

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|---|-----------------------------|--|---------------------------------|------------------------------|---|
| Ship's Name <i>Aardenburg ex. Stahlbeck</i> | Official Number <i>1</i> | Nationality and Port of Registry <i>Dutch Amsterdam</i> | Gross Tonnage <i>1633.55</i> | Date of Build <i>1923</i> | Port of Survey <i>Amsterdam</i> |
| Moulded Dimensions: Length <i>73.80m</i> Breadth <i>11.00m</i> Depth <i>5.35m</i> | | | | | Date of Survey <i>13 Sept 24 Oct 1946</i> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>2767 m³</i> | | | | | Surveyor's Signature <i>[Signature]</i> |
| Coefficient of fineness for use with Tables <i>.755</i> | | | | | Particulars of Classification <i>100 RI class contemplated</i> |

| | | |
|--|---|---|
| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
| Moulded depth ... <i>5.35m</i> | (a) Where D is greater than Table depth (D - Table depth) R = <i>8.33(5.35 - 4.887) = +73cms</i> | Moulded Breadth (B) <i>11.00m</i> |
| Stringer plate ... <i>0.011</i> | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>474</i> | Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>220 m/m</i> |
| Sheathing on exposed deck T $\left(\frac{L-S}{L}\right) =$ <i>-</i> | If restricted by superstructures <i>-</i> | Ship's Round of Beam = <i>220 m/m</i> |
| Depth for Freeboard (D) = <i>5.361</i> | | Difference <i>✓</i> |
| | | Restricted to <i>✓</i> |
| | | Correction = $\frac{\text{Diff}^\circ}{4} \times (1 - \frac{S_1}{L}) =$ <i>Nil.</i> |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------|-------------------------|--|-------------|-------------------|----------------------|
| Poop enclosed ... | <i>3.600</i> | <i>3.600</i> | <i>2380</i> | <i>-</i> | <i>3.600</i> |
| " overhang ... | <i>23.041</i> | <i>23.041</i> | <i>1200</i> | <i>-</i> | <i>23.041</i> |
| R.Q.D. enclosed ... | <i>46.659</i> | <i>46.659</i> | <i>2200</i> | <i>-</i> | <i>46.659</i> |
| " overhang ... | | | | | |
| Bridge enclosed ... | | | | | |
| " overhang aft ... | | | | | |
| " overhang forward ... | | | | | |
| Forecastle enclosed ... | | | | | |
| " overhang ... | | | | | |
| Trunk aft ... | | | | | |
| " forward ... | | | | | |
| Tonnage opening aft ... | | | | | |
| " forward ... | | | | | |
| Total ... | <i>73.300</i> | <i>73.300</i> | | | <i>73.300</i> |

Standard Height of Superstructure *1.830m*
" " R.Q.D. *1.200m*
Deduction for complete superstructure *764 m/m*
Percentage covered $\frac{S}{L} =$ *100%*
Percentage from Table, Line A. *100*
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. *100*
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = *764 m/m*

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------|-------------------|----------|---|-------------|-----------------|--------------------|----------|---|-------------|
| A.P. ... | <i>865</i> | <i>1</i> | | <i>865</i> | <i>550</i> | <i>550</i> | <i>1</i> | | <i>550</i> |
| 1/2 L from A.P. ... | <i>384</i> | <i>4</i> | | <i>1536</i> | <i>95</i> | <i>95</i> | <i>4</i> | | <i>380</i> |
| 2/3 L " ... | <i>96</i> | <i>2</i> | | <i>192</i> | <i>-80</i> | <i>-80</i> | <i>2</i> | | <i>-160</i> |
| Amidships ... | <i>-</i> | <i>4</i> | | <i>-</i> | <i>-</i> | <i>-</i> | <i>4</i> | | <i>-</i> |
| 2/3 L from F.P. ... | <i>192</i> | <i>2</i> | | <i>384</i> | <i>192</i> | <i>192</i> | <i>2</i> | | <i>384</i> |
| 1/2 L " ... | <i>768</i> | <i>4</i> | | <i>3072</i> | <i>768</i> | <i>768</i> | <i>4</i> | | <i>3072</i> |
| F.P. ... | <i>1729</i> | <i>1</i> | | <i>1729</i> | <i>1729</i> | <i>1729</i> | <i>1</i> | | <i>1729</i> |
| Total ... | | | | <i>7778</i> | | | | | <i>5955</i> |

Mean actual sheer aft = *< .50*
Mean standard sheer aft
Mean actual sheer forward = *> 1*
Mean standard sheer forward
Length of enclosed superstructure forward of amidships = *2305*
aft of amidships = *595*
Deficiency sheer.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{1823}{18} \left(\frac{75 - 50}{2 \times 73.3} \right) = +25 m/m$
If limited on account of midship superstructure. *✓*
If limited to maximum allowance of 1 1/2 ins. per 100 ft. *✓*

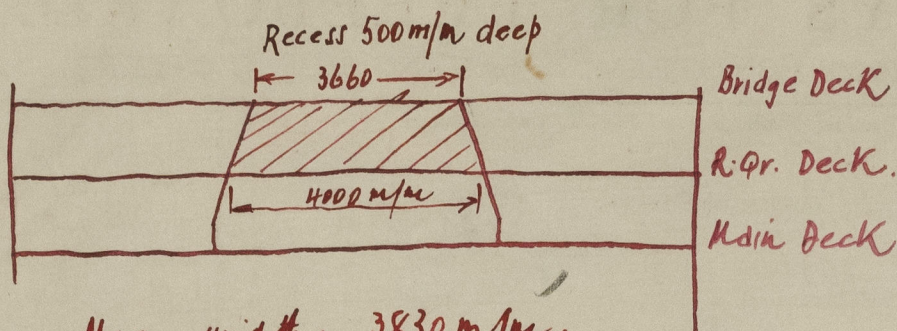
| | | |
|---|---|---|
| Deduction for Tropical Freeboard. | Deduction for Fresh Water. | TABULAR FREEBOARD corrected for Fresh Deck (if required) |
| Addition for Winter and Winter North Atlantic Freeboard. <i>m</i> | Displacement in salt water at summer load water line | Correction for coefficient <i>.755 + .68 = 1.435 / 1.36</i> |
| Depth to Freeboard Deck = <i>5.361</i> | $\Delta =$ <i>3320</i> | Depth Correction ... <i>73</i> |
| Summer freeboard = <i>.150</i> | Tons per inch immersion at summer load water line | Deduction for superstructures ... <i>25</i> |
| Moulded draught (d) = <i>5.211</i> | T = <i>17.6</i> | Sheer correction ... <i>764</i> |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = <i>109 = 11cms</i> | Deduction = $\frac{\Delta}{40T}$ inches = <i>4.716 inches</i> | Round of Beam correction ... <i>7</i> |
| Addition for Winter North Atlantic Freeboard (if required) = <i>109 + 51 = 160 = 16cms</i> | = <i>120 m/m</i> | Correction for Thickness of Deck amidships ... <i>32</i> |
| | = <i>12 cms.</i> | Other corrections, scantlings, etc. ... <i>98</i> |
| | | Summer Freeboard = <i>152</i> |

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

| | | | |
|--|---------------|--|---------------|
| Tropical Fresh Water Line above Centre of Disc ... | <i>22 cms</i> | Tropical Fresh Water Freeboard MINIMUM ... | <i>7 cms</i> |
| Fresh Water Line " ... | <i>12 cms</i> | Fresh Water " (LIMITED) ... | <i>3 cms</i> |
| Tropical Line " (LIMITED) ... | <i>10 cms</i> | Tropical " (LIMITED) ... | <i>5 cms</i> |
| Winter Line below " ... | <i>11 cms</i> | Winter " ... | <i>20 cms</i> |
| Winter North Atlantic Line " ... | <i>16 cms</i> | Winter North Atlantic " ... | <i>31 cms</i> |

"Sardenburg"

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



Mean width 3830 mm.

$$\text{Recess} \frac{3830 \times 500}{11.00} = 1.741$$

$$\text{Bridge and fore-castle} = \frac{47.90 + .5}{11.00} = 48.400$$

$$\text{Equivalent} = 46.659$$

$$\text{Recessed Quarter Deck equivalent length} = 21.3 + 1.741 = 23.041$$

Trade of ship Ocean going

Names of sister ships ?

Builder's name and yard number Atten Gesellschaft Weser, Bremen No 118

Owner Netherland Ministry of Shipping (Royal Netherland Government)

Fee 160.00



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Foundation