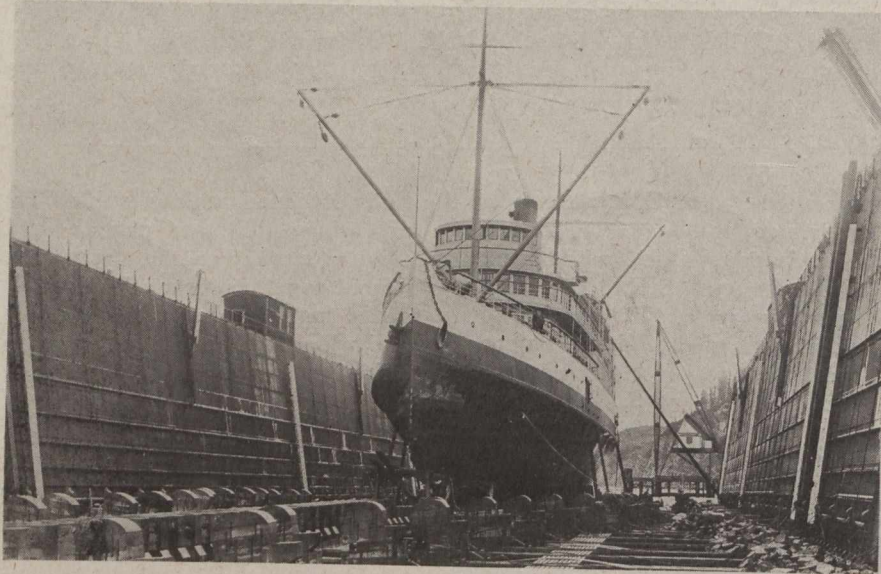


moved around the corner of the pier and located alongside the platform. To use the remaining portion as two separate docks, the middle section of six pontoons is detached from the rear section and moved forward the length of the front section, and secured in position. The sliding clamps are so arranged that whether the dock is used as separate units or complete, the attachments on the pier will coincide with those on the floating dock.

**The Pumping Equipment.**—The floating dock is equipped with twenty-four 12-inch centrifugal pumps, one in each end of each pontoon. Each pump has a capacity of 5,000 gallons per minute. The entire dock can be raised or lowered 30 ft., the time required to dewater it being about 90 minutes. The pumps are connected by vertical shafts and bevel gears to a horizontal line shaft, which is operated by four 100-h.p. and two 200-h.p. variable speed A.C. motors. The motors are placed in motor houses, of which there are two on each section of the dock. The motor houses of each section also contain the control apparatus for the motors. This control apparatus is so arranged that each section of the dock can be raised or lowered from either motor house on the section, or the whole dock, with the sections joined together, can be raised or lowered from the motor house on the wharf side of the middle section. Control wires run from one section of the dock to the other, connection being made by means of plugs and sockets. In each cabin there is a master panel, on which are mounted ten knife switches, one motor master switch for each of the six motors, and four speed master switches controlling the speed of all motors.



S.S. "City of Seattle" in G.T.P. Dry Dock, November 16, 1915.

The control system is arranged so that the two motors on any section may be operated from one master panel on either of the two sections, or all six motors on all three sections may be operated from the master panel on the middle or large section. All the motors in operation will run at the same speed, and should a higher or lower speed switch be closed, all motors will automatically take the new speed. When some of the motors are operated at any given speed, if any individual motor switch is closed, the corresponding motor will automati-

cally start and accelerate to the speed of the motors already in operation. The entire electrical equipment was supplied by the Canadian General Electric Co. The cabins on the side of the dock nearest the wharf also each contain a Jenckes motor-driven air compressor.

#### **The General Layout and Buildings.**

—The dock-yard itself contains several buildings, the principal of which are the power house, carpenter shop and ship-shed, machine shop, boiler and blacksmith shop and foundry. There is a complete water system (including fire hydrants), a sewer system and a compressed air system installed for the whole yard. Standard railway tracks run to every part and to the shops. A 20-ton locomotive crane is used for shunting and hoisting. A 50-ton pier derrick, for handling freight, is mounted on the dock, and a 10-ton steam coal hoist, equipped with clam shell and capable of transferring coal from a boat or barge or railway car at the rate of 16 tons per hour, is located near the pier derrick.

The boiler house contains six water-tube boilers, rated at 400 h.p. each and delivering steam at 175 pds.



General View of Harbor and Terminal, Showing (1) End Section of Dry Dock, (2) Middle Section, (3) End Section, (4) Pier Derrick, (7) Shipbuilding Plant, (8) Power House, (5, 6 and 9) Foundry, Blacksmith and Boiler Shop, and Machine Shop.