

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Raised Quarter Deck, Bridge and Forecastle.*

YANBROOK

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

San Francisco
PORTLET

Br. Goole.

161046

946

1930

Port of Survey

HULL (Goole)

Date of Survey

15th July 1932

Name of Surveyor

L. Moffatt

Particulars of Classification

100 A1

hargo battens not fitted.

Moulded Dimensions: Length

205'

Breadth

32'

Depth

14'

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

1655

tons

Coefficient of fineness for use with Tables

742

Depth for Freeboard (D)

Moulded depth

14'

Stringer plate

46

Sheathing on exposed deck

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

✓

Depth for Freeboard (D) =

14.04

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = $(14.04 - 13.67) \times 577$

$= +.58$

(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)

32.00

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

7.68

Ship's Round of Beam

8"

Difference

.32

Restricted to

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

$\frac{.32}{4} \times .2325 = -.02$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...	<i>121.12</i>	<i>121.12</i>	<i>4.25</i>	<i>✓</i>	<i>121.12</i>
" overhang ...					
Bridge enclosed ...	<i>13.12</i>	<i>13.12</i>	<i>7'</i>	<i>✓</i>	<i>13.12</i>
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	<i>22.60</i>	<i>22.60</i>	<i>7'</i>	<i>✓</i>	<i>22.60</i>
" overhang ...	<i>.98</i>	<i>.49</i>			<i>.49</i>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>157.82</i>	<i>157.33</i>			<i>157.33</i>

Standard Height of Superstructure

6.00

" " R.Q.D.

3.700

Deduction for complete superstructure

26.5

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

77%

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

76.75%

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

76.75%

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

71.30%

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

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

Deduction = $26.50 \times .7130 = - 18.90$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>30.50</i>	<i>1</i>	<i>✓</i>	<i>30.50</i>	<i>36.75</i>	<i>36.75</i>	<i>1</i>	<i>✓</i>	<i>36.75</i>
$\frac{1}{4}$ L from A.P. ...	<i>13.57</i>	<i>4</i>	<i>✓</i>	<i>54.28</i>	<i>15.00</i>	<i>14.81</i>	<i>4</i>	<i>✓</i>	<i>59.24</i>
$\frac{2}{4}$ L " ...	<i>3.35</i>	<i>2</i>	<i>✓</i>	<i>6.70</i>	<i>3.50</i>	<i>3.70</i>	<i>2</i>	<i>✓</i>	<i>7.40</i>
Amidships ...	<i>✓</i>	<i>4</i>	<i>✓</i>	<i>✓</i>	<i>0</i>	<i>✓</i>	<i>4</i>	<i>✓</i>	<i>✓</i>
$\frac{3}{4}$ L from F.P. ...	<i>6.71</i>	<i>2</i>	<i>✓</i>	<i>13.42</i>	<i>7.25</i>	<i>7.31</i>	<i>2</i>	<i>✓</i>	<i>14.62</i>
$\frac{1}{4}$ L " ...	<i>27.14</i>	<i>4</i>	<i>✓</i>	<i>108.56</i>	<i>29.50</i>	<i>29.23</i>	<i>4</i>	<i>✓</i>	<i>116.92</i>
F.P. ...	<i>61.00</i>	<i>1</i>	<i>✓</i>	<i>61.00</i>	<i>66.00</i>	<i>66.00</i>	<i>1</i>	<i>✓</i>	<i>66.00</i>
Total ...	<i>274.5</i>			<i>274.46</i>					<i>327.59</i>

Correction = $\frac{\text{Difference between sums of products}}{18} =$

$\frac{(75 - \frac{S}{2L})}{18} = \frac{59.13}{18} (.75 - .385) = - 1.08$

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.

Depth to Freeboard Deck = *18.29*

Summer freeboard = *4.71*

Moulded draught (d) = *13.58*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $3.39 = 3\frac{3}{8}$

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

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1928$

Tons per inch immersion at summer load water line

$T = 13.15$

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

$= \frac{1928}{40 \times 13.15} = 3.66 = 3\frac{3}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.742 + .68}{1.36} = \frac{1.422}{1.36}$

23.95

25.04

Depth Correction

.58

Deduction for superstructures

18.90

Sheer correction

1.08

Round of Beam correction

.02

Correction for Thickness of Deck amidships

51.00

Other corrections, scantlings, etc. (R. Q. D.)

51.00

Summer Freeboard = *56.62*

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

Tropical Fresh Water Line above Centre of Disc ... *4"*

Fresh Water Line " " ... *3\frac{3}{4}"*

Tropical Line " " ... *3\frac{3}{4}"*

Winter Line below " " ... *3\frac{3}{4}"*

Winter North Atlantic Line " " ... *5\frac{1}{2}"*

Tropical Fresh Water Freeboard ... *4'-8\frac{1}{2}"*

Fresh Water " " ... *4'-1\frac{1}{4}"*

Tropical " " ... *4'-4\frac{3}{4}"*

Winter " " ... *4'-5"*

Winter North Atlantic " " ... *5'-0"*

Winter North Atlantic " " ... *5'-2"*

MARKING FORM

RECEIVED 7 JUL 1932

MARKING FORM

RECEIVED 11 JAN 1935

MARKING FORM

RECEIVED 13 SEP 1932

Lloyd's Register of Shipping

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway	No 1	No 2
Dimensions of Hatchway	39'4 1/2" x 20'	45' x 20'
COAMINGS	Height above Deck ... 3'7" Thickness { Sides ... 4 1/4" Ends ... 4 1/4" Stiffeners ... S.A. 4 x 3 x .5" 15" from top Brackets, Stays ... 4 stays even	Height above Deck ... 3'6" Thickness { Sides ... 4 1/4" Ends ... 4 1/4" Stiffeners ... S.A. 4 x 3 x .5" 15" from top Brackets, Stays ... 5 even
HATCH BEAMS	Number ... even Spacing ... 18" x 36" Scantling and Sketch ... JL x D.A. 4 x 6. 4" x 3" x 4" Bearing Surface ... 3"	Number ... 8 Spacing ... even Scantling and Sketch ... Same as No 1 Bearing Surface ... 3"
FORE AND AFTERS	Number ... none Spacing ... none Unsupported Lengths ... none Scantling* and Sketch ... none Bearing Surface ... none	Number ... none Spacing ... none Unsupported Lengths ... none Scantling* and Sketch ... none Bearing Surface ... none
HATCH COVERS	Material ... W. Wood Thickness ... 2 1/2" How fitted ... 4 x 2 Bearing Surface ... 3" x 4"	Same as No 1
Spacing of Cleats	24"	24"
Number of Tarpaulins	2	2
*Are wood fore and afters steel shod at all bearing surfaces? none 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		

Particulars of fiddle, funnel and ventilator coamings:— Fiddle gratings of steel, covered by strong steel hinged covers. Fiddle & funnel vents & coamings efficient & good.
 Engine Room skylights of steel strongly constructed.
 Bunker Hatch on casing top 17' x 7'3" with coaming 15" high, fitted with 3 steel hinged lids of substantial construction - no tarpaulins.

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:— 1 Steel companionway in Forecastle Bulkhead 3'6" x 3' x 7' sill 20", leading to upper Fore Peak Space fitted with steel door, spring to opening both sides.
 1 Steel companionway on Bridge Deck in Bridge Deck erection and lead to Enc. Bridge Space accommodation. Door (teak wood) 1 1/2" thick, spring to opening both sides: 4'9" x 2" opening - sill 16".

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

1 Vent on Forecastle Deck	6" dia	Coaming 3'6" x 3	led to upper Fore Peak
2 " " Fore Well	6" "	" " " "	Enc. Forecastle acc.
2 " " " "	15" "	" " " "	Fore Hold Space
2 " " Bridge Deck	11" "	" " " "	" " "
2 " " R.Q.	6 1/2" "	" " " "	Enc. Bridge " Accom
3 " " " "	18" "	" " " "	Aft Hold " "
3 " " " "	4" "	" " " "	Enc. Bridge " "

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

1 B.I. air pipe on Forecastle Deck	3" dia	x 12"	led to Fore Peak Tank.
2 " " " "	3" "	x 4"	Enc. Forecastle Space Accom.
1 " " " " Fore Well	3" "	x 25"	No 1 DB tank
1 " " " " Bridge	4" "	x 5"	Enc. Bridge Space
1 " " " " R.Q.	3" "	x 6"	No 2 DB tank
2 " " " " " "	3" "	x 14"	Aft Peak
1 " " " " " "	3" "	x 14"	" "

Particulars of Gangway Cargo and Coaling Ports:—

none.

wood plug canvas fitted



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articulars of Scuppers and Sanitary Discharge Pipes :—

6 " " " " R. Q. " 6"x3"
Sanitary Discharges. (1) 4" pipe from

Sanitary Discharges.

(1)	4"	pipe from F. castle Accom.	discharging above Trebbd Deck	non return valve at 5.5.
(1)	4"	"	Bridge Space acc	below R.Q.D 3' - non return valve at 5.5.
(1)	4"	"	Mech Sp. Accom	" " 5' no traps at inner end.

articles of Side Scuttles.

articulæ of Side Scuttles:—

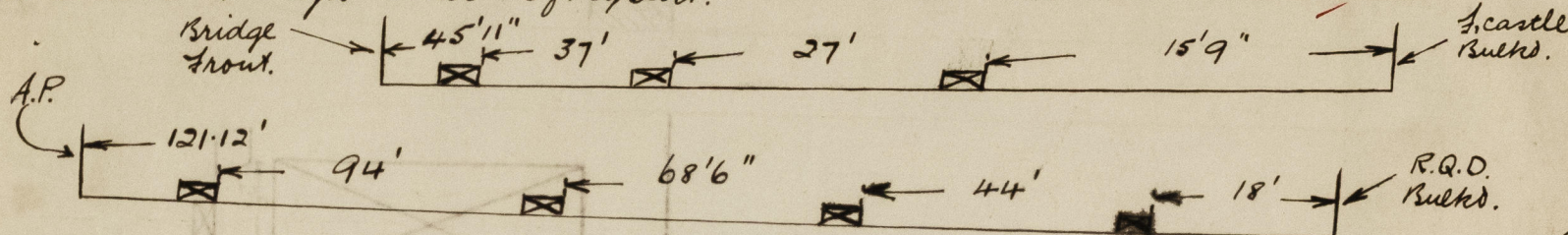
Substantially constructed side scuttles, with hinged deadlights fitted in T. castle crew space and Enc. Bridge Space Accomodation.

Particulars of Guard Rails :—

Forecastle Deck;	2 rails in stanchions 3' high and approx. 4'6" apart.
Fore Well "	Steel bulwarks 4' high, efficiently supported.
Bridge "	" " 3' " " "
Raised Qtr "	" " 3'3" " "

Particulars of Gangways, Lifelines, etc. :—

particulars of Gangways, Lifelines, etc. :— Lifeline fitted each side of Fore Well, in portable
stanchions 4' high and 10 ft apart.



Sketch
showing position
of Felling
Posts

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 R.Q.D. ...	121.12'	3'3"	$\left\{ \begin{array}{l} 2'4" \times 1'6" \\ 1'9" \times 1'6" \end{array} \right.$	$\left\{ \begin{array}{l} 4 \\ 4 \end{array} \right.$	$\begin{array}{l} 24.5 \text{ sq.} \\ \cancel{10.5} \end{array}$	$\begin{array}{l} 24.22 \\ \cancel{30.28} \end{array} \phi$
Forward Well ...	45'11"	4'	2'6" x 1'7"	3	11.8 ϕ ✓	11.10 ϕ

State position of each freeing port

(F. and A. position, and height above deck edge)

After Well:—R.Q.D. = 8"
Forward Well:—(1) 12" (2) 19"

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.

R.Q.D. swirl shutters
Fore Well. 2 bars.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Pop Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	34	3	← not accessible →			none	✓	4' 3"
Bridge, Forward Bulkhead	34	3	SA 6½" X 3" X 34	30"	Brack t x b	none	✓	7'
Forecastle Bulkhead	34	3	3" X 2½" X 3	30"	none	(3) 4' X 1' 10"	19"	7'
Trunk, Aft			(door frames) only.			(3) 4' 6" X 2"	19"	7'
Trunk, Forward								
Exposed Machinery Casings on Deck								
Board or Raised Quarter Decks	34	3	3½" X 3" X 38	28" to 31"	Brack at top	(5) 4' X 1' 10"	24"	6' 9"
Exposed Machinery Casings on Superstructure Decks								
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	}	no openings.
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	no openings.
Forecastle Bulkhead	3	Steel doors - spring locks opening both sides.
Exposed Machinery Casings on Free-board or Raised Quarter Decks	2	Teak wood doors 1½" spring locks opening both sides.
Exposed Machinery Casings on Superstructure Decks	2	Steel doors - spring locks opening both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	1	" " (in halves) " in bunker casing side - opening 1 side only.
Deckhouses on Flush Deck Ships		

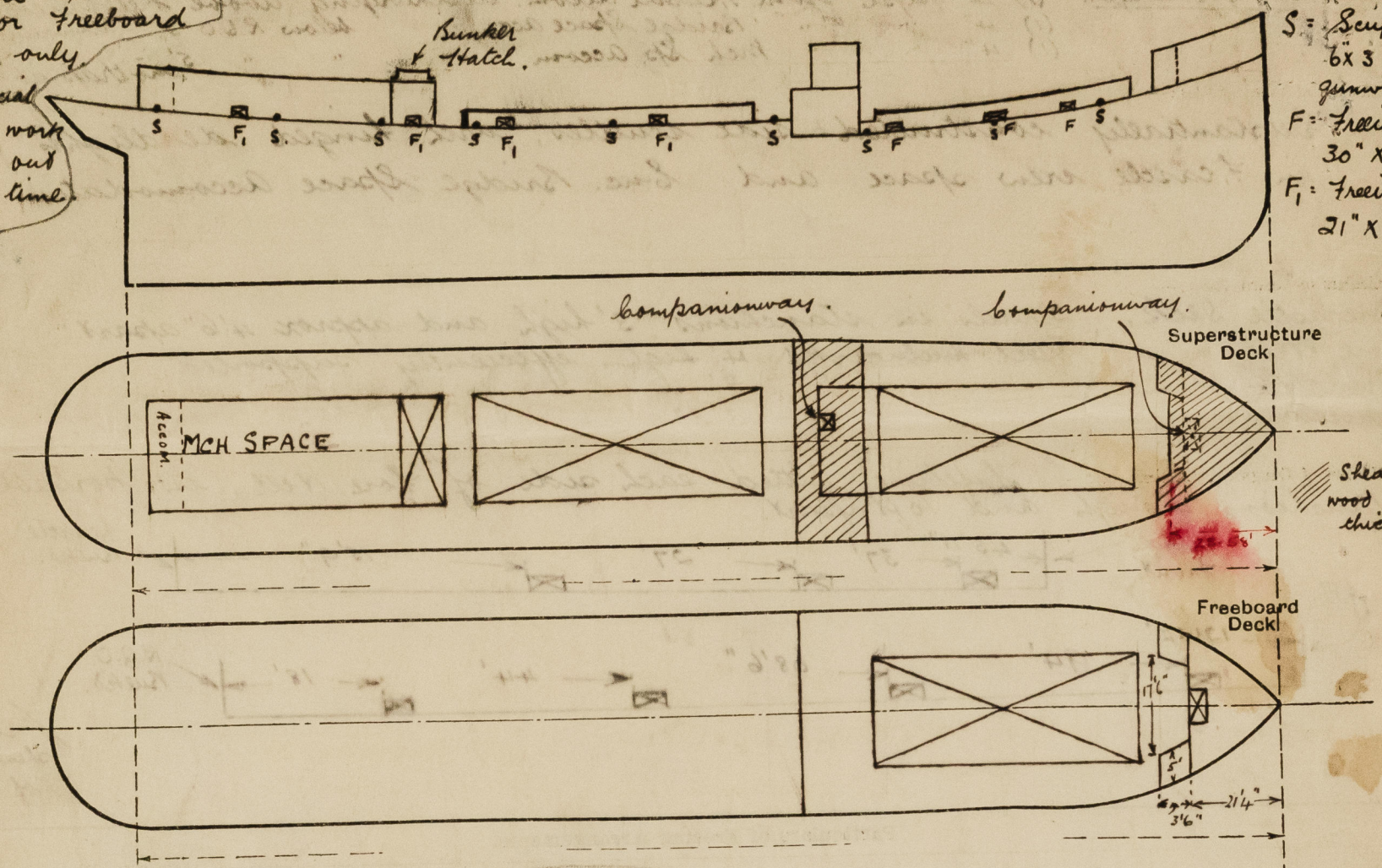
all locks to be made good.

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Sampy.

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:-

This vessel examined
afloat for Freeboard
purposes only.
No special
survey work
carried out
at this time.



S = Scupper
6x3" in
gunwall
F = Freeing
30" x 10"
F₁ = Freeing
21" x 18"

Fore Castle	21.33	21.33	23.58 ✓
S. Hatch. 3.5x5	1.27	1.27	22.60
13.75	22.60	22.60	.98 overhang
			.98

State any special features in the construction of the ship:-
none.

Builder's name and yard number Goole S.B. & Repairing Co., Ltd. (1927) Goole.

Names of sister ships ✓

Owners J. Hargreaves & Son (Leeds) Ltd.

Fee £ 6 : 16 : - Received by me [Signature]