

Shanghai Singhai Training Center Assists MISC Marine in Successfully Completing the Fourth Phase of Steam-to-Internal Combustion Engine Management and Operation Training

On June 19, the fourth phase of MISC Marine 's Steam-to-Internal Combustion Engine Management and Operation Training was successfully completed in Shanghai. Jointly organized by Shanghai Singhai Training Center, Shanghai Maritime University, and Shanghai Transport Vocational and Technical Training Center, the training aimed to help six Malaysian seafarers from MISC Marine complete their technical transition from traditional steam power systems to modern marine internal combustion engines.



As the global shipping industry undergoes power system upgrades, updating the knowledge structure of crew members has become a focal point for the industry. This training programme was tailor-made for the foreign senior officers selected by MISC Marine, with the course design closely focused on the management and hands-on operation of modern ship main power plants. The training content deeply integrated the latest technological trends of mainstream two-stroke low-speed engines and four-stroke medium- and high-speed engines, covering a full spectrum of skill reshaping from theoretical understanding to fault diagnosis.

During the training, the participants made full use of the full-mission engine room simulator to conduct high-intensity emergency fault response drills, with practical exercises focusing on critical scenarios such as main engine remote control system failure, automatic deceleration and shutdown during navigation, and complete

blackout of the vessel. In the hands-on dismantling and assembly workshop, the participants carried out in-depth disassembly and inspection of two-stroke and four-stroke diesel engines, including components such as exhaust valves, cylinder heads, piston assemblies, fuel injection systems, and turbochargers. Through practical disassembly, reassembly, measurement, and calibration, they effectively mastered the essentials of modern internal combustion engine maintenance. In addition, the course specially included theoretical sessions and video explanations on the latest market-available internal combustion engine types, and in a real automated engine room, each participant performed on-site operations, ensuring they are competent in the daily management of new electronically controlled fuel injection engine models.



The smooth implementation of this training was made possible by the strong support of all collaborating partners. Singhai Marine sincerely thanks the Shanghai Maritime Safety Administration, Shanghai Maritime University, and Shanghai Transport Vocational and Technical Training Center for their professional support and close collaboration in instructor allocation, venue provision, and course coordination. The joint participation of trainers and experts from all parties ensured the cutting-edge and practical nature of the training content, forming the crucial foundation of this government-enterprise-university collaborative talent cultivation model. This training is also a practical exploration by Singhai Marine as it actively responds to the national strategy of building a strong maritime country and the requirements of Shanghai as an international shipping centre, proactively aligning with the forefront of international maritime technology development, and carrying out high-end customized training by integrating cross-sector professional resources. The project aims to provide talent support for the transformation and development of the international shipping industry and to accumulate sustainable collaborative training experience for deepening international maritime cooperation under the framework of the Belt and Road Initiative.

