

Allegiance
37250 Etc.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.) (TUG)

 Oct 2021
 Index. No. 37382
 (For London Office only).

17 SEP 1943

Ship's Name "ASSIDUOUS"	Official Number NONE 169321	Nationality and Port of Registry BRITISH	Gross Tonnage 597	Date of Build 1943.	Port of Survey Hull.
Moulded Dimensions: Length 142'6" Breadth 33'0" Depth 16'0"					Date of Survey During construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1010 tons					Surveyor's Signature J. Macleod
Coefficient of fineness for use with Tables .68 (Actual .553) 85 = T.P.I.					Particulars of Classification * 100 A.1. "FOR TOWING SERVICES". (CONTEMPLATED)

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth ...	16'0"	(a) Where D is greater than Table depth (D - Table depth) R = (16.03 - 9.50) 1.096 = + 7.16"		Moulded Breadth (B)	33'0"
Stringer plate03	6.53		Standard Round of Beam = $\frac{B \times 12}{50} =$	7.92
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	NONE	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = \checkmark		Ship's Round of Beam =	9"
Depth for Freeboard (D) =	16'03"	If restricted by superstructures \checkmark		Difference	1.08
				Restricted to	\checkmark
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$	$\frac{1.08}{4} \times .6327 = -.17$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
.. overhang ...					
R.Q.D. enclosed ...					
.. overhang ...					
Bridge enclosed ...					
.. overhang aft ...					
.. overhang forward ...					
F'cle enclosed ...	52.33	52.33	7'0"	\checkmark	52.33
.. overhang ...	" "				
Trunk aft ...					
.. forward ...					
Tonnage opening aft ...					
.. forward ...					
Total ...	52.33	52.33			52.33

Standard Height of Superstructure	6.0'
" " R.Q.D.	\checkmark
Deduction for complete superstructure	20.25
Percentage covered $\frac{S}{L} =$	
" " $\frac{S_i}{L} =$	36.73
" " $\frac{E}{L} =$	
Percentage from Table, Line A.	20.72
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	\checkmark
(corrected for absence of forecastle (if required))	\checkmark
Interpolation for bridge less than .2L (if required)	\checkmark
Deduction = $20.25 \times .2072 =$	-4.20"

SHEER CORRECTION.

Sheers measured from a line parallel to the designed waterline.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	24.25	1		24.25	29.50	29.50	1		29.50
$\frac{1}{4}$ L from A.P. ...	10.79	4		43.16	12.33	12.33	4		49.32
$\frac{2}{4}$ L ..	2.67	2		5.34	2.92	2.92	2		5.84
Amidships ...	-	4		-	ON PAGE 1.	-	4		-
$\frac{2}{4}$ L from F.P. ...	5.34	2		10.68	8.08	8.08	2		16.16
$\frac{1}{4}$ L ..	21.58	4		86.32	29.67	29.67	4		118.68
F.P. ...	48.50	1		48.50	73.75	73.75	1		73.75
Total ...				218.25					293.25

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{75}{18} \times (1.75 - .1836) = -2.36"$
 If limited on account of midship superstructure. **Yes. Nil.** **.5664** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. \checkmark

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	14.53
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	14.53
Depth to Freeboard Deck = 16.03	$\Delta = 1078$	Depth Correction ...	7.16
Summer freeboard = 1.87	Tons per inch immersion at summer load water line	Deduction for superstructures ...	4.20
Moulded draught (d) = 14.16	$T = 8.69$	Sheer correction ...	-.17
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{\Delta}{4}$ inches = 3.54 = 3\frac{1}{2}"	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction17
Addition for Winter North Atlantic Freeboard (if required) =	MID. DRAFT. = 3.10 = 3"	Correction for Thickness of Deck amidships ...	5.18
	EXT. DISP. = 1100	Other corrections, scantlings, etc. to correspond to position of lower side scuttles	12.34
	T.P.I. = 8.75		4.37
	14' 1 1/2" 996 8.45		+ 7.91
	12' 1 1/2" 892 8.20		Summer Freeboard = 22.50

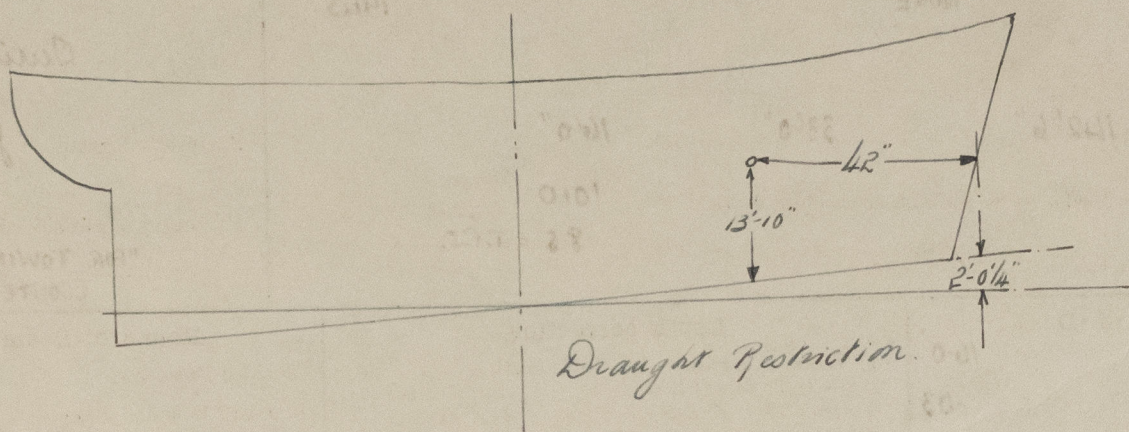
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ...	3"
Fresh Water Line " " ...	3"
Tropical Line " " ...	N.I.
Winter Line below " " ...	N.I.
Winter North Atlantic Line " " ...	2"

Tropical Fresh Water Freeboard ...	1' 10 1/2"
Fresh Water " " ...	1' 7 1/2"
Tropical " " ...	1' 10 1/2" (limited)
Winter " " ...	1' 10 1/2"
Winter North Atlantic " " ...	2' 0 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.

(207)



$$\begin{aligned}
 L &= 142.5 \\
 \frac{L}{2} &= 71.25 \\
 \frac{42.00}{(29.25/71.25) \times 2.02} &= 0.83 \\
 &+ 13.83 \\
 &= 14.66 \\
 &- .50 \\
 &= 14.16' \text{ Limited Draught.}
 \end{aligned}$$

Trade of ship "FOR TOWING SERVICES".

Names of sister ships "ANTIC" - "ALLEGIANCE"

Builder's name and yard number COCHRANE & SONS LTD. - YARD NO 1269.

Owners THE ADMIRALTY.

Fee £ TO BE CHARGED WITH FIRST ENTRY.



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