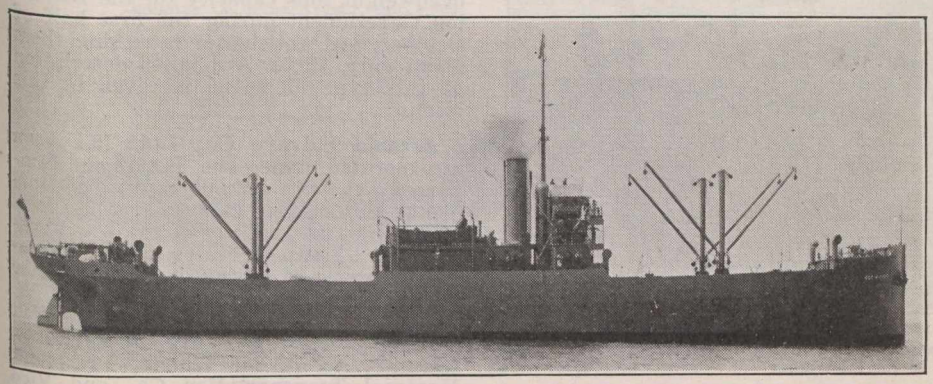
Marine Department

Steel Cargo Steamships Building for Dominion Government.

The 5,100 Ton Type of Steel Cargo Steamship.

Canadian Railway and Marine World for August and September respectively contained full technical descriptions of the 4,300 and 3,750 ton types of steel cargo steamships for the Dominion Government, which are to be built under the shipbuilding policy of the Minister of Marine, Hon. C. C. Ballantyne, as first detailed in Canadian Railway and Marine World for February. Following is a description of the 5,100 ton d.w. type.



Steel cargo steamship War Wizard, built for British Government by Collingwood Shipbuilding Co.

The principal dimensions of the 5,100 ton type will be:

Length b.p.	331 ft.
Breadth moulded	46 ft. 6 in.
Depth moulded	25 ft. 6 in.
Draft load	21 ft. 8 in.
Deadweight about	5,100 tons
Trial speed	12 knots
Complement	45

The vessels will be of the single deck type, with poop, bridge and forecastle, straight stem, elliptical stern, and will be subdivided into 16 watertight compartments, by 7 watertight transverse bulkheads and divisions. A double bottom, 39 in. deep, with solid floors on alternate frames, will be fitted from the collision bulkhead to the after peak bulkhead, each compartment being connected in the usual way to the steam suctions.

The vessels are designed on the ordinary transverse system of framing, the frames and beams being of bulb angle, spaced 24½ in. apart. No side stringers will be fitted in the holds, the shell plating being increased by way of compensation. The main deck, poop, bridge and forecastle decks will be of steel sheathed with British Columbia fir decking in way of the accommodation.

The cargo hatches will be arranged for the speedy handling of bulk cargoes, and will be of the following dimensions: Nos. 1, 2, 3 and 4 hatches, 26½ x 23 ft. each; after hold and reserve bunker, 10¼ x 18 ft. The usual pillar arrangement in the holds will be dispensed with, to facilitate loading and unloading. Each cargo hatch will have adjacent 2 collapsible derrick posts, provided with 2 derricks capable of lifting 5 tons each. The derricks to the after main hold will have a lifting capacity of 3 tons. The 10 cargo winches will be of the Clarke-Chapman type, 7 in. diameter by 12 in. stroke, 2 being placed at each hatch, one on the poop deck and one on the bridge deck. One pole mast with telescopic top mast will be fitted amidships, carrying the wireless aerials and lifting leads for the derrick posts.

The anchor arrangements will be as usual in this class of vessel, viz., as follows: 2 bower anchors, stockless type, 48¾ cwt.; 1 bower anchor, stockless type, 41¾ cwt.; 1 stream anchor, ex stock, 13 cwt.; 1 kedge anchor, ex stock, 5¾ cwt.; 210 fathoms 2 in. stud link chain and the usual stream line, tow line, hawsers and warps. The windlass, which will be on the forecastle head, will be of the Clarke-Chapman patent grip type, working under reduced steam pressure.

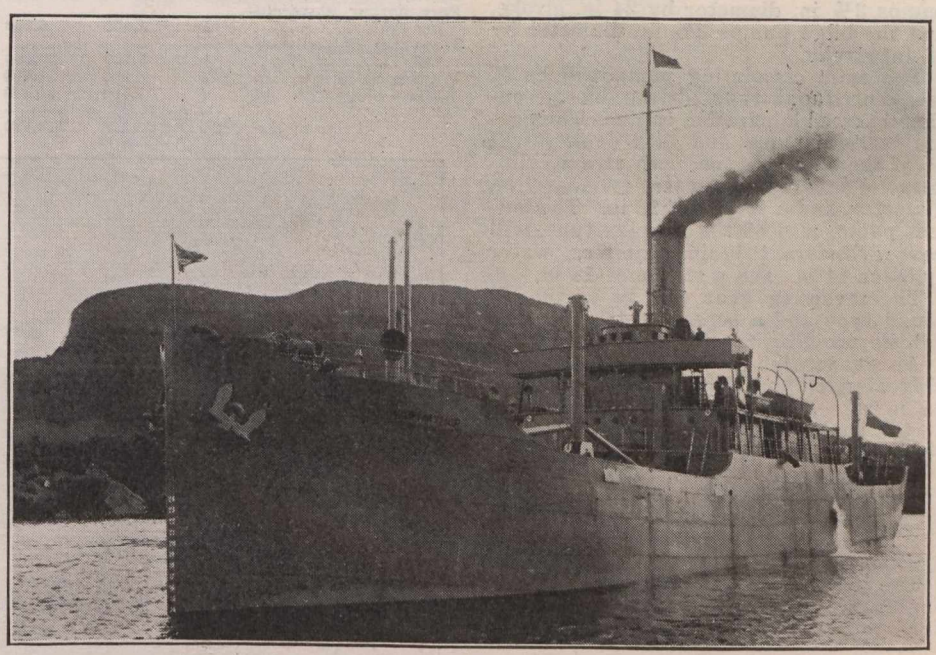
The steam steering engine will be placed in a deckhouse on the poop deck. The gear will be of the patent guided segment type, having cylinders about 9 in. diameter by 12 in. stroke, controlled from the navigating position in wheelhouse by telemotor gear.

The electric generating set will be located in the engine room and will have a capacity of 10 k.w. The engine will be of the single cylinder enclosed type, with cylinder 8 in. diameter by 6 in. stroke, running at about 350 revolutions a minute. The dynamo will be of the four pole type, compound wound, coupled direct to the engine shaft. The various leads will be on the double wire system, the wiring in the engine and boiler rooms being armored and in the accommodation lead covered. Six circuits will be provided, viz.: 1, navigation; 2, wireless; 3, machinery spaces; 4, accommodation amidships; 5, accommodation aft; 6, cargo holds.

The vessels will be provided with the usual armament, as required by law, and provision will be made for defence from floating mines.

The life saving appliances will be in accordance with the requirements of the Canadian Board of Steamship Inspection, and comprise: 2 lifeboats, 24 x 7½ x 3 ft.; 1 lifeboat, 20 x 6½ x 2¾ ft.; 1 dinghy, 18 x 5½ x 2 ft.; 2 lifeboats, 17½ x 8 ft., and the usual lifebelts and lifebuoys.

The ships' officers will be placed in deckhouses at the forward end of the bridge deck. The deckhouses will contain 1 cabin for each officer, wireless cabin, dining saloon, pantry, baths and water closets and the usual stores. An internal stairway will lead to the captain's quarters and chart room on the upper bridge, which will be surmounted by the flying bridge and wheel house. The engineers and petty officers will be housed in side houses, abreast of the engine and boiler casings, the mess room and pantry being arranged for at the after end of the engine casing on bridge deck. A petty officers' mess room will be provided at the after end of the bridge erection, with pantry adjoining. The hospital will be located under the forecastle. In accordance with what is now recognized practice in modern cargo vessels, the seamen and firemen will be housed under the poop deck aft, in commodious compartments each accommodating two men. Separate mess rooms and stores will be provided, and all requirements such as lighting,



Steel cargo steamship War Hathor, built for British Government by Port Arthur Shipbuilding Co. The photograph was taken as the vessel was leaving Fort William on Aug. 27 with a cargo of grain for Montreal, where she was turned over to the Imperial Munitions Board.