

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

497

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP, BRIDGE & FORECASTLE

Port of Survey Newcastle

STRYMON (Type of Superstructures.)

Date of Survey 9th April, 1932

Ship's Name "CAIRNDHU" Nationality and Port of Registry British Newcastle Official Number 142828 Gross Tonnage 5250 Date of Build 1919.3

Name of Surveyor P. D. Brounace

Moulded Dimensions: Length 400.58 Breadth 52.02 Depth 31.02
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12046 tons
Coefficient of fineness for use with Tables 772

Particulars of Classification +100A1.

Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth	...	31.00	(a) Where D is greater than Table depth	✓	Moulded Breadth (B)	52
Stringer plate04	(D - Table depth) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	12.48
Sheathing on exposed deck	...	-	(31.04 - 26.59) R =	+13.35	Ship's Round of Beam	13
T $\left(\frac{L-S}{L}\right) =$...	-	(b) Where D is less than Table depth (if allowed)		Difference	.52
			(Table depth - D) R =	-	Restricted to	
Depth for Freeboard (D) =	31.04	✓	If restricted by superstructures	-	Correction = $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L})$	$\frac{.52}{4} \times 49.62 = -.06$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	49.25	49.25	7' 11 1/2"	-	49.25
" overhang	-	-	-	-	-
R.Q.D. enclosed	-	-	-	-	-
" overhang	-	-	-	-	-
Bridge enclosed	112.66	112.66	7' 11 1/2"	-	112.66
" overhang aft	-	-	-	-	-
" overhang forward	38.00	38.00	7' 11 1/2"	-	38.00
F'cle enclosed	39.00	39.00	7' 11 1/2"	-	39.00
" overhang	1.00	1.00	-	-	1.00
Trunk aft	-	-	-	-	-
" forward	-	-	-	-	-
Tonnage opening aft	-	-	-	-	-
" forward	-	-	-	-	-
Total	200.91	200.91	-	-	200.91

Standard Height of Superstructure 7.49
" " R.Q.D. -
Deduction for complete superstructure 41.92
Percentage covered $\frac{S}{L} = 50.38\%$
" " $\frac{S_1}{L} = 50.38\%$
" " $\frac{E}{L} = 50.38\%$
Percentage from Table, Line A. ✓
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 36.38%
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required) ✓
Deduction = $41.92 \times .3638 = -15.25$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	49.88	1	✓	49.88	60.00	60.00	1	✓	60.00
1/4 L from A.P.	22.20	4	✓	88.80	26.00	26.00	4	✓	104.00
2/4 L	5.49	2	✓	10.98	6.50	6.50	2	✓	13.00
Amidships	-	4	✓	-	-	-	4	✓	-
3/4 L from F.P.	10.98	2	✓	21.96	13.00	13.00	2	✓	26.00
"	44.39	4	✓	177.56	52.00	52.00	4	✓	208.00
F.P.	99.76	1	✓	99.76	120.00	120.00	1	✓	120.00
Total			✓	448.94					531.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{82.06}{18} \left(\frac{75-2579}{2} \right) = -2.27$
If limited on account of midship superstructure. 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 = 31.04
Summer freeboard = 5.98
Moulded draught (d) = 25.06

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.26
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 11470$ tons
Tons per inch immersion at summer load water line $T = 41.14$
Deduction = $\frac{\Delta}{40T}$ inches = 6.97

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{772 + .68}{1.36} = \frac{1.452}{1.36}$

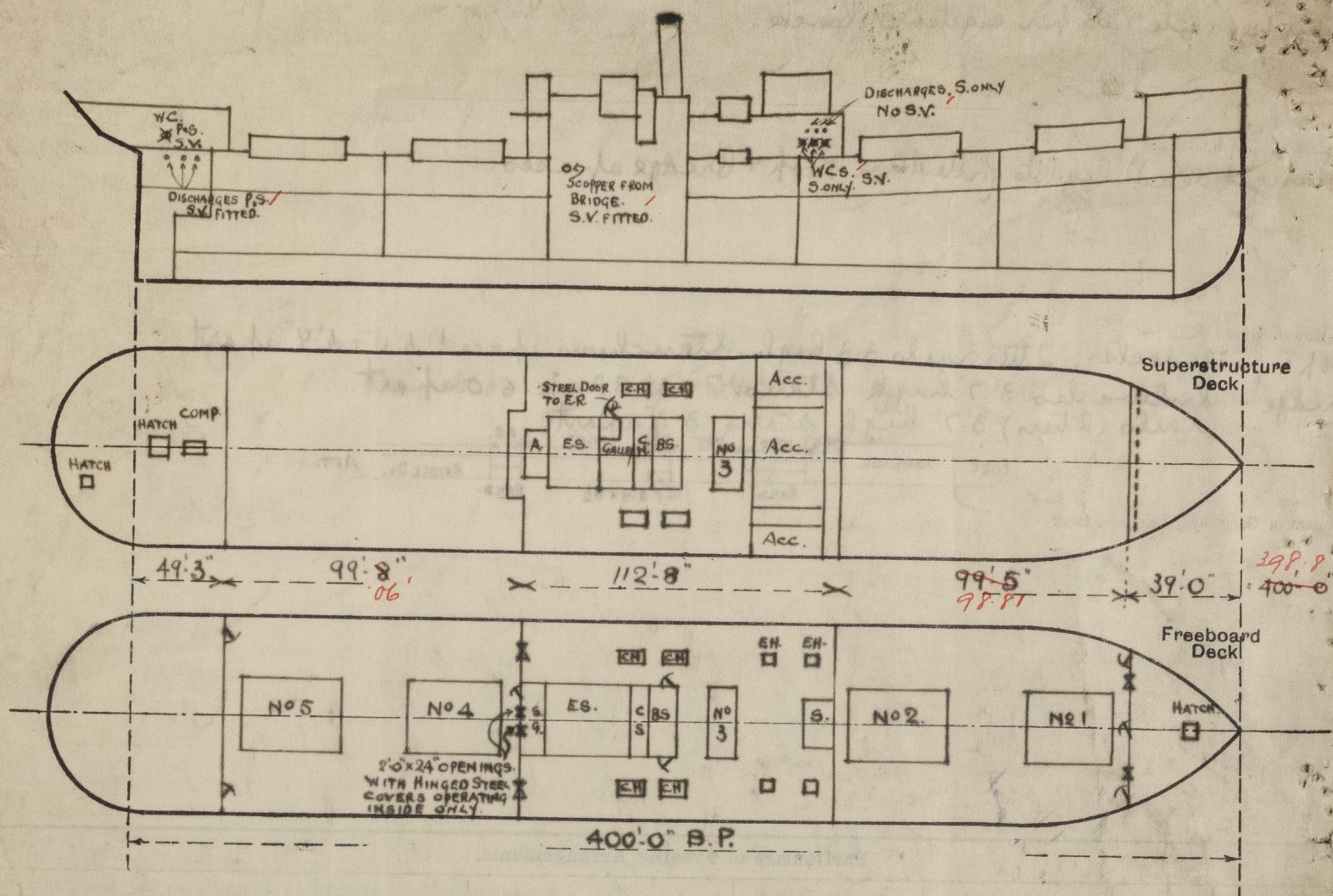
Depth Correction ... 13.35
Deduction for superstructures ... 15.25
Sheer correction ... 2.27
Round of Beam correction06
Correction for Thickness of Deck amidships ... -
Other corrections, scantlings, etc. ... -

Summer Freeboard = 71

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

Tropical Fresh Water Line above Centre of Disc	...	Tropical Fresh Water Freeboard	...
Fresh Water Line	"	Fresh Water	"
Tropical Line	"	Tropical	"
Winter Line	"	Winter	"
Winter North Atlantic Line	"	Winter North Atlantic	"

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:—

No Timber Assignment required ✓

FW 25'06
21
25'27

8' x 31 = 26'35"
21
26'56
25'25
1'31

"P1"	"A2Y" A	tdl	4 x 25'4" x 3"	28 = 11460
"P2"	"A2Y" A	tdl	1'31 x 12 x 41'2	= 648
"P3"	"A2Y" A	tdl	28 86 x 6 x 4	28 124608 4"
"P4"	"A2Y" A	tdl	08 188A x 26 x P	0A = 12046 mcd
"P5"	"A2Y" A	tdl	28 86 x 6 x 66	08 08

Particulars
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Particulars
Bridg
Poop

e and yard number

Palmer's Co. Ltd.

Particulars of
For ships

Line of Steamships, Ltd.

13: 12 Received by me

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