Completely Integrated Solutions for Vessels

SISHIP^{CIS} SSP

High-performance outboard motors for commercial vessels

Your Success is Our Goal

SIEMENS

Industrial Solutions and Services

The SSP consortium, a cooperation between Siemens and SCHOTTEL Antriebstechnik in Wismar, has developed a rotatable podded azimuthing diesel-electric propulsion system with a performance range of between 5 to 10 MW per unit. Thanks to its outstanding hydrodynamic design and its permanently excited synchronous motor, the SSP drive operates considerably more efficiently than a conventional diesel direct drive or azimuth thruster. The enormous performance and its excellent maneuverability make the SISHIP^{CIS} SSP an attractive, cost-effective drive solution.

SISHIP^{CIS} SSP – less than ever before

New demands in commercial shipbuilding such as the expansion of cargo or passenger space, as well as more stringent environmental regulations, necessitate the replacement of conventional diesel-mechanical motors with more efficient alternative systems for certain types of vessels. Modern drive solutions should require little maintenance with almost unlimited maneuverability and automatic positioning, offer a high degree of efficiency and also comply with increased safety standards.

The advantages of SISHIP^{CIS} SSP at a glance

- **Higher degree of efficiency**
- **Elimination of rudders, crankshafts, bossings, etc.**
- **Saves space by elimination of cooling elements**
- **More design flexibility of the ship's stern and engine room**
- **More passenger/cargo space**
- **Modular design**
- **Excellent maneuverability, especially at low speeds, without additional stern thrusters**
- **Safer voyage through minimized crash-stop time**
- **Low noise and vibration levels**
- **Simple design with fewer components lowers maintenance costs**

SISHIP^{CIS} SSP – our solution in detail

Maneuverable, fully rotational single-propeller outboard systems are available with mechanical power transmission of up to 8 MW and electrical power transmission of up to 20 MW per unit. The efficiency of these drive systems corresponds with that of conventional crankshaft systems.

The higher performance of the SSP drive is the result of a combination of dual-propeller technology with a hydro-dynamically optimized drive module and a permanently excited motor.

Two triple-blade propellers are set in motion by a mutual crankshaft, rotate in the same direction and are mounted at the front and rear of the drive module. The advantage: the load is optimally divided between the two propellers. The two fins located between the propellers additionally increase their efficiency.

The newly developed, permanently excited synchronized motor is smaller in diameter than conventional electrically excited synchronized systems, and is also considerably lighter. As a result, it is possible to decrease the diameter of the drive module in which the motor is housed. Given that the motor is neither electrically excited nor requires any external air ventilation system, its performance is enhanced by an additional 2%.

SISHIP^{CIS} – Completely Integrated Solutions for Vessels

As a comprehensive industry-specific solution for seagoing vessels, our SISHIP^{CIS} product family integrates all the products and services you need for sustained maximization of your ship's performance.

For each particular task, a solution has been defined that

- **horizontally** improves all of your ship's operations
- **vertically** integrates the ship's information and security management end-to-end, helping to make better-founded decisions
- and, at the same time, is designed for optimal vessel specific maintenance and comes with assured further development **over the whole life cycle.**

Due to this unique combination of horizontal, vertical and life cycle dimensions, our solutions all carry the genes of an exhaustive and sustained plant productivity in their very core.

For More Efficiency. More Performance. More Power. Completely Integrated Solutions from Siemens.

Space-saving and flexible

SISHIP^{CIS} SSP diesel-electric, rotatable "outboard motors" are particularly well suited for ships requiring a high level of performance and maneuverability: cruise ships, large ferries and passenger ships, mid-sized transport ships, tankers, icebreakers, naval ships, etc.

The electrical properties of the permanently excited motor resemble those of a conventional synchronized motor, and can therefore be integrated without limitations in conventional drive systems. In the process, the higher level of availability of the diesel-electric outboard motors also leads to a marked increase in operational reliability.

No other type of drive system offers comparable flexibility in the design of the hull and engine room as the rotatable diesel-electric propulsion system. The space saved with the drive system can be utilized to increase cargo and passenger space, or for more compact ship design.

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