

Amended computation for alterations to freeboard.

pt. C.11 (Comp.).

Index No. 24107.
(For London Office only).

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

Ship's Name YEWGLEN.	Official Number 137788	Nationality and Port of Registry Glasgow, British.	Gross Tonnage 607	Date of Build 1915. 3mo	Port of Survey
Moulded Dimensions: Length 175.0' Breadth 28.0' Depth 12.5'					Date of Survey 2. XII. 41
Displacement at moulded draught = 85 per cent. of moulded depth 1057 tons					Surveyor's Signature
Coefficient of fineness for use with Tables 711.					Particulars of Classification 1100 A1.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 12.50	(a) Where D is greater than Table depth (D - Table depth) R = (12.53 - 11.67) 1.246 = +1.16"	Moulded Breadth (B) 28.00
Superplate03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = .86	Standard Round of Beam = $\frac{B \times 12}{50} =$ 6.72
Correction on exposed deck $\left(\frac{L-S}{L}\right) =$ ✓	If restricted by superstructures ✓	Ship's Round of Beam = 6 3/4"
Depth for Freeboard (D) = 12.53		Difference .03
		Restricted to ✓
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) =$.03 x .2135 = Nil.

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	101.25'	101.25	3.5'	✓	101.25
.. overhang					
Bridge enclosed...	11.00'	11.00	7.0'	✓	11.00
.. overhang aft					
.. overhang forward					
Fore enclosed <i>equi</i> ...	24.28	24.28	6.25' min	✓	24.28
.. overhang ... "	2.22	1.11			1.11
Trunk aft					
.. forward					
Tonnage opening aft					
.. forward					
Total	138.75	137.64			137.64

Standard Height of Superstructure	6.00'
.. .. R.Q.D.	3.50'
Deduction for complete superstructure	23.50
Percentage covered $\frac{S}{L} =$	79.30
.. .. $\frac{S_1}{L} =$	78.65
.. .. $\frac{E}{L} =$	78.65
Percentage from Table, Line A.	73.64
(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 = $.7364 \times 23.50 =$	-17.30'

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	27.50	1		27.50	51.00	51.00	1		51.00
1/2 L from A.P. ...	12.24	4		48.96	23.30	23.30	4		93.20
.. ..	3.02	2		6.04	5.82	5.82	2		11.64
amidships	-	4		-	-	-	4		✓
.. from F.P. ...	6.04	2		12.08	7.85	7.85	2		15.70
.. ..	24.48	4		97.92	31.40	31.40	4		125.60
.. ..	55.00	1		55.00	69.00	69.00	1		69.00
Total				247.50					366.14

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{.75} \right) =$ **$\frac{118.64}{18} \left(\frac{.75 - .3965}{.75} \right) = -1.33'$**

Limited on account of midship superstructure. **✓**

Mean actual sheer aft = **Excess.**

Mean standard sheer aft = **3.50**

Mean actual sheer forward = **Excess.**

Mean standard sheer forward = **3.50**

Length of enclosed superstructure forward of amidships = **>.12.**

.. .. aft of .. = **.5L.**

Correction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
R.Q.D.	Δ = 12.55	.711 + .68 = 1.391/1.36
Depth to Freeboard Deck = 16.03	Tons per inch immersion at summer load water line	Depth Correction ... 1.16
Summer freeboard = 3.67	T = 9.68	Deduction for superstructures ... 17.30
Moulded draught (d) = 12.36	Deduction = $\frac{\Delta}{40T}$ inches	Sheer correction ... 2.33
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.09 = 3'	= 3.24	Round of Beam correction Height: Raised Quarter
Addition for Winter North Atlantic Freeboard (if required) = 5"	= 3 1/4"	Correction for Thickness of Deck amidships
		Other corrections, scantlings, etc. ...
		43.16 19.63 + 23.53
		Summer Freeboard = 43.02

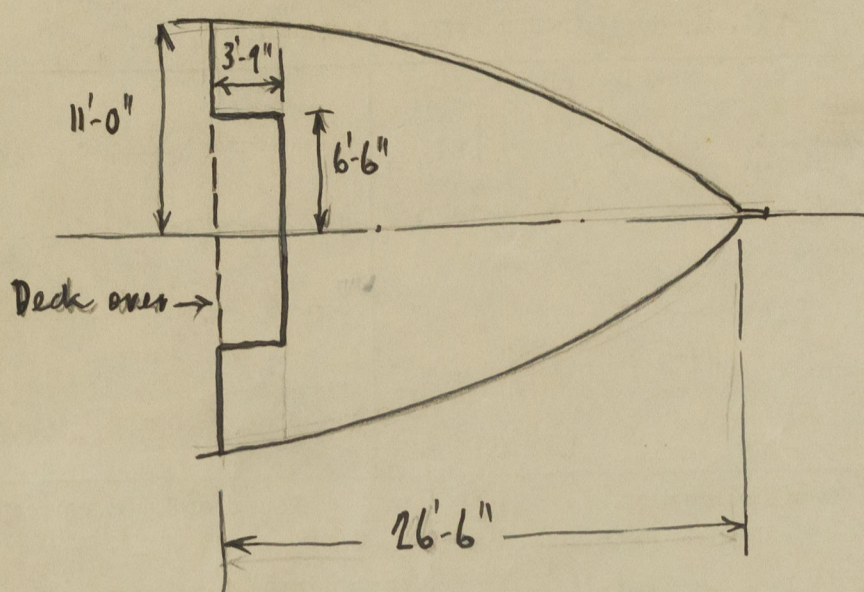
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **RAISED QUARTER**

Tropical Fresh Water Line above Centre of Disc	...	3 1/4"
Fresh Water Line	..	3 1/4"
Tropical Line	..	Nil.
Winter Line	below	3"
Winter North Atlantic Line	..	5"

Tropical Fresh Water Freeboard	...	3'-8" LIMITED.
Fresh Water	..	3'-4 3/4"
Tropical	..	3'-8" LIMITED.
Winter	..	3'-11"
Winter North Atlantic	..	4'-1"

EC 1841

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.



$$\begin{aligned} \text{Recess } \frac{3.75' \times 6.5'}{11.0'} &= \frac{2.22}{26.50} = \text{equivalent overhang} \\ &= 24.28 = \text{enclosed length} \end{aligned}$$

Trade of ship.

Names of sister ships.

Builder's name and yard number.

Owners.

Fee £



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Foundation