

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name LARGS BAY	Official Number 137225	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 14182	Date of Build 1921 12 MS.	Port of Survey _____
Moulded Dimensions: Length 529.33' Breadth 68.00' Depth 43.50'					Date of Survey 8th Aug 1950.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29540 tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables .776					Particulars of Classification +100A1 Shelter Dr. with freeboard.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 43.50	(a) Where D is greater than Table depth (D-Table depth) R = (43.68-35.30)3 = +25.14"	Moulded Breadth (B) 68.00
Stringer plate08	8.38	Standard Round of Beam = $\frac{B \times 12}{50} =$ 16.32
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \times .4061$	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam = 6.00
.10	If restricted by superstructures	Difference -10.32
Depth for Freeboard (D) = 43.68		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{10.32}{4} \times .4357 = +1.12"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	205.33	205.33	8.0	✓	205.33
" overhang aft					
" overhang forward					
File enclosed <i>Equis.</i>	77.64	77.64	8.0	✓	77.64
" overhang	31.37	15.69			15.69
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	314.34	298.66			298.66

Standard Height of Superstructure 7.50'
" " R.Q.D. _____
Deduction for complete superstructure 42.00"
Percentage covered $\frac{S}{L} =$ 59.39
" " $\frac{S_1}{L} =$ 56.43
" " $\frac{E}{L} =$ 56.43
Percentage from Table, Line A. ✓
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 42.43
(corrected for absence of forecastle (if required))
Interpolation for bridge less than .2L (if required) ✓
Deduction = 42.00 × .4243 = 17.82"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	62.93	1	62.93	60.00	60.00	1	60.00
$\frac{1}{2}L$ from A.P.	28.00	4	112.00	27.65	27.65	4	110.60
$\frac{2}{3}L$ "	6.92	2	13.84	6.91	6.91	2	13.82
Amidships	✓	4	✓	✓	✓	4	✓
$\frac{2}{3}L$ from F.P.	13.84	2	27.68	13.03	13.03	2	26.06
$\frac{1}{2}L$ "	56.00	4	224.00	52.14	52.14	4	208.56
F.P.	125.86	1	125.86	120.00	120.00	1	120.00
Total			566.31				539.04

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{27.27}{18} (.75 - .2969) = +.69$
If limited on account of midship superstructure. **.4531** 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.

Ft.
Depth to Freeboard Deck = **43.58**
Summer freeboard = **10.54**
Moulded draught (d) = **33.04**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **8.26 = 8 $\frac{1}{2}$**

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 = $\frac{\Delta}{40 T}$ inches**8 $\frac{3}{4}$**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	.776 + .68	1.456	
	1.36	1.36	
	+	-	
Depth Correction	25.14	✓	
Deduction for superstructures	✓	17.82	
Sheer correction	0.69	✓	
Round of Beam correction	1.12	✓	
Correction for Thickness of Deck amidships	✓	1.20	
Other corrections, scantlings, etc.	✓	✓	
	26.95	19.02	+ 7.93

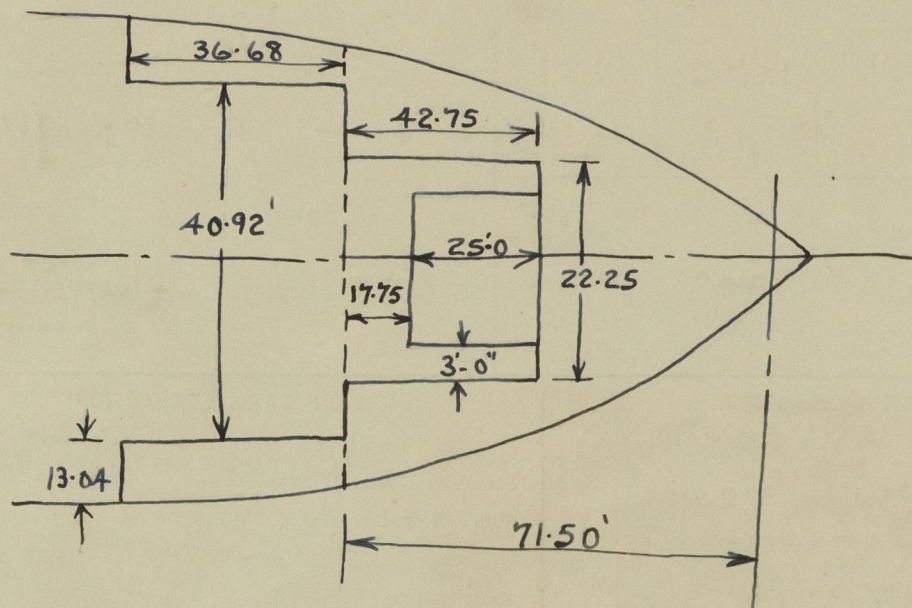
Summer Freeboard = **126.45**

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

Tropical Fresh Water Line above Centre of Disc	.17"
Fresh Water Line " "	.8$\frac{3}{4}$"
Tropical Line " "	.8$\frac{3}{4}$"
Winter Line below " "	.8$\frac{3}{4}$"
Winter North Atlantic Line " "	...

Tropical Fresh Water Freeboard	9'-1$\frac{1}{2}$"
Fresh Water " "	9'-9$\frac{3}{4}$"
Tropical " "	9'-10$\frac{1}{4}$"
Winter " "	11'-2$\frac{3}{4}$"
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.



$$\text{FORECASTLE} = 108.18'$$

$$\text{Recesses: } 36.68 \times 40.92 = 1500.95$$

$$17.75 \times 22.25 = 394.9$$

$$25.00 \times 6.00 = 150.00$$

$$2045.89$$

$$\frac{2045.89}{67} = 30.54$$

$$\text{Equiv. enclosed} = 108.18 - 30.54$$

$$= 77.64$$

$$O/H = 30.54 + 0.83$$

$$= 31.37'$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation