



## NEW STATE OF THE ART DP3 DSV FOR TOISA



Sealion Shipping Ltd, on behalf of Toisa Ltd, is pleased to announce that an order has been placed with Shanghai Zhenhua Heavy Industries Co. Ltd (ZPMC) for a DP3 Multi-Purpose Saturation Diving Support/Offshore Construction Vessel (DSV/OCV), for delivery in early 2017 and equipped with a 24 man twin bell, saturation diving system. The vessel design is from Sawicon AS, customised to the requirements of Sealion/Toisa and will produce a vessel of impressive capabilities and flexibility. The ZPMC yard, chosen to build the new vessel, has a proven track record of building complex structures and vessels and a long history of working with international clients requiring a high level of technical and commercial expertise.

The new Multipurpose DSV is built around a fully automated DRASS saturation dive system. The 24 man, 300metre, twin bell system has been designed to provide NORSOK U100 capability, achieving the highest levels of diver safety and comfort. The provision of two hyperbaric lifeboats and a main deck mounted emergency bell mate trunk, together with other inherent features, prioritize diver safety to the highest level and allow maximum twin bell operation at depth. The vessel is also fitted with a three diver, Nitrox/air diving system designed for hoop diving (35m outreach), incorporating a triple drum winch for hose deployment and a designated tooling A-frame.

The vessel will have two offshore, active-heave compensated, knuckle boom cranes fitted: a 400 tonne crane with a depth capability of 3,000 metres single fall, and an auxiliary crane with a capacity of 25 tonnes and a single fall depth capability of 600 metres. There will be an extensive working deck area of 1,850m<sup>2</sup> and, in addition to the dive system moonpools, a large working moonpool of 7.20 x 7.20 metres enabling deployment of flexible pipe via client-supplied VLS, or similar. With a minimum deck strength of 15t/m<sup>2</sup> and specific areas strengthened to take 50t/m<sup>2</sup>, carriage and deployment of heavy equipment and special project related machinery is facilitated. There will be two ROV Hangars designed to accommodate large work class client-supplied ROVs for overside launch. All the necessary interfaces to service ROVs, as well as dedicated offices, control rooms, workshops and stores are included in the hangar design, producing an ergonomically arranged space for efficient operation of ROVs.

The vessel is equipped for world-wide operations in the oil and gas sector and on ultra-deep water projects. There are three stern azimuth thrusters producing propulsive power plus two tunnel bow-thrusters and one retractable azimuth thruster forward, all powered by a diesel electric plant of six diesel alternators. These and all the other vessel's machinery are controlled by a fully integrated vessel management and control system. The vessel is dynamically positioned (DP3) with the dual notation of DYNPOS AUTRO (DP3) and DYNPOS ER (Enhanced Reliability). DYNPOS ER is a major step forward in DP philosophy whereby the level of increased redundancy and monitoring inherent in this notation not only increases safety but will allow flexibility to operate the vessel in its most efficient mode.

There is accommodation sufficient for large numbers of contractors in addition to the charterer's management team and ship's staff. This vessel can accommodate up to a total of 200 persons in cabins and public spaces of the highest standard. The living accommodation can be configured to client's requirement, depending on overall number of persons required onboard.

**Main principles of the vessel are:**

LOA	145.90m
LBP	133.80m
Beam (moulded)	27.00m
Depth (moulded)	11.30m
Draught (design)	7.50m
Trial speed	14.50 knots
Deadweight approx.	9,450 tonnes
Accommodation	200 persons

**Notations:**

DNV +1A1, SF, DYNPOS AUTRO and DYNPOS ER, EO, DK(+), CLEAN DESIGN, COMF-V(3) C(3), FIFI-II, NAUT-OSV (A), ICE-1C, DSV-SAT, DSV-SURFACE, HELDK-SH(CAA-N), BIS, SPS, SHIP SHAPED OFFSHORE SUPPORT UNIT, OFFSHORE SERVICE VESSEL +, BWMT, RECYCLABLE, SUPPLY VESSEL (Hull Only), and in compliance with MODU Code and MOU Regulations.

This order demonstrates Toisa's continuing commitment to the future of front-rank Saturation Diving/ Construction vessels and in so doing, will increase to four the number of modern DSV's with integral saturation dive systems, within the existing 27 strong Toisa OSV fleet. It is recognised that the present world-wide dive support vessel fleet is an aging one and this state of the art vessel is designed to anticipate future market needs.