

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

JAN 11 1938

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER~~)

Ship's Name "WELSH COAST"	Official Number 164349	Nationality and Port of Registry British Liverpool.	Gross Tonnage 646	Date of Build 1938.	Port of Survey Glasgow
Moulded Dimensions: Length 199' Breadth 33' Depth 13.64'					Date of Survey Building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1420 tons					Surveyor's Signature M. Macleod.
Coefficient of fineness for use with Tables .68 lowest allowed.					Particulars of Classification +100 A1. with Freeboard.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 13.64'	(a) Where D is greater than Table depth (D - Table depth) R = (13.70 - 13.27) 1.531 = +.66"	Moulded Breadth (B) 33'
Stringer plate03'	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 7.92"
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NIL	If restricted by superstructures ✓	Ship's Round of Beam = 3"
Depth for Freeboard (D) = 13.70		Difference Deficient = 4.92"
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{4.92}{4} \times .0093 = +.01"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed (mean) ...	56.30	56.30			56.30
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...	139.00	139.00	4'4" to 11'10"		139.00
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	3.70	DIFF x 1/2 = 1.85			1.85
" " forward ...					
Total ...	199.00	194.15			194.15

Standard Height of Superstructure	6.00'
" " R.Q.D.	✓
Deduction for complete superstructure	25.90"
Percentage covered $\frac{S}{L} =$	100.00
" " $\frac{S_1}{L} =$	99.07
" " $\frac{E}{L} =$	99.07
Percentage from Table, Line A.	98.85
(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 =	25.90 x .9885 = 25.60"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	29.90	1		29.90	27"	46.00	1		46.00
1/2 L from A.P. ...	13.305	4		53.32	12"	20.47	4		81.88
3/4 L " ...	3.29	2		6.58	3"	5.06	2		10.12
Amidships ...	-	4		-	0	-	4		-
3/4 L from F.P. ...	6.58	2		13.16	6"	8.03	2		16.06
1/2 L " ...	26.61	4		106.44	24"	32.49	4		129.96
F.P. ...	59.80	1		59.80	54"	73.00	1		73.00
Total ...				269.10	+19"				354.02

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{84.92}{18} \times .25 = -1.22$

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

If limited to maximum allowance of 1 1/2 ins. per 100 ft. **✓**

Mean actual sheer aft = **Excess.**
Mean standard sheer aft = **Excess.**

Mean actual sheer forward = **Excess.**
Mean standard sheer forward = **Excess.**

Length of enclosed superstructure forward of amidships = **C.L.S.**
" " aft of " = **C.L.S.**

Actual transverse deck height = **4'4"**
Standard " " " = **6'0"**
Excess = **1'4"**
= **19"**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	22.93'
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient ✓	22.93'
Depth to Freeboard Deck = 13.70	$\Delta =$ 17.6	Depth Correction66
Summer freeboard = .14	Tons per inch immersion at summer load water line	Deduction for superstructures ...	- 25.60
Moulded draught (d) = 13.53	$T =$ 12.5	Sheer correction ...	- 1.22
Deduction for Tropical freeboard and Addition for Winter freeboard = $\frac{d}{4}$ inches = 3.38 = 3 1/2"	Deduction = $\frac{\Delta}{40 T}$ inches = 3.60	Round of Beam correction01
Addition for Winter North Atlantic Freeboard (if required) = 5 1/2"	= 3 1/2"	Correction for Thickness of Deck amidships ...	-
		Other corrections, scantlings, etc. ...	-
		.67 26.82 - 26.15	
		Summer Freeboard = - 3.22	

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

Tropical Fresh Water Line above Centre of Disc ...	3 1/2"	Tropical Fresh Water Freeboard ...	0' 2" (limited)
Fresh Water Line " " ...	3 1/2"	Fresh Water " " ...	MINUS 0' 1 1/2"
Tropical Line " " ...	NIL	Tropical " " ...	0' 1 1/2"
Winter Line below " " ...	3 1/2"	Winter " " ...	0' 2" (limited)
Winter North Atlantic Line " " ...	5 1/2"	Winter North Atlantic " " ...	0' 5 1/2"
			0' 1 1/2"

Welsh Coast.

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.

Approved Midship Section: Profile and deck plans and Hatch plan
forwarded for reference.
Freeboard Request Form attached.

Trade of ship *To be engaged in International Trade.*

Names of sister ships *"Devon Coast," "Dorset Coast," "Aurim Coast," and "Norfolk Coast."*

Builder's name and yard number *ARROSSAN D.Y. LD. No. 368,*

Owners *Coast Lines Ltd.*

*G/L Report No. 54288. No. 362.
54505. No. 363.
54866. No. 364.
58994. No. 367.*

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