

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. **27042**  
(For London Office only.)No. **19442**

16 AUG 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having **R.A. Duk. Bridge & Forecastle Decks.**

Port of Survey **Port Talbot.**Date of Survey **11th Aug. 1932.**Name of Surveyor **R.H. Armstrong**Particulars of Classification **+100A.1.**  
**S.S. No. 10.3-5.30**

Ship's Name **S.S. BOLBEC** Nationality and Port of Registry **British Brunswick** Official Number **142265** Gross Tonnage **1342** Date of Build **1918**  
**1345** 10mo

Moulded Dimensions: Length **229.8** Breadth **35.62** Depth **17.75**  
Moulded displacement at moulded draught = 85 per cent. of moulded depth **2596** tons  
Coefficient of fineness for use with Tables **.741**

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	17.75	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	35.62
Stringer plate	6.2	(17.67 - 15.32) 1.768 = + 4.15		Standard Round of Beam = $\frac{B \times 12}{50}$	8.55
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	8.75
Depth for Freeboard (D) =	17.67	If restricted by superstructures		Difference	.20
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.20}{4} \times 325 = .02$

## 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	79.50	79.50	3.875		79.50
" overhang					
Bridge enclosed...	48.0	48.00	7.0		48.00
" overhang aft	NIL		3.1		
" overhang forward	NIL				
Fore enclosed ...	27.6	27.50	7.0		27.50
" overhang ...	3	.12			.12
Trunk aft ...					
" forward ...					
Tonnage opening aft					
" forward					
Total ...	155.25	155.12			155.12

Standard Height of Superstructure **6.00**  
" " R.Q.D. **3.865**  
Deduction for complete superstructure **28.98**  
Percentage covered  $\frac{S}{L} = 67.57\%$   
" "  $\frac{S_1}{L} = 67.51\%$   
" "  $\frac{E}{L} = 67.51\%$   
Percentage from Table, Line A. **58.77%**  
(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 =  $28.98 \times 58.77 = 17.03$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	32.98	1		32.98	38	39.12	1		39.12
$\frac{1}{4}$ L from A.P. ...	14.68	4		58.72	18	16.79	4		67.16
$\frac{2}{4}$ L " ...	3.63	2		7.26	3.5	4.19	2		8.38
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	7.25	2		14.50	10	8.64	2		17.28
$\frac{1}{2}$ L " ...	29.35	4		117.40	34	34.56	4		138.24
F.P. ...	65.96	1		65.96	79.5	79.00	1		79.00
Total ...				296.82					349.74

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{52.92}{18} \left( \frac{.75 - 3379}{2} \right) = -1.21$   
If limited on account of midship superstructure.  $1.21 \times \frac{.154}{.200} = -0.93$  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 = **17.67**  
Summer freeboard = **1.33**  
Moulded draught (d) = **16.34**

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = **4.08 = 4"**

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

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

$T =$

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

= **4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)  
Correction for coefficient  $\frac{.68 \times .741}{1.36} = \frac{1.421}{1.36}$

Depth Correction ... **4.15**  
Deduction for superstructures ... **17.03**  
Sheer correction ... **.93**  
Round of Beam correction ... **.02**  
Correction for Thickness of Deck amidships ...  
Other corrections, scantlings, etc. ...

Summer Freeboard = **15.91**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: **1'-4"**

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

Tropical Fresh Water Freeboard ...  
Fresh Water " ...  
Tropical " ...  
Winter " ...  
Winter North Atlantic " ...

1906 Freeboards  
Re-assigned  
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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	No 1	No 2	No 3	No 4	BRIDGE DK MING BUNKERS P.E.	FREEB <sup>o</sup> DK WING BARRS IN BRIDGE SPACE PIS	FREEB <sup>o</sup> DK ESCAPE NO 1 & 2 HOLDS P	FREEB <sup>o</sup> DK TO AFTER PEAK	FREEB <sup>o</sup> DK TO FORE PEAK	
Dimensions of Hatchway	25'-2" 23'-7 1/2" x 16'-2"	33'-9" x 24'-3"	23'-0" x 23'-2"	19'-2" 22'-3" x 18'-2"	24'-5" x 24'-4"	11'-3" x 4'-3"	3'-10" x 2'-4"	3'-0" x 2'-4"	2'-4" x 2'-2"	
COAMINGS	Height above Deck ... Thickness ... Sides Stiffeners ... Ends Brackets, Stays ...	42" 44" 44" 7 x 3 x 3/4 dia.	42" AS No 1 AS No 1 2 - 2 dia.	36" AS No 1 AS No 1 1 - 2 dia.	36" 36" 36" 36"	9 1/2" 36" 36" 36"	10 1/2" 36" 36" 36"	24 1/2" 36" 36" 36"	15" 36" 36" 36"	WOOD 8" 1 1/2"
HATCH BEAMS	Number ... Spacing ... Scantling and Sketch ... Bearing Surface ...	4 5'-0" 153' x 36" 4 x 3 x 36" 3	6 5'-0" 214' x 36" 5 x 3 x 44" 3	4 4'-9" 204' x 36" 5 x 3 x 44" 3	3 4'-9" 18' x 36" 14 x 3 x 36" 3					
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths Scantling* and Sketch ... Bearing Surface ...									
HATCH COVERS	Material ... Thickness ... How fitted ... Bearing Surface ...	W.W. 2 1/2" F-A 3' x 4'	W.W. 2 1/2" F-A 3' x 5'	W.W. 2 1/2" F-A 3' x 6'	W.W. 2 1/2" F-A 3' x 4'	W.W. 2 1/2" P-S 2'	W.W. 2 1/2" P-S 2 1/2"	W.W. 2 1/2" P-S 2 1/2"	STEEL 44 RIVETED	W.W. 2" F-A 1 1/4"
Spacing of Cleats	22"	24"	25"	22"	CENTRE	24"	22" x 12"	NIL	NIL	
Number of Tarpaulins	3	3	3	3	3	2	3	"	"	

\*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? **Yes**

2-BUTTERFLY CLIPS AT ENDS  
FOR LOCKING BAR

Particulars of fiddley, funnel and ventilator coamings:—

Casing loft plated. Main funnel coaming riveted to casing loft  $1/8 \times 25$   
 Dealings covered by strong steel hinged covers  
 Vents: to Engine & Boiler Rm. in excellent condition.  
 Engine Rm. Skylight of steel strongly constructed. 3 flaps each side  $1/2$  dia  
 X Bunker Hatch on casing loft  $10'0" \times 3'10"$  coaming  $9 \frac{3}{4} \times 16$  light each.  
 W. Wood covers F-A. bearing  $2 \frac{1}{2}$  cleats  $18$  Dr. battens steel & wood wedges  
 2 Tarpsaulins

Particulars of Flush Bunker Scuttles:— *NONE.*

Particulars of Companionways:— *NONE*

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

Positions of treeboard and superstructure decks:—			
1	7 ft 11 in	on treeboard sk. 12" dia.	coaming 27" above F'cle. sk. To No 1 Hold.
1	"	"	" 36" x 25 "
1	"	"	" No 2 "
1	"	"	" No 3 "
1	"	"	" No 4 "
1	"	"	" F'cle "
		F'cle	7 "
			16 x 32 "

WOOD PLUGS & CANVAS COVERS PROVIDED.

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

Specified positions on freeboard, raised quarter, or superstructure decks:—

1- Steel air pipe on Freeboard Deck "11" high 2' dia. led to No 1 D.B. TANK.
2-     "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "
2-     "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "
1- C.I.                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "
1- C.I.                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "                 "

" after Peak Hatch cover 7" high 3' dia. " AFTER PEAK

Particulars of Gangway Cargo and Coaling Ports :—

NONE

Particulars of Scuppers and Sanitary Discharge Pipes

[illegible]

particulars of Side Scuttles:

In F'ble:  $7\frac{1}{2}$ " dia: fitted with C.I. deadlight  
" Bridge front: 12" No "

Particulars of Guard Rails :—

all side scuttles of substantial construction.

On F. Gle. Rk. 2 Twin steel rails 3'-0" high, stanchions 4'-0" apart  
" Bridge " Steel Bulwarks. " " " 25' Plating  
Top rail 4 1/2" x 3" 36 B. A.

Particulars of Gangways, Lifelines, etc. :—

Gangway from Bridge ladder Starb. side along No 2 Hatch covers. Wood platform bet. Nos 1 & 2 HATH coaming along No 2 Hatch covers to T.C. steel ladder. Holes in Nos 1 & 2 hatch coaming stiffers to late bolted stanchions. Sockets in Wood platform for stanchions. Stanchions 4'-0" high 1 1/2" dia. eye in top to late guard rope.

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 ... ..	79'-6"	3'-5½"	23" x 16"	3	7.5 $\frac{1}{2}$	15.95 $\frac{1}{2}$
Forward Well ... ..	74'-10"	4'-7"	2'-4" x 22"	4	16.8 $\frac{1}{2}$	15.00 $\frac{1}{2}$

State position of each freeing port. ... .. } After Well:—

(F. and A. position and height 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.

Diagram illustrating the freeing ports and dimensions for the After Well and Forward Well sections of the ship.

After Well: Bulwark length 6'-7", Height 14'-7", Freeing Port size 15'-7" x 16".

Forward Well: Bulwark length 19'-0", Height 9'-4", Freeing Port size 22'-10" x 22".

Overall dimensions: 147'-0" (Length), 14'-0" (Height).

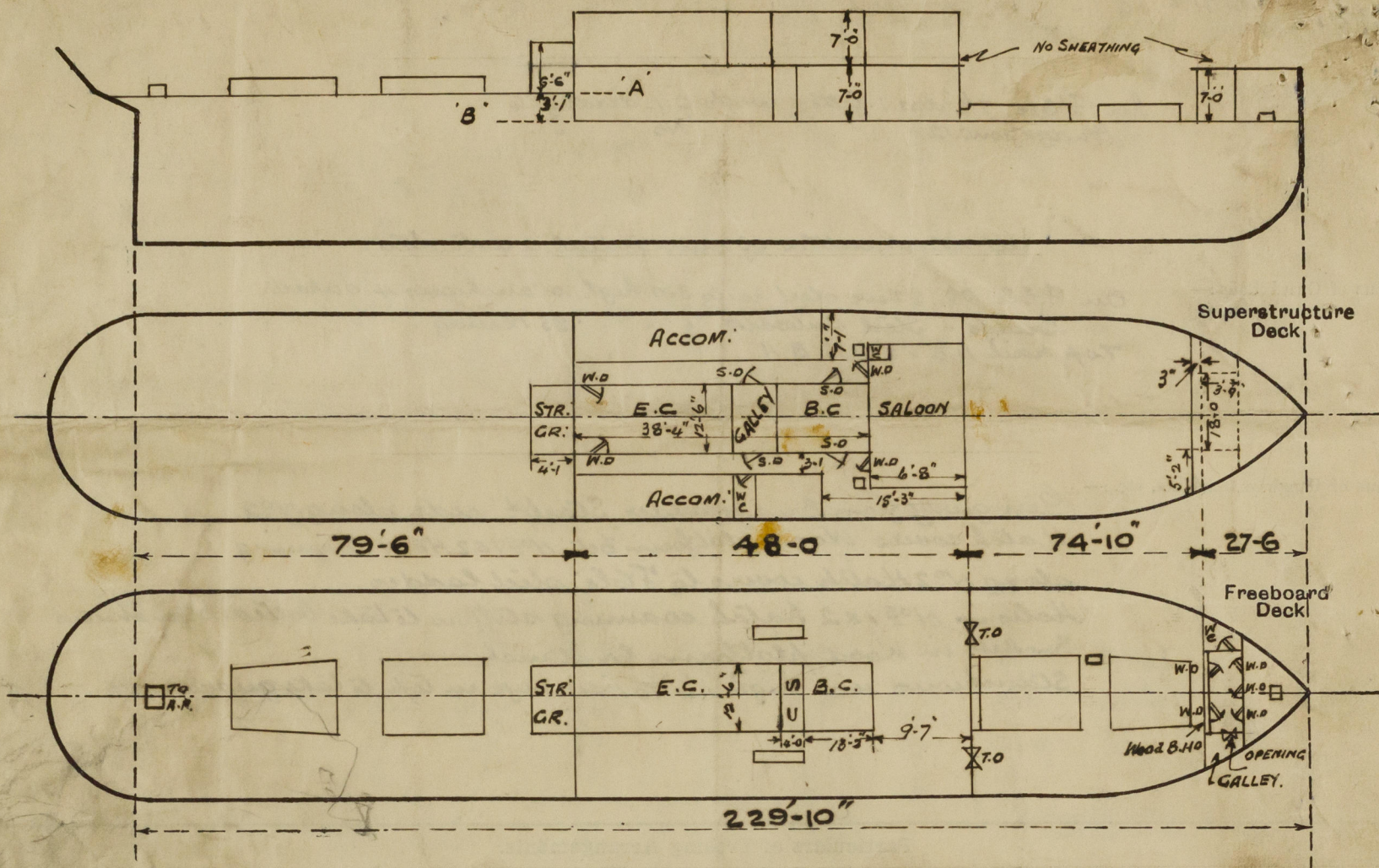
Additional area where sheer is less than standard: 2'-6" x 22'-10" x 2'-0".

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..	—	• 36"	NIL	—	—	—	—	3'-1"
Bridge, Forward Bulkhead ... ..	23" x 36"	• 36"	7" x 3" x 508 A	31"	8 KTS T & B	T.O. 4'-0" x 3'-0"	25"	7'-0"
Forecastle Bulkhead ... ..	—	• 32"	L 3" x 3" x 36"	34"	—	H.W.O. 5'-0" x 24" x 1/2"	19"	7'-0"
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	—	• 32"	L 3" x 3" x 36"	42"	—	—	—	STR. GEAR. 6-6
Exposed Machinery Casings on Super- structure Decks ... ..	24" x 36"	• 32"	" " "	3'-0"	—	H.W.O. 4'-0" x 24" x 1/2" H.S.D. 4'-11" x 23"	18"	7'-0"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	—	• 36"	L 3" x 3" x 36"	30"	—	—	—	7'-0"
Deckhouses on Flush Deck Ships ...								

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

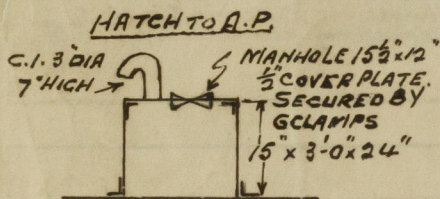
Poop Bulkhead ...		
Raised Quarter Deck Bulkhead ...		
Bridge, After Bulkhead ...	} no openings	
Bridge, Forward Bulkhead ...		
Forecastle Bulkhead ...		T.O. Steel plate cover secured by $\frac{3}{8}$ " dia. bolts/nuts, spaced 6" apart Opened from outside only.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...		Hinged Wood doors. Open both sides. Handles missing in some cases.
Exposed Machinery Casings on Super-structure Decks ...		Steering Gear House. No doors.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...		Hinged Wood doors to Engine Room. Open both sides. Steel sliding. Slip bolts only Port side. Lock Starboard side waters.
Deckhouses on Flush Deck Ships ...		

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:—

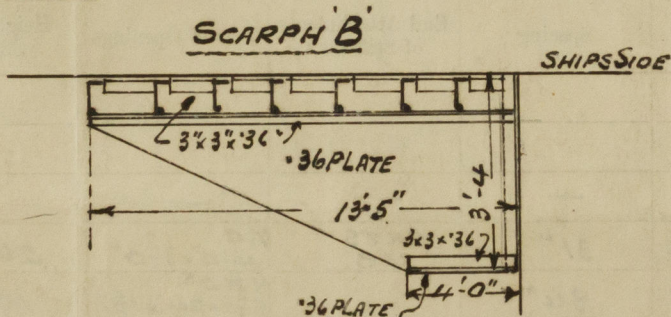


State any special features in the construction of the ship:—

*omit*  
Particulars taken when vessel was afloat:



SCARPH A not accessible Bunker full of coal. P.S.



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

Names of sister ships

Owners Harries Bros. Ltd.

Fee £ 8 : 10 : 0  
Expenses 6 - 6.

Received by me



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