

High specification 'Bibby Tethra' fills the hydrographic survey gaps

Osiris Projects has taken delivery of its latest specialist survey vessel, *Bibby Tethra*, a high specification survey catamaran operated under the UK Maritime and Coastguard Agency's (MCA) Small Commercial Vessel Code.

It brings all the operational cost savings this affords, but will comfortably work with a full geophysical, geotechnical, environmental, ROV/Diver or AUV capability up to 150 miles from a safe haven. Significant economic and environmental advantages come from the vessel's low fuel consumption; it has a dual propulsion system which allows for a relatively fast transit to remote sites but an exceptionally economical solution to slow speed work, whereby diesel-electric power allows the entire vessel to run from a single generator.

Wirral UK based Osiris Projects is a nearshore survey contractor with extensive experience of working in the UK/European oil and gas sector but is perhaps unique in having also worked on the majority of UK Round 1 and 2 offshore wind farm sites. As well as offshore wind developments, Osiris Projects has also undertaken numerous wave and tidal site surveys.

The company is expanding its fleet with *Bibby Tethra*, a 27.5m LOA DP equipped SWATH (Small Waterplane Area Twin Hull) multi-role catamaran designed to fill the gap between smaller inshore and coastal vessels and larger, more costly offshore vessels.

The vessel's aluminium hull was built at the Socarenam Shipyard at

'Bibby Tethra' is designed to fill the gap between smaller inshore and coastal vessels and larger, more costly offshore vessels.



St Malo in France then towed to the Socarenam yard at Boulogne where it was fitted out. Construction work commenced in February 2010 following a protracted two year planning and financing stage which was initially dogged by funding issues caused by the global banking crisis.

Osiris Projects moved away from traditional financing and agreed a deal with Bibby Maritime Ltd, part of the globally operating shipping company Bibby Line Group, based on its doorstep in Liverpool. As a result, Osiris took delivery of the unique and complex vessel less than 16 months after signing an agreement with Bibby.

The vessel's hull design is based upon the SWATH concept, where the hull's main buoyancy is positioned well below the water line. The surface area of the ship's hull, close to and at the water line, is significantly reduced when compared to a conventional hull form, which means that passing waves have a significantly reduced effect on lifting the hull. This has a dramatic effect on minimising the vessel's heave, pitch and roll motions and delivers a stability profile similar to that of a conventional monohull vessel over twice the size.

Built to Bureau Veritas (BV) Class rules, *Bibby Tethra* is fitted with a comprehensive range of safety,

life saving and communications equipment that surpasses the requirements of current legislation.

The vessel provides efficient 24 hour operational capacity with up to sixteen personnel onboard, having a maximum duration of fourteen days. The accommodation is arranged into four en-suite twin cabins on the main deck and four twin cabins on the lower deck, two in each hull, with shared bathroom facilities. All accommodation areas within the vessel are air conditioned, with the bridge and survey laboratories benefitting from a dedicated cooling plant due to the large amount of window area.

The vessel's bridge is equipped to an exceptionally high standard with the very latest in navigation electronics, including ECDIS and a bespoke dynamic positioning system (DP1) certified by BV (AM/AT Standard).

Motion referencing for both survey and DP operations is provided by a pair of Ixsea high precision motion reference units (MRU). The very latest Ixsea HYDRINS inertial navigation system provides primary data for the survey sensors and a fourth generation Octans fibre optic gyro and MRU provides primary data to the DP processor. Both units act as secondary output/ backup to each other and each carries IMO

wheelmark approval.

The bridge also houses both the on-line and off-line survey laboratories and is configured with easy access to the rear upper deck and handling equipment with remote control of sonar winches. Multiple monitors at each work station allow data display to be configured to suit various applications. The main helm/operator station has direct communication with the survey room and survey navigation displays are repeated on the bridge.

Deck equipment includes a large hydraulic 'A' frame with 8 ton safe working load, a 2m by 2m moon pool, an 18t/m knuckleboom crane, container fixing points and twin sonar wells in each hull to enable through hull deployment of USBL and pinger sub-bottom profiler.

The vessel is permanently fitted with the latest hydro survey equipment, with a suite of high resolution sensors including a keel mounted dual frequency RESON 7125 SV2 multi-beam.

Bibby Tethra is fitted with a series of GPS receivers, the primary survey receiver being a C&C Technologies C-Nav 3050 RTK enabled for precision position fixing and real time vertical reduction. The latest version of QPS Qinsky survey software provides full integration of the various survey sensors, including automated line keeping via the DP system or autopilot.

Bibby Tethra began its working life conducting ROV inspections of oil and gas pipelines in the Irish Sea. This new vessel will bring further opportunities for Osiris Projects in the oil and gas markets as well as the forthcoming Round 3 offshore wind sector. However, the company is keen to ensure it does not lose focus on the already significant volumes of work being generated from Round 1 and 2 sites.



The vessel's bridge is equipped to an exceptionally high standard with the very latest in navigation electronics.



Deck equipment includes a large hydraulic 'A' frame with 8 ton safe working load, a 2m by 2m moon pool, an 18 t/m knuckleboom crane, container fixing points and twin sonar wells in each hull.