

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 17270
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Combined Forecastle or Bridge, Raised Quarter Deck and Poop (Type of Superstructures.)

Port of Survey London

Date of Survey 25/5/32

Name of Surveyor Thomas E. Souden

Ship's Name "Stork" Nationality and Port of Registry British London Official Number 118473 Gross Tonnage 2029 Date of Build 1904-8

Moulded Dimensions: Length 240 Breadth 38.6 Depth 20.0 tons 3736

Moulded displacement at moulded draught = 85 per cent. of moulded depth 750

Coefficient of fineness for use with Tables

Particulars of Classification +100 A.1.
ft awning deck with fbd.

Depth for Freeboard (D)

Moulded depth ... 20.00

Stringer plate 45 (AWNDK) ... 04

Sheathing on exposed deck 50 (URDK)

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

Depth for Freeboard (D) = 20.04

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = (20.04 - 18.0) 2.077 4.24

(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) 38

Standard Round of Beam = $\frac{B \times 12}{50} =$ 9.12

Ship's Round of Beam = 9 1/2

Difference 38

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$ 0

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>26.9</u>	<u>26.75</u>	<u>4.6</u>		<u>26.75</u>
" overhang ...	<u>66.0</u>	<u>66.00</u>	<u>4.0</u>	<u>4/427</u>	<u>61.83</u>
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<u>177.3</u>	<u>177.25</u>	<u>4.6</u>		<u>177.25</u>
" overhang aft ...					
" overhang forward ...					
Table enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>270.0</u>	<u>270.0</u>			<u>265.83</u>

Standard Height of Superstructure 6.2

" " R.Q.D. 4.27

Deduction for complete superstructure 33

Percentage covered $\frac{S}{L} =$ 100

" " $\frac{S_1}{L} =$ 100

" " $\frac{E}{L} =$ 98.45

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

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 98.09

Interpolation for bridge less than 2L (if required)

Deduction = 33 * 98.09 = 32.37

SHEER CORRECTION.

Sheer measured at Newcastle

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>37.0</u>	1		<u>37.00</u>	<u>42.42</u>	<u>42</u>	1		<u>42.00</u>
1/8 L from A.P. ...	<u>16.46</u>	4		<u>65.84</u>	<u>18.5</u>	<u>18.76</u>	4		<u>75.04</u>
3/8 L " ...	<u>4.07</u>	2		<u>8.14</u>	<u>4.5</u>	<u>4.69</u>	2		<u>9.38</u>
Amidships ...		4					4		
5/8 L from F.P. ...	<u>8.14</u>	2		<u>16.28</u>	<u>9.5</u>	<u>9.38</u>	2		<u>18.76</u>
3/4 L " ...	<u>32.92</u>	4		<u>131.68</u>	<u>38.00</u>	<u>37.52</u>	4		<u>150.08</u>
F.P. ...	<u>74.00</u>	1		<u>74.00</u>	<u>84.00</u>	<u>84.00</u>	1		<u>84.00</u>
Total ...				<u>332.94</u>					<u>379.26</u>

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

$$\frac{46.32}{18} \times \frac{25}{18} = - .64$$

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

IN WAY OF MARKING

Depth to Freeboard Deck = 27.79

Summer freeboard = 8.54

Moulded draught (d) = 19.25

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 4.81Addition for Winter North Atlantic Freeboard (if required) = 2

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 4327

Tons per inch immersion at summer load water line

T = 21.04Deduction = $\frac{\Delta}{40T}$ inches= 5.14
5 1/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{750 + 68}{136} =$$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. wood sheathing

IN WAY OF MARKING

Summer Freeboard = 102.61

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

Tropical Fresh Water Line above Centre of Disc	... <u>10</u> ...
Fresh Water Line	... <u>5 1/4</u> ...
Tropical Line	... <u>4 3/4</u> ...
Winter Line	below ... <u>4 3/4</u> ...
Winter North Atlantic Line	... <u>6 3/4</u> ...

Tropical Fresh Water Freeboard	... <u>8-6 1/2</u> ...
Fresh Water	... <u>7-8 1/2</u> ...
Tropical	... <u>8-1 1/4</u> ...
Winter	... <u>8-13 1/4</u> ...
Winter North Atlantic	... <u>8-11 1/4</u> ...

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		h ¹ 1. Yc	h ² 2. Br	h ¹ 1. D ²	h ² 2. U ²	h ³ 3. B ²	h ³ 3. RGD	h ⁴ 4. RGD	
Dimensions of Hatchway		16' x 14'	30' x 14'	20' x 14'	34' x 14'	4' x 15'	18' x 14'	20' x 14'	
COAMINGS	Height above Deck	24"	24"	17"	17"	39"	36"	36"	
	Thickness	40	440	40	44	40	44	44	
	Sides	40	40	40	44	40	44	44	
	Ends	40	40	40	44	40	44	44	
	Stiffeners	-	-	-	-	-	-	-	
HATCH BEAMS	Brackets, Stays	-	-	-	-	-	-	-	
	Number	1	3	1	3	-	1	1	
	Spacing	8' 0"	7' 6"	10'	8' 6"	-	9'	10'	
	Scantling and Sketch	3x3x36 3 1/2"x38 2 1/2"	Ash 7 3x3x30 2 1/2"x38 2 1/2"	3x3x30 2 1/2"x38 2 1/2"	Ash 7 3x3x30 2 1/2"x38 2 1/2"	-	3x3x30 3 1/2"x38 2 1/2"	As. N ^o 3 3x3x30 3 1/2"x38 2 1/2"	
	Bearing Surface	3	3	3	3	-	3 1/2	3 1/2	
FORE AND AFTERS	Number	3	3	3	3	-	3	3	
	Spacing	3' 6"	3' 6"	3' 6"	3' 6"	-	3' 6"	3' 6"	
	Unsupported Lengths	8' 0"	7' 6"	10'	8' 6"	-	9'	10'	
	Scantling* and Sketch	3 1/2 x 2 1/2 x 30 10 x 30 CENTRE 7 1/2 x 30 SIDES	3 1/2 x 2 1/2 x 30 7 1/2 x 30 SIDES	3 1/2 x 2 1/2 x 30 7 1/2 x 30 SIDES	3 1/2 x 2 1/2 x 30 7 1/2 x 30 SIDES	-	3 1/2 x 2 1/2 x 30 7 1/2 x 30 SIDES	3 1/2 x 2 1/2 x 30 7 1/2 x 30 SIDES	
	Bearing Surface	2 1/2	2 1/2	2 1/2	2 1/2	-	2 1/2	2 1/2	
HATCH COVERS	Material	Pine	Pine	Pine	Pine	Pine	Pine	Pine	
	Thickness	3"	3"	3"	3"	3"	3"	3"	
	How fitted	Shwart	Shwart	Shwart	Shwart	Shwart	Shwart	Shwart	
	Bearing Surface	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	
Spacing of Cleats		24"	24"	24"	24"	24"	24"	24"	
Number of Tarpaulins		3	3	1	1	2	3	3	

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

Are battens and wedges efficient and in good condition ?

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

Are lashings provided in accordance with rule requirements ?

Particulars of fiddley, funnel and ventilator coamings :—

Fiddley Gratings fitted with hinged plate covers.
Vents are in efficient condition
Engine Room skylight of steel strongly constructed

Particulars of Flush Bunker Scuttles:—

None. ✓

Particulars of Companionways :—

1 on Forecastle. 3'-3" x 3'-6" to Accⁿ Steel x Wood with 2 hinged wood doors 4' x 14" (Sill 14") Operated both sides ✓
 1 " Bridge. 3'-6" x 3' " " " " " " 2'-6" x 4" (" 8") " " " ✓
 1 " Poop:- " " " " " 2 " " " P+S 2'-9" x 3'-0" (15") " " " ✓

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

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

Forecastle	2 w 7" x 10" high (above wood) to acc ⁿ ✓	R.O.D. ^s :- 2 w 14" D.P.V. ^s to hold ✓	All fitted with wood plugs or Canvas covers ✓
	2 w 6" x 7" " M.V. ^s " ✓	6 w 14" x 24" high " ✓	
Bridge	6 w 14" x 24" " to hold ✓	1 w 6" x 24" " Turn D ^s ✓	
	2 D.P.V. ^s 14" " ✓	8 w 6" x 9" high M.V. ^s to acc ⁿ ✓	
	2 w 6" x 9" " acc ⁿ ✓	2 w 6" x 12" 3 N. to store ✓	

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: — *Sheepshole*

File	{	1 @ $4\frac{1}{2} \times 22$ " high	to 4 P. ✓	R.Q.D. 3 C.I. @ $3\frac{1}{2} \times 18$ " high	to 2 P's ✓
q		1 @ $3\frac{1}{2} \times 19$ "	- -		
Bridge	{	3 C.I. @ $3\frac{1}{2} \times 18$ "	- DBL ✓	Boop: - 1 C.I. " " " " x 18" " " " " ✓	at P. ✓

Canvas Covers fitted for all airpipes. ✓

Particulars of Gangway Cargo and Coaling Ports:—

Alone ✓

Particulars of Scuppers and Sanitary Discharge Pipes :—

Discharges from hulls in Forecastle Captains & Eng^s acc^{to} discharge below freeboard deck & have stem valves at ships side & flap valves at inner ends.

Boop has discharges above Upper D^e & has storm value at ship's side ✓ ? oolite pipes

Particulars of Side Scuttles:—

All fitted with permanent hinged deadlights ✓

Particulars of Guard Rails :—

Forecastle & Bridge :- 3'-0" high, 3 rods, Stanch^{ns} 4'-6" apart. ✓

Boops:- 3-3" " 2 " wood rail " 4'-9" " ✓

Particulars of Gangways, Lifelines, etc.:—

Suitable fittings are available at each end of RQD* but no stretching screws or special lifelines are provided.

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	66'	4'-0"	3'-4" x 21" 3'-0" x 18"	3 1	22.0. ✓	13.2. ✓
Forward Well						

State position of each freeing port } After Well:— 7'-6, 23', 39' & 56' from B's B's; 7" Sill.
(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:—
2 Bars to each 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	Vertl.	34	5 x 3 x 40 ✓	30" ✓	None.	-	-	7'-6"	
Raised Quarter Deck Bulkhead ... }								4'-0"	
Bridge, After Bulkhead ... }	34	34	18" x 34 plate ✓	4 in 10 ✓	24" Brag ✓	-	-	7'-6"	
Bridge, Forward Bulkhead									
Forecastle Bulkhead									
Trunk, Aft									
Trunk, Forward									
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...									
Exposed Machinery Casings on Superstructure Decks	18" x 34	30 ✓	3 x 3 x 36 ✓	3'-6" ✓	Brag w Top ✓	2' 0" 4'-6" x 2' ER 3 " " BR	18" ✓	4'-0" 9'-0"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances									
Deckhouses on Flush Deck Ships ...									

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

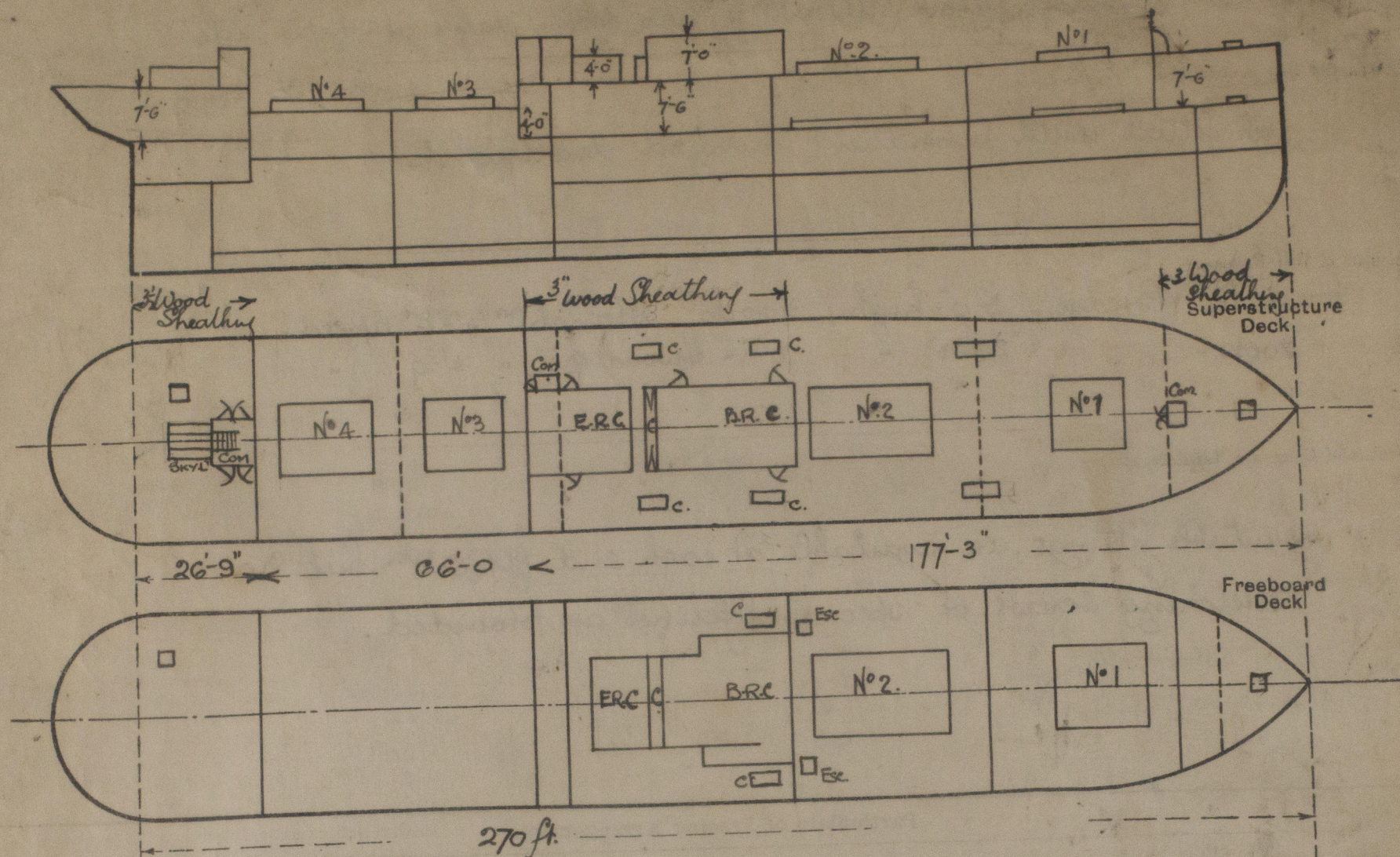
Poop Bulkhead	-
Raised Quarter Deck Bulkhead ...	-
Bridge, After Bulkhead	-
Bridge, Forward Bulkhead	-
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class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

5 Steel hinged doors Operated from both sides. ✓

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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:—



Draught.	DWT
16-6 1/2	2000 tons
16-10 1/2	2200
17-7 3/4	2400
18-5 1/2	2600
18-10	2700

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

Small Hatches:—

1 on Tcle to Fore Peak.	3' x 2'-9" x 12" high.	Steel.	Fitted with wood covers cleats battens & tarpaulins
1 on W.D. " "	3' x 2'-6" x 12" "	"	" " " " " " " "
2 on B.D. to Yarn D th	8' x 3'-0" x 24" ✓	"	" " " " " " " "
2 " W.D. (escapes)	3' x 4'-0" x 3 1/2" ✓	"	" " " " " " " "
2 " B.D. to Bunkers	5'-9" x 2'-9" x 14" ✓	"	" " " " " " " "
2 " " " " " "	6'-0" x 3'-0" x 3 1/2" ✓	"	" " " " " " " "
1 on Poop to Gazette	3'-6" x 2'-6" x 7" (above wood deck)	3" Wood.	Fitted with wood frame covers & grating
1 on W.D. " Poop	3'-0" x 2'-6" x 3 1/2" L. flush with wood deck	"	" Solid wood covers.

The vessel has proceeded to R. Lyne where she will be drydocked and arrangements are being made to verify the Sheers. ✓

Builder's name and yard number Ropner and Son. N° 407.

Names of sister ships —

Owners General Steam Navigation Co. Ltd.

Fee £ 10 : 4 : 0 Received by me W. C. 3/5/32.



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