

# Operating a Container Yard - The Containerisation Industry

A Significant Transoceanic Innovative Goods Transport Sector

## Introduction

The most significant multimodal transportation method is the use of containers. Resulting from the container revolution Although they make up about one-eighth of the global fleet, container ships are vital to the global transportation of products. Ocean carriers collect and deliver containers from the container yard (CY), which is a physical location, and they also issue and get back empty containers. usually include a deadline in CY for the container's delivery so that it may be loaded onto the planned voyage.

The goal of this training session on container yard operations is to give the attendees a basic grasp of how infrastructure is driven by container terminal operations and how containerised commerce drives those operations. The syllabus for the Container Yard Operation training course covers the Operations and Management of the yard as a dynamic industry. Participants in the course will gain detailed knowledge of the trends shaping the development of container yards and terminals, including the factors driving the growth in container traffic, the need for new container terminals due to evolving trade routes, larger ships, and innovative equipment.

**The main points of this training course on Course N Carry Operating a Container Yard are,**

- The Container Terminal's Function in the Containerisation Industry
- Container Ship Types and Varieties
- Configuration and Characteristics of a Container Terminal or Yard
- Planning, Operations, and Management of Container Terminals and Yards
- Management of Safety and Security in the Container Yard

## Objectives

The goal of this operating a container yard training course is to provide participants with the skills, information, and competence needed for a successful career as well as an understanding of the most important real-world concerns that affect everyone working in the container yard operation and management.

**This training course on container yard operations will focus on the following primary goals:**

- Recognising the role that the container industry plays in advancing innovation in maritime transportation.
- Analyse the various kinds and attributes of containers that are used to carry a range of items around the world.
- Examine the structure, arrangement, and design of a container yard.
- Describe the process of creating ground loads for containers in any kind of storage arrangement.
- Investigates the features and expanding dimensions of cargo ships.
- Examines the various aspects of container yard operations, from preparation for ship arrival to container movement.
- Determine the container yard's maximum feasible throughput capacity and the number of cranes needed.
- Calculate the amount of land needed to meet a given throughput requirement.
- For a given type of equipment, create a safe ground striping strategy for the container yard.
- Calculate the amount of working and storage track needed to meet particular transportation needs.
- Evaluate the management of some of the most important environmental, health, safety, and security issues at container terminals.
- Explain the Reasons Behind Damaged Port Containers
- Use the container twist lock control and the yard weight measurement.

## Training Methodology

A range of tried-and-true professional learning strategies will be employed in this Operating a Container Yard training course to guarantee that the material is understood, comprehended, and retained to the greatest extent possible. The curriculum for the training course will be very participatory and dynamic. This calls for frequent communication between the course director and the delegates. The training programme will give the participant a thorough understanding through the use of photographs, video animation, and extensive information.

## Organizational impacts

**The following will help the organisation:**

- Having a group that is well-versed in the principles of best practices for container yard operations.
- Managing the Market Participants in the Storage of Containers Industry
- Giving the management choices regarding the container yard's optimal operating procedures.
- Comprehension of the efficiency-related aspects of overseeing the infrastructure, staff, and equipment in the yard.
- Guaranteeing a secure and safe container handling process within the yard's boundaries.

## Personal Impact

## **The skills taught in this operating a container yard training course enable delegates to:**

- Recognise the fundamentals and key elements of container yard operations.
- Acquire the most useful garden management principles.
- Utilising the automated system, demonstrate how to handle containers in the yard with modern technology.
- Become more adept at following the containers about the yard.
- Saving the ship time at berth by moving and storing the inbound and outboard containers using pest control techniques.

## **Who should attend?**

**Employees of container terminal operation businesses as well as those new to the containerisation industry are strongly encouraged to take this Course N Carry Operating a Container Yard Training course. This is especially helpful for employees who handle or administer containers on a daily basis, like:**

- Master Planners for Container Terminals
- Personnel working in developing or running container terminals
- Transportation experts for goods movement
- Forwarders of goods
- Transporters
- Marine Insurance Providers
- Attorneys
- Individuals who wish to increase their knowledge of international sea commerce and container transportation.
- Newcomers to the field whose duties need them to pick up specialised expertise about the moving and storage of containers quickly.
- Directors and senior managers of container shipping companies.
- Maritime Attorneys, Shippers, and Charterers

## **Course Outline**

### **Day 1**

#### **Overview of the Container Industry and its Functions for Container Terminals**

- A container terminal: what is it?
- Important distinctions between container ports and terminals
- Container terminals' function in the transportation process
- How do ports for containers function?
- Automation of ports
- Top 5 global operators of container terminals

- THCs, or terminal handling charges
- Port fees and ways to avoid paying them
- Container terminals: Present issues facing the sector

## Day 2

### Container Ship Types and Varieties

- **Container Categories**

- Container for dry storage
- Container with a flat rack
- Top-Opening Container
- Tunnel container
- Container for open-side storage
- Container with two doors
- ISO containers that are refrigerated
- Thermal or insulated containers
- Tanks
- Roll container for cargo storage
- Containers with a half-height
- Carriers
- Containers for intermediate bulk shift
- Drums

- **The Types, History, and Design of Container Ships**

- Container Ships: What Are They?
- Container Ship History
- Container Ship Types
- Generations of Development

- **Modes of Handling Containers**

- LoLo Container Vessels
- ROCON Ships for Containers

- **Sizes of Container Ships**

- Panamax
- Following the Panamax
- Suezmax
- ~~Post-Suezmax~~

- Service Area for Container Ships
- Fundamentals of Container Vessel Design

## Day 3

### Configuration and Characteristics of a Container Terminal or Yard

- Design and Equipment of Container Terminals
  - Equipment for Container Terminals
  - Equipment for Traditional Intermodal Port Terminals
  - Automated Stacking Cranes and Guided Vehicles
  - Technology of spreaders
  - Cranes that move ships to land
- The Container Yard Configuration
  - Linear designs
  - Block arrangements
  - Section for Stacking Empty Containers
  - Reefer Storage Stacked
  - Administrative structure
  - Hinterland Internet Access
  - Automated Terminal Configuration vs. Conventional
  - Utilising Terminal Capacity and Optimising It
  - Description of Container Yard (CY)
  - Date of CY cutoff
  - Container Freight Station, or CFS
  - Fee for Container Freight Stations, or CFS
  - Less than Container Load, or LCL
  - How a Container Is Loaded
- Using and Packing Wood Pallets
- ISPM 15.
- Advice on Packaging and Preventing Damage
- How Big of a Container Can Hold Cargo?

## Day 4

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### Planning, Operations, and Management of Container Terminals and Yards

- Procedures Used in Container Terminal Operations
  - Activities in the Sea
  - Certain Ports' Terminal Depth
  - Movement Types of Containers at the Terminal
  - Auxiliary and Yard Functions
  - A Snip of Operations Planning
  - Operations Planning: Integrate Everything
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- **Improving Container Terminal Operations Is Necessary**
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- Partially Automated
  - Process Enhancement to Increase Performance
  - Eco-Friendly Methods for Container Terminals
  - Analysing Data to Get Useful Operations Insights
  - Sustainable Methods: Increasing Effectiveness and Output
  - Sustainability Issues Container Terminals Face
  - Container Terminals' Reactions to Sustainable Challenges
  - Increased Sustainability Performance's Advantages for Container Terminals
  - Technology Integration for Sustainability Projects

## Day 5

### Management of Safety and Security in the Container Yard

- **The Security of the Container Trade**
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- The Trafficking Industry's Containerisation
  - Tracker Terminal
  - Controlled Twistlock and Weight Measured in the Yard
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- How to Reduce Unreported Container Damage Claims in Container Terminals
  - Why Broken Containers Are an Issue
  - Damaged Containers' Effects
  - The Safety Requirement
  - The Difficulty of Reporting
  - Sustainability Issues
  - Container Damage as a Global Problem
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- **Reasons Why Ports Have Damaged Containers**

- Loading and unloading improperly
- Transportation mishaps
- Unfavourable weather patterns and natural calamities
- Deterioration and manufacturing flaws
- Inadequate Maintenance
- Monitoring Data on Unreported Damages

- **Container Terminal Tracker**

- Effective Operations Planning
- Boost Productivity and Safety at Your Terminal
- All-inclusive Operations Schedule
- Procedure for Optimising Yard Traffic
- Transportation Administration
- Principal Advantages of a Tested Solution