

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

WRECK BAY

No. 163-3

Index No. 30254

(For London Office only.)

N.Y. Office No. 11468

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Roof, bridge and fore-castle

Port of Survey New York

Date of Survey Jan 8th 1932

Name of Surveyor W. Bennett

Particulars of Classification + 100 A1

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>CHRISTIANSSON</u>	<u>Copenhagen</u>	<u>✓</u>	<u>1270</u>	<u>1922</u>

Moulded Dimensions: Length 112.0 Breadth 48.50 Depth 14.50

Moulded displacement at moulded draught = 85 per cent. of moulded depth 745.5 tons

Coefficient of fineness for use with Tables .475

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>14.50</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(14.50 - 22.11) 1.65 A + 6.16</u>	Moulded Breadth (B) <u>48.50</u>
Upper plate ... <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>11.64</u>
Plating on exposed deck <u>✓</u>		Ship's Round of Beam = <u>12.00</u>
$T \left(\frac{L-S}{L} \right) =$		Difference <u>.16</u>
Depth for Freeboard (D) = <u>14.54</u>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>$\frac{.16}{4} \times .48 = .02$</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>10.10</u>	<u>10.10</u>	<u>4.6</u>	<u>✓</u>	<u>10.10</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	<u>212.50</u>	<u>212.50</u>	<u>4.6</u>	<u>✓</u>	<u>212.50</u>
" overhang aft ...					
" overhang forward					
Fore-castle enclosed ...	<u>24.20</u>	<u>24.20</u>	<u>4.6</u>	<u>✓</u>	<u>24.20</u>
" overhang ...	<u>3.00</u>	<u>3.00</u>			<u>3.00</u>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<u>269.60</u>	<u>269.60</u>			<u>269.60</u>

Standard Height of Superstructure 6.82

" " R.Q.D. ✓

Deduction for complete superstructure 14.47

Percentage covered $\frac{S}{L} =$ 81.20

" " $\frac{S_1}{L} =$ 81.20

" " $\frac{E}{L} =$ 81.20

Percentage from Table, Line A. (corrected for absence of fore-castle (if required))

Percentage from Table, Line B. 76.79

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than .2L (if required)

✓ Deduction = 14.47 ✓ 76.79 ✓ - 28.44

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
P. ...	<u>48.20</u>	1		<u>48.20</u>	<u>59.25</u>	<u>19.25</u>	1		<u>19.25</u>
from A.P. ...	<u>19.12</u>	4		<u>76.88</u>	<u>24.50</u>	<u>24.50</u>	4		<u>98.00</u>
" ...	<u>4.75</u>	2		<u>9.50</u>	<u>6.15</u>	<u>6.15</u>	2		<u>12.30</u>
amidships ...		4					4		
from F.P. ...	<u>7.50</u>	2		<u>15.00</u>	<u>12.75</u>	<u>12.75</u>	2		<u>25.50</u>
" ...	<u>16.44</u>	4		<u>65.76</u>	<u>50.75</u>	<u>50.75</u>	4		<u>203.00</u>
P. ...	<u>86.40</u>	1		<u>86.40</u>	<u>114.50</u>	<u>114.50</u>	1		<u>114.50</u>
Total ...				<u>188.74</u>					<u>516.25</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 = 19 L

" " aft of " = 12 L

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{127.61}{18} (.75 - .406) = - 2.44$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <u>.475 + .65</u>
Depth to Freeboard Deck = <u>24.54</u>	$\Delta =$ <u>7950</u> tons	<u>1.26</u>
Summer freeboard = <u>2.52</u>	Tons per inch immersion at summer load water line	Depth Correction ... <u>6.16</u>
Moulded draught (d) = <u>22.02</u>	$T =$ <u>12.45</u>	Deduction for superstructures ... <u>24.77</u>
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Sheer correction ... <u>2.44</u>
Winter freeboard = $\frac{d}{4}$ inches = <u>5.50</u>	= <u>6.12</u>	Round of Beam correction ... <u>.02</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>20.19</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>11.62</u>	Tropical Fresh Water Freeboard ...	<u>18.57</u>
Fresh Water Line	<u>6.12</u>	Fresh Water	<u>24.07</u>
Tropical Line	<u>5.50</u>	Tropical	<u>24.69</u>
Winter Line below	<u>5.50</u>	Winter	<u>25.69</u>
Winter North Atlantic Line		Winter North Atlantic	<u>26.69</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											2nd. HATCH ON BRIDGE			
--- ON UPPER DECK ---													--- ON BRIDGE DECK ---	
Description of Hatchway			No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 2.	No. 3.	No. 4.				
Dimensions of Hatchway			26' 6" x 10	28' 7" x 10	22' 5" x 20	16' 7" x 20	26' 6" x 10	28' 7" x 20	22' 5" x 10	28' 7" x 20	6' 1" x 3' 0	2' 0" x 3' 0		
COAMINGS	{	Height above Deck	4' 5"	12	12	12	4' 5"	3' 6"	3' 6"	3' 6"	3' 9"	3' 9"		
		Thickness				all	all							
		Sides Ends				all	all							
		Stiffeners	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2	10 x 3/4 x 1/2		
HATCH BEAMS	{	Brackets, Stays	Peak											
		Number	5	5	5	5	5	5	5	5	5	1		
		Spacing	2' 5"	4' 9"	3' 9"	4' 9"	4' 5"	4' 9"	3' 9"	4' 9"				
		Scantling and Sketch	7" x 17' x 18' x 10' x 16'					17' x 18'						
FORE AND AFTERS	{	Bearing Surface												
		Number												
		Spacing												
		Unsuppported Lengths												
HATCH COVERS	{	Scantling* and Sketch												
		Bearing Surface												
		Material		wood										
		Thickness		3"										
Spacing of Cleats	{	How fitted		F. aft										
		Bearing Surface												
		Number of Tarpaulins		24										
				4										

*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 taken on ceiling top - coaming 18" x 2 1/2" - closed

4 tunnel steps on top of casing with no openings.

Four E.R. mounds each 24" - dia x $5\frac{1}{16}$ ". Two are 8' x 4" - shows casing, two 6'0" x 4"

E.R. skylight 36" to top of loaming slides, 60" at center - $\frac{1}{16}$ " thick. blood

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

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

Used plegs and canvas covers

are provided for all universities.

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

4" and 6" diam. air pipes are placed

and fore peak. Loose neck bend
decks. Head flat on sand. Ground

Found air pipes on roof to eff. back - 5

closed with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—

How

Of Scuppers and Sanitary Discharge Pipes — There are no overboard scuppers below the level of the gunboard deck, nor are there any sanitary discharge pipes from spaces below the gunboard deck. There is one transfer from the intact Fx. space above the gunboard deck, with single (cast steel) storm valve fitted at shell. This has drains a toilet.

lars of Side Scuttles: 12" diam. forelights are fitted in sides of poop
if possible (none in bridge space), all fitted with
permanently attached steel headlamps.

Bars of Guard Rails:—

Open rails on trestle	(two tiers)	39" high
" " " " "	(three ")	39" high
Plate bulwarks on cuts and bridge		

Gangways on starboard side over forward and after mulls.
Gangway made of wood, and supported by 2" steel supports
spaced about 10 ft.

Landnails are permanently attached to sides of houses on
bridge deck. Master will arrange lifelines where
required.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Well	32'-8"	4'-10"	3'-9" x 2'-0"	Two	15 sq ft	9.5 sq ft
Card Well	32'-8"	4'-10"	3'-9" x 2'-0"	Two	15 "	9.8 "

position of each freeing port } After Well:— *One near each end - 10" above deck to lower edge.*
and A. position and height above deck edge) { Forward Well:— *ditto*

whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— *Shutters and rails (2 tiers)*

Additional area where sheer is less than standard.

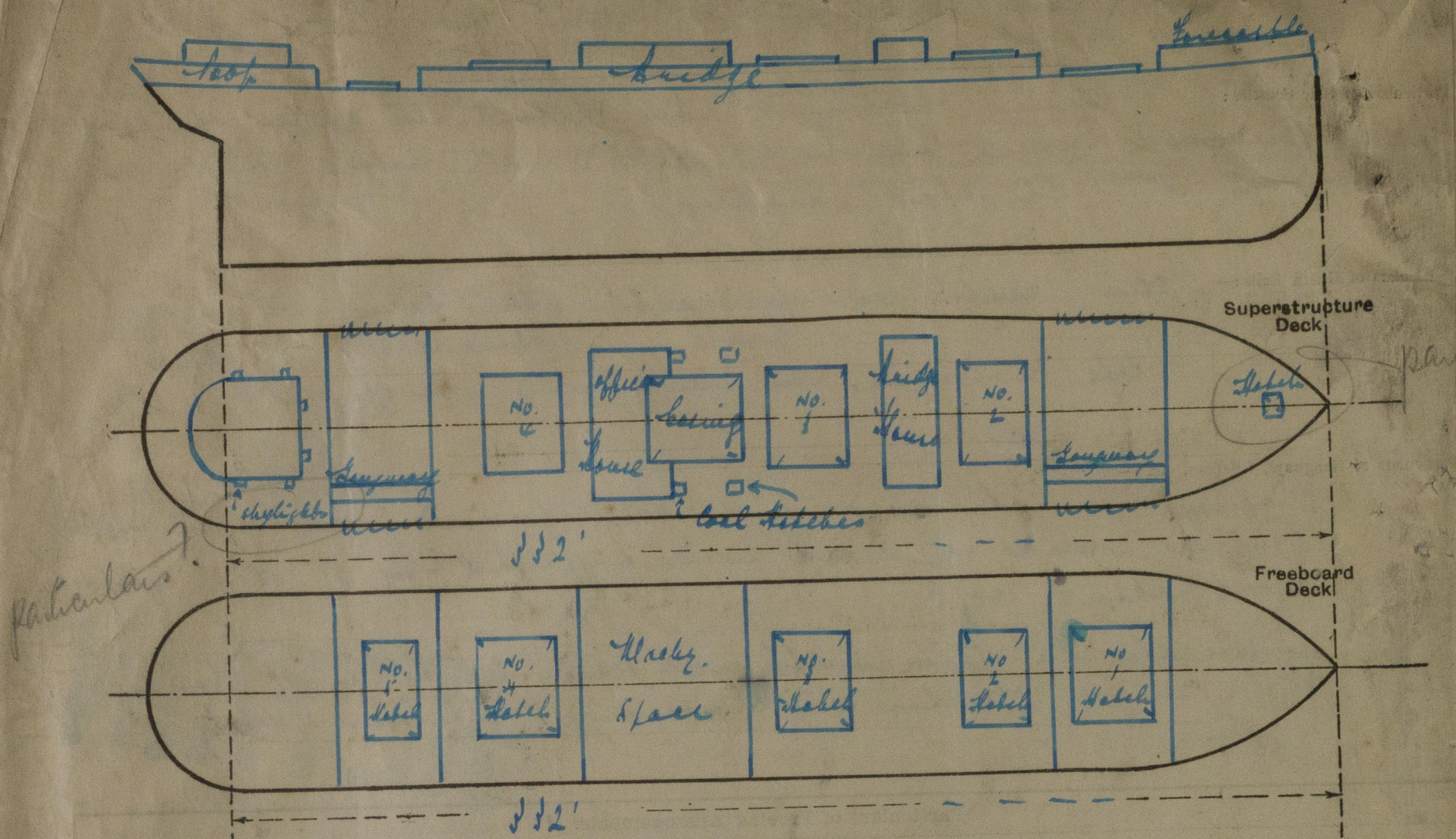
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Bulkhead	✓	✓	not assembled	26	fastened to plating	none	✓	7'-6"
Quarter Deck Bulkhead ...	✓							
Deck, After Bulkhead	✓	✓	1 1/2 x 1/2 x 11 angle	28	ditto	4'-6" x 2'-0"	12	4'-6"
Deck, Forward Bulkhead ...	✓	✓	1 1/2 x 1/2 x 10 angle	30	ditto	2'-4" x 2'-2"	4 1/2	4'-6"
Castle Bulkhead	✓	✓	6 x 1 x 15 angle	33	ditto	4'-0" x 1'-6" 2'-10" x 2'-0"	18	4'-6"
Deck, Aft	✓					4'-6" x 2'-6"	18	4'-6"
Deck, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super- structure Decks	25	25	4 x 1 x 11 angle	36	No bracing	4'-6" x 1'-10"	18	4'-6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓							
Stowage lockers on Flush Deck Ships ...	✓							

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

Top Bulkhead	...	...	No opening.	Top 2 1/2 x 2 1/2 equiv bulkhead
Mid Quarter Deck Bulkhead	...	...
Age, After Bulkhead	...	...	Each half not having this bulkhead plating, 8 bolts on each door hinged openable from outside only.	
Age, Forward Bulkhead	...	...	Steel hinged doors with 5 dogs on each. Openable from outside.	
Castle Bulkhead	...	...	Two on port side, steel hinged openable from both sides, rig handle and lock.	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	Two on starboard side, steel hinged doors with two dogs, openable from outside only.	
Exposed Machinery Casings on Superstructure Decks	...	...	Two on each side, steel hinged doors, two dogs on each, openable from outside.	
Shining Casings within Superstructures not fitted with Class I Closing Appliances	...	...	Hinged steel half doors. Handle and lock, openable from inside.	
Stowhouses on Flush Deck Ships	...	...

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangways, 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:— There is an exhaust leading from above the deck. (Port side) through the shell, and comes out about one foot. The present bulkhead of deck. The trunk is watertight, and the opening in the shell is fitted with a sliding shutter on the outside.

Timber Deck Cargoes. The double bottom tanks are divided longitudinally; permanent bulwarks of steel are fitted (see sketch); access to the crew quarters to the machinery space and forward, is provided satisfactorily, but no fixed rails or lifelines are fitted. These arrangements are considered efficient. The arrangements of up and lashing are shown on the attached sketch, as taken from the mate stated that the timber cargo was usually carried to a height of about 10 ft. above the bridge deck. Similar height in masts. Numerous timber deck cargoes have been fit tops and deal from anchorage.

Builder's name and yard number: *Schroeder v. J. Smith.*

Names of sister ships:

Owners: *Act. Sampson, Samchoong*

Fee: *60.00*

Received by me:

11.00
20.00
30.00



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