

## Container Handler

Used Container Handler Oakland - Container handlers, also known as cargo ships and container ships transport their load in a large intermodal container. Containerization is the shipping method that utilizes commercial freight transport to carry seagoing cargo in non-bulk sizes. Container ship capacity is measured in units that are equal to 20' equivalent loads. Typical loads range with a mixture of 20-foot and 40-foot containers. Roughly 90% of non-bulk items all over the world travel via container ships. As one of the largest commercial sea-worthy vessels, container ships are the main rival of oil tankers among the largest ships on the ocean. Dry cargo is categorized into two main types: break-bulk cargo and bulk cargo. Grain and coal are bulk cargo, typically transported in their raw format inside the ships hull, free from packages. Manufactured goods that are in packages comprise the majority of break-bulk cargo. Before containerization was invented in the 50s, break-bulk items were loaded, secured and unlashed one item at a time. Grouping cargo into containers allows for 1000-3000 cubic feet of cargo to be simultaneously moved once every container has been secured with standardization techniques. Break-bulk cargo shipping has greatly increased overall efficiency. Costs have been reduced to around 35% and shipping time has been reduced by 84%! In 2001, over ninety percent of non-bulk materials were recorded as being transported in containers. The first cargo ships were born in the 1940s as redesigns from World War II tankers. Container ships do not rely on individual hatches, holds and dividers that are part of regular cargo ships. The hull of the container ship is similar to a sizeable warehouse that uses vertical guide rails to divide the area into cells. These cells have been designed to transport the cargo in containers. Most shipping containers are constructed from steel; however, additional materials including plywood, fiberglass and wood are used. As containers have been designed to completely transferred to and from coastal carriers, semi-trailers, trucks, trains and more, these containers are categorized due to their function and size. Containerization has revolutionized the shipping industry; however, it did not start out in the easiest fashion. At first, many companies and shippers were worried about the huge costs associated with constructing ports, railway infrastructure and the roads needed to transport items via cargo ships. Various trade unions were skeptical about huge job loss with dock and port workers based on the assumption that containers would eliminate numerous cargo handling manual jobs among ports. Approximately ten years of legal battles occurred prior to container ships began international service. A container liner service from the Dutch city of Rotterdam to the USA first started in 1966, soon to change world trade and shipping across the globe. Loading and unloading of cargo ships has been reduced to a few hours instead of the days it used to take traditional cargo vessels. Along with cutting labor finances, it has shortened shipping times between ports to a large extent. Nowadays, it takes only weeks as opposed to months for items to be delivered from Europe to India and vice versa. There is generally less damage to goods due to less handling. Less cargo shifting during a voyage is also beneficial. Before shipping, containers are closed and only opened after they arrive at their new location to prevent theft and damage. There has been greater international trade growth due to the reduced shipping expenses and travel time delivered by container ships. Sealed factory containers now carry cargo that used to arrive in barrels, cartons, crates, bags and bales. Scanning machines work with computers to trace the product code on the contents. Technology has made this tracking system accurate and exact to enable a two week voyage to be timed for arrival within an accuracy rate of under fifteen minutes. This has helped with guaranteed delivery and manufacturing times. Sealed containers of raw materials arrive in under an hour to be used in manufacturing facilities, resulting in less inventory costs and higher accuracy. Boxes are provided by shipping companies to the exporters to facilitate loading merchandise. Materials are delivered by rail or docks or a combination of both and then loaded into container handlers. Before containerization, it would take large groups of men and many hours fitting cargo items into different holds. The shipping industry today relies on cranes either installed on the ship or on the pier to situate containers on board. More containers can be loaded onto the

deck after the hull is loaded. An efficient design has been a huge priority for shipping containers. Break-bulk ships may carry containers. However, cargo holds that have been dedicated to container ships have been carefully built to speed up the loading and unloading process and designed to keep containers secure while traveling the ocean. The specialized hatch design allows openings from the main deck to access the cargo holds. A raised steel apparatus called the hatch coaming surrounds these openings that are found along the cargo hold breadth. There are hatch covers located on top of the hatch coamings. Until the 1950s, wooden boards and tarps were responsible for securing the hatches and holding down the battens. Hatch covers are made of secure metal plates and cranes are used to lift them on and off of the ship. Additional hatch models use hydraulic rams and articulated mechanisms for closing and opening. Cell guides are a necessary component in cargo ship design. The cell guides are vertical pieces constructed of strong metal that is attached to the cargo hold within the ship. They work by guiding containers into particular rows while loading and help to support items during travel. The design of the container ship uses cell guides enough that the United Nations Conference on Trade and Development utilize them to distinguish between container ships and regular break-bulk cargo ships. To showcase a container's position on the ship, there is a cargo plan system that use three dimensions. The bay is the first coordinate, starting at the front of the container ship and increases aft. The second coordinate is the tier. The first tier begins in the lower portion of the cargo holds with the second tier found on top of the first tier and continuing in that fashion. Next, the third row forms the third coordinate. Rows are situated on the ship's port side have even numbers while those found starboard have odd numbers. Rows found along the centerline are given lower numbers and these numbers increase for slots situated further from the center. Container handlers can handle forty-five, or forty or twenty-foot containers. The big containers will only travel and fit above deck. The forty-foot sized containers makes up ninety-percent of the shipping containers. Approximately 90% of the freight moves across the globe with container shipping. It is estimated that 80% of global freight travels with 40-foot containers.