

Enabling luxury and relaxation—for captains and passengers

RESULTS

- Ensured easier and safer navigating, docking, and departing
- Accommodated captain's experience, use of decks, weather, and visibility
- Simplified system installation and commissioning with modular components
- Accelerated time-to-market with compatible components and open interfaces for motor suppliers



APPLICATION

Power yachts

CUSTOMER

Sunseeker International Ltd., Poole, UK.

CHALLENGE

Founded in 1969, Sunseeker International equates to luxury performance power yachts. The company stands for style, exceptional craftsmanship, and meticulous attention to detail. The 76 Yacht is a true Sunseeker, setting benchmarks in its class. Lounge seats, cocktail bars, or a mini beach club with BBQ and rainfall shower—this exclusive motorboat makes wishes come true. But the spacious three decks with countless options for customization and design offering pure relaxation at sea wasn't enough for Sunseeker. They wanted a joystick that makes controlling and maneuvering the luxury 76 Yacht a smooth experience.

SOLUTION

In line with the exclusive requests of its customers, Sunseeker equipped the 76 Yacht with the AVENTICS™ Marex 3D remote control and joystick systems from Emerson. The technology provides simpler, safer navigating, docking, and departing. It also allows captains with different skill levels and experience to maneuver the mega yacht—even in tight slips—without worrying about having an accident.

The Emerson technology allows for up to six joysticks so the yacht can be controlled from various locations onboard. With the 76 Yacht measuring just under 24 meters, Sunseeker opted for three joysticks for the bridge, flybridge, and quarterdeck. Captains can choose which joystick to use based on their personal experience, use of decks, and current weather and visibility.

“Thanks to the sophisticated control technology, the yacht mirrors the movement of the joystick exactly. The AVENTICS' Marex OS 3D joystick on the 76 Yacht is an excellent feature that makes docking so much simpler.”

Nick Lean

Specifications Development Manager at Sunseeker International

Facilitating intuitive operation

The three-axis Marex OS 3D joystick enables intuitive operation without having to coordinate the propulsion elements separately. Based on the specific situation, the captain can choose whether to use the 3D mode—which actuates the main propulsion drives and bow and stern thrusters centrally—or to control only the thruster with the joystick in thruster mode.

Convenient, secure maneuvering at the tap of a finger can be attributed to a proven control concept. The individual components of the AVENTICS Marex OS 3D can be combined based on the application and desired equipment. From the modern, ergonomic joystick to the preassembled cables connecting modules to the main computer via CAN bus, Emerson's Marine Technology experts perfectly matched all technical elements.

Simplifying docking

The heart of the system is vector controlled using a marine propulsion controller. The MPC 3D processes the commands received by the joystick, calculating vectors that are required to control the main propulsion and thruster. In combination with an electronic compass, this technology makes maneuvering more manageable, even when facing strong side winds or currents. Adverse weather conditions are no problem for the system due to its automatic heading compensation function, enabling effortless, on the spot lateral and diagonal movements using the joystick.

"Thanks to the sophisticated control technology, the yacht mirrors the movement of the joystick exactly," says Nick Lean, Specifications Development Manager at Sunseeker. "The AVENTICS' Marex OS 3D joystick on the 76 Yacht is an excellent feature that makes docking so much simpler."

PME Group Limited, the local Emerson partner for marine technology, delivered and commissioned the Marex OS 3D. The joystick is just one of the components Emerson offers for the decentralized automation of ship controls. The modular concept includes a range of inter-compatible parts, providing open interfaces for motor suppliers, simplifying system installation and commissioning, and enabling a faster time-to-market.

"The entire electrical control forms a powerful unit, ensuring all components are perfectly compatible."

Nick Lean

Specifications Development Manager at Sunseeker International

Proven system technology from a single source

Along with the joystick system, Sunseeker also uses the Marex OS III remote control system for the adjustable propeller, jet propulsion, and reversing gear. Used on various mega and superyachts for years, it provides efficient, safe, and simple control of propulsion systems. Used for a wide range of applications, Marex systems have established their place on premium yachts due to their modern design combined with ease of use.

Also, Sunseeker's motor supplier has integrated the AVENTICS Marex OS III ship control into its system, simplifying and accelerating production at the Poole boatyard. With Sunseeker building approximately 170 exclusive motor yachts—ranging from 16 to 47 meters—each year with exceptional craftsmanship and meticulous attention to detail, having suppliers offering seamlessly integrated ship control and the joystick systems is a significant advantage for the company.

The hardware consists of only a few modular units with software preconfigured at the factory, meaning it can be installed quickly and easily. The control uses a self-monitored CAN bus for each of the maximum five parallel powertrains, significantly increasing the system's reliability. Moreover, Marex OS III doesn't require any project-based programming. All that Sunseeker needs to do is configure the controls for each yacht, set a few customer-specific parameters, and add required functions using the integrated PLC.

"The entire electrical control forms a powerful unit, ensuring all components are perfectly compatible," summarizes Lean.

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