

## Container Handler

Used Container Handler Wyoming - Container handlers are also called container ships and cargo ships since they transport loads in sizeable intermodal containers. This type of shipping is called containerization and it is a specific kind of freight transport that carries non-bulk types of seagoing cargo. 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. These ships are one of the main oil tanker rivals due to their size as one of the biggest sea-worthy ships. Dry cargo falls into two main categories: bulk cargo and break-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, unlashd and unloaded one piece at a time from the ship. 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 initial container ships in the 1940s were designed from tankers that were converted post-WWII. Container ships eliminate the individual holds, hatches and dividers normal within traditional cargo vessels. 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 cargo ships are designed from steel but additional materials such as 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. Initially, ports, railway companies and shippers were concerned regarding the extensive costs that came with constructing infrastructure, ports and railways required to accommodate the cargo ships and transporting items with rail and roads. Numerous trade unions were concerned that containers would affect port jobs and manual labor associated with cargo handling for dock and port workers. 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. Generally, there is less damage to materials thanks to less frequent handling. Securing loads properly also helps with less cargo shifting during transport. Before shipping, containers are closed and only opened after they arrive at their new location to prevent theft and damage. Container ships have reduced shipping time and lessened shipping expenses, resulting in enhanced international trade growth. Cargo that used to arrive in bales, crates, bags, cartons or barrels now arrives in containers sealed from the factory. Scanning machines work with computers to trace the product code on the contents. 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! Manufacturing times and delivery have been greatly enhanced with these advancements. 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. They are delivered into the docks by rail or road or a combination of both to be loaded onto container ships. Containerization has streamlined the process of loading by reducing the number of workers and hours it takes to fit cargo into their 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. The key design element for container ships has been efficiency. Break-bulk ships may carry containers. Designated cargo hold on container ships have been built to increase efficiency during loading and unloading to ensure safe travel. There is a sophisticated hatch design to allow openings from the main deck to reach the cargo hold locations. 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. There are other hatch models that rely on articulated mechanisms that use strong hydraulic rams for opening and closing. 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. These guide containers into specific rows during the loading process and offer support during sea travel. 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. 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 tier forms the second coordinate. It starts in the bottom area of the cargo holds and the second tier is located on top of the first one and continues to grow. The third coordinate is found in the third row. 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 can handle forty-five, or forty or twenty-foot containers. The biggest sizes only fit above the deck. The forty-foot containers comprise most of the load or roughly 90% of 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.