

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name ARGOS HILL.	Official Number 168743	Nationality and Port of Registry BRITISH GLASGOW.	Gross Tonnage	Date of Build 12-1942	Port of Survey
Moulded Dimensions: Length 425.00 Breadth 56.00 Depth 27.75					Date of Survey 10.8.49.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 11985 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .747					Particulars of Classification

DEPTH FOR FREEBOARD (D). Moulded depth ... 27.75 Stringer plate03 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 27.78	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 = (28.33-27.78) 3 = -1.65 If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 56.00 Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.44 Ship's Round of Beam = 14.00 Difference .56 Restricted to Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times .0053 = \text{NIL}$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	42.17	42.17	9'-1"	✓	42.17
" overhang54	.27			.27
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	377.67	377.67	9'-1"	✓	377.67
" overhang aft54	.41			.41
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	4.08	2.24	9'-1"	✓	2.24
" " forward ...					
Total ...	425.00	422.76			422.76

Standard Height of Superstructure **7.50**

" " R.Q.D. **42.00**

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} = 100.00$

" " $\frac{S_1}{L} =$ **99.47**

" " $\frac{E}{L} =$ **99.34**

Percentage from Table, Line A. k 8 **99.34**

(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 = **42.00 x .9934 = -41.72**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	52.50	1	52.50	54.00	73.00	1	73.00
$\frac{1}{2}$ L from A.P. ...	23.36	4	93.44	24.18	32.48	4	129.92
$\frac{3}{4}$ L " ...	5.775	2	11.55	6.25	8.03	2	16.06
Amidships ...		4				4	
$\frac{3}{4}$ L from F.P. ...	11.55	2	23.10	12.00	13.97	2	27.94
$\frac{1}{2}$ L " ...	46.72	4	186.88	47.72	56.51	4	226.04
F.P. ...	105.00	1	105.00	108.00	127.00	1	127.00
Total ...		✓	472.47	+19.00		✓	599.96

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{127.49}{18} \times .25 = -1.77$

If limited on account of midship superstructure.

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
L

" " aft of " =

c.s.s.

Actual Ht of Tween-deck = 9'-1"
Standard " = 7'-6"
Excess = 1'-7" = 19.00"

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **27.78**
 Summer freeboard = **3.17**
 Moulded draught (d) = **24.61**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.15 = 6 1/4**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 13407$
 Tons per inch immersion at summer load water line
 $T = 48.0$
 Deduction = $\frac{\Delta}{40 T}$ inches = **6.98**
 = **7"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	684.747	1.36	1.427	79.35
Depth Correction				83.26
Deduction for superstructures				
Sheer correction				
Round of Beam correction				
Correction for Thickness of Deck amidships				
Other corrections, scantlings, etc.				
Summer Freeboard =				38.12

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

Tropical Fresh Water Line above Centre of Disc	13 1/4"	Tropical Fresh Water Freeboard	3'-2"
Fresh Water Line	7 1/4"	Fresh Water	2'-0 3/4"
Tropical Line	6 1/4"	Tropical	2'-7 1/4"
Winter Line below	6 1/4"	Winter	3'-8 1/4"
Winter North Atlantic Line		Winter North Atlantic	

Shelter deck has never been opened