The Siemens-Schottel-Propulsor (SSP): a diesel-electric, podded propulsion system enhances maneuverability and is easily integrated into a vessel

The electric, azimuthing SSP solution is a joint development by SCHOTTEL GmbH and Siemens Marine Solutions. It combines SCHOTTEL’s mechanical and hydrodynamic expertise and the drive technology of a permanently excited Siemens motor. This efficient and flexible propulsor can be optimally integrated and is ideal for vessels that have to be highly maneuverable and need an easy to use, space-saving solution – such as ferries, landing boats, cruise liners and special vessels.

The SSP is driven by a highly efficient, podded, permanently excited motor, which is cooled by the surrounding seawater and has a slender and hydrodynamic optimized design. These qualities are enhanced by the patented twin-propeller concept, in which the propellers are mounted on the motor shaft, and rotate in the same direction, one at each end of the pod. This combines the advantages of a twin-propeller arrangement with a simple and rugged design. The SSP can be rotated through full 360 degrees, which significantly improves the vessel’s maneuverability, especially at low speeds.

The SSP is a podded propulsion system in which an electric motor, mounted in a pod below the vessel, drives the propellers directly. As the podded propulsor is freely rotatable, it can also act as a rudder, so making a vessel extremely maneuverable, even at low speeds, such as in harbor. The heart of the podded propulsion system is a permanently excited motor, which runs without needing a complex external cooling system. The special magnets mounted in the rotor of this permanent magnet motor not only enable an extremely high torque keeping the diameter low but also avoid rotor losses. The compact, hydrodynamically efficient design and the twin-propeller principle
combined with an optimized vessel design constitute a highly efficient propulsion system. As the motor is mounted outside the vessel, considerably less space is required inside the vessel in comparison to conventional propulsion systems. Added to which, the generator sets can be freely positioned to make better use of the available space. These advantageous arrangements free up considerably more space for cargo or passengers.

Further information about solutions for merchant vessels and marine can be found at:
http://www.siemens.com/marine

This press release is accompanied by a photo. You will find the photo in the Internet at:
http://www.industry.siemens.com/data/presse/pics/IIS201009679.jpg

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