

## Container Handler

Used Container Handler Torrance - Container handlers are also called container ships and cargo ships since they transport loads in sizeable intermodal containers. 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. The majority of typical loads consist of a mix of 40-foot containers and 20-foot containers. Container ships are responsible for transporting roughly ninety percent of non-bulk items across the globe. 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 fall into the bulk cargo category. They are often moved in their raw form, package-free in large volumes in the hull of the ship. Break-bulk cargo items normally consist of manufactured goods that are transported in packages. Before the 1950s when containerization hadn't been invented yet, break-bulk materials were loaded, secured and unattached one piece at a time in a very time-consuming process. 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. Efficiency has tremendously increased break-bulk cargo shipping. Costs have been reduced to around 35% and shipping time has been reduced by 84%! Approximately 90% of non-bulk items were shipped in containers in 2001. 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 typical container ship's hull is a basically a large warehouse that is divided by vertical guide rails into cells. These cells have been engineered to hold 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. Railway companies, ports and shippers were initially concerned about the extensive costs associated with building the railway infrastructure and ports required to accommodate container ships, along with moving the containers via road and rail. There was skepticism regarding potential dock and port worker job loss when containerization was announced for fear that numerous manual jobs would disappear. There was a decade of legal battles prior to the container ships starting international service. By 1966, after the first container liner service began from Rotterdam, Netherlands to the USA, cargo shipping was transformed. Container ships only take a few hours to be loaded and unloaded, compared to the days a traditional cargo vessel required. Cutting labor finances and shortened shipping times between ports has been hugely successful. It only takes a few weeks to deliver items from India to Europe and vice versa, whereas it used to take months previously. There is generally less damage to goods due to less handling. Less cargo shifting during a voyage is also beneficial. Containers are sealed prior to shipping and opened only once they arrive at their destination, resulting in less theft and disruption. Container ships have reduced shipping time and lessened shipping expenses, resulting in enhanced international trade growth. Cargo that was previously shipped in bags, bales, cartons, barrels or crates now arrives in sealed containers from the factory. A product code on the contents is traced with the help of computers and scanning equipment. Amazingly, technology has advanced with this accurate tracking system to be so exact that a 2-week voyage can be timed for arrival with accuracy less than 15 minutes! This has helped with guaranteed delivery and manufacturing times. Raw materials are delivered in less than an hour in sealed containers within an hour prior to being utilized for manufacturing. This results in more accuracy and less inventory costs. 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. It used to take huge groups of men and numerous hours to fit cargo into different holds

prior to containerization. Cranes are used in the shipping industry or on the pier to organize containers. More containers can be loaded onto the deck after the hull is loaded. Efficiency has been one of the main design elements for cargo ships. Containers may be carried on break-bulk ships. 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. These openings flow along the whole cargo hold area and are surrounded by the hatch coaming which is a raised steel structure. The hatch coamings have hatch covers located on them. Wooden boards and tarps initially covered the hatches and held the battens secure until the 50s. Hatch covers are made of secure metal plates and cranes are used to lift them on and off of the ship. Some hatch models utilize articulated mechanisms and hydraulic rams to facilitate opening and closing. Cell guides are a necessary component in cargo ship design. These vertical structures are made of strong metal that is attached to the cargo hold on the ship. They work by guiding containers into particular rows while loading and help to support items during travel. Since the design of the container ship utilizes cell guides in such abundance, the UN Conference on Trade and Development relies on them to separate traditional break-bulk cargo ships and container ships. There are three dimensions used in cargo plans to determine the position of the container on board the ship. 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 found on the port side of the ship exhibit even numbers and those located on the starboard side are given odd numbers. Rows found along the centerline are given lower numbers and these numbers increase for slots situated further from the center. Container handlers carry 20, 40 and 45 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.