

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "HYALINA"	Official Number 181843	Nationality and Port of Registry British: London.	Gross Tonnage 12,267	Date of Build 1948	NEWCASTLE-ON-TYNE Port of Survey
Moulded Dimensions: Length 551.0' Breadth 70.0' Depth 40.5' <i>to axis of Rudder Stock.</i>					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 27,576 tons					Surveyor's Signature J. H. Ballum
Coefficient of fineness for use with Tables 727					Particulars of Classification *100 A.1. Carrying Petroleum in bulk. (Class contemplated)

DEPTH FOR FREEBOARD (D). Moulded depth 40.50 Stringer plate08 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ - Depth for Freeboard (D) = 40.58	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = $(40.50 - 36.73) \times 3 = +11.55$ 3.85 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 70.0' Standard Round of Beam = $\frac{B \times 12}{50} =$ 16.80 Ship's Round of Beam = 17.5" Difference .70" Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.7}{4} \times .5617 =$ -.10'
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	146.83	146.83	8.0		146.83
" overhang					
R.Q.D. enclosed					
" overhang					
55.37' 24. 50.52' side Bridge enclosed 53.75'	53.75	53.75	7.5		53.75
" overhang aft75	.56			.56
" overhang forward	1.00	.58			
Fore enclosed	40.37	40.37	7.8		40.37
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	241.70	241.51			241.51

Standard Height of Superstructure	7.5
" " R.Q.D.	
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	43.86
" " $\frac{S_1}{L} =$	43.33
" " $\frac{E}{L} =$	43.33
Percentage from Table, Line A. TANKER	34.83
(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 = $42.00 \times .3483 =$	-14.63

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	65.10	1		65.10	54.87	54.87	1		54.87
$\frac{1}{8}L$ from A.P.	28.97	4		115.88	8.50	8.50	4		34.00
$\frac{2}{8}L$ "	7.16	2		14.32	-	-	2		-
Amidships	-	4		-	-	-	4		-
$\frac{3}{8}L$ from F.P.	14.32	2		28.64	-	-	2		-
$\frac{4}{8}L$ "	57.94	4		231.76	13.25	13.25	4		53.00
F.P.	130.20	1		130.20	108.00	108.00	1		108.00
Total				515.90					249.87

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{336.03}{18} (.75 - .2193) = +9.91$
 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 =
 " " aft of " =

Deficient.

Does not apply.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **40.58**
 Summer freeboard = **9.08**
 Moulded draught (d) = **31.50**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **7.875 = 8"**

Addition for Winter North Atlantic Freeboard (if required) = **7.875 + 5.51 = 13 1/2"**

Deduction for Fresh Water.

(See note.)
 Displacement in salt water at summer load water line

$$\Delta = 25003$$

Tons per inch immersion at summer load water line

$$T = 7535$$

$$\text{Deduction} = \frac{\Delta}{40 T} \text{ inches}$$

$$= 8.29$$

$$= 8 1/4"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	11.55	-
Deduction for superstructures	-	14.63
Sheer correction	9.91	-
Round of Beam correction	-	10
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	21.46	14.73

Summer Freeboard = **108.94**

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

Tropical Fresh Water Line above Centre of Disc	16 1/4
Fresh Water Line " "	8 1/4
Tropical Line " "	8
Winter Line below " "	8
Winter North Atlantic Line " "	13 1/2

Tropical Fresh Water Freeboard	7 1/4
Fresh Water " "	4 3/4
Tropical " "	5
Winter " "	5 1/2
Winter North Atlantic " "	16 1/2

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.

13 inches at C² 55.37

" " Side 50.52

$4.85 \times \frac{2}{3} = 3.23$

53.75

= equiv. encl. length.

Forward Overhang. Nil.

aft " = 7.5'

Freeboard request form enclosed herewith.

External displacement and T.P.I.

	Displmt.	T.P.I.
32'-0" B.K.	25,380	75.60
31'-6" B.K.	24,927	75.35
31'-0" B.K.	24,475	75.10

Trade of ship

Carrying Petroleum in Bulk.

Names of sister ships

"HELICINA" (similar)

Builder's name and yard number

Swan Hunter & Wigham Richard Son, Ltd., Wallsend. No 1753.

Owners

Anglo-Saxon Petroleum Co. Ltd.

Fee £

To be charged with First Entry.



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Foundation