

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 12-5-49.
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).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 27.75'	(a) Where D is greater than Table depth (D-Table depth) R = ✓	Moulded Breadth (B) 56.00'
Stringer plate03'	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = (28.33-27.75) 3 = -1.65"	Standard Round of Beam = $\frac{B \times 12}{50} = 13.44$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures .55	Ship's Round of Beam = 14.00
Depth for Freeboard (D) = 27.78'		Difference = .56
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times .006 = N.L.$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	36.92'	36.92'	9'-1"	✓	36.92
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	382.91'	382.91'	9'-1"	✓	382.91
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...		1/2 DIA			
Tonnage opening aft ...	5.17'	2.59'	9'-1"	✓	2.59
„ „ forward ...					
Total ...	425.00'	422.42'			422.42'

Standard Height of Superstructure **7.50'**

„ „ R.Q.D. **✓**

Deduction for complete superstructure **42.00'**

Percentage covered $\frac{S}{L} = 100$

„ „ $\frac{S_1}{L} = 99.40$

„ „ $\frac{E}{L} = 99.40$

Percentage from Table, Line A & B **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 = **42.00 × .9926 = -41.69"**

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
1/2 L from A.P. ...	23.36	4		93.44	24.18	32.48	4		129.92
2/3 L „ ...	5.775	2		11.55	6.25	8.03	2		16.06
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	11.55	2		23.10	12.00	13.97	2		27.94
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	419.1				599.96

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

If limited on account of midship superstructure. **✓**

Mean actual shear aft = **73.00**

Mean standard shear aft = **73.00**

Mean actual shear forward = **129.92**

Mean standard shear forward = **129.92**

Length of enclosed superstructure forward of amidships = **27.94**

„ „ aft of „ = **226.04**

Excess.

C.S.S.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **27.78'**

Summer freeboard = **3.19'**

Moulded draught (d) = **24.59'**

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 $\Delta = 13395$

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

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

79.35

83.26

Summer Freeboard = **.15**

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"**

Fresh Water Line „ **7"**

Tropical Line „ **6 1/4"**

Winter Line below „ **6 1/4"**

Winter North Atlantic Line „ **✓**

Tropical Fresh Water Freeboard **2'-2 1/4"**

Fresh Water **2'-7 1/4"**

Tropical **2'-8 1/4"**

Winter **3'-3 1/2"**

Winter North Atlantic **✓**