



Master the core technology of ME engine and improve your professional competitiveness

Why choose our courses? Why choose our courses? Comprehensive and practical knowledge of ME engine operation and maintenance. Through this course, you will be able to:

- In-depth understanding of the working principles and control systems of ME engine.
- Acquire the skills to operate ME engines in a variety of situations.
- Learn how to perform effective troubleshooting and engine maintenance.
- Build your skills and confidence through practical exercises.

Invest in your future Hold Invest in your ME engine training course is not only to improve your skills, but also to invest in your future. Here, you will get:

- The most systematic theoretical knowledge learning, say goodbye to fragmented, scattered and invalid knowledge.
- Industry-leading latest technology and service experience sharing .
- Opportunities to network with peers and expand your professional network and connections .
- Authoritative, industry-recognized training certificates to enhance your resume.

Career Development After completing this course, you will be more confident in facing challenges at work, whether in daily operations or complex maintenance tasks. Your enhanced skills will open up more career opportunities for you, including:

• Senior positions in the field of ME engines operations and maintenance.



- Opportunities to work in two-stroke engine manufacturing, sales, service and other related companies around the world .
- We must be adequately prepared to embrace the shipping energy transformation and the arrival of green shipping.
- Participate in larger, more complex projects to increase the breadth and redundancy of your career options .

🝾 Course highlights: 🝾

- **Comprehensive coverage:** From basic theory to troubleshooting, enhance your skills on all fronts.
- **Practical exercises:** Practical exercises are carried out through advanced engine simulators to simulate real working environments.
- **Detailed syllabus:** Contains more than 10 subject blocks , each with a unique course, ensuring you fully master the key skills.
- **Expert teaching:** Experienced industry experts will teach in person to ensure teaching quality.
- **Interactive learning:** Rich discussions and group collaboration promote the absorption and application of knowledge.

1 Detailed course contents **1**

1. ME engine introduction :

- A basic introduction before the course begins, including the history and evolution of the ME engine , the latest design , etc.
- Compare the ME and MC/MC-C engines, and focus on the advantages and innovations of the electro-hydraulic control system.
- Learn the basics of the ME engine, including key components and their functions.

2. ME Engine Control System (ECS) :

- An in-depth look at the electronic control systems of the ME engine, including the Multi-Purpose Controller (MPC).
- Learn the components of the new hardware platform Triton controller of ME ECS, product features, comparison with MPC, and precautions for daily maintenance.
- Learn the architecture of the control network, its working principle, different fault types, and understand the use of the Main Operation Panel (MOP) and Local Operation Panel (LOP).
- Tacho system: system design and component composition, working principle, functional testing, Fine adjust, and TDC calibration, etc.



3. Replacement of the MPC, Triton controller:

- Learn the procedures and techniques for replacing an MPC, Triton in an engine control system.
- Understand the precautions and common problem solving when replacing MPC or Triton controller.

4. Engine daily operation MOP, LOP :

- Learn in detail the ME engine user interface, including all functions of the MOP and LOP.
- Learn how to monitor engine conditions and adjust engine performance parameters.
- Master the alarm handling and reporting process, and understand the operation of auxiliary systems.
- How to maximize the use of MOP's functions for troubleshooting and functional testing.
- Learn the MOP function of the latest version of ECS software and compare the differences between different versions.

5. Simulator Operations and Group Work:

- Work in groups to perform simulator operations and practice the entire process of starting, running and shutting down the engine.
- Solve problems in theoretical exercises through group discussions and improve teamwork skills.
- Learn how to use the engine manual to solve problems that may be encountered in actual operation.

6. Hydraulic Power Supply system (HPS) :

- Learn the working principles and key components of a Hydraulic Power Supply (HPS).
- $_{\odot}$ Maintenance of the filter unit, Stand-by pumps and engine driven pumps .
- Learn the functions of various safety valves and accumulators, and their importance in hydraulic systems.

7. Hydraulic Cylinder Unit (HCU) :

- Learn in detail the structure, component composition, working principle, functional testing, daily inspection and maintenance of the key components of the Hydraulic Cylinder Unit (HCU) such as FIVA, ELFI, ELVA, cylinder lubricator, accumulator, etc.
- Correct operation of the Cylinder lubrication interface, differences between different versions of the interface, how to optimize Cylinder lubrication in daily work, and how to do the adjustment of the cylinder oil feed rate.



How to check the cylinder conditions and how to ensure good cylinder conditions?
How to check and evaluate the piston ring and cylinder liner conditions?

8. Fuel oil System:

- Learn how a fuel booster works and how it interacts with the hydraulic system.
- Understanding the Fuel Index: how to do the engine fuel index and engine Load adjustment?
- Common failure cases and service experience sharing.

9. Exhaust valve system:

- The working principles of exhaust valve actuators and various exhaust valves , different designs, maintenance requirements, etc.
- How to perform emergency operations on various exhaust valves in emergency situations ?
- Common failure cases and service experience sharing.

10. PMI System:

- Learn the configuration of the PMI system, and understand how to use MOP to analyze engine performance, manually balance engines, and adjust performance parameters.
- $_{\circ}$ How to recalibrate the online sensor and check and confirm its working conditions ?
- How to use the PMI system to perform TDC calibration of the engine?
- Master the PMI Auto-tuning system and learn how to perform Auto-tuning to optimize engine performance.

11. CoCoS-EDS system:

- Learn the configuration, monitoring and fault diagnosis functions of the CoCoS -EDS system .
- Learn how to add or remove required input/output signals to the system and how to generate standard and comprehensive engine performance reports?

12. EMS system:

- Learn the configuration, functions, and component composition of the EMS system.
- Use a professional EMS simulator to practice how to collect and export engine data, back up data, reinstall software, etc.

13. Take an exam :

- Test your knowledge of course contents with the leading cloud-based exam system.
- The questions are designed to cover all the key points of the course: including theoretical knowledge, system principles, daily operations, troubleshooting, etc., to ensure that you can fully apply what you have learned.





14. Completion:

- Summarize the course learning outcomes and fill in the training course evaluation form.
- Provide course feedback and communicate your learning experience with instructors and other students.
- Certificates of completion were issued and group photos were taken.
- Join the technical training exchange group.

o Course Benefits

- Master the core technologies of each system of ME engine
- Improve fault diagnosis and troubleshooting capabilities
- Enhance operational safety and efficiency
- Add highlights to career development
- After passing the assessment, you will receive a professional training certificate.

😔 Suitable for : 🏫

- ME main engine operators: chief engineer, chief engineer, etc.
- Ship-related commissioning, service engineer
- Shipyard commissioning personnel
- Ship management personnel, maintenance personnel, etc.
- ME engine product spare parts, service, technology and other related practitioners

📰 Training time 💷

- Total duration: 3 days
- 8 hours per day, including lectures and practical exercises on simulators, group discussions, and knowledge assessments.

📞 Registration Information 📞

- Course time: [Contact the organizer for specific date]
- Location: [Contact the organizer for specific location]
- Fees: [Please call us for course fees]
- Contact information: [Tel: +86 13512169712 / Email : stonehou@ever-man.cn]

Contact us to sign up now and start your ME engine learning journey! 🚀 🚀

We look forward to your joining us to explore the mystery of marine diesel engines!!