

27 APR 1932

Index No. 31223  
(For London Office only.)Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

Rpt. C.11.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Poop with combined bridge &amp; forecastle

Port of Survey Hull

ANDREW T

(Type of Superstructures.)

Date of Survey

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

Peterston BURHAYEADON

British

148561

4680

1925-2

Name of Surveyor

M. Malcol

Particulars of Classification

F100 A1

Moulded Dimensions: Length 385.16 Breadth 51.75 Depth 27.10

Moulded displacement at moulded draught = 85 per cent. of moulded depth 10490 tons

Coefficient of fineness for use with Tables .779

## Depth for Freeboard (D)

Moulded depth ... 27.83

Stringer plate ... 4.42

Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) = \text{none}$ 

Depth for Freeboard (D) = 27.87

## Depth correction

(a) Where D is greater than Table depth

$$(D - \text{Table depth}) R = (27.87 - 25.68) 2.963 = +6.49$$

(b) Where D is less than Table depth (if allowed)

$$(\text{Table depth} - D) R =$$

If restricted by superstructures

## Round of Beam correction

Moulded Breadth (B) 51.75

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 12.42$$

$$\text{Ship's Round of Beam} = 19.837$$

$$\text{Difference} = 6.95$$

$$\text{Restricted to} =$$

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{6.95}{4} (1 - .8949) = -$$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	305.91				8.0
overhang ...	38.75	38.75	8.0		38.75
R.Q.D. enclosed ...					
overhang ...					
Bridge enclosed ...					
overhang aft ...					
overhang forward ...	305.91	305.91	8.0		305.91
Fore enclosed ...					8.0
overhang ...					
Trunk aft ...					
forward ...					
Tonnage opening aft ...					
forward ...					
Total ...	344.66	344.66			344.66

Standard Height of Superstructure 7.35

R.Q.D.

Deduction for complete superstructure 41.01

$$\text{Percentage covered } \frac{S}{L} = 89.49$$

$$\frac{S_1}{L} = 89.49$$

$$\frac{E}{L} = 89.49$$

Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) 87.07

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 41.01 \times .8707 = - 35.71$$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	48.52	1		48.52	90.0	90.0	1		90.00
$\frac{1}{2}$ L from A.P. ...	21.59	4		86.36	38.4	44.64	4		178.56
$\frac{2}{3}$ L " ...	5.34	2		10.68	9.8	11.16	2		22.32
Amidships ...		4			0		4		
$\frac{2}{3}$ L from F.P. ...	10.67	2		21.34	16.84	16.84	2		33.78
$\frac{1}{2}$ L " ...	43.18	4		172.72	67.5	67.55	4		270.20
F.P. ...	97.04	1		97.04	135.0	135.00	1		135.00
Total ...				436.66					729.86

Mean actual sheer aft = Even

Mean actual sheer forward = Even

Length of enclosed superstructure forward of amidships = .50

aft of " = .294

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{293.20}{18} (.75 - .4475) = - 4.93$$

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 27.87

Summer freeboard = 3.12

Moulded draught (d) = 24.75

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $6.19 = 6\frac{1}{4}$ 

Addition for Winter North Atlantic Freeboard (if required =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 11070$$

Tons per inch immersion at summer load water line

$$T = 40.1$$

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

$$= 6.90$$

$$7"$$

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{.779 + .68}{1.36} = \frac{1.459}{1.36}$$

Depth Correction ... 6.49

Deduction for superstructures ... 35.71

Sheer correction ... 4.93

Round of Beam correction ... 18

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

$$6.49 + 40.82 - 34.33$$

Summer Freeboard = 3

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

Tropical Fresh Water Line above Centre of Disc ... 13/4

Fresh Water Line " " " " 7 1/4

Tropical Line " " " " 6 1/4

Winter Line below " " " " 6 1/4

Winter North Atlantic Line " " " " 5

Tropical Fresh Water Freeboard ...

Fresh Water " " " " ...

Tropical " " " " ...

Winter " " " " ...

Winter North Atlantic " " " " ...

28 APR 1932

RECEIVED 5 MAY 1932

RECEIVED 7 SEP 1933

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS															
Description of Hatchway	I.														
	Side Pl. U.D. No. 1	F.D. 2	U.D. 2	F.D. 3	U.D. 3	F.D. 4	U.D. 4	L.D. No. 5	Port Pl. No. 6	L.D. Bunker	Side Pl. to peak	Bde Pl. bunker	Upper Pl. Draining		
Dimensions of Hatchway	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24	31-6 x 24		
COAMINGS	Height above Deck	36	24	36	24	36	24	36	24	48	33	6-6 x 3-6	12	36	9
	Thickness Sides	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	Thickness Ends	15	12	15	12	15	12	15	12	15	12	15	12	15	12
	Stiffeners	3	3	3	3	3	3	3	3	3	3	3	3	3	3
HATCH BEAMS	Number	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Spacing	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6
	Scantling and Sketch	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32
	Bearing Surface	32	32	32	32	32	32	32	32	32	32	32	32	32	32
FORE AND AFTERS	Number														
	Spacing														
	Unsupported Lengths														
	Scantling and Sketch														
HATCH COVERS	Material														
	Thickness														
	How fitted														
	Bearing Surface														
Spacing of Cleats															
Number of Tarpaulins															

\*Are wood fore and afters steel shod at all bearing surfaces? ☒ Yes

Are battens and wedges efficient and in good condition? ☒ Yes

Are tarpaulins in good condition and in accordance with rule requirements? ☒ Yes

Are lashings provided in accordance with rule requirements? ☒ Rings for lashings fitted.

I Turned to L.D. bearing 44 Stiff 4 x 32 x 4 @ 2' 8", no opening.

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel & ventilators in efficient condition.  
 Room dry light of steel, strongly constructed.  
 Fiddle, grating covers, hinges, — should be repaired.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

None

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Side & Bde Decks	31 vents, 12" to 16" dia, coaming 5' 36" high x 3 to 38" to hold + two decks	all vents constructed in accordance with Rule requirements. Wood plating canvas covers provided.
After well	1 " 12" dia, coaming 36" x 3 to tunnel.	
Port Deck	8 " 5' 3" " " 9" x 3 to accommodation.	
	2 " 12" " " 36" x 32 " "	
	1 " 12" " " 36" x 32 " "	

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

All air pipes on superstructure decks, to D.B. tanks C.I. 5" dia, height 11 inches, no means of closing + no drifting holes.  
 No air pipes in after well. Efficient means of closing provided

Particulars of Gangway Cargo and Coaling Ports:—

None



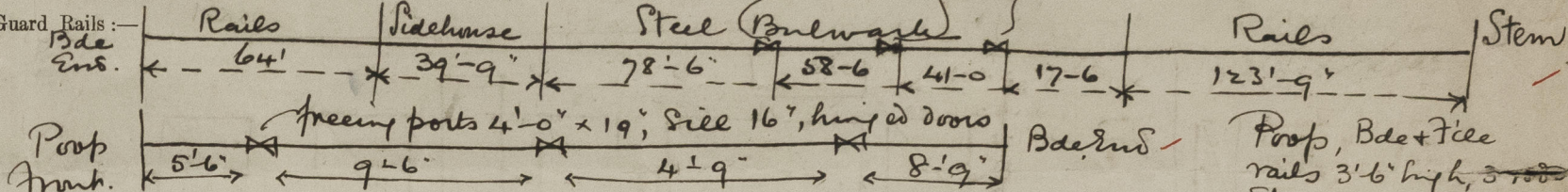
Particulars of Scuppers and Sanitary Discharge Pipes —

Scuppers from Bde & Sde decks of pressed steel plate type — no valve at shell.  
 in afterwell 6' x 3' cut in funnel bar.  
 from upper deck, clear of well, lead below deck, with storm valve at shell, no closing at deck level.  
 Sanitary discharge pipes from Bde deck lead to shell in tween decks, with storm valve at ship's side.

Particulars of Side Scuttles:

Side Scuttles to crew space in poop provided with hinged deadlights.  
 All scuttles of substantial construction.

Particulars of Guard Rails:



Particulars of Gangways, Lifelines, etc.:

no permanent arrangement provided.  
 Steel wire lifelines have been provided in each side of the after well.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ...	40'-6"	4'-3"	4'-0" x 19"	3	18.96	10.55
Forward Well ...						

State position of each freeing port (F. and A. position and height above deck edge) { After Well: 16" above deck edge.  
 Forward Well: —

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	45	4	6 x 3 x 45	30	blts top & bot	4-9 x 2-0	19"	8-0
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...	32	32	32 x 3 x 4	33	none	5'-0" x 3'-0" (A) 2'-6" x 2'-6" (B) 4'-9" x 2'-9" (C)	17" 3'-4" 19"	8-0
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...								
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks (Bde) ...	4	3	4 1/2 x 3 x 35	4'-6"	Bkts top.	4-9 x 2-0	19"	8-0
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	3	3	"	2'-3"	none	4-9 x 2-0	19"	8-0
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ...	hinged steel doors, spring locks, yes.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	(A) hook bolts 15" apart in portable steel plate no. (B) hinged steel door, screwed clips. no. (C) hinged steel doors, spring locks, yes.
Bridge, Forward Bulkhead ...	
Forecastle Bulkhead ...	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks ...	hinged steel doors spring locks yes.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	ditto yes.
Deckhouses on Flush Deck Ships ...	



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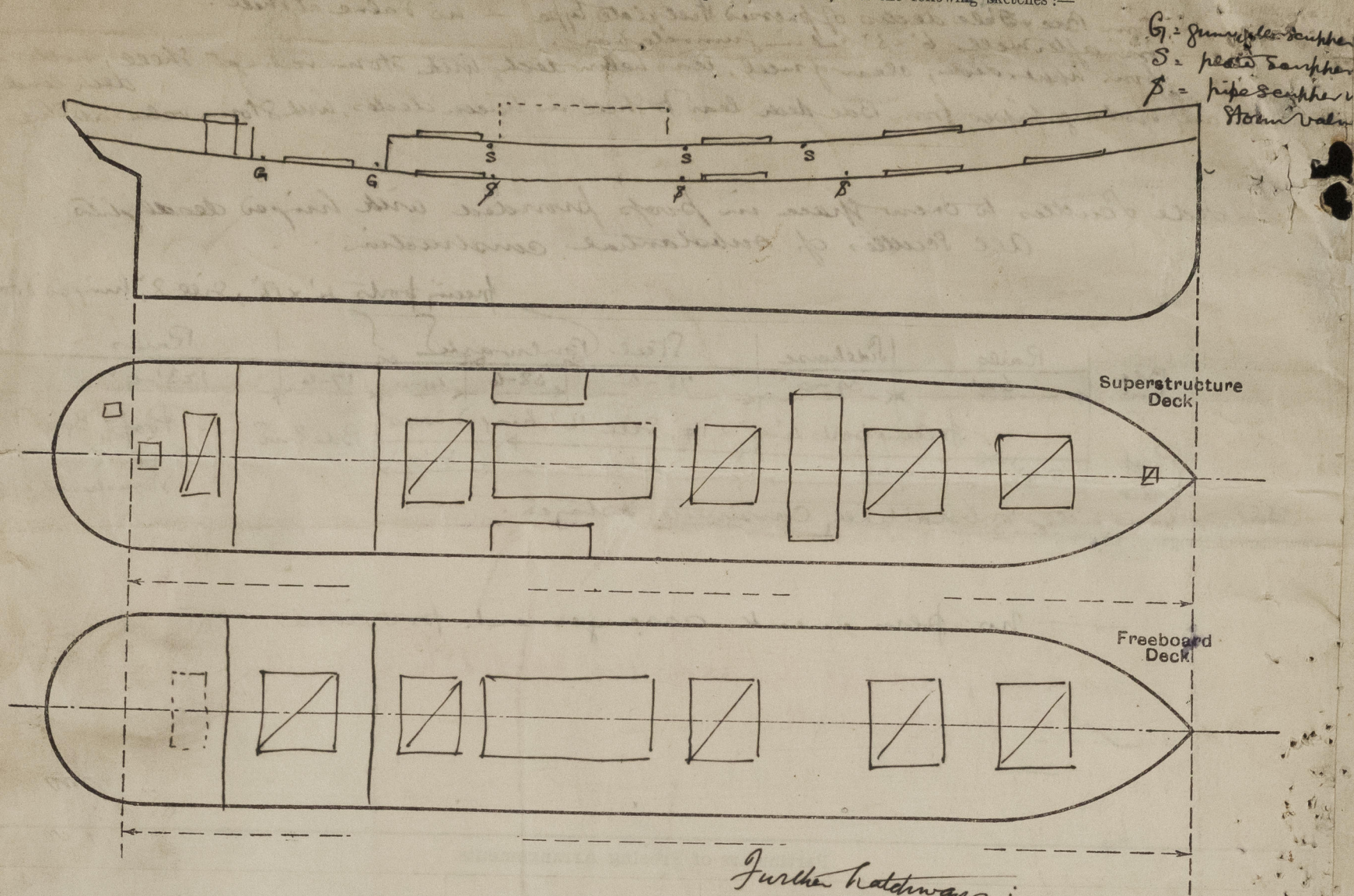
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# Survey heels aft

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:—



## Further hatchways:

Poof Deck: 2'8" x 2'8"

Coaming 10' x 32, corners 3", bearing 3"

Cleats, battens + 2 tarpaulins

Poof Deck: 6'0" x 4'0"

Coaming 33' x 38, corners 3", bearing 3"

Cleats 16' apart, battens + 2 tarpaulins

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

Assignment for trial run to West Hartlepool  
as trial to working line tomorrow morning 27<sup>th</sup> Inst. and proposed  
sailing from West Hartlepool on Saturday 30<sup>th</sup> Inst.

OUT

Builder's name and yard number Bartram Sons. & Co. Ltd.

Names of sister ships "Himston"

Owners Langorise S.S. Co. Ltd.

Fee £ 12 : 15

Received by me

not yet applied for



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