

WRECK SECTION

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **17734**
(For London Office only.)No. **101528**

22 DEC 1932

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
having **RAISED QUARTER DECK, BRIDGE & FORECASTLE**
(Type of Superstructures.)

Port of Survey **LIVERPOOL**

Date of Survey **DECEMBER 1932**

Name of Surveyor **J. Steadman**

Ship's Name **"KYLE FIRTH"**

Nationality and Port of Registry **BRITISH GLASGOW**

Official Number **99735**

Gross Tonnage **450**

Date of Build **1905-4**

Moulded Dimensions: Length **54.84** Breadth **25.5** Depth **12.25**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **838** tons

Coefficient of fineness for use with Tables **.713**

Particulars of Classification *** 100A1**
S.S. Rkn. 2nd No 3-11.30

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... 12.25	(a) Where D is greater than Table depth (D - Table depth) R = (12.28 - 10.32) 1.191 = +2.33	Moulded Breadth (B) 25.5
Stringer plate ... 12.3	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 6.12$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 6.2
Depth for Freeboard (D) = 12.28		Difference .38
		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times (1 - \frac{S_1}{L}) = \frac{.38}{4} (1 - \frac{.7338}{.2662}) = -.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	✓				
" overhang ...	✓				
R.Q.D. enclosed ...	36' 3"	86.25	3' 9"	✓	86.25
" overhang equino	9.92				
Bridge enclosed (Side) ...	8' 9"	9.92	6' 9"	✓	9.92
" overhang aft ...	10' 6"				
" overhang forward ...					
Open fore enclosed (Side) ...	23' 3"	17.45	6' 9"		17.45
" overhang ...	✓				
Trunk aft ...	✓				
" forward ...	✓				
Tonnage opening aft ...	✓				
" forward	✓				
Total ...	119.42	113.62			113.62

Standard Height of Superstructure	6'-0"
" " R.Q.D.	3.366
Deduction for complete superstructure	21.48
Percentage covered $\frac{S}{L} =$	77.12
" " $\frac{S_1}{L} =$	73.38
" " $\frac{E}{L} =$	73.38
Percentage from Table, Line A.	67.16
(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 = $21.48 \times 67.16 =$	-14.43

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate USED	S	M	Product
A.P. ...	25.48	1		25.48	25	25.48	1		25.48
$\frac{1}{2}$ L from A.P. ...	11.34	4		45.36	11.45	11.34	4		45.36
$\frac{1}{2}$ L " ...	2.80	2		5.60	2.85	2.80	2		5.60
Amidships ...	-	4		-	0	-	4		-
$\frac{1}{2}$ L from F.P. ...	5.61	2		11.22	4.94	4.94	2		9.88
$\frac{1}{2}$ L " ...	22.68	4		90.72	19.75	19.75	4		79.00
F.P. ...	50.96	1		50.96	45	45.00	1		45.00
Total ...				229.34					210.32

Mean actual sheer aft = **EXCESS**
Mean standard sheer aftMean actual sheer forward = **DEFICIENT** **87.65**
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = ✓
L

" " aft of " = ✓

	STANDARD	ACTUAL
FORWARD	5.61 3 16.83	4.94 3 14.82
SHEER	22.68 3 68.04	19.75 3 59.25
	50.96 1 50.96	45.00 1 45.00
	135.83	119.07

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{19.02}{18} \left(\frac{75-3856}{21.1} \right) = +.38$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of $\frac{1}{4}$ ins. per 100 ft. ✓Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **16.03** Ft.

Summer freeboard = **4.15**

Moulded draught (d) = **11.88**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **2.97 = 3"**

Addition for Winter North Atlantic Freeboard (if required) = **2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 982$

Tons per inch immersion at summer load water line

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

= **3.13 = 3 1/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1.393}{1.36}$

	+	-
Depth Correction ...	2.33	-
Deduction for superstructures ...	-	14.43
Sheer correction38	-
Round of Beam correction ...	-	.03
Correction for Thickness of Deck amidships ...	45.00	-
Other corrections, scantlings, etc. ...	-	-
	47.71	14.46

Summer Freeboard = **49.82**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **WOOD, Steel, Deck**:-

Tropical Fresh Water Line above Centre of Disc ...	6"
Fresh Water Line " " ...	3 1/4"
Tropical Line " " ...	2 3/4"
Winter Line below " " ...	3"
Winter North Atlantic Line " " ...	5"

Tropical Fresh Water Freeboard ...	4' - 1 3/4"
Fresh Water " " ...	3' - 7 3/4"
Tropical " " LIMITED ...	3' - 10 1/2"
Winter " " ...	3' - 11"
Winter North Atlantic " " ...	4' - 2 3/4"

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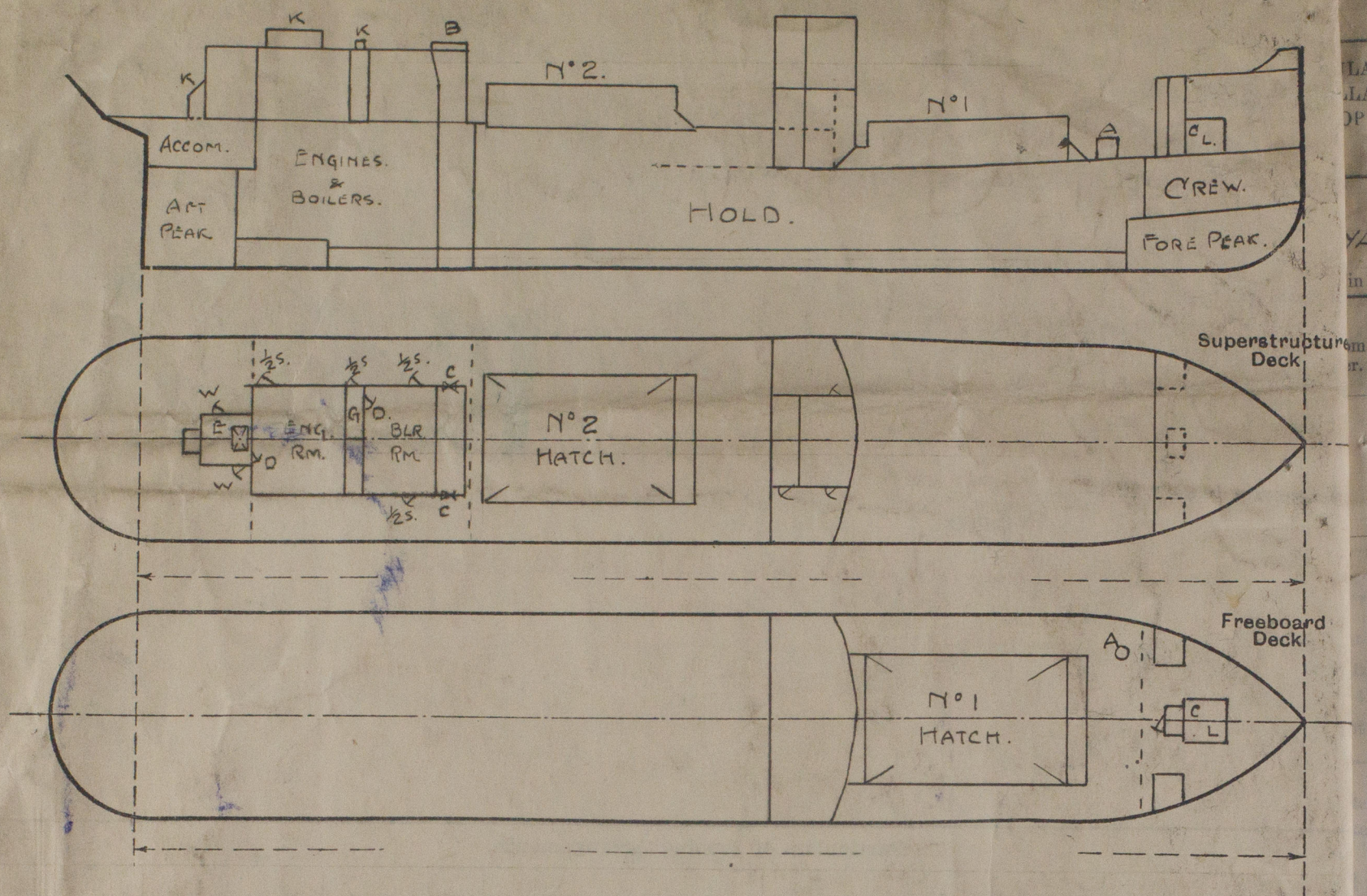
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangways, coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are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



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

- A. 1" 18" high. 17" Dia $\frac{1}{4}$ " T. body to B's side fore of N°1 Hatch.
2" Wood spiggle cover, 2 Tapanlin (~~boxed~~)
and efficient latching arrangements
- B. 5'-1" x 14'-6" Bunker hatch. 9" x 4" coaming 26" between cleats. 2 1/2" W.P. hatch. one Tapanlin.
- C. 1 P.S. Port. 20" x 17", 4'-0" sill. in bunker casing. hinged shutters fastened outside.
- D. = steel dom.
- E. 2'-6" x 4'-6" Hatch leading to Engineer's accommodation protected by house.
- K. = 5 Ky lights.
- 1/2 S. = steel dom in halves.
- W. = Wood doors efficiently constructed.
- S. = 5" x 3 1/2" scuppers.

Vessel measured afloat; freeboard only.

Builder's name and yard number. AILSA S.B. Co. Ltd. AYR

N° 133.

Names of sister ships

Monroe

Owners

Munro & Potts

Fee £ 5 : 2 : 0.

Received by me



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