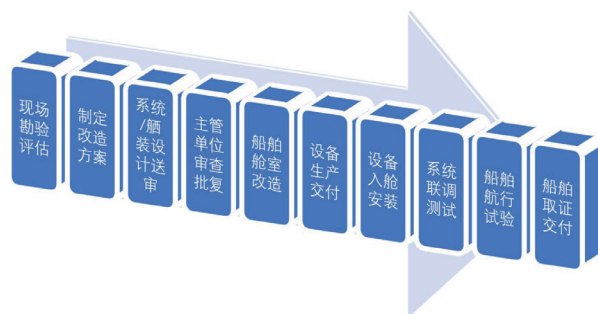


Electric retrofitting of ships and boats

Electric retrofitting of ships and boats

► System overview

The transformation from traditional fuel-powered ships/boats to electric ones has become a future development trend. Guorui Technology's electric retrofitting services for ships/boats are tailored to various vessel types and existing power systems. With "safety, efficiency, economy, and intelligence" as the core principles, Guorui Technology offers customized electric retrofitting services for ships ranging from small and medium-sized ships/boats to ten-thousand-ton ships.



► Advantages and characteristics

Environmental protection and energy conservation: By utilizing high-efficiency battery packs and cutting-edge motor technology, carbon emissions are significantly reduced;

High performance: The custom-designed propulsion system ensures strong power and meets the needs of different ship types;

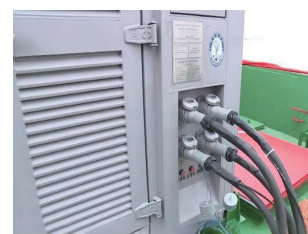
Low maintenance cost: Compared to traditional internal combustion engines, electric systems have fewer moving parts, reducing maintenance needs and costs;

Intelligent control: intelligent management system is integrated to monitor key parameters such as battery status and energy consumption in real time, optimizing energy use efficiency;

Safety and reliability: All components have undergone rigorous testing to ensure stability and safety in various environments.



Battery system (in-cabin)



Battery system (containerized)



Frequency conversion power distribution system



Propulsion motor

► Retrofitting projects and procedures

The retrofitting of the new energy power system primarily involves replacing the original ship's main engine, auxiliary engine, main engine remote control system, and power distribution system with a battery system, propulsion motor, frequency conversion control system, and electric propulsion remote control system, etc.

► Full-scenario solution

Inland river shipping scenario: Pure electric drive, and photovoltaic assistance

Offshore transportation scenario: Hybrid power architecture, enabling "extended-range" operation

Tourism passenger transportation scenario: zero-emission and silent operation, intelligent control



Driving control system