

Rpt. C.11.

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Index. No. 29475
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker				Port of Survey <u>Newcastle-on-Tyne</u>	
having <u>Poop bridge and fore-castle</u>				Date of Survey <u>8th Dec 1933.</u>	
(Type of Superstructures.) <u>GERMA</u> Ship's Name <u>EX ADDERSTONE</u> <u>EX BOSWELL</u>				Date of Survey <u>8th Dec 1933.</u>	
Nationality and Port of Official Number <u>Norwegian</u> <u>British</u> <u>Newcastle</u> <u>Liverpool</u>		Gross Tonnage <u>143686</u> <u>5327</u> <u>5256</u>	Date of Build <u>1920-11</u>	Name of Surveyor <u>J. Howden</u>	
Moulded Dimensions: Length <u>399.5</u> Breadth <u>52.00</u> Depth <u>31-0</u>				Particulars of Classification <u>+100 A1</u>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>12108</u> tons					
Coefficient of fineness for use with Tables <u>.774</u>					
Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth <u>31.00</u>		(a) Where D is greater than Table depth (D-Table depth) R = $(31.04 - 26.635) 3.00$ <u>= + 13.22"</u>		Moulded Breadth (B) <u>52.00'</u>	
Stringer plate <u>.04</u>		(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>✓</u>		Standard Round of Beam = $\frac{B \times 12}{50} = \frac{52 \times 12}{50} = 12.48"$	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \checkmark$		If restricted by superstructures <u>✓</u>		Ship's Round of Beam <u>= 13"</u>	
Depth for Freeboard (D) = <u>31.04</u>				Difference <u>.52"</u>	
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.52}{4} \times \frac{46.18}{52} = -.06"$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>47.1^{ft}</u>	<u>47.10</u>	<u>7.96^{ft}</u>	<u>✓</u>	<u>47.10</u>
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	<u>127.5^{ft}</u>	<u>127.50</u>	<u>7.96</u>	<u>✓</u>	<u>127.50</u>
„ overhang aft					
„ overhang forward					
F'ele enclosed	<u>40.4^{ft}</u>	<u>40.40</u>	<u>7.96</u>	<u>✓</u>	<u>40.40</u>
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<u>215.00</u>	<u>215.00</u>			<u>215.00</u>

Standard Height of Superstructure 7.495
„ „ R.Q.D. ✓
Deduction for complete superstructure 41.96"
Percentage covered $\frac{S}{L} = 53.82\%$
„ „ $\frac{S_1}{L} = 53.82\%$
„ „ $\frac{E}{L} = 53.82\%$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 39.82%
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = 41.96 x .3982 = -16.71"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>49.95</u>	<u>1</u>	<u>✓</u>	<u>49.95</u>	<u>60</u>	<u>60.00</u>	<u>1</u>	<u>✓</u>	<u>60.00</u>
$\frac{1}{2}$ L from A.P.	<u>22.23</u>	<u>4</u>	<u>✓</u>	<u>88.92</u>	<u>26</u>	<u>26.07</u>	<u>4</u>	<u>✓</u>	<u>104.28</u>
$\frac{3}{8}$ L „	<u>5.49</u>	<u>2</u>	<u>✓</u>	<u>10.98</u>	<u>6$\frac{1}{2}$</u>	<u>6.52</u>	<u>2</u>	<u>✓</u>	<u>13.04</u>
Amidships	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>✓</u>
$\frac{3}{8}$ L from F.P.	<u>10.99</u>	<u>2</u>	<u>✓</u>	<u>21.98</u>	<u>13$\frac{1}{4}$</u>	<u>13.23</u>	<u>2</u>	<u>✓</u>	<u>26.46</u>
$\frac{1}{2}$ L „	<u>44.46</u>	<u>4</u>	<u>✓</u>	<u>177.84</u>	<u>53</u>	<u>52.93</u>	<u>4</u>	<u>✓</u>	<u>211.72</u>
F.P.	<u>99.90</u>	<u>1</u>	<u>✓</u>	<u>99.90</u>	<u>120</u>	<u>120.00</u>	<u>1</u>	<u>✓</u>	<u>120.00</u>
Total				<u>449.57</u>					<u>535.50</u>

Mean actual sheer aft = Excess
Mean standard sheer aft

Mean actual sheer forward = Excess
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = > .1L
„ „ aft of „ = > .1L

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{85.93}{18} \left(.75 - \frac{2691}{5200} \right) = -2.30"$

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.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 11565$ Tons per inch immersion at summer load water line $T = 4.73$ Deduction = $\frac{\Delta}{40T}$ inches $= \frac{11565}{40 \times 4.73} = 6.93"$ $= 7"$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.774 + .68}{1.36} = \frac{1.454}{1.36}$ Depth Correction <u>13.22</u> Deduction for superstructures <u>-16.71</u> Sheer correction <u>-2.30</u> Round of Beam correction <u>-0.06</u> Correction for Thickness of Deck amidships Other corrections, scantlings, etc. <u>13.22</u> <u>19.07</u> <u>-5.85</u> Summer Freeboard = <u>70.41</u>	<u>71.34</u> <u>76.26</u>
Depth to Freeboard Deck = <u>31.04</u> Summer freeboard = <u>5.87</u> Moulded draught (d) = <u>25.17</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{25.17}{4} = 6.29 = 6\frac{1}{4}"$ Addition for Winter North Atlantic Freeboard (if required) = <u>✓</u>			

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

Tropical Fresh Water Line above Centre of Disc ...	<u>13$\frac{1}{2}$" = 337</u>	Tropical Fresh Water Freeboard ...	<u>5' - 10$\frac{1}{2}$" = 179$\frac{1}{2}$"</u>
Fresh Water Line " " ...	<u>7" = 178</u>	Fresh Water " " ...	<u>4' - 9$\frac{1}{2}$" = 145$\frac{1}{2}$"</u>
Tropical Line " " ...	<u>6$\frac{1}{2}$" = 159</u>	Tropical " " ...	<u>5' - 3$\frac{1}{2}$" = 161$\frac{1}{2}$"</u>
Winter Line below " " ...	<u>6$\frac{1}{2}$" = 159</u>	Winter " " ...	<u>5' - 4$\frac{1}{2}$" = 163$\frac{1}{2}$"</u>
Winter North Atlantic Line " " ...	<u>✓</u>	Winter North Atlantic " " ...	<u>6' - 4$\frac{1}{2}$" = 195$\frac{1}{2}$"</u>

Germa

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles:—

None ✓

Particulars of Companionways:— Two ^{steel} in ^{house} on ^{poop} deck / leading to crew space /
having entrances with ordinary hinged wood panel / down (1 3/4" thick) Down 4'-11" x 2'-0"
Operated both side / Sill 1'9"

Vents are to rule requirements

No MEANS OF CLOSING LOUVRE TOP VENTS →

Particulars of Ventilators in exposed positions on freeboard and superstructure decks

Fble deck

9 off Gyro neck type to fire escape 14 26" x 5" diam ✓
2 off ordinary " " cofferdam 14 36" x 18" ✓
3 off " " fire escape 14 36" x 6" ✓
" " " 14 36" x 10" ✓

Upper deck in wells

8 off ord. type " holds 14 36" x 18" x .44 ✓
2 off " " 11 10ff x 18" x .40 SUPPORTED ✓

Bridge d/e

2 off " 14 32" x 12" x 4 TWIN TO ER ✓
2 off " 14 32" x 18" x 4 TO ER ✓

16 off LOUVRES TOP TYPE 14 27 SECTION 16" x 4"

"The Louvre top vents are to Bridge Thru break, deep tank, lower hold or lower decks."

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

<u>File deck</u>	1 off 42" x 3 1/2" diam to APT	<u>Poop deck</u>	2 off 30" ht x 3 1/2" diam to APT
	1 off 26" x 3 1/2" " " "		
	1 off 36" x 3 1/2" " " PEAK CROWN		
<u>Upper deck wells</u>	2 off 6'-6" SUPPORTED x 3 1/2" diam to double bottoms	<u>Bridge deck</u>	16 off 27" ht x 3" diam to double bottoms
	4 off 27" x 3 1/2" " " "		4 off 7' " 4 1/2" " " See my remarks
			16 off LOUVRE TOP
			No means of closing air pipes by wood plugs or gauge

Particulars of Gangway Cages and Coaling Bents :—

Particulars of Gangway Cargo and Coaling Ports :—

None

Particulars of Scuppers and Sanitary Discharge Pipes:— Scuppers in hulls formed by cutting stringer angles.
Sanitary discharges from Officers & crew accommodation all fitted
with storm valves at ship's sides.

Particulars of Side Scuttles :—

No side mirrors fitted in fusible space!
do do bridge "
No deadlights fitted to side lights in prop space!

Particulars of Guard Rails :—

Particulars of Guard Rails:—

Forecastle deck	3'-6" high	stanchions spaced	4'-3" apart	having	3 rods	✓
Poop deck	3'-8" "	"	"	"	3 "	✓
Bridge deck	3'-6" "	"	"	"	3 "	✓

Upper deck in mells Bulwarks 3-8½ high efficiently constructed & supported.

Particulars of Gangways, Lifelines, etc. :—

~~None fitted~~

Similar person made for regency helmet

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	95.5 ft	3'-8½"	4'-8" x 1'-6¼"	3	21.3 ft²	19.100 ft²
Forward Well	88.9 ft	3-8½"	4'-8" x 1'-6¼"	3	21.3 ft²	17.8 ft²

State position of each freeing port { After Well:—from after end bulwark ① 17'-10" ② 46'-10" ③ 69'-10" Ht above deck edge (P. and A. position and height above deck edge) { Forward Well:— " " " ① 13-0" ② 47'-0" ③ 69'-10" Ht above deck edge

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Bars 2 off each freeing port

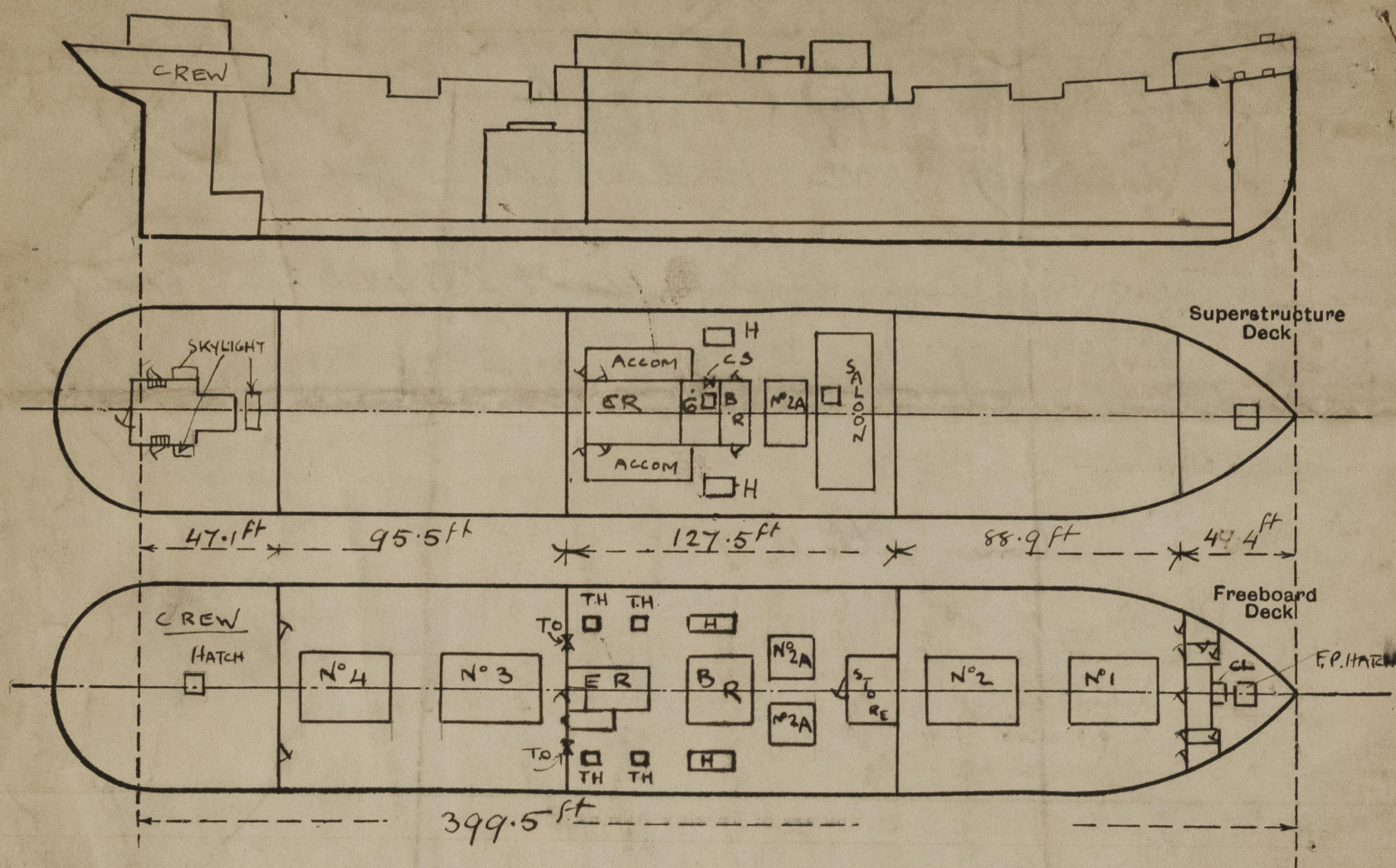
Additional area where sheer is less than standard. ✓

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	44	40	6x3x44 BA	28"	BKTS T+B	2 off 5'-9" x 2'-6"	19"	7-11½
Raised Quarter Deck Bulkhead ...	✓	✓		✓		✓		
Bridge, After Bulkhead	34	34	3½x3½x38 L	30"	None	2 off T.O. 5'-0" x 4'-0"	18½	7-11½
Bridge, Forward Bulkhead	44	40	8x3x58 BA	29"	BKTS T+B	None	✓	7-11½
Forecastle Bulkhead	36	36	3½x3½x38 L	27"	None	5'-3" x 2'-0"	19"	7-11½
Trunk, Aft		✓		✓			✓	
Trunk, Forward		✓		✓			✓	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...		✓		✓			✓	
Exposed Machinery Casings on Super-structure Decks	46	46	3x3x38 L	28" to 33"	None	5'-2" x 2'-0"	19"	8'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	46	46	3x3x38 L	28" to 33"	None	6'-8" x 4'-6" (TO TWIN DRUM KEY BOILER)	19" }	7-11½
Deckhouses on Flush Deck Ships ...		✓		✓				

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

Top Bulkhead	Ordinary steel hinged doors operate both sides.
Raised Quarter Deck Bulkhead ...	2 0's Shifting boards in riveted channels ^{full height} 2 T O's (p. 15) + one ordinary steel hinged door + one 9" wood door hinged to ventilate chamber
Bridge, After Bulkhead	Intact No openings
Bridge, Forward Bulkhead	Bright ordinary hinged doors operate both sides 3" off st 5" off wood
Forecastle Bulkhead	Two off ordinary wood panelled doors to ER 1 1/4 thick
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	Two off " steel hinged " to BR
Exposed Machinery Casings on Superstructure Decks	Two off bolted plate bolts 3" apart 1/2" in which ordinary steel hinged door is fitted leading to tween deck dinky bulk space
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
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 shewn on the following sketches:—



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

Tender assignment not required ✓
Vessel now undergoing special survey & it is stated
S.S. will be completed at this time ✓
~~*Forecastle door locks to repair*~~

Builder's name and yard number

Harland & Wolff Ltd

Names of sister ships

Sf Bonheur

Owners

White Shipping Co Ltd

Fee £ 13

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Received by me



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Foundation