Container Handler

Used Container Handler Kentucky - 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 container ships is measured in units equivalent to twenty-foot equivalent loads. Most loads are a mix of 20’ and 40’ 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. There are two main categories for dry cargo which are break-bulk and bulk cargo. Coal and grain are considered to be bulk cargo items. They are typically transported in their raw form within the hull of the ship, free from packages in immense volume. Break-bulk cargo items normally consist of manufactured goods that are transported in packages. 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. When the cargo was grouped into containers, there were approximately 1000-3000 cubic feet of cargo that can be simultaneously moved after each unit has been standardized and secured. Overall efficiency has largely increased with 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 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 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. Even though the shipping industry has been transformed by containerization, it took some time to streamline the process. 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. 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. 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. A product code on the contents is traced with the help of computers and scanning equipment. 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. 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. 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. 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. Tarps and wooden boards held down the battens and secured the hatches until the 1950s. 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. Another important cargo ship design feature is cell guides. These vertical structures are made of strong metal that is attached to the cargo hold on 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 is a system used in cargo plans consisting of three dimensions to outline a container's position aboard the ship. The first coordinate is the bay which begins at the front of the 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 row is the third coordinate. Rows situated on the starboard side feature odd numbers and rows situated on the port side showcase even 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 carry 20, 40 and 45 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.