



Vessel Types

- **Lake Vessels ("Lakers")**

Lakers have been designed and constructed specifically to transport dry bulk cargo in the Great Lakes- St Lawrence River Waterway. They have been designed to endure weather, wave action and ice conditions unique to the Great Lakes and are not structurally capable or legally authorized to operate on the open ocean.

- **Self-Unloaders**

Most Lakers have been equipped with self-unloading technology, which enables the crew to unload the vessel without the need for shore-side personnel or equipment. Self-unloading vessels are distinctive in appearance and feature a large steel boom extending down the deck from the ship's superstructure. When unloading, cargo is released through gates at the bottom of the cargo hold onto conveyor belts running below. Bulk material is carried along the conveyor belts and lifted up and out onto the adjacent dock via the pivoting boom.

- **Straight-Deckers**

Some Lakers do not feature self-unloading technology and are referred to as "straight deckers" or "bulklers." These vessels require shore-side equipment such as a gantry crane to unload their cargo.

- **Ocean-going Vessels ("Salties")**

Most ocean-going vessels serving the Great Lakes are designed to handle either dry bulk or breakbulk cargo. For example, a saltie might carry a cargo of steel products into the Great Lakes and export a cargo of bulk grain. Unlike Lakers, salties are designed to handle both Lake and ocean conditions and may operate almost anywhere in the world.

- **Tankers**

Tankers are vessels designed to carry liquid bulk cargo, such as petroleum products. Most tankers operating on the Great Lakes - St Lawrence River Waterway are designed exclusively for the waterway; however, several have the capability to operate overseas.

- **Tug-Barges**

Barges are unpowered vessels that need to be towed or pushed by tugboats. A number of companies operate purpose-built tug-barge fleets on the Great Lakes - St. Lawrence Seaway system that are well suited for the transportation of bulk, breakbulk and project cargo.

A number of vessel operators have converted former self-propelled Lakers into large barges. These reconfigured vessels have had their superstructure and engines removed. Powerful tugs fit into a notch at the stern (rear) of the vessel and provide propulsion. This tug-barge vessel configuration provides added flexibility in manning and cargo handling.

River barge operators also serve Great Lakes ports. Since the 1970s, the U.S. Coast Guard has allowed limited river barge operations in southern Lake Michigan. The U.S. inland river navigation system connects to the Great Lakes navigation system at Chicago. Through this gateway, river barge activity has developed into a significant trade serving heavy industry in that region.

- **Container Ships**

Containerized cargo includes any product transported in a standardized, steel, intermodal shipping container. In the St. Lawrence River, containers are carried on ships up to 44 m wide (post-Panamax ships). Containerized shipping is mostly concentrated at the Port of Montreal. However, there are some smaller ocean-going vessels that travel through the St. Lawrence Seaway to the Great Lakes to deliver or pick up containers along with other cargoes.