

COURSE OVERVIEW OE0069
Dry-Docking & Under Water Repairs

Course Title

Dry-Docking & Under Water Repairs

Course Date/Venue

Session 1: October 06-10, 2024/TBA Meeting Room, The H Dubai Hotel, Sheikh Zayed Road, Dubai, UAE

Session 2: December 15-19, 2024/TBA Meeting Room, The H Dubai Hotel, Sheikh Zayed Road, Dubai, UAE

Course Reference

OE0069

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Dry-Docking and Underwater Repairs as per Class Requirements. It covers the major classification societies and their role in regulating maritime industry standards; the rules and regulations governing dry-docking procedures as per classification society requirements; the criteria and procedures for in-water surveys in-lieu of dry-docking inspections; the significance of adhering to classification society requirements for vessel maintenance and safety; the principles and techniques involved in welding underwater; the specialized equipment used for underwater welding; the step-by-step process of underwater welding; and the safety protocols and precautions for mitigating risks associated with underwater welding.

Further, the course will also discuss the quality control measures to ensure the integrity and effectiveness of underwater welds; the international and national regulations governing dry-docking and underwater inspections; the specific guidelines and standards set forth by classification societies for vessel maintenance and inspection; the strategies for navigating the complex regulatory landscape to ensure compliance with applicable laws and standards; and the documentation and reporting obligations associated with dry-docking and underwater inspections.

During this interactive course, participants will learn the process of audits and certification by classification societies to verify compliance with regulatory requirements; the maintenance planning and scheduling activities for vessels, considering operational requirements and regulatory obligations; the potential risks and hazards associated with vessel operations; the preventive measures to minimize downtime and maintenance costs; the condition monitoring technologies and techniques to assess the condition of vessel hulls and underwater structures; the maintenance data analysis and decision-making; the best practices in dry-docking preparation; and the continuous improvement in maintenance and repair processes.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on dry docking and underwater repairs as per class requirement
- Discuss the classification society requirements for dry-docking of vessels and underwater inspection requirements of class for in-water surveys in-lieu of dry-docking
- Apply underwater welding procedures for the repair of hull
- Navigate the regulatory landscape governing dry-docking and underwater inspections, ensuring compliance with classification society requirements
- Recognize the technical and safety aspects of underwater welding, including equipment handling, welding techniques, and post-repair testing
- Apply dry-docking preparations and in-water surveys to optimize the maintenance and repair schedules for vessels, enhancing operational efficiency and safety
- Identify major classification societies and their role in regulating maritime industry standards
- Discuss the rules and regulations governing dry-docking procedures as per classification society requirements
- Recognize the criteria and procedures for in-water surveys in-lieu of dry-docking inspections
- Discuss the significance of adhering to classification society requirements for vessel maintenance and safety
- Apply the principles and techniques involved in welding underwater
- Recognize the specialized equipment used for underwater welding including welding machines, electrodes and protective gear
- Employ the step-by-step process of underwater welding including preparation, positioning and execution of welds
- Discuss safety protocols and precautions for mitigating risks associated with underwater welding like electrical hazards and underwater visibility
- Implement quality control measures to ensure the integrity and effectiveness of underwater welds
- Examine the international and national regulations governing dry-docking and underwater inspections including IMO conventions and flag state requirements

- Review the specific guidelines and standards set forth by classification societies for vessel maintenance and inspection
- Develop strategies for navigating the complex regulatory landscape to ensure compliance with applicable laws and standards
- Review the documentation and reporting obligations associated with dry-docking and underwater inspections
- Apply the process of audits and certification by classification societies to verify compliance with regulatory requirements
- Develop a systematic approach to planning and scheduling maintenance activities for vessels, considering operational requirements and regulatory obligations
- Identify potential risks and hazards associated with vessel operations and implement preventive measures to minimize downtime and maintenance costs
- Utilize advanced monitoring technologies and techniques to assess the condition of vessel hulls and underwater structures
- Analyze maintenance data and performance metrics to make informed decisions regarding repair schedules and resource allocation
- Implement best practices for preparing vessels for dry-docking including hull cleaning, inspection and coating application
- Establish a framework for continuous improvement in maintenance and repair processes to enhance operational efficiency and safety standards

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of dry docking and underwater repairs as per class requirements for fleet managers, technical managers, port engineers, ship engineers, marine surveyors, hull inspectors, hull designers, naval architects, dock masters, docking officers, dry dock crew, ship repair yards technical staff, UTM operators and those who are involved or interested in the dry docking of ships and vessels.

Course Fee

US\$ 8,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Captain Sergey Kole, is an **International Expert** in **Port Operations & Logistics Management** with over **25 years** of **onshore** and **offshore** experience within the **Oil & Gas, Petroleum** and **Refinery** industry. His expertise widely covers in the areas of **Dry-Docking & Under Water Repairs, Anatomy of Shipping, Logistics & Transportation Planning** Methods, **Forecasting Logistics Demands, Visual Network Model, Logistics Operations, Tanker Vetting & Inspection, Marine Vetting & Audit Criteria**

Manual for Tank Ships, Marine & Ship Vetting, Vetting Process & Marine Safety Criteria, Tanker Vetting for Terminals, Ship Vetting, Marine Terminal Operations & Management, Marine Hazards Prevention & Control, Marine Communication Systems, Marine Safety, Ship Management, Oil Terminal Planning, Vessels Operations, Terminal Management & Support Operations, Oil Spill Contingency & Emergency Response Plan, Qualitative & Quantitative Risk Assessments, Terminal Planning, Oil Tanker Storage Planning, Cargo Transfer Handling, Loading & Discharging, Ballasting, Tank Cleaning, Crude Oil Washing, Ship Handling, Radar Navigation, Navigational Aids, Meteorological Data Review, Sea & Weather Condition Monitoring, ERT Vessel Coordination and Transport & Distribution Carrier. Further, he is well-versed in **Sea-going Personnel Human Resource Management, Survival Craft & Rescue Boats, Dynamic Positioning, Anti-Piracy Preparedness & Response, Shipping Maintenance System, Oil & Chemical Tanker, Liquefied Gas Tanker, Inert Gas System, Crude Oil Tanker & Gas Carrier, Offshore Logistics & Supply Management, Marine Fleet Management & Operations, International Maritime Conventions & Codes, Marine Radar, Port Traffic Control Systems & Instrumentation, H²S Hazard Awareness, Firefighting, Medical Care Onboard, Carriage of Dangerous & Hazardous Substances and Ballast Water & Sediment Management.**

During his career life, Captain Sergey has gained his technical and marine expertise through various challenging key positions such as being the **Captain, Operations Director, Project Manager, Port Supervisor, Master of General Cargo Ship, Master of Container Ship, Chief Officer, Marine Operations Specialist, Marine Coordinator, On-call Duty Officer, Crewing Consultant, 2nd Officer, Ship Chandler and Senior Instructor/Trainer** for several international companies such as **ZADCO, AMEC Foster Wheeler, Fircroft Engineering Services, Ltd., Rusalina Yacht Company, Van Oord Offshore, Exxon Neftegaz Ltd (ENL), Jr Shipping, Carisbrooke Shipping, Unicorn Petrol ve Kimya, Q Shipping BV, m/v Tradeport, Miedema Shipping CV, Rah Management BV, Petrobulk Maritime Inc., Empross Lines Ship Management, Melcard Ltd., Aquarian Shell Marine Inc., Mercy Baaba and Square Ltd.**

Captain Sergey has a **Bachelor's degree in Navigation in Nautical Studies** from the **Kiev State Academy of Water Transport, Ukraine** and holds a **Master Mariner (Unlimited) Certificates of Equivalent Competency** from the **MCA, UK and NSI, Netherlands.** Further, he is a **Certified Instructor/Trainer, an Approved Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and has delivered various trainings, courses, seminars, workshops and conferences internationally.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to Classification Societies: Overview of Major Classification Societies & Their Role in Regulating Maritime Industry Standards
0930 – 0945	<i>Break</i>
0945 – 1045	Dry-Docking Regulations: Understanding the Rules & Regulations Governing Dry-Docking Procedures as per Classification Society Requirements
1045 – 1145	Underwater Inspection Requirements: Exploring the Criteria & Procedures for In-Water Surveys In-Lieu of Dry-Docking Inspections
1145 – 1230	Importance of Compliance: Discussing the Significance of Adhering to Classification Society Requirements for Vessel Maintenance and Safety
1230 – 1245	<i>Break</i>
1245 – 1420	Case Studies: Analyzing Real-World Examples of Incidents and Consequences Resulting from Non-Compliance with Classification Society Regulations
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	Q&A Session: Addressing Participant Queries and Clarifications Regarding Classification Society Requirements
0830 – 0930	Fundamentals of Underwater Welding: Introduction to the Principles and Techniques Involved in Welding Underwater
0930 – 0945	<i>Break</i>
0945 – 1100	Equipment Overview: Understanding the Specialized Equipment Used for Underwater Welding, including Welding Machines, Electrodes, and Protective Gear
1100 – 1230	Welding Procedures: Exploring the Step-By-Step Process of Underwater Welding, including Preparation, Positioning, and Execution of Welds
1230 – 1245	<i>Break</i>
1245 – 1420	Safety Measures: Discussing Safety Protocols and Precautions for Mitigating Risks Associated with Underwater Welding, Such as Electrical Hazards and Underwater Visibility
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>



Day 3

0730 – 0830	Quality Assurance: Implementing Quality Control Measures to Ensure the Integrity and Effectiveness of Underwater Welds
0830 – 0930	Practical Demonstration: Conducting a Live Demonstration or Simulation of Underwater Welding Techniques for Hands-On Learning
0930 – 0945	Break
0945 – 1100	Regulatory Framework Overview: Examining the International and National Regulations Governing Dry-Docking and Underwater Inspections, including IMO Conventions and Flag State Requirements
1100 – 1230	Class Society Guidelines: Understanding the Specific Guidelines and Standards Set Forth by Classification Societies for Vessel Maintenance and Inspection
1230 – 1245	Break
1245 – 1420	Compliance Strategies: Developing Strategies for Navigating the Complex Regulatory Landscape to Ensure Compliance with Applicable Laws and Standards
1420 – 1430	End of Day Three
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Documentation Requirements: Reviewing the Documentation and Reporting Obligations Associated with Dry-Docking and Underwater Inspections
0830 – 0930	Auditing & Certification: Exploring the Process of Audits and Certification by Classification Societies to Verify Compliance with Regulatory Requirements
0930 – 0945	Break
0945 – 1100	Case Studies: Analyzing Recent Regulatory Developments and Their Implications for Maritime Industry Practices
1100 – 1230	Maintenance Planning: Developing a Systematic Approach to Planning and Scheduling Maintenance Activities for Vessels, Considering Operational Requirements and Regulatory Obligations
1230 – 1245	Break
1245 – 1420	Risk Management: Identifying Potential Risks and Hazards Associated with Vessel Operations and Implementing Preventive Measures to Minimize Downtime and Maintenance Costs
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 4

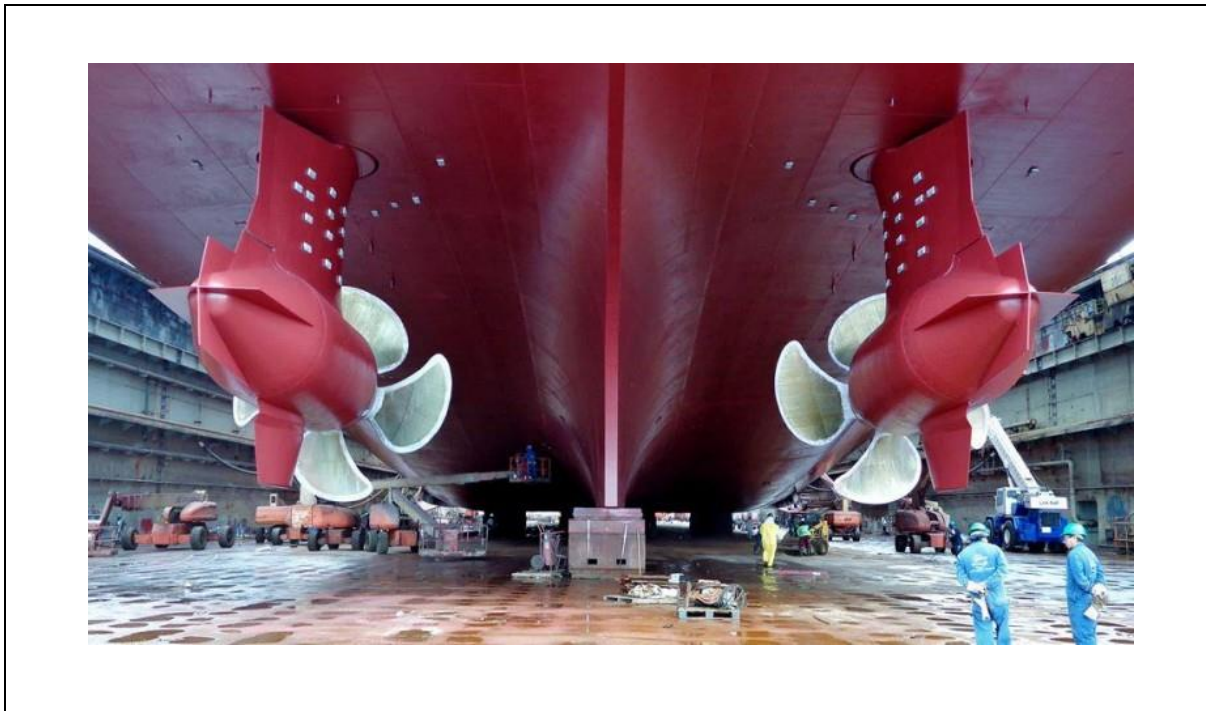
0730 – 0930	Condition Monitoring Techniques: Utilizing Advanced Monitoring Technologies and Techniques to Assess the Condition of Vessel Hulls and Underwater Structures
0930 – 0945	Break
0945 – 1100	Data Analysis & Decision-Making: Analyzing Maintenance Data and Performance Metrics to Make Informed Decisions Regarding Repair Schedules and Resource Allocation
1100 – 1230	Best Practices in Dry-Docking Preparation: Implementing Best Practices for Preparing Vessels for Dry-Docking, including Hull Cleaning, Inspection, and Coating Application
1230 – 1245	Break



1245 - 1345	Continuous Improvement: Establishing a framework for Continuous Improvement in Maintenance and Repair Processes to Enhance Operational Efficiency and Safety Standards
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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