

24 NOV 1933

Rpt. C.11.

Index. No. **23012**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Raised quarter deck, Bridge + Forecastle.

RYUAN MARU Chinese

LUNG-HO (Type of Superstructures.) Long

| | | | | |
|---|--|----------------------------------|------------------------------|------------------------------|
| Ship's Name <u>EX</u> <u>HAMO</u> | Nationality and Port of Registry <u>British</u> <u>Hong Kong</u> | Official Number <u>127814</u> | Gross Tonnage <u>1236</u> | Date of Build <u>1913</u> |
|---|--|----------------------------------|------------------------------|------------------------------|

Port of Survey Hong Kong

Date of Survey Aug. 21st, Sept. 29th
Oct. 23rd 1933.

Name of Surveyor J. Morrison

Particulars of Classification +100 A1

Moulded Dimensions: Length 229.5' Breadth 35.62' Depth 17.62'

Moulded displacement at moulded draught = 85 per cent. of moulded depth 2612 tons

Coefficient of fineness for use with Tables .747 ✓

| | | |
|--|--|---|
| <p>Depth for Freeboard (D)</p> <p>Moulded depth <u>17.62</u></p> <p>Stringer plate <u>.50</u> <u>.04</u></p> <p>Sheathing on exposed deck <u>none</u></p> <p>$T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = <u>17.66</u> ✓</p> | <p>Depth correction</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = <u>(17.66-15.30) 1.765 = + 4.17</u> ✓</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>2.36</u></p> <p>If restricted by superstructures ✓</p> | <p>Round of Beam correction</p> <p>Moulded Breadth (B) <u>35.62</u></p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>8.55</u> ✓</p> <p>Ship's Round of Beam = <u>8.75</u> ✓</p> <p>Difference <u>.20</u> ✓</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>$\frac{.20^2}{4} \times .2934 = -.01$</u> ✓</p> |
|--|--|---|

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|---|-------------------------|--|-------------------|-------------------|----------------------|
| Poop enclosed | ✓ | | ✓ | | |
| „ overhang | ✓ | | | | |
| R.Q.D. enclosed | <u>79'-1 1/2"</u> | <u>79.12</u> | <u>3'-10 1/2"</u> | | <u>79.12</u> |
| „ overhang | ✓ | | | | |
| Bridge enclosed | <u>57'-6"</u> | <u>51.75</u> | <u>7'-0"</u> | | <u>51.75</u> |
| „ overhang aft | ✓ | | | | |
| „ overhang forward | ✓ | | | | |
| F'ble enclosed <u>equivalent</u> | <u>30.65</u> | <u>30.65</u> | <u>7'-0"</u> | | <u>30.65</u> |
| „ overhang | <u>1.22</u> | <u>.61</u> | | | <u>.61</u> |
| Trunk aft | ✓ | | | | |
| „ forward | ✓ | | | | |
| Tonnage opening aft | ✓ | | | | |
| „ „ forward | ✓ | | | | |
| Total | <u>168.49</u> | <u>162.13</u> | | | <u>162.13</u> |

| | |
|---|-----------------|
| Standard Height of Superstructure | <u>6.00</u> ✓ |
| „ „ R.Q.D. | <u>3.863</u> ✓ |
| Deduction for complete superstructure | <u>28.95</u> ✓ |
| Percentage covered $\frac{S}{L} =$ | <u>73.42%</u> ✓ |
| „ „ $\frac{S_1}{L} =$ | <u>70.66%</u> |
| „ „ $\frac{E}{L} =$ | <u>70.66%</u> ✓ |
| Percentage from Table, Line A. (corrected for absence of forecastle (if required)) | <u>63.81%</u> ✓ |
| Percentage from Table, Line B. (corrected for absence of forecastle (if required)) | |
| Interpolation for bridge less than 2L (if required) | |
| Deduction = <u>28.95 x 63.81 =</u> | <u>18.47</u> ✓ |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|------------------------|-------------------|---|---|---------------|-----------------|--------------------|---|---|---------------|
| A.P. | <u>32.95</u> | 1 | | <u>32.95</u> | <u>39.00</u> | <u>39.00</u> | 1 | | <u>39.00</u> |
| 1/4 L from A.P. | <u>14.66</u> | 4 | | <u>58.64</u> | <u>16.75</u> | <u>16.78</u> | 4 | | <u>67.12</u> |
| 2/4 L „ | <u>3.63</u> | 2 | | <u>7.26</u> | <u>4.00</u> | <u>4.19</u> | 2 | | <u>8.38</u> |
| Amidships | | 4 | | <u>0</u> | | | 4 | | |
| 3/4 L from F.P. | <u>7.25</u> | 2 | | <u>14.50</u> | <u>8.50</u> | <u>8.64</u> | 2 | | <u>17.28</u> |
| 1/4 L „ | <u>29.32</u> | 4 | | <u>117.28</u> | <u>34.50</u> | <u>34.56</u> | 4 | | <u>138.24</u> |
| F.P. | <u>65.90</u> | 1 | | <u>65.90</u> | <u>72.00</u> | <u>79.00</u> | 1 | | <u>79.00</u> |
| Total | | | | <u>296.53</u> | | | | | <u>349.02</u> |

Mean actual sheer aft = Excess

Mean standard sheer aft

Mean actual sheer forward = Excess

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .095 ✓

„ „ aft of „ = .50 ✓

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{52.49}{18} \left(.75 - \frac{36.71}{138.29} \right) = -1.12$

If limited on account of midship superstructure. 1.12 x $\frac{195}{200} = -1.09$ ✓ If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 17.66 Ft.

Summer freeboard = 1.21

Moulded draught (d) = 16.45

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 4 "

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40T}$ inches

=

Not availableTABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

| | | |
|---|-------------|--------------|
| | + | - |
| Depth Correction | <u>4.17</u> | <u>18.47</u> |
| Deduction for superstructures | <u>-</u> | <u>1.09</u> |
| Sheer correction | <u>-</u> | <u>.01</u> |
| Round of Beam correction | <u>-</u> | <u>-</u> |
| Correction for Thickness of Deck amidships | <u>-</u> | <u>-</u> |
| Other corrections, scantlings, etc. | <u>-</u> | <u>-</u> |
| | <u>4.17</u> | <u>19.57</u> |

Summer Freeboard = 14.40 ✓SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 1'-2 1/2" ✓

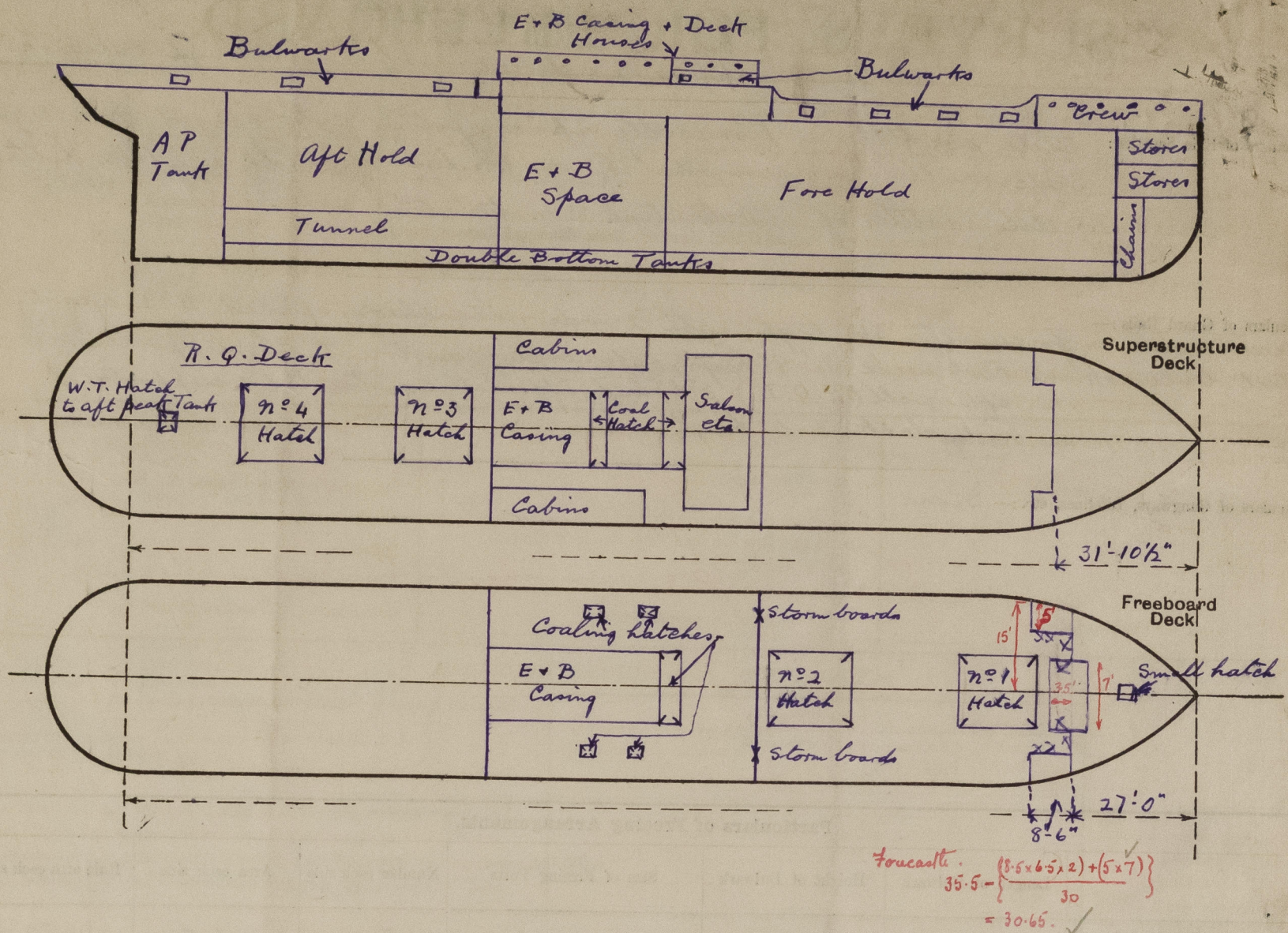
| | |
|---|--|
| Tropical Fresh Water Line above Centre of Disc | |
| Fresh Water Line „ „ | |
| Tropical Line „ „ | |
| Winter Line below „ „ | |
| Winter North Atlantic Line „ „ | |

| | |
|---------------------------------------|--|
| Tropical Fresh Water Freeboard | |
| Fresh Water „ „ | |
| Tropical „ „ | |
| Winter „ „ | |
| Winter North Atlantic „ „ | |

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Lloyd's Register Foundation

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:— *Raised quarter Deck*

Vessel examined in dry dock, Condition survey only.

Builder's name and yard number *Cambeltown S.B. Co. Ltd. No 95*

Names of sister ships

Owners *Foo Hong S.S. Co. Ltd (Williamson & Co. Mgrs.)*

Fee *8242.00*

Received by me



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