

Steel Screw Vessel Yard No. 669 proposed to be built by Messrs. Wilton-Fyenoord with a view to class 100A1 with a freeboard corresponding to a moulded draught not exceeding that contemplated by the Rules for a complete superstructure ship having a tonnage opening, with the notation "Strengthened for Navigation in Ice". Owners:- Messrs. Halcyon Lyn.

Rule Dimensions:- 435' x 59' x 37' to upper deck  
29.5' to second deck.

Scantling Nos:- 16312 and 41977

Proportions:- Length = 11.76 depths to upper deck.

Plans of midship section, profile and decks have been approved in the Rotterdam Office and copies forwarded here for record.

A deep tank, 52'-6" in length and of 1350 tons capacity is arranged immediately forward of the machinery space. In a further letter Mr. Lodder states that this deep tank will only be used in the ballast condition, when it is estimated that some 1000 tons of bunkers might be carried in addition. The case has therefore been examined under the terms of Section 13, Paragraph 1(h) of the Rules, and it is found that the thickness of the upper deck as approved, namely 18 m/m, is such as could be accepted without additional girders. Large doubling plates with fillets are arranged at the corners of the hatchways.

Mr. Lodder further states that ore cargoes are to be carried in the holds and also in the tween decks above the deep tank.

As far as can be seen from the plans no additional stiffening is, however, proposed, <sup>on account of this</sup> excepting that an additional intercostal girder is to be fitted, port and starboard, in the double bottom.

The scantlings and arrangements have been examined and found to be generally in order. It is submitted, however, the Surveyors' attention might be drawn to the following points:-

(1) In view of the fitting of the large deep tank amidships the case has been examined under the terms of Section 13, Paragraph 1(h) of the Rules, and it is considered that the thickness of the upper deck plating as approved is in order without additional stiffening, it being noted that the doubling plates at the corners of the openings have been increased in breadth and thickness and arranged with fillets at the corners of the hatchways.

(2) It is suggested that the strake of plating on the second deck adjacent to the machinery casing in way of the coal hatch should be reduced to 10.5 m/m in thickness and compensation provided by fitting a doubling plate outside the coal hatch, or alternatively by increasing the thickness of the stringer plate.

(3) As the hatchway on the second deck in the tonnage well is situated immediately below the tonnage opening above, the coaming of the second deck hatchway should be 18" above the deck.

(4) The frames in the machinery space have been determined on the basis of a height to the third deck, and steps should therefore be taken to ensure, by means of suitable through beams, that this deck has adequate lateral support.

(5) It is noted from their letter of the 9th instant that the vessel is to be used for the carriage of ore, and in regard to this it should be pointed out that in such cases it is the practice in this Office to discuss the matter with the Owners' or Builders' representatives, to whom it is recommended that additional strengthening might be fitted on the following lines :-

(a) The margin connections, also the second deck beam knee riveting, increased.

(b) An additional pair of rivets fitted in about three seams of shell plating in the neighbourhood of the neutral axis in the fore and after body.

(c) Solid floors fitted to every frame, as recommended by Section 10, Paragraph 4(b) of the Rules, and the thickness of the inner bottom plating increased as suggested in Paragraph 6(b) of this Section, or alternatively two thicknesses of ceiling fitted.

(d) All points of discontinuity minimised as far as possible, which, in addition to the doublings at present arranged, might include the fitting of 6" x 6" double riveted angles at the corners of the hatchways within the half length amidships.

*Pk-2.1.39*  
*Amid. 19.1.39*  
*2 plans returned.*

*g.f.* *J.K.B.*  
*W.P.* 11. 1. 39. *C.S.P.*



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