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(54) Title: CONTAINER TRANSFER TERMINAL SYSTEM AND METHOD

## (57) Abstract

A terminal and system for the automatic computerized unloading of containerized cargo from container ships to trucks, railroad cars, other ships or storage. The terminal system (10) is equipped to store or transfer unloaded cargo automatically by using independent container transfer vehicles (26). The cargo ships (20) are moored between quays (22) of a terminal building constructed in or adjacent to a waterway. Independent container transfer vehicles (26) on an overhead transverse beam (28) system lift a container (18) up and away from a ship and transfer it to the elevated ground rail (72) system without changing the container orientation, and then shuttle on elevated ground conveyance rails to other areas of the terminal to distribute the container to the pertinent transportation system (railcar, truck, another ship) or to storage (40). Containers can also be unloaded from trucks and railroad cars and transported to a berthed ship utilizing the same transportation system. Remotely controlled docking modules (199) may be used to guide an incoming ship into the quay and to assist in engaging the ship's hull onto a bow mooring assembly (144). Side fenders (162) positioned in the quay moor the ship and maintain its position within the dock during cargo transfers. A rapid fueling system refuels the ships. The terminal can be located on land or offshore in any navigable waterway with either an access tunnel or a causeway for truck and rail access from land.

