:

Main Engines	4 x Wartsila 9L26 Diesel Engines each driving an alternator and each producing 2,680kW at 660v 3Ph.60Hz. (Total Power 10,720 kW)
Harbour Set	1 x 750kW
Emergency Set	1 x 150kW unit located well above the freeboard deck and clear of regulation side damage areas.

## THRUSTERS

Stern Thrusters	2 x 2,200kW Fully azimuthing Kaplan nozzle fixed pitch propeller units driven by infinitely variable speed frequency controlled motors.
Bow Thrusters	3 x 1,335kW Tunnel Thrusters of variable pitch type set very low for maximum efficiency.

## DIVE SYSTEM

Capacity	18 man system
Depth rating	200 m rated (300m capable)
No of Dive Bells	2 x bells
Mixed Gas Storage	20,400 m <sup>3</sup> onboard with Gas reclaim
Hyperbaric lifeboat	1 x 18 man self propelled
Air Diving	2 x Air dive stations and 1 x DDC

## REDUNDANCY FEATURES

Main Machinery divided into two separate spaces each capable of independent operation in event of fire / flooding etc. and located clear of assumed side damage. Switchboards in two compartments also clear of regulation side damage area. Each Main Propulsion Thruster and each Tunnel Thruster is located in its own separate watertight compartment.

All Power / control cabling and pipework lead independently to relevant Thruster / motor / control equipt. etc and widely separated for maximum redundancy.

Main Machinery Control Room in Engine Room space with secondary control from Wheelhouse.

A third Emergency Control Centre is located well above the Freeboard Deck, and inboard of regulation damage areas and surrounded by fire-proof boundaries.

## DYNAMIC POSITIONING

DP system comprises two main Control Systems within the Wheelhouse with further independent Control computer / position within the Emergency Control Centre. Independent references / sensors lead to this station by separate cabling for maximum redundancy.

DP System	Simrad SDP 21 (3 x Op.stations)
References	3 x DGPS Fanbeam Taut Wire HIPAP (High accuracy fixed and tracking head under water system) Three Gyro Compasses Three Wind sensors Three Motion Reference Units
Compliance Standards	DNV Dynpos AUTRO IMO DP-Equipment Class 3

## MOONPOOLS

Two Moonpools each abt. 4.68m x 4.68m for Diving operations.  
One Optional Moonpool (Stern) abt. 6.24m x 6.24m.

## DECK MACHINERY

Offshore Cranes	1 x 150mt SWL Active Heave compensated (250mt SWL for port use) 1 x 10mt at 25m Hydralift crane 1 x 10mt at 10m / 1mt at 22m Norlift crane
Stern and aft Main Deck stiffened for installation of A-Frame	

This specification is subject to change without prior notification. The particulars are believed to be correct, but are not guaranteed.



Helideck and Bridge



Conference Room



Saturation Dive Chambers

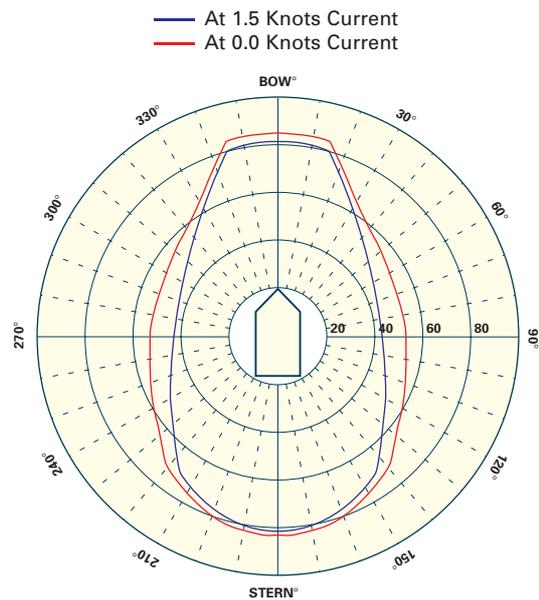


Bell Handling Hanger

## DYNAMIC POSITIONING CONSOLES AND FOOTPRINTS

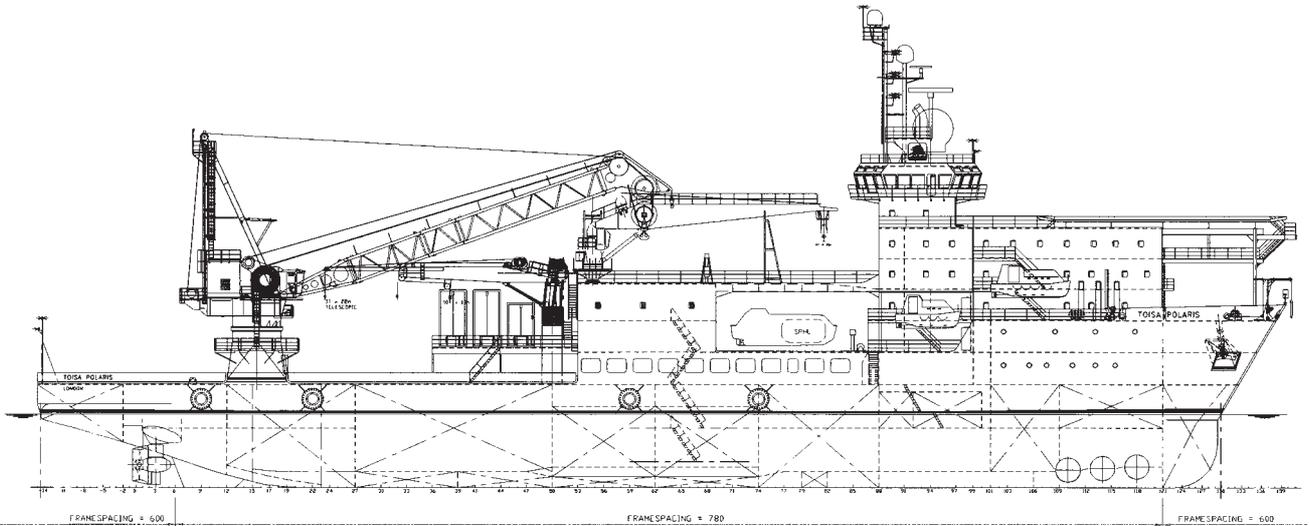


Aft Control Position and DP Consoles

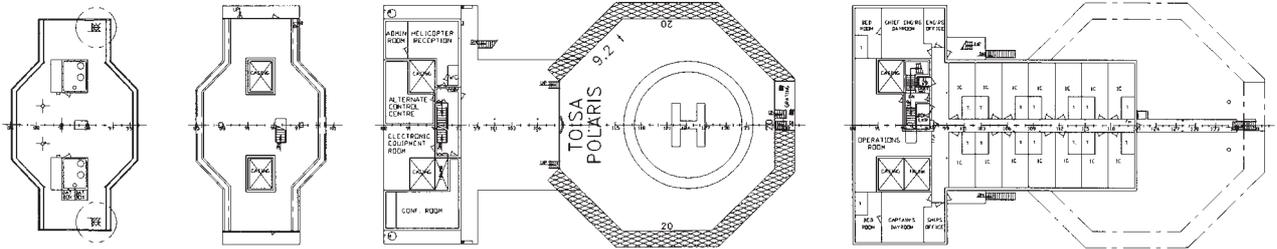


The constant current follows the wind and waves around the vessel. Circles are Wind Speed in Knots

# TOISA POLARIS GENERAL ARRANGEMENT PLAN



PROFILE



BRIDGE TOP

BRIDGE

HELICOPTER RECEPTION

DECK 7

