

## Container Handler

Used Container Handler Kent - 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. The capacity of these specialty ships is equal to twenty-foot loads. Most loads are a mix of 20' and 40' containers. Approximately ninety percent of non-bulk cargo across the globe is transported by 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. There are two main categories for dry cargo which are break-bulk 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. Manufactured goods that are in packages comprise the majority of break-bulk cargo. Prior to containerization being invented in the 1950s, break-bulk materials were loaded, secured, unlashed and unloaded one piece at a time from the ship. Once cargo began being grouped into containers, between 1000 to 3000 cubic feet of cargo can be moved simultaneously after each container has been secured with standardization. Overall efficiency has largely increased with break-bulk cargo shipping. It is estimated that shipping time has been reduced by eighty-four percent and costs have been reduced by approximately thirty-five percent.

Approximately 90% of non-bulk items were shipped in containers in 2001. In the 1940s, the first container ships were made from tankers that underwent conversion after World War II. Cargo ships do not use individual dividers, holds or hatches that are a part of traditional container ships. Essentially the container ship's hull is similar to a huge warehouse that uses vertical guide rails to divide it into cells. The cargo in the containers is held by these specially designed cells. Most shipping containers are constructed from steel; however, additional materials including plywood, fiberglass and wood are used. Designed to be completely transferred to and from trains, semi-trailers, trucks, coastal carriers and more, there is a variety of container types that are categorized by 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. After roughly 10 years of legal battles, container ships initiated international service. In 1966, a container liner service from Rotterdam to the US began and this transformed global shipping. Container ships only take a few hours to be loaded and unloaded, compared to the days a traditional cargo vessel required. 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. Containers are closed before shipping and opened once they arrive at their destination to prevent disruption, damage and theft. There have been less shipping expenses and shipping time thanks to container ships which has increased international trade. 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 time management has helped with manufacturing times and guaranteeing delivery. Raw materials show up in sealed containers from factories in under an hour prior to being used in the manufacturing industry; resulting in fewer inventory expenses and greater accuracy. The shipping companies supply the exporters with boxes for loading products. They are delivered into the docks by rail or road or a combination of both to be loaded onto container ships. 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. Once the hull has been

completely loaded, more containers can be secured onto the deck. The key design element for container ships has been efficiency. Containers may travel on break-bulk vessels. Designated cargo hold on container ships have been built to increase efficiency during loading and unloading to ensure safe travel. A specially designed hatch creates openings to access the main cargo holds from the deck. These openings flow along the whole cargo hold area and are surrounded by the hatch coaming which is a raised steel structure. 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. Nowadays, solid metal plates comprise the hatch covers and cranes lift them onboard 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. Attached to the cargo hold in the ship, cell guides are vertical pieces of metal that help organize the cargo. These guide the containers into certain locations and offer travel support on the high seas. The container ship design relies on cell guides so much that organizations as the United Nations Conference on Trade and Development use them to differentiate between regular break-bulk cargo ships and container ships. To showcase a container's position on the ship, there is a cargo plan system that use three dimensions. The initial coordinate starts at the beginning of the ship and increases aft. The tier is the second coordinate, with the initial tier starting at the bottom of the cargo holds with the second, tier situated on top of the first and continuing on. 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. The cargo situated near the centerline showcases lower numbers and as the cargo increases further from the center, the numbers get higher. Container handlers can handle forty-five, or forty or twenty-foot containers. The largest size fits only above deck while the 40 foot size makes up for the majority of the load or approximately ninety percent of the container shipping. Roughly 90% of the freight in the world is delivered via container shipping. Approximately eighty-percent of global freight is shipped via forty-foot containers.