

22 JUL 1950

Rpt. C.11 (Comp.).

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(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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12 OCT 1950

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Ship's Name ATHELBEACH	Official Number 183789.	Nationality and Port of Registry British Liverpool	Gross Tonnage 7533.	Date of Build 1950	NEWCASTLE-ON-TYNE Port of Survey.....
Moulded Dimensions: Length 431'-0" ✓ Breadth 61'-0" ✓ Depth 31'-0" ✓ FROM CR OF RUDDER STOCK					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 15296 tons					Surveyor's Signature A.M. Queen
Coefficient of fineness for use with Tables 773 ✓					Particulars of Classification + 100 A.1. CARRYING MOLASSES OR PETROLEUM IN BULK

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 31.0 ✓	(a) Where D is greater than Table depth $(D - \text{Table depth}) \times 3 = +7.02''$ ✓	Moulded Breadth (B) 61.0
Stringer plate 81 ... 07 ✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 14.64$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 14 3/4 ✓
Depth for Freeboard (D) = 31.07 ✓		Difference .11 ✓
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{11.5213}{4} = -2.88$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed Equin ...	108.17 ✓	108.17 ✓	8.0	—	108.17 ✓
„ overhang ...	3.6 ✓	1.6 ✓			1.6 ✓
R.Q.D. enclosed ...	33 ✓				
„ overhang ...					
Bridge enclosed Equin ...	35.09 ✓	35.09 ✓	8.0	—	35.09 ✓
„ overhang aft ...	4.4 ✓	3.44 ✓			3.44 ✓
„ overhang forward ...	5.0 ✓	.91 ✓			.91 ✓
F'cle enclosed ...	35.2 ✓	35.17 ✓	8.0	—	35.17 ✓
„ overhang ...	4.0 ✓	4.00 ✓			4.00 ✓
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	189.17 ✓	186.94 ✓			186.94 ✓

Standard Height of Superstructure **7.5** ✓
R.Q.D. **42.0** ✓
Deduction for complete superstructure **42.0** ✓
Percentage covered $\frac{S}{L} = 43.89$ ✓
„ $\frac{S_1}{L} = 43.37$ ✓
„ $\frac{E}{L} = 43.37$ ✓
Percentage from Table, Line A **Tanker 34.37** ✓
(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 x .3437 = -14.43** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. CR OF R. STOCK	53.10 ✓	1	53.10	54.50	64.50	1	54.50
1/8 L from A.P. 1..	23.63 ✓	4	94.52	24.45	24.75	4	99.00
2/8 L „ „	5.84 ✓	2	11.68	5.45	5.75	2	11.50
Amidships ...	—	4	—	0	—	4	—
2/8 L from F.P. ...	11.68 ✓	2	23.36	11.50	11.50	2	23.00
1/8 L „ „	47.26 ✓	4	189.04	48.25	48.25	4	193.00
F.P. ...	106.20 ✓	1	106.20	108.00	108.00	1	108.00
Total ...			477.90				489.00

Mean actual sheer aft = **71**
Mean standard sheer aft = **71**
Mean actual sheer forward = **71**
Mean standard sheer forward = **71**
Length of enclosed superstructure forward of amidships = **71**
„ „ aft of „ = **71**
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{11.10}{18} \times (75 - 21.75) = -33''$ ✓
If limited on account of midship superstructure. **5305** ✓
If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **31.07** ✓
Summer freeboard = **5.60** ✓
Moulded draught (d) = **25.47** ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.37** ✓
Addition for Winter North Atlantic Freeboard (if required) = **6.37 + 4.31 = 10.68** ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 14737$ MLD ✓
Tons per inch immersion at summer load water line
 $T = 54.22$ MLD ✓
Deduction = $\frac{\Delta}{40 T}$ inches = **6.80** ✓
= **6 3/4** ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **773 x .68 = 525.56** ✓
Depth Correction ... **7.02** ✓
Deduction for superstructures ... **14.43** ✓
Sheer correction ... **.33** ✓
Round of Beam correction ... **.02** ✓
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...
Summer Freeboard = **67.20** ✓

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

Tropical Fresh Water Line above Centre of Disc	13 ✓	Tropical Fresh Water Freeboard	51-7 1/4 ✓
Fresh Water Line	6 3/4 ✓	Fresh Water	51-0 1/2 ✓
Tropical Line	6 1/4 ✓	Tropical	51-1 1/2 ✓
Winter Line below	6 1/4 ✓	Winter	61-1 1/2 ✓
Winter North Atlantic Line	10 3/4 ✓	Winter North Atlantic	6-6 ✓

Athelbeach.

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.

Bridge ~~41.5~~ 31.92 ✓

$\frac{2}{3} \times 4.75 = \frac{3.17}{35.09} \checkmark$

O'hang fast = $\frac{5.0}{3.17} = 1.58 \checkmark$

Roop 105 ✓

$\frac{2}{3} \times 4.75 = \frac{3.17}{108.17} \checkmark$

$\frac{3.5}{3.17} = 1.10 \checkmark$
O'hang.

Trade of ship general

Names of sister ships none

Builder's name and yard number R. & W. Hawthorn Leslie & Co Ltd Yard No. 400

Owners Athel Line Ltd.

Fee £ To be charged with 1st Entry.

Imperial dock 1212



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