

Innovative Methods of Heavy Lifting and Transportation for Onshore and Offshore Projects

Innovative Technologies and Best Practices

Introduction

How to properly lift and move extra-heavy material onshore and offshore will be covered in this engaging 5-day training course on Advanced Heavy Lifting & Transportation Techniques for Onshore & Offshore Projects. When working on both onshore and offshore projects, engineers and technicians may benefit greatly from such a vast body of knowledge. Planning, recognising risks, evaluating criticality and risks, monitoring, and reporting these initiatives are among the skills that will be acquired from this course.

Additionally, the adoption of best practices recommended by relevant international standards will be emphasised throughout the training session. Additionally, the training will undoubtedly have a big influence on both the participants and the organisations that choose it.

Included in this Course N Carry training programme will be:

- Environmental factors, as well as maritime and land architecture, have an impact on heavy lifting and transportation initiatives.
- When carrying out these initiatives, adhere to the international standards' best practices for equipment and staff safety.
- The development of methods and tools useful for subsequent transportation and heavy lifting tasks
- The financial aspects of transport and heavy lifting projects

Objectives

Upon completion of this Advanced Heavy Lifting & Transportation Techniques for Onshore & Offshore Projects GLOMACS training course, participants will be qualified to:

- Recognise the significance of transit projects and additional heavy lifting.
- Determine the different kinds of transportation and heavy lifting equipment.
- Give advice on how to utilise the many attachments and accessories that are used with these projects.
- Take part in creating the plans for these kinds of important initiatives.

- Before completing these jobs, do the equipment checks.
- Learn about the dangers and hazards associated with these kinds of initiatives.
- In an emergency, respond safely.
- Follow the safety guidelines recommended by international standards.
- Describe the elements that impact the stability of large cargo during lifting and transportation.
- Complete record reports for these kinds of important tasks.

Training Methodology

A range of tried-and-true adult learning strategies will be used in this Course N Carry training programme to guarantee that the material is understood, comprehended, and retained to the greatest extent possible. There will be a lot of interaction and participation in the daily course sessions. Alongside the presentation of movies showcasing the most recent advancements in heavy truck crane technology, heavy transportation equipment, large load lifting, and transportation safety, there are in-depth talks as well. It is highly recommended that delegates bring data from their job area to analyse; this makes the topic more relevant.

Organizational impacts

An organisation that sends staff members to this Advanced Heavy Lifting & Transportation Techniques for Onshore & Offshore Projects training course anticipates that they will:

- Update their expertise so they can contribute to the successful completion of these important extra-heavy freight lifting and transportation initiatives.
- Add a sizable skill set to their expertise that will improve the organization's operations and reputation.
- Increase team productivity to carry out these important initiatives.
- Bolster their capacity to respond appropriately in risky circumstances
- Participate actively in organisation H&S issues that are closely associated with these kinds of initiatives.

Personal Impact

An employee of the organisation who participates in this Course N Carry training programme is expected to:

- Improve his current technological advancements relevant to his employment
- Include a skill set in his professional description.
- Boost his productivity and everyday performance
- Get better at making the right choices while managing difficulties at work on a daily basis
- Bolster his capacity for self-learning

Who should attend?

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A broad variety of professions may benefit from this intense Course N Carry training course on Advanced Heavy Lifting & Transportation Techniques for Onshore & Offshore Projects, but the following will be especially helpful:

- Project Engineers and Technicians for Heavy Lifting
- Project Engineers and Technicians for Heavy Transport
- Inspectors of Heavy Cranes
- Engineers for transportation safety and heavy lifting
- Experts in Lifting and Rigging
- Maritime and Underwater Project Engineers
- Planners and Project Managers for Onshore and Offshore
- Managers of Operations
- Supervisors of Lifting and Transport
- Expert in Onshore and Offshore Project Cargo
- Forwarders of goods
- Engineers for Offshore Installations

Course Outline

Day 1

Equipment for Heavy Lifting, Both On and Offshore

- Heavy lift, offshore installation, and offshore support boats are examples of offshore lift vessels.
- Various kinds of vessel cranes (gantry, jib, and cargo; note the distinction between pedestal and mast cranes)
- Vessel crane structural characteristics
- Conditions in the marine environment and how they affect crane operation
- Several kinds of land cranes, including telescopic, lattice, carrier and boom, and mobile models
- Vessel crane structural characteristics
- Impact of terrain and surroundings on crane operation
- Accessories for lifting
- Onshore and offshore large lift cranes equipped with safety devices
- The economics of large-scale lifting projects, both onshore and offshore

Day 2

Lifting Bulky Goods with Multiple Cranes

- Elements that influence heavy lifting (center of gravity, supporting points, ground and ambient circumstances, load geometry)
- A heavy lift operation plan should include information on crane types, crane positions, ground preparation, environmental factors, percentage of the crane's rated capacity, boom length and angle, load size and weight, lifting lug location, rigging, and risk assessment.
- Control of the lifting process (potential risks, the lift team's responsibility, communication, coordination, and monitoring, computerised lift process control)
- An illustration of lifting large objects using two cranes
- An illustration of lifting large objects using two main cranes and one tail crane

Day 3

Transportation of Extra Heavy Cargo Onshore

- Transport both single- and multimodal
- Planning for the transportation of extremely heavy goods (choosing the right hauling method, highways, terrain topography, move speed and timings, pilot vehicles and special traffic licenses)
- Types of trailers for towing and self-propelled vehicles used to transport unusually large loads
- SPMT trailers: varieties, uses, and structural characteristics
- Types of hauling trailers: drop deck, double drop low boy, double drop expanding floor deck, flatbed, and expandable flatbed
- Support for moving cargo (Schnabel hitch, ridge beams, lowboy)
- The stability of transporting very large loads (the causes of SPMT tilting, ground bearing capacity, terrain, tyre stiffness, wind load and stability tips)
- The financial aspects of big freight land transit onshore
- Examples of transporting very large goods

Day 4

Shipping and Heavy Lifting Offshore

- Climatic circumstances and the fundamentals of naval architecture.
- Lo-Lo and Flo-Flo heavy lift ships: (function – structural characteristics – use – types of load-out)
- Analysis of vessel motion
- Creating Lift Plans for Lift-on Lift-off (Lo-Lo) and Ro-Ro
- Loading, transporting, or unloading ships
- Ballasting barges (loading from the stern, using roll-on barges, tide-restricted circumstances, and tidal conditions)
- Lifting and ballasting goods up off the dock.
- A list for fastening and fastening
- Comparing ISO and DNVGL-ST-0378 standards
- The financial issues of transporting large amounts of material offshore

Day 5

Transportation and Heavy Lifting Safety

- Consciousness of safety
- Risks (EN ISO 17776, risk assessment, work-related risk analysis)
- Standards pertaining to the environment and safety (ISO 9001, ISO 1400)
- Standards linked to risk matrices (ISO 17776, ISO/Guide 73)
- Reporting incidents and accidents