

Lloyd's Register of Shipping,

3, Steinhoeft,

Hamburg, 5th February 1938



Reference

Dear Sir,

On receipt of your letter of 28th ult. in answer to mine of 22nd ult. regarding Messrs. Lübecker Maschinenbau Gesellschaft's Yard Nos. 367, 379 and 381 for Messrs. Knöhr & Burchard, I telephoned the Builders with a view to suggesting that I might accompany their representatives to Berlin when the plans were to be discussed with the G. L., but found that this had already been done. It was, therefore, arranged to visit the yard after the Builders had had a few days to consider the several items required to be amended and this visit I paid yesterday.

The following is a list of the amendments to the Scantlings approved in London:

1. Flat plate Keel 17 mm for . 6 L - 15 mm ends
2. Main frames between .15 L & .20 L from forward 250+90+13 B.A.
3. Riveting of hold frames and overlap to Tank Side Brackets
 - a) abaft .2 L aft of stem 600 mm overlap
 - b) between .2 L and .15 L aft of stem 680 mm overlap

Riveting of a + b 11 - 22 mm diameter

 - c) forward of .15 L from stem 800 mm overlap

Riveting of c 15 - 22 mm diameter
4. Coal bunker bulkheads stiffeners
 - a) without struts 180+75+8,5 B.A.
 - b) with " 140+65+8,5 B.A.
5. Wood Hatch Covers (Long Forecastle deck)

No. 1	85 mm	No. 4.	80 mm	No. 5.	70 mm
<u>Wood Hatch Covers (Main Deck)</u>					
No. 1	85 mm	No. 4.	90 mm	No. 5.	80 mm

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6. Hatch Coamings (Long Forecastle Deck)

Thickness of side coamings Nos.1,2,3 & 4 hatchways 11.5 mm

7. Double Bottom

Thickness of Side Girders in holds 8.5 mm

" " C. G. top bars in holds 10.5 - 9 mm

" " " " " " " B. R. 12.5 mm

Frames at open floors 200+75+9.5 B. A.

Rev. Frames " " 180+75+11 B. A.

Solid floors to be fitted from 1/2 L forward remainder accepted
as approved.

Tank margin gussets riveting

for .25 L abaft stem 8 - 22 mm rivets

Hold No. 1 abaft .25 L 7 - 22 mm "

8. Stiffeners of centre line bulkhead,

Frames 127 - 135 250+90+11 B. A.

" 72 - 81 200+75+11 B. A.

9. Beam Knees

Breadth from toe of frame to toe of knee 410 mm

10. Boat deck beams 130+65+7.5 B.A.

11. Main deck hatch side coamings to be strengthened by adding
vertical doubling plates above the deck between the half
round moulding and the deck as follows:

No. 1 160 + 15 mm

Nos.2&3 300 + 12 mm

No. 4 200 + 20 mm

No. 5 160 + 15 mm

The rider plate on the lower flanges of the girders could
then be:

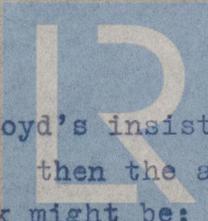
No. 1 200 + 10

Nos.2 & 3 250 + 16

No. 4 200 + 10

No. 5 200 + 10

It was stated that if Lloyd's insisted on maintaining the
rider plates as approved then the additional vertical
doublings above the deck might be:



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No. 1	160 + 12.5
Nos. 2 & 3	250 + 24
No. 4	200 + 16
No. 5	160 + 9

The vertical doublings are to extend for .6 L of the hatch side coamings centrally arranged

12. Hatch end beams (main deck)

Doubling plates to be fitted to the deck athwartships equally arranged about the centre line as follows:

116 + 107	frs.	400 + 20 mm
95 + 93	"	200 + 10 mm
81	"	400 + 10 mm
42, 31 + 22	"	400 + 15 mm

13. Collective weight of anchors to be increased 670 kgs.

It was also stated that the arrangement of the G. L. bulkheads at the hatch ends in the holds acting as pillars would probably require to be increased.

With regard to item.3. the G. L. agreed to accept welding at the frame feet in compensation for deficiency in overlap and riveting; item 3 (c) does not arise as the frames here all extend to the margin angle.

The additional gusset attachments were asked for, because of the long hold forward and the omission of a bulkhead.

The Builders stated that the additional weight of material involved in the above items was about 22 - 23 tons and as the material was not yet rolled they would comply with all requirements, to recover the weight it is proposed to weld the bulkhead and tunnel stiffeners, substituting reversed angles instead of the bulbangles now proposed and sketches will be submitted later regarding these.

With regard to the side framing, it will be seen that with the exception given, this has been agreed as approved and to calculate this from the G. L. Rules the procedure in this case is as follows:

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From section 4 para. 2.

Erections = .98 L and .98 L - .5 0 L = .48

Distance of lowest deck from main deck in this case = Nil

∴ Increase to D for superstructures = $\frac{0.1 \times .48}{.1} = 0.48$ metres
D = 6.45 and from Table II b

<u>Single deck</u>	<u>Lowest dk. from main dk. = 2.0 m</u>
6.50 = 187 27	6.50 = 260
6.25 = 161	6.25 = 232
<u>26</u>	<u>28</u>
26 * $\frac{.2}{.25} = (20.8 + 161) = 181.8$	28 * $\frac{.2}{.25} = (22.4 + 232) = 254.4$

$(254.4 - 181.8) = 72.6 \times \frac{.48}{2} = (17.4 + 181.8) = 199.2 \text{ cm}^3$

The Rule frame spacing is that for a "D" value of (6.45 + .48) = 6.93 metres in Table II B single deck column and is 617 mm

Ship frame spacing = 700 mm

∴ corrected frame = $199.2 \times \frac{700}{617} = 226 \text{ cm}^3$

Tank side bracket correction

In ship = 1475 mm

Rule = 1272 by interpolation
203 excess
=====

D - T.S.B. = (6.45 - 1.27) = 5.18 Rule

" = (6.45 - 1.47) = 4.98 Ship

Corrected frame $226 \times \frac{4.98}{5.18} = 217.5 \text{ cm}^3$

∴ Main frames = $[230 + 90 + 11] = 232 \text{ cm}^3$
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The geometrical values in the calculations exclude the effect of plating added to the profiles and the main frames agree with those approved, only the forward framing being heavier as stated above. As regards ice strengthening the vessel will obtain the special notation for this in Lloyd's Certificate but not in

that of the Germanischen Lloyd and with this the Owners are satisfied.

The position as regards classification at the present is that Yard Nos. 367 + 379 will be classed by this Society only, whilst No. 381 will have dual class.

A fourth vessel provisionally given Yard No. 382 is in the Builders books for the same Owner who holds an option for a berth until the end of April, but no contract has as yet been definitely signed. This vessel if built will be a duplicate of No. 381.

I am, Dear Sir,

Yours faithfully



The Secretary,
LONDON.



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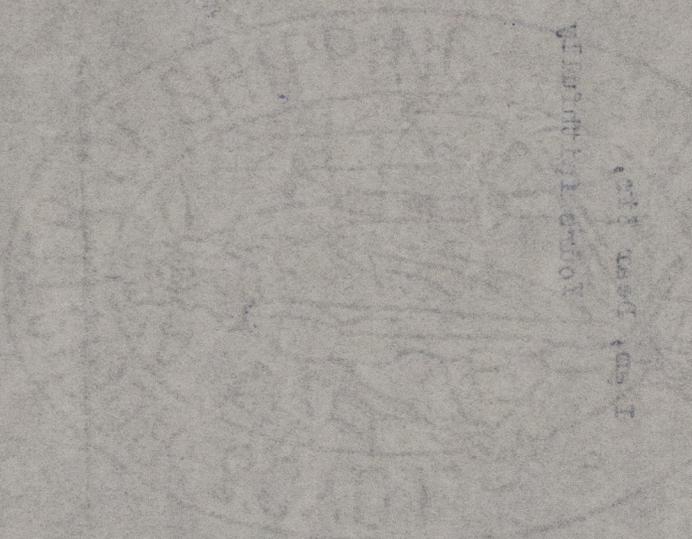
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Referred to the Chief Ship Surveyor.

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