

OSD-IMT develops range of windfarm vessel designs



Based on the outcome of four years of extensive discussions with wind farm developers, operators and maintenance companies, OSD-IMT has developed a range of innovative new designs of offshore wind farm service operation vessels (SOV's). These designs fulfill the operational demands of the wind farm maintenance industry and can also provide logistics support services to transformer platforms.

One of these designs, the 1,350 dwt IMT972 SOV, is powered by two Steerprop SP25 or equal 1900 kW fixed pitch azimuth propulsion units. There is also an option for fitting two 2.5 MW Voith Turbo main thrusters. Frequency-controlled electric motor-driven CPP thruster units are fitted forward, comprising two tunnel-type bow thrusters and one retractable bow thruster for station-keeping and high-dynamic performance under maneuvering or DP conditions. The IMT972 has a LOA of 72.20 m and conforms to the Clean Design

classification requirements of DNV for wind farm service operation vessels. It can provide accommodation for up to 60 persons, including 22 crew, and is able to operate for 30 to 45 days on station, and longer if replenished at sea.

The main features of the IMT972 include a heave-compensated turbine platform, aluminium access gangway arranged with a telescopic frame which facilitates the transfer of equipment to the platform. A back-up evacuation process is arranged by utilizing the workboat to transfer technicians from the turbine access ladder in an emergency.

The vessel has a small pallet lift and conveyor lift system for the loading and transfer of stores and spares, with access to/from a heated under-deck workshop and stores area. A mono-hull workboat is fitted with a heave-compensated single point lift davit for general wind turbine work duties as well as for emergency evacuation of technicians. There are two boat-landing areas, one

starboard and one at the stern of the vessel. There is a large deck area arranged for additional equipment or the retro-fitting of an ROV system for turbine tower or seabed inspection.

The IMT972 has an electro-hydraulic 1.0 tonne SWL motion-compensated folding jib crane fitted on a pedestal on the main deck aft of the access gangway tower. It accesses the wind tower platform when the gangway is stowed and can also work over the stern, deck area or ship's side.

The air-conditioned crew facilities include a mess room and recreation room. All accommodation will be fitted with an electronic identity access system, similar to the system used on passenger ships, to help locate personnel at any time.

In addition to its role as a wind farm maintenance SOV, the IMT972 can be used as standby rescue vessel, command/control vessel, survey vessel and ROV support vessel.

SPO has designs on continuing offshore support excellence



Artist impression IMT984

Wire Pacific Offshore (SPO) is a leading global service provider to the offshore oil and gas industry. It currently owns and operates 84 offshore support vessels. By 2015 the company will have a total of 100 vessels in its fleet and 34 of them are designed in co-operation with OSD-IMT.

Headquartered in Singapore, with regional controlling offices in Brazil, Australia, Cameroon and the United Arab Emirates, as well as agent offices in other locations, SPO is well placed to operate vessels in virtually every major oil exploration region in the world. It aims to offer a one-stop solution to meet the diverse needs of its clients.

SPO currently has ten high-specification IMT984 4000 dwt PSVs designed by OSD-IMT on order with Japan Marine United Corporation (JMU) in Japan. David Marren, SPO Technical Director, says, "The first of these vessels, designated as our 'G Class', will be delivered, on time, in August 2014, with the other deliveries scheduled to follow at regular intervals until December 2015. These vessels are designed to reflect the changing needs of the industry and they form an integral part of SPO's continuing fleet growth and rebalance." Other ongoing

projects include four IMT 997 5,000 dwt PSVs being built in Japan and four IMT997 PSVs building in Brazil.

SPO has progressively expanded its range of services and provides its clients with a broad product offering, delivered consistently to a common high standard. The businesses within the SPO group are able to provide seismic survey support, marine salvage, oil spill preparedness and emergency response, offshore windfarm installation and

decommissioning, subsea and ROV services, as well as integrated logistics solutions.

The majority of the SPO fleet is equipped with dynamic positioning systems (DP1 or DP2). Types of vessels owned include Anchor Handling Tug Supply (AHTS) vessels, Platform Supply Vessels (PSV), Ice-breaking Supply Vessels (IBSV), Anchor Handling Tugs (AHT), Seismic Survey Vessels and other specialised workboats.

David Marren says, "The offshore sector is one of the better performing parts of the marine industry at present and, after a slowdown in the immediate aftermath of the global financial crisis, it is growing steadily again. New vessels continue to be commissioned to replace older units but it is important that the growth is sustainable and that supply and demand are kept in balance. There are always new frontiers to conquer, new services to provide, but they need to be handled cautiously and responsibly."



David Marren

David identifies particular areas of potential expansion for SPO as its fledgling subsea inspection, maintenance and repair (IMR) business, and harsh environment operations. "We operate on a worldwide basis," he says,

“with the exception of the Gulf of Mexico, so we are ideally positioned to pursue our involvement in a wide range of activities across the globe.”

David also highlights the company’s recent entry into the renewable energy sector. Currently, SPO has two windfarm installation vessels in its fleet. At a massive length of 161 metres, with a capacity to carry and install up to 12 units of a 3.6 MW design, they are amongst the world’s largest structures for the installation of Wind Turbine Generators (WTGs). With the vessels also having demonstrated suitability for oil and gas platform decommissioning, David can see a potential for growth in SPO’s service offering here.

SPO’s stated commitment is to ‘excellence in marine services – excellence in every operation, every time, everywhere.’ It recognises that its employees are central to the company’s ability to deliver on this promise, and has invested heavily in a state-of-the-art global training centre, Swire Marine Training Centre (SMTC) in Singapore. The centre is well-equipped with highly sophisticated facilities and simulators and is used for ongoing training for seagoing SPO employees to ensure that the company has the best anchor-handlers, DP officers, and engineers. David says, “Finding good

engineers, both ashore and afloat, is an ongoing challenge for us. Vessels are becoming more complex, so the demands on engineering employees are increasing. But with our emphasis on ongoing education, training and competence management, we are confident that this is a challenge we can meet.”

OSD-IMT is currently the only ship designer that SPO is working with. David says, “Working with OSD-IMT is a very pleasurable experience. They are very accommodating, open, honest, easy to work with, and very receptive to owners’ needs. Typically, we will provide a broad-brush outline of our requirements and, following discussions, OSD-IMT will produce the drawings which will eventually form the basis of the ship design.

“OSD-IMT is an ideal partner for us, because we have a very effective and balanced relationship and our skills are complementary. We believe in building long-term partnerships with people who share our commitment to deliver excellence in marine services. We trust them to get the design right, whereafter it is our responsibility to see that the vessel meets the functional operational requirements of the market. We look forward to continuing to work with OSD-IMT in a robust and challenging partnership that will be mutually rewarding.”



One of four IMT997's that are being built at the yard in Japan

RIPPLES

What else is making waves in the industry

New deliveries in China



Pictured in the water at the Wuxi shipyard in China are two OSD-designed IMT949, 105-ton bollard pull ASD anchor-handling/offshore support vessels, and two new Azistern 3360 tugs for POET (Pacific Offshore Engineering & Trading Pte Ltd) of Singapore. POET will build two more vessels according to this design in 2014.



Boskalis takes delivery of multipurpose duo



Pictured are two diesel-electric multipurpose vessels which entered service recently for Royal Dutch Boskalis. The NDURANCE and the NDEAVOR were built by Samsung C&T Corporation - ZPMC - Shanghai Zhenhua Heavy Industries Co Ltd. Starting from a Smit Engineering Concept, OSD-IMT developed the Basic Design with Boskalis, and carried out the model testing programme as well as the noise and vibration and intact and damaged stability analyses. OSD-Shanghai assisted the shipyard with detailed design input and with the general day-to-day building process.

Designed for life

L in Liang is a project manager and naval architect with OSD in Shanghai, China. He is known to everybody as 'Lucky', which is a good nickname to have. Lucky says, "In English, 'lucky' means 'fortunate', and it sounds good in Chinese, too. It also describes my outlook and my faith. I think everybody likes it."

Lucky was born in a small town in Lian Yun Gang, in Jiangsu province. He says, "My home was very close to the sea, which means that I got the chance to see lots of big ships when I was growing up. This fired my imagination, and helped nurture my interest in the shipping industry."

Lucky studied shipbuilding and design at Shanghai Marine University. He gets a lot of satisfaction from his job at OSD. He says, "I carry out detailed drawings of hull forms. I really enjoy my work. For the most part we are following good basic designs from OSD in the Netherlands and in the UK. Although we may have to factor in requests for modifications from the client

during the production process, I am able to communicate with both the client and with OSD head office on a regular basis to make sure that we solve any problems. At the end of the day, we deliver to the client a high-quality product which is a source of pride and satisfaction to everybody."

Lucky really enjoys his work. He says, "I love this job. There is a great feeling of friendship among the workforce, which extends into our daily lives. We work together like a family. Some of my colleagues are very experienced, and I have a great opportunity to learn from them. Our department leader, Andy Wu, is a good example of that. He has a wealth of knowledge and experience of the offshore support vessel design sector. Also, OSD is always producing new designs, so we all have the chance to learn on a regular basis, which is a good thing."

As part of his job, Lucky gets to visit shipyards in the area to perform trouble-shooting tasks and carry out various tests. As yet, he hasn't had the opportunity to sail in any of the

boats he has helped design, but he is looking forward to the day when he does. He says, "The feeling would be perfect!"

Lucky and his family live in Kun Shan City, and have a four-month-old son. When Lucky isn't working, he loves to cook and read, although not normally at the same time. He admits, "I love to get up a little later at weekends, maybe watch an NBA game on the television, and cook meals with my family. Sometimes we watch new movies at the theatre. It's a good life. I'm lucky"



Lin Liang 'Lucky'

Bourbon takes fourth of six IMT952s

Grandweld Shipyards recently completed delivery of the OSD-designed Bourbon Grebe, the fourth Hybrid Seismic Support Vessel type IMT952 in a series of six for Bourbon Offshore. The vessel will be operated by CGG to assist in seismic operations such as chasing, towing, storage and transport of offshore supplies and crew. The sister vessels Bourbon Petrel, Bourbon Fulmar and Bourbon Gannet are already in service in Europe. These highly innovative vessels set high market standards for efficiency and operational excellence.



IMT952 Bourbon Petrel

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