

AMENDED

Rpt. C.11 (Comp.)

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY

Received
Index No.
Govt. Copy
Owners C11

Ship's Name CAUTIOUS.	Official Number	Nationality and Port of Registry BRITISH	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 142'6" Breadth 33'0" Depth 16'0"					Date of Survey 20.3.58.
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1010 tons (excluding bossing) 8.5 T.P.I.					Particulars of Classification 100 A.1. FOR TOWING PURPOSES.
Coefficient of fineness for use with Tables .68 (.553 Actual)					

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 plate 1.03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{33.0 \times 12}{50} = 7.92"$
Wood Sheathing on exposed deck		Ship's Round of Beam = 9
$T \left(\frac{L-S}{L} \right) =$		Difference 1.08"
Depth for Freeboard (D) = 16.03	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.08}{4} \times \left(1 - \frac{45.99}{142.5} \right) = .12"$

DEDUCTION FOR SUPERSTRUCTURES.				
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Effective Length (E)
Poop enclosed				
" overhang				
R.Q.D. enclosed				
" overhang				
Bridge enclosed				
" overhang aft				
" overhang forward				
F'cle enclosed Equin. 76.96	76.96			76.96
" overhang				
Trunk aft				
" forward				
Tonnage opening aft				
" " forward				
Total	76.96	76.96		76.96

Standard Height of Superstructure 6.00
" " R.Q.D. 1
Deduction for complete superstructure 20.25
Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$
" " $\frac{E}{L} =$
Percentage from Table, Line A. 37.61
(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 = 20.25 x .3761 = 7.62

SHEER CORRECTION.							
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	0	4	0	0	0	4	0
$\frac{3}{4}$ 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 = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{75.0 - (.75 - .2701)}{18} = 2.00$

If limited on account of midship superstructure. **Yes. 2.00 x 1.401 = 2.80**

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **.5**

" " aft of " = **.0401**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.		Correction for coefficient Nil.
Depth to Freeboard Deck = 16.03	Displacement in salt water at summer load water line	Depth Correction 7.16
Summer freeboard = 1.87	$\Delta = 1078$	Deduction for superstructures 7.62
Moulded draught (d) = 14.16	Tons per inch immersion at summer load water line	Sheer correction 1.40
Keel allowance =	T = 8.69	Round of Beam correction12
Extreme draught =	Deduction = $\frac{\Delta}{40 T}$ inches	Correction for Thickness of Deck amidships 9.95
Deduction for Tropical freeboard and addition for =	= 3.10	Other corrections, scantlings, etc. 6
Winter freeboard = $\frac{d}{4}$ inches = 3.54 = 3 1/2	= 3	correspond to position of lower side scuttles
Addition for Winter North Atlantic Freeboard (if required) =		Summer Freeboard = 22.50

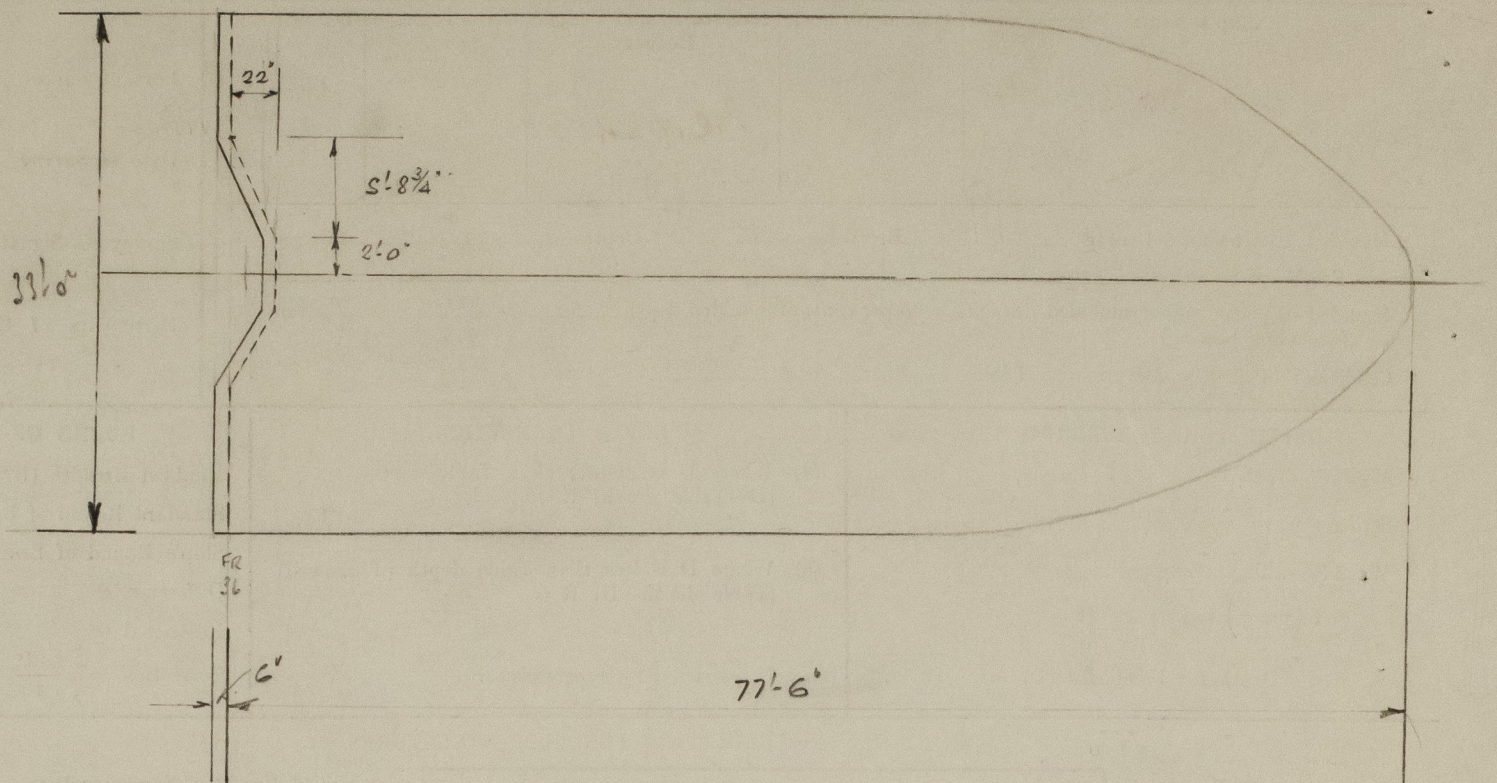
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-			
Tropical Fresh Water Line above Centre of Disc	3'	Tropical Fresh Water Freeboard	1' 10 1/2"
Fresh Water Line " "	3'	Fresh Water " "	1' 7 1/2"
Tropical Line " "	Nil	Tropical " "	1' 10 1/2"
Winter Line below " "	Nil	Winter " "	1' 10 1/2"
Winter North Atlantic Line " "	2'	Winter North Atlantic " "	2' 0 1/2"

2 APR 1958

Cautions.

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.

Forecastle



Equivalent length

$$\text{Ans. } \frac{1.83 \times 2.0 + 1.83 \times 5.7 \times \frac{1}{2}}{16.5}$$

$$\begin{array}{r} 77.5 \\ - .54 \\ \hline 76.96 \end{array}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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Foundation