

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 15557
(For London Office only.)

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
 having Forecastle & combined Poop and Bridge Port of Survey London
 (Type of Superstructures.)
 Date of Survey 22nd June 1932
 Name of Surveyor Thomas E Souden
 Ship's Name Baltonia Nationality and Port of Official Number Bulish 115,268 Gross Tonnage 3839 Date of Build 1902-4
 Moulded Dimensions: Length 351.12 Breadth 43.8 Depth 26.0
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 7498 1270 tons
 Coefficient of fineness for use with Tables 772 418
 Particulars of Classification + 100A.1

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	26.00	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	43.8
Stringer plate	65"	(26.10 - 23.41) 2.701 = + 7.27		Standard Round of Beam = $\frac{B \times 12}{50}$	10.51
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	11
T $\left(\frac{L-S}{L}\right) = \frac{25+64.92}{351.12}$.05	If restricted by superstructures		Difference	4.9
Depth for Freeboard (D) =	26.10			Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L_1}\right)$	$\frac{4.9}{4} \left(1 - \frac{74.84}{56}\right) = -.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <u>7.011</u>
" overhang ...						" " R.Q.D.
R.Q.D. enclosed ...						Deduction for complete superstructure <u>38.74</u>
" overhang ...	241.20	218.98	8.0	7.9	218.98	Percentage covered $\frac{S}{L} = 51.52$
Bridge enclosed ...						" " $\frac{S_1}{L} = 74.84$
" overhang aft ...						" " $\frac{E}{L} = 74.84$
" overhang forward ...	41.28	41.28	8.0	7.9	41.28	Percentage from Table, Line A.
Fore enclosed ...	43.92					(corrected for absence of forecastle (if required)) <u>68.71</u>
" overhang ...	3.72	1.86			1.86	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = <u>38.74 + 68.71 = - 26.04</u>
" forward ...						
Total ...	286.20	262.04			262.04	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	45.112	1		45.11	36	36.0	1		36.00	Mean actual sheer aft = <u>Reference</u>
$\frac{1}{4}$ L from A.P. ...	20.08	4		80.32	15.2	15.41	4		61.64	Mean actual sheer forward = <u>Reference</u>
$\frac{1}{2}$ L " ...	4.96	2		9.92	4	3.84	2		7.68	Mean standard sheer forward
Amidships ...		4					4			Length of enclosed superstructure forward of amidships =
$\frac{3}{4}$ L from F.P. ...	9.92	2		19.84	8.2	8.37	2		16.74	" " aft of " =
$\frac{1}{4}$ L " ...	40.15	4		160.60	34	33.58	4		134.32	
F.P. ...	90.22	1		90.22	84	84.00	1		84.00	
Total ...				406.01					340.38	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{65.63}{18} \left(\frac{75-40.76}{2} \right) = +1.25$$

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.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Flush Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Correction for coefficient	$\frac{73+68}{1.36} = \frac{141}{1.36}$
Depth to Freeboard Deck = <u>26.30</u>	Ft.	$\Delta =$ <u>44.96</u>		Depth Correction	7.27
Summer freeboard = <u>3.8</u>		Tons per inch immersion at summer load water line		Deduction for superstructures	26.04
Moulded draught (d) = <u>22.56</u>		T = <u>30.8</u>		Sheer correction	1.25
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>5.64</u> = <u>5.64</u>		Deduction = $\frac{\Delta}{40 T}$ inches = <u>6.08</u>		Round of Beam correction	.03
Addition for Winter North Atlantic Freeboard (if required) =				Correction for Thickness of Deck amidships	2.40
				Other corrections, scantlings, etc.	
				Summer Freeboard	<u>43.97</u>

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

Tropical Fresh Water Line above Centre of Disc	11.34	Tropical Fresh Water Freeboard	2.94	3.8	
Fresh Water Line	6	Fresh Water	3.32	3.2	
Tropical Line	5.34	Tropical	3.32	3.2	
Winter Line below	5.34	Winter	4.20	4.1	
Winter North Atlantic Line	5.34	Winter North Atlantic	4.20	4.1	

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a passenger line to be marked 2'-8" below the centre of the disc.

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 FOUNDATION
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Baltimore

Particulars of fiddley, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

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

File No.	Particulars	Particulars	Particulars
208	14" high to Yell	12 27" x 4 1/2" x 16" high to Acc	
606	14" " " Acc	14 07" x 4 1/2" x 16" " " " "	
1015	30" " " Hold	18 30" " " " " " " " "	
1015	27" " " "	15 24" " " " " " " " "	
2018	36" " " "	18 36" " " " " " " " "	
2015	12 ft " " (secured)	8 15" " " " " " " " "	

Wood Plugs & canvas Covers
fitted ~~to~~ ^{to replace closing appliances} Swan Neck vents

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

Forecastle :- 2 w 3" x 7" high to F.P.
 You Well :- 2 w 3" x 7" " " DB^s
 2 w 4" x 28" " " OF DB^s

Bridge :- 2 w 4" x 28" high to OF DB^s
 4 w 2" x 30" " " DB^s
 2 w 3" x 6" " " "

Special closing appliances
 No covers fitted.

Particulars of Gangway Cargo and Coaling Ports :—

3. R.S. Coaling Doors 2'-6" x 2'-6" efficiently secured

Particulars of Scuppers and Sanitary Discharge Pipes

Discharges from Spaces below freeboard deck fitted with storm valves aside of flap valve at inner end

Particulars of Side Scuttles :—

Deadlights fitted to all scuttles ex: in Smoke Room aft in Pop Space.

Particulars of Guard Rails :—

Forecastle: Rails 3'-0" high; 3 rods; Stanchions 4'-0" apart
 " 3'-4" " ; 3 " & wood tail; " 3'-3" "
 " 3'-2" " 4 " ; " 4'-0" "

Particulars of Gangways, Lifelines, etc. :—

~~No permanent fittings provided.~~
Efficient release and lifelines have been provided for the protection of the crew in the regular working of the ship.

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						
Forward Well	66 ft	4'-6"	41 x 23 18 x 12	2 1	14.689 ft	13.25

State position of each freeing port } After Well:—
(F. and A. position and height above deck edge) } Forward Well:— 6', 30', + 38' from Bridge Bnd

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

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								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead	18" x 40"	38	9" x 3" B A	27" x 30"	Brack. or Lugs Trs	3 w 4' 8" x 3' 2"	26"	7-9
Forecastle Bulkhead	Vert.	30	Dur.	Bulkheads.		1 w 5' x 23"	18"	7-9
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks	18" x 34	30	3 1/2 x 2 1/2 x 34	51"	Brackets at Top	2 w 5' 5" x 24	18	8-0
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	18 x 36	32	" " "	"	Contin.	—	—	—
Deckhouses on Flush Deck Ships ...								

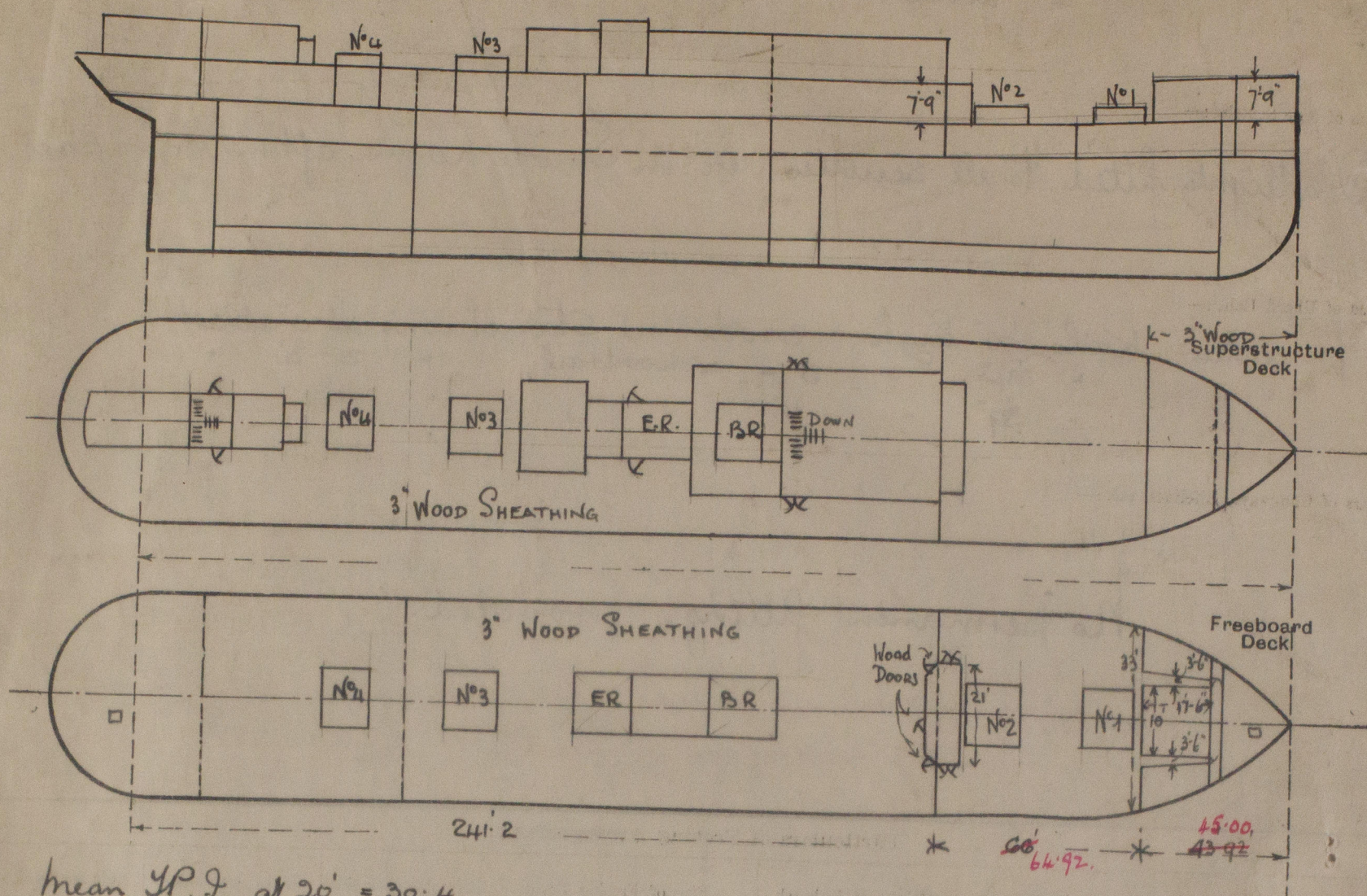
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead	...	
Bridge After Bulkhead	
Bridge Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	...	

Double hinged wood doors operated from both sides
 1 Hinged steel door
 2 " "
 no openings

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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:—

Small Hatches:—

1 on 4de to F.P. 3'6" x 2'6" flush with wood deck:
1 on WD in Poop. 2'9" x 2'9" x 6" high with grating cover

Calculation:

$$\frac{241.2}{352.2} = 68.49\%$$

$$(68.49 - 50) = 18.49$$

$$\frac{18.49}{20} = 92.5$$

$$92.5 + 10 = 9.25$$

$$100 - 9.25 = 90.75\%$$

This survey was carried out offloat. The owners state that the necessary conditions will be complied with when the Special Survey No 1 now due is carried out.

Builder's name and yard number: Sir R. Driscoll & Co Ltd No 482

Names of sister ships: Hugena

Owners: United Baltic Corporation Ltd

Fee £ 11 : 18 : 0

Received by me

29/6/32.



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Foundation