

# WRECK SECTION

## Lloyd's Register of Shipping.

### SURVEYS FOR FREEBOARD.

Index. No.

(For London Office only.)

22696

590  
No 12718.
 Computation of Freeboard for Steamer, Sailing Ship, Tanker  
 having Raised Quarter Decks, Bridge, and Forecastle.
Port of Survey BristolDate of Survey 18<sup>th</sup> June 1932Name of Surveyor J. AndersonParticulars of Classification +100 A.1.20.3-1.26.Blair T

(Type of Superstructures.)

Ship's Name

Nationality and Port of

Registry

Official Number

Gross Tonnage

Date of Build

"HARPTREE COMBE"British1336174391912-12London BristolMoulded Dimensions: Length 155.0 ✓ Breadth 25.0 ✓ Depth 11.8 ✓Moulded displacement at moulded draught = 85 per cent. of moulded depth 776 ✓ tonsCoefficient of fineness for use with Tables .707

## Depth for Freeboard (D)

Moulded depth ... .. 11.66 ✓Stringer plate ... 36" ... .. .03 ✓

Sheathing on exposed deck

$$T \left( \frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = 11.70

## Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

$$(11.70 - 10.33) 1.192 = +1.63" ✓$$

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

(Table depth - D) R =

If restricted by superstructures ✓

## Round of Beam correction

Moulded Breadth (B) 25.00

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 6.00$$

$$\text{Ship's Round of Beam} = 6.25" ✓$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.25}{4} \times 2354 = -.01$$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ... ✓	91.00	91.00	3.50	✓	91.00
" overhang ...					
Bridge enclosed ...	8.75	8.75	7.00	✓	8.75
" overhang aft ...			+2½"		
" overhang forward ...					
File-enclosed ...	22.00	18.75	6.25	✓	18.75
" overhang ...			+2½"		
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	121.75	118.50			118.50

Standard Height of Superstructure 6.0" " R.Q.D. 3.37Deduction for complete superstructure 21.50Percentage covered  $\frac{S}{L} = 78.55\%$ " "  $\frac{S_1}{L} = 76.46\%$ " "  $\frac{E}{L} = 76.46\%$ Percentage from Table, Line A. 70.94%

(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 =  $21.50 \times .7094 = -15.25"$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	25.50	1		25.50	50.00	50.00	1		51.56
¼L from A.P. ...	11.35	4		45.40	23.51	22.51	4		91.76
½L " ...	2.80	2		5.60	5.61	5.63	2		11.34
Amidships ...		4			00		4		
¾L from F.P. ...	5.60	2		11.20	7.24	7.26	2		14.52
¾L " ...	22.70	4		90.80	29.03	29.03	4		116.12
F.P. ...	51.00	1		51.00	66.00	66.00	1		66.00
Total ...				229.50					351.30

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{121.80}{18} \times (.75 - .3927) = -2.42"$$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1½ ins. per 100 ft. 2.32" ✓

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15.20Summer freeboard = 3.54Moulded draught (d) = 11.66

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 2.91 = 3"Addition for Winter North Atlantic Freeboard (if required = 2" ✓

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ = 948

Tons per inch immersion at summer load water line

T = 8.07Deduction =  $\frac{\Delta}{40T}$  inches= 2.94= 3"

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

Correction for coefficient  $\frac{.707 + .68}{1.36} = \frac{1.387}{1.36}$ 

+ -

Depth Correction ... .. 1.63 ✓Deduction for superstructures ... .. ✓ 15.25Sheer correction ... .. ✓ 2.32Round of Beam correction ... .. ✓ .01Correction for Thickness of Deck amidships ... .. 42.00 ✓

Other corrections, scantlings, etc. ... .. ✓

43.631758 + 26.05Summer Freeboard = 42.57SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, DeckTropical Fresh Water Line above Centre of Disc ... 3" ✓Fresh Water Line " ... 3" ✓Tropical Line " (LIMITED) ... 0" ✓Winter Line below " ... 3" ✓Winter North Atlantic Line " ... 5" ✓Tropical Fresh Water Freeboard ... 3'-8"Fresh Water " ... 3'-5"Tropical " (LIMITED) ... 3'-8"Winter " ... 3'-11"Winter North Atlantic " ... 4'-1"



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway ... ..			FORWARD	AFTER	COAL HATCH ON TOP OFFIDLEY.				
Dimensions of Hatchway ... ..			28'-0" x 13'-0"	28'-0" x 13'-0"	5'-0" x 13'-6"				
COAMINGS	{	Height above Deck ...	30 1/2" ✓	30 1/2" ✓	6" x 3" x 40 B.A. ✓				
		Thickenss { Sides ...	7/20 ✓	7/20 ✓					
		{ Ends ...	8/20 ✓	8/20 ✓					
		Stiffeners ... ..	NONE ✓	NONE ✓					
		Brackets, Stays ... ..	2 ✓	2 ✓					
BULB PLATE 6" x 30"									
HATCH BEAMS	{	Number ... ..	5	5	NONE ✓				
		Spacing ... ..	5'-7"	5'-7"					
		Scantling and Sketch ...	16"-12" x 7/20 ✓	SAME AS FORWARD ✓					
			3" x 3" x 8/20 ✓						
		Bearing Surface ... ..	3 1/2" ✓	3 1/2" ✓					
FORE AND AFTERS	{	Number ... ..	NONE ✓	NONE ✓	NONE ✓				
		Spacing ... ..							
		Unsupported Lengths ...							
		Scantling* and Sketch ...							
		Bearing Surface ... ..							
HATCH COVERS	{	Material ... ..	W.P. ✓	W.P. ✓	W.P. ✓				
		Thickenss ... ..	3" ✓	3" ✓	2 1/2" ✓				
		How fitted ... ..	F. & A. ✓	F. & A. ✓	F. & A. ✓				
		Bearing Surface ... ..	3" ✓	3" ✓	3" ✓				
Spacing of Cleats ... ..			24" ✓	24" ✓	24" ✓				
Number of Tarpaulins ... ..			3 ✓	3 ✓	1 ✓				

\*Are wood fore and afters steel shod at all bearing surfaces? NONE ✓

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? YES ✓

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers. ✓  
 Liddley and funnel ventilators in efficient condition. ✓  
 Engine skylight of steel, strongly constructed. ✓

Particulars of Flush Bunker Scuttles:—

Two scuttles on Raised Quarter Deck of cast iron.  
No bayonet joints or means of fastening. ✓

Particulars of Companionways:— One steel companion 2'0" x 4'0" x 6'3" high on freeboard deck, leading to enclosed forecabin. Door of steel with 18" sill, operated from both sides. ✓  
Entrance to officer's quarters in enclosed bridge from steel chart room on bridge deck, strongly constructed. Doors of wood with 15" sill, operated from both sides. ✓  
Entrance to engineer's quarters in enclosed space aft from steel house at aft end of casing. ✓  
Doors of wood with 18" sill, operated from both sides. ✓

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

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

2 ventilators on	forecastle deck	6" dia.	boaming	24" x 32"	led to crew space.	} all ventilators constructed in accordance with the rules and coamings closed with wood plugs and canvas covers.
1 " "	fore well	12" "	"	36" x 30" "	" hold.	
1 " "	R. Q.	12" "	"	36" x 30" "	" "	
2 C.I.S.N. "	" "	6" "	x 6" high	led to engineers quarter.		

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

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—  
One c.l. air pipe on forecastle deck  $7\frac{1}{2}$ " high  $\times$   $3\frac{1}{2}$ " dia. from fore peak. closed with canvas cover.

A diagram of a U-shaped pipe. The vertical section on the right is labeled with a downward arrow and the text  $7\frac{1}{2}$ . The pipe is drawn with a thick line.

Particulars of Gangway Cargo and Coaling Ports :—

NONE

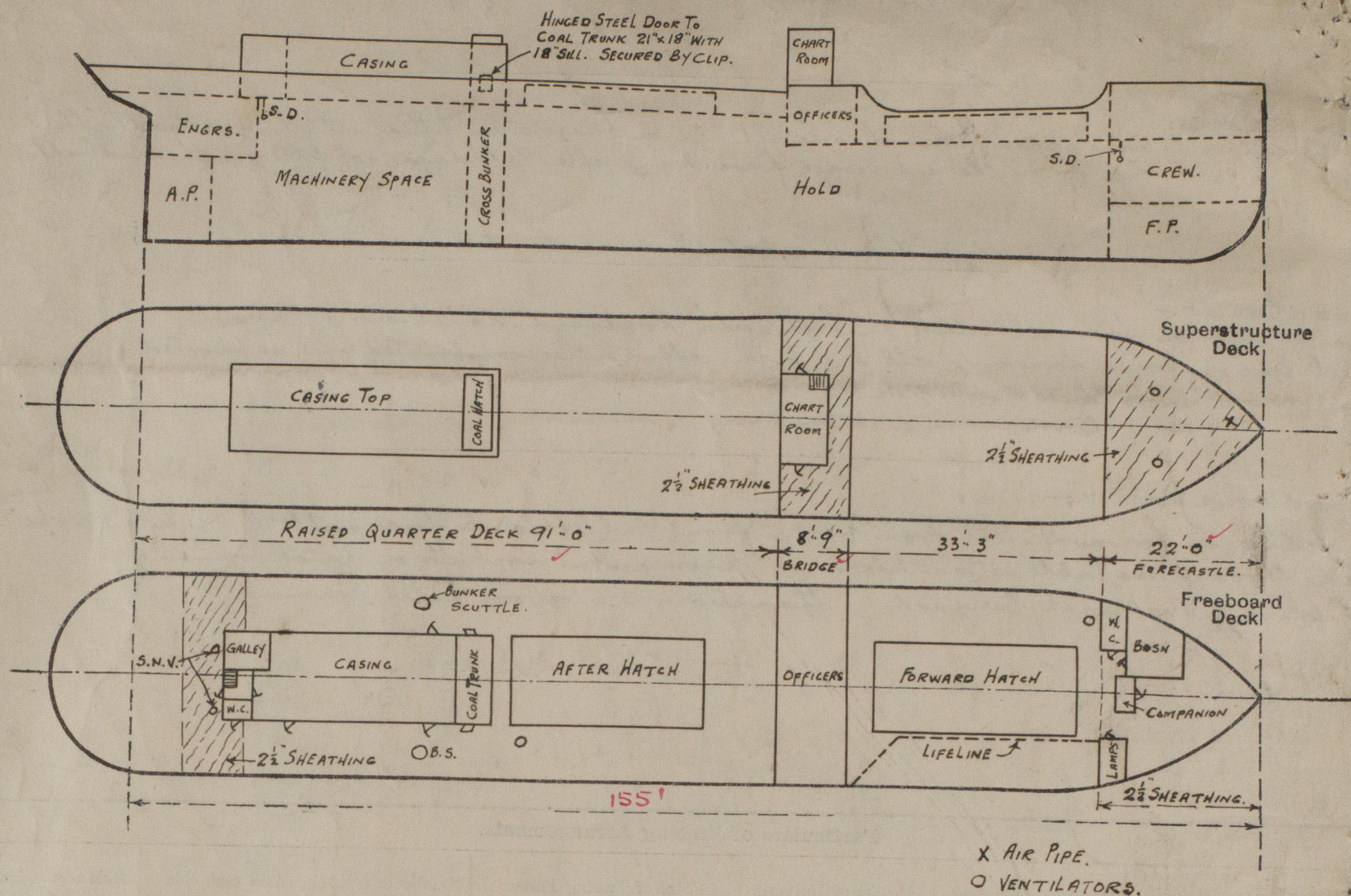


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*Montrose Bombe*

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 shewn on the following sketches:—



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

This survey has been held afloat and is therefore confined to an examination of the means for closing the openings in the decks and sides of the vessel.

*J. Anderson*

Builder's name and yard number

*Hall Russell & Co. Ltd.*

*Yard No. 510.*

Names of sister ships

Owners

*Old Shipping Co. Ltd.*

Fee £ 5 : 2 : 0

Received by me

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