

Industry Sector Industry Solutions Division

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Siemens supplies electric-propulsion and automation package for two deep-sea survey vessels

Siemens Marine Solutions has received an order from China Oilfield Services Limited (COSL) to equip two special deep-sea vessels with propulsion equipment and integrated automation and control systems. The new vessels – one will be used for deepwater seismic research and the other for engineering surveys – will enhance COSL's working capabilities in waters of up to 3,000 meters in depth. The order is worth about €25 million. Delivery of both vessels is scheduled for the middle of 2011.

China Oilfield Services Limited is part of China National Offshore Oil Corporation (CNOOC), a leading provider of integrated oilfield services for the offshore market. Up to now, COSL's focus was on exploration activities in coastal waters. With the new vessels, the company will extend its working capability to deep-sea activities.

The seismic research vessel will boast all-welded and double-hull steel construction, and will be one of the largest of its kind with an electrical propulsion system. It is designed to tow a total of 12 streamer cables, each 8,000 meters in length. By organizing the streamers 100 meters apart from one another, the ship's overall operating width will extend to 1,200 meters. Operating a vessel under towing mode puts a high amount of strain on the drive and control technology. For this reason, the vessel is equipped with twin diesel-electric, variable-speed propulsion systems from Siemens, which enable exact dosing of the propulsion speed – even at high towing forces. Two sets of controllable pitch propellers and two streamlined hanging flap rudders arranged in the stern ensure precise control. One set of bow thrusters and one set of retractable azimuth thrusters will be arranged in the fore part of the vessel. Further advantages of the electrical drive system in comparison to conventional drives are lower noise levels and better fuel consumption.

The main activities of the deepwater engineering vessel will be geophysical and seismic surveys, seabed sampling and operation of remote operating vehicles. The vessel will have an all-welded and double-hull steel construction and will also be equipped with electrical propulsion from Siemens. Two sets of azimuth propulsion propellers are in the stern, and two sets of bow tunnel thrusters and one set of retractable azimuth thrusters are arranged in the fore part of the vessel.

Siemens is also delivering the main switchboard and power-management system, and is also responsible for system engineering and project management. The automation system Siship Imac will take care of all on-board control, monitoring and alarm tasks. All of the employed systems and components are part of the Siship solution platform for civil ships. This means that both research vessels have an overall integrated solution, which offers a high degree of reliability, availability and stability. Even after delivery, Siemens will be able to provide comprehensive support as part of its life-cycle management program.

Further information on solutions for merchant shipping and the navy at:

<http://www.siemens.com/marine>

A photo supplements this press release. Please see:

<http://www.industry.siemens.com/data/presse/pics/IIS200903556.jpg>



The new seismic survey vessel of China Oilfield Services Ltd, (COSL) will be equipped with an electric propulsion package from Siemens (Picture: COSL).

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