

Ambrs (Mond)
32470
Cargy (Mond)
33713

Rpt. G-11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 33778
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Port of Survey Dunkirk

MONTE ABRIL

(Type of Superstructures.)

Ship's Name

Artza-Mendi

Nationality and Port of Registry

Spanish Bilbao

Official Number

Gross Tonnage

2955

Date of Build

1930-7

Date of Survey 21/23 February 1932

Name of Surveyor O. Deuchmann

Moulded Dimensions: Length 102.11 Breadth 13.87 Depth 6.096

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

Coefficient of fineness for use with Tables .73 (estimated) tons

Particulars of Classification +100 AL with funnels

Depth for Freeboard (D)

Moulded depth 6.096

Stringer plate 8

Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 6.104

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = ✓

(b) Where D is less than Table depth (if allowed)
(Table depth - D) R =

$8.33(6.808 - 6.104) \times 25.79 = -151\%$

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 13.87

Standard Round of Beam = $\frac{B \times 12}{50} = 277\%$

Ship's Round of Beam = 279

Difference 2

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2^2}{4} \times \frac{1006}{102.11} = 10.06\%$

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed ... | 9.99 | 9.99 | 2.44 | - | 9.99 |
| " overhang ... | | | | | |
| R.Q.D. enclosed ... | | | | | |
| " overhang ... | | | | | |
| Bridge enclosed ... | | | | | |
| " overhang aft ... | | | | | |
| " overhang forward ... | 90.90 | 90.90 | 2.44 | - | 90.90 |
| St'ble enclosed ... | | | | | |
| " overhang ... | | | | | |
| Trunk aft ... | | | | | |
| " forward ... | | | | | |
| Tonnage opening aft ... | 1.22 | .61 = 1/2.44 | | | .61 |
| " " forward | | | | | |
| Total ... | 102.11 | 101.50 | | | 101.50 |

Standard Height of Superstructure 2.09

" " R.Q.D. ✓

Deduction for complete superstructure 957

Percentage covered $\frac{S}{L} = 100.0$

" " $\frac{S_1}{L} = 99.4$

" " $\frac{E}{L} = 99.4$

Percentage from Table, Line A. ✓ 99.26
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. ✓
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required) ✓

Deduction = $957 \times .9926 = -950\%$

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|-------------------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. ... | 1104 | 1 | | 1104 | 1219 | 1104 | 1 | | 1104 |
| $\frac{1}{2}$ L from A.P. ... | 491 | 4 | | 1964 | 532 | 491 | 4 | | 1964 |
| $\frac{3}{8}$ L " ... | 122.5 | 2 | | 245 | 133 | 122.5 | 2 | | 245 |
| Amidships ... | - | 4 | | - | - | - | 4 | | - |
| $\frac{3}{8}$ L from F.P. ... | 245 | 2 | | 490 | 196 | 240 | 2 | | 480 |
| $\frac{1}{2}$ L " ... | 982 | 4 | | 3928 | 782 | 970 | 4 | | 3880 |
| F.P. ... | 2209 | 1 | | 2209 | 1829 | 2179 | 1 | | 2179 |
| Total ... | | | | 9940 | +350 | | | | 9852 |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{88}{18} (.75 - .50) = +1\%$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 6.104

Summer freeboard = .277

Moulded draught (d) = 5.827

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48}$ inches = 121

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

121

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient

$\frac{.73 + .68}{1.30} = \frac{1.41}{1.36}$

Depth Correction 151

Deduction for superstructures 950

Sheer correction 1

Round of Beam correction -

Correction for Thickness of Deck amidships -

Other corrections, scantlings, etc. -

Summer Freeboard = 277

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

Tropical Fresh Water Line above Centre of Disc 242 = 9.52

Fresh Water Line " " 121 = 4.76

Tropical Line " " 121 = 4.76

Winter Line below " " 121 = 4.76

Winter North Atlantic Line " " ✓

Tropical Fresh Water Freeboard 35 = 1.39

Fresh Water " " 156 = 6.15

Tropical " " 156 = 6.15

Winter " " 398 = 15.67

Winter North Atlantic " " ✓

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