

tons dead weight, 9 ft. 6 ins.; Coal bunker capacity, 100 tons; Complement, officers and men, 24.

"The vessel is of steel construction, built under the government survey, to be classed as 100A1 at Lloyd's and also built under their special survey. She will be fitted with water ballast, and the full equipment will be according to the requirements of the Board of Trade and the Canadian Steamboat Inspection Act. She has six main transverse watertight bulkheads; a watertight bulkhead at the bow and stern, with the bulkheads adjoining, form trimming tanks. She has a straight stem, cruiser stern, lower, main, bridge and forecastle decks.

"The captain's quarters are on the bridge deck. On the main deck, on the port side, are the several messes, and on the starboard side, the quarters of the junior officers. In the centre, the well rises from the lower deck. Back of this is the entrance hall, to the rear of which is the main dining saloon. Forward on this deck are the deck stores and cold storage, with a 10 ton winch engine. On the lower deck forward are the crew's quarters, with the hold midway, back of which are the coal bunker, boiler room and engine room in succession. All staterooms, storerooms, bathrooms, toilets, pantries, galley and other spaces are fitted with lavatories, sinks, shelves, cupboards, drawers, wardrobes, lockers, settees, desks and other accessories required for the particular purpose for which each room is adapted.

"The hull is of steel throughout. The stem is of rolled steel, 6 3/4 by 1 3/4 ins., while the stern frame is a scrap iron forging, with a propeller post 6 1/4 by 4 ins., and a rudder post 5 3/4 by 4 ins. The rudder is of an area of about 40 sq. ft., of 30 lb. steel plate on a scrap iron forged frame, with a 6 in. forged steel rudder stock, the latter enclosed between the hull and main deck by a watertight trunk of steel plates.

"The keel is of flat plate construction, 38 in. 27 lb., from the stem to three-fifths the length amidships, reduced to 18.77 lbs. at the aft end. The centre vertical keelson in way of the engine room is 13.87 lb., reduced to 12.24 lb. at the aft end; in the boiler space, 15.5 lb.; and in the way of the double bottom, 30 ins. by 14.69 lb., reduced to 12.24 lb. at the forward end. The vertical keel is connected to the flat plate keel by double 3 1/2 by 3 1/2 in. by 7.91 lb. angles, and to the floors by double 3 by 3 in., by 5.81 lb. angles. The double keelson bars extending from the forward bunker bulkhead to the engine room are 3 1/2 by 3 1/2 in. by 6.57 lb. angles.

"The foundation plates are 12 in. 13.87 lb. There are two side keelsons in the way of the ordinary floors, of 12.24 lb. plates, connected to the bottom plating by single 3 by 3 in. by 5.81 lb. angles, and to the floors by single 2 1/2 by 2 1/2 in. by 4.79 lb. angles, and extend sufficiently above the floor plates to connect to single longitudinal 5 by 4 in. by 10.29 lb. angles. In the way of the boiler space, the intercostal plates are 13.05 lb. with extra intercostals in way of the engine space for the engine seating. In the way of the double bottom forward, the intercostals are 11.42 lb. connected to the bottom plating by 3 by 3 in. by 5.81 lb. angles, to the floors by 2 1/2 by 2 1/2 in. by 4.79 lb. angles, and to the inner bottom plating by a single 3 by 3 in. by 5.81 lb. angle bar.

"The main framing is of 5 by 3 in. by 9.72 lb. angle section, spaced 22 in. throughout, increasing to 5 1/2 by 3 in. by 11.02 lb. from the break of the forecastle forward to the stem. Within the double bottom, the frames fitted to the solid floors are of 3 by 3 in. by 5.81 lb. angles, and from frame to bracket floors, 3 1/2 by 3 in. by 6.32 lb. The bulkhead frames are single 3 1/2 by 3 1/2 in. by 8.98 lb. angles. Reverse frames, fitted to every floor, are of 3 by 3 in. by 5.81 lb., extending from the centre line to the upper turn of the bilge, and are doubled in way of the engine and boiler spaces. In the double bottom, the reverse frames to the solid floors are 3 by 3 in. by 5.81 lb., and to the bracket floors, 3 by 2 1/2 in. by 4.46 lb. There are 4 web frames, of 14 in. 12.24 plate, connected to the shell by single 3 1/2 by 3 1/2 in. by 8.98 lb. angles, and framed on the inner edge by a single 5 by 3 in. by 12.75 lb. angle.

"In the way of the engine room, the floor plates are 14.69 lb. plate, fitted to every frame, reducing aft of the engine room to 11.42 lb. In way of the boiler space, they are 17.14 lb. In way of the double bottom, they are alternate solid and bracket floors, the solid floors of 11.42 lb. plate, lightened by manholes about 32 by 13 ins., and the bracket floors are 11.42 lb. plates, connecting the centre girder and margin plates to the intermediate frames and reverse frames. The bracket plates to the tank margin and outside plating are 12.24 lb. plates, flanged on their inner edge and connected to the margin plate by a single 3 by 3 in. by 5.81 lb. angle. Forward of the double bottom, the floors are 13.06 lb.