

For Scantling Purpose only

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. _____
(For London Office only.)

Ship's Name Armillia Official Number _____ Nationality and Port of Registry _____ Gross Tonnage _____ Date of Build _____

Port of Survey _____

Date of Survey 27.3.46

Surveyor's Signature _____

Particulars of Classification _____

Moulded Dimensions: Length 305 Breadth 50 Depth 19.25

Moulded displacement at moulded draught = 85 per cent. of moulded depth 5590 tons

Coefficient of fineness for use with Tables .784

DEPTH FOR FREEBOARD (D).

Moulded depth 19.25

Stringer plate04

Sheathing on exposed deck

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

Depth for Freeboard (D) = 19.29

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 =

If restricted by superstructures -2.05

ROUND OF BEAM CORRECTION.

Moulded Breadth (B)

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

Ship's Round of Beam =

Difference

Restricted to

Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ Nil

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Coop enclosed					
" overhang					
Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Cle enclosed					
" overhang					
Trunk aft					
" forward					
Donnage opening aft					
" " forward					
Total					

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure 35.67

Percentage covered $\frac{S}{L} =$ 43.88

" $\frac{S_1}{L} =$ 80.73

" $\frac{E}{L} =$ 74.83

Percentage from Table, Line A. 68.94

(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 = 35.67 x .6894 = -24.59

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
from A.P.		1					1		
"		4					4		
"		2					2		
amidships		4					4		
from F.P.		2					2		
"		4					4		
"		1					1		
Total									

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = Difference between sums of products $\left(\frac{.75 - S}{2L} \right) =$ +2.62

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.

Correction for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 19.29 Ft.

Summer freeboard = 2.00

Moulded draught (d) = 17.29

Correction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.784 + .68}{1.36} = \frac{1.464}{1.36} =$ 1.076

	+	-
Depth Correction		
Deduction for superstructures		<u>2.05</u>
Sheer correction		<u>24.59</u>
Round of Beam correction	<u>-2.62</u>	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
Total	<u>2.62</u>	<u>26.64</u>

Summer Freeboard = 24.04

2.00

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

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

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.

Formula -

$$\Delta \text{ at } 85\% = 5590$$

32' amid

744

2'-8 aft

56

6390

$$32 \times 85 \times 19.25 \times 50 \times .995$$

$$\frac{2.65 \times 85 \times 19.25 \times 50 \times .90}{35}$$

C_B =

$$\frac{6390 \times 35}{339.67 \times 85 \times 19.25 \times 50}$$

$$= .805$$

$$\text{Depth } (85'-6") + (2'-8") = 88'-2"$$

Trunk

$$32 \times 6 =$$

$$192$$

$$+ 8$$

$$+ 4$$

$$204$$

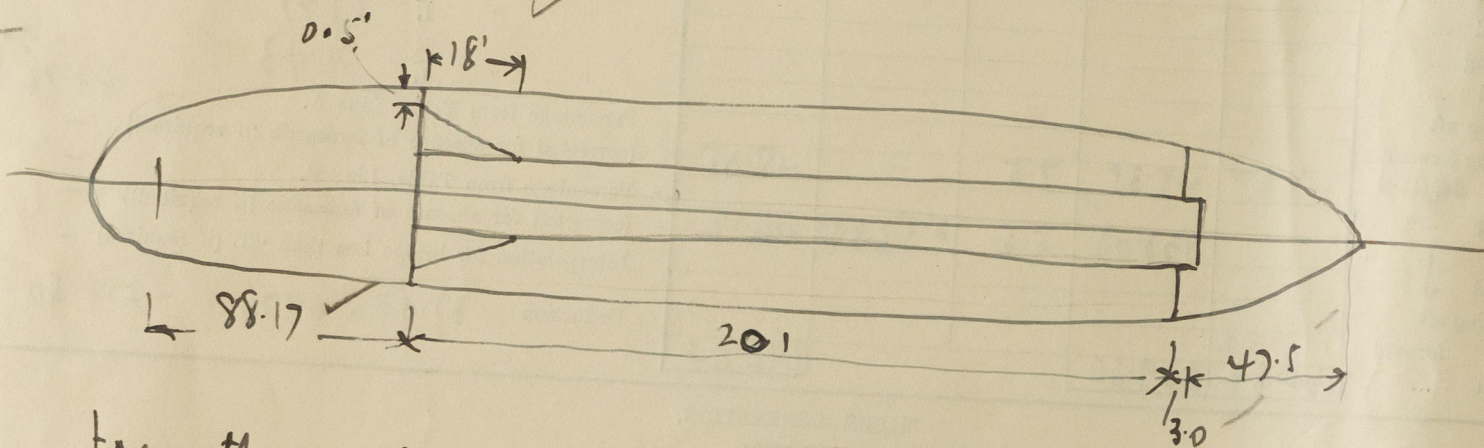
16-6

61-6

7-6

2-8

88-2



Forecastle

$$47.5$$

Side open

$$3 \times 6.3$$

$$22.3$$

Equino

$$48.35$$

$$50.5$$

$$48.35$$

$$2.15$$

$$+ 201$$

$$203.15$$

Trunk

$$18 \times \frac{32 + 49}{2 \times 50} =$$

$$14.58$$

$$185.15 \times \frac{32}{50} =$$

$$118.50$$

$$133.08$$

$$88.17$$

$$201.50$$

$$3.50$$

$$47.50$$

$$339.67$$

URGENT

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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