

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

N^o 30940

Computation of Freeboard for Steamer, ~~Coasting Ship, Tanker~~
having Raised Quarter Deck, Bridge & Forecastle

Port of Survey Sunderland

Date of Survey 6th June 1932

Name of Surveyor M Caldwell

Particulars of Classification +100 A-1

(Type of Superstructures.) 1764 M.O.T. 4-253

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"GASLIGHT"	British London	144696	16989 16989	1920-8

Moulded Dimensions: Length 260.0' Breadth 37.5' Depth 18.7' 18.58

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3345 tons

Coefficient of fineness for use with Tables .760

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	18.58	(a) Where D is greater than Table depth (D-Table depth) R = $(18.62 - 17.33) 2.000$ = 2.58		Moulded Breadth (B)	37.5
Stringer plate	.04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	9.0
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$				Ship's Round of Beam	9.5
Depth for Freeboard (D) =	18.62	If restricted by superstructures		Difference	
				Restricted to	
				Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.5}{4} (.3061) = .04$

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>6.10</u>
" overhang	—	—	—	—	—	" " R.Q.D. <u>4.13</u>
R.Q.D. enclosed	101.4	101.40	4'-0"	4'-0" 1.13	98.22	Deduction for complete superstructure <u>32.0</u>
" overhang	—	—	—	—	—	Percentage covered $\frac{S}{L} = 69.86$
Bridge enclosed	51.75	51.75	7'-0"	—	51.75	" " $\frac{S_1}{L} = 69.39$
" overhang aft	—	—	—	—	—	" " $\frac{E}{L} = 68.16$
" overhang forward	—	—	—	—	—	Percentage from Table, Line A. <u>59.87</u>
Fore enclosed	28.52545	25.45	7'-0"	—	25.45	(corrected for absence of forecastle (if required))
" overhang	3.05	1.80	—	—	1.80	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>19.16</u>
" " forward	—	—	—	—	—	
Total	181.65	180.40	—	—	177.22	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	36.0	1	36.00	40.0	40.00	1	40.00			Mean actual sheer aft = <u>Excess</u>
$\frac{1}{8}L$ from A.P.	16.02	4	64.08	17.38	17.38	4	69.52			Mean actual sheer forward = <u>Excess</u>
$\frac{3}{8}L$ "	8.96	2	7.92	4.33	4.34	2	8.68			Mean standard sheer aft
Amidships	—	4	—	0	—	4	—			Mean standard sheer forward
$\frac{5}{8}L$ from F.P.	7.92	2	15.84	9.103	9.13	2	18.26			Length of enclosed superstructure forward of amidships = $\frac{23.15}{260} = .09$
$\frac{7}{8}L$ "	32.04	4	128.16	36.54	36.54	4	146.16			" " aft of " =
F.P.	72.0	1	72.00	84.0	84.00	1	84.00			
Total	—		324.00	—	—		366.62			

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{324.00 - 366.62}{18} (.75 - .3493) = .95$

If limited on account of midship superstructure. $\frac{19.9}{200} \times .95 = .09$

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = <u>22.62</u></p> <p>Summer freeboard = <u>5.58</u></p> <p>Moulded draught (d) = <u>17.04</u></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.26</u> <u>4.4</u></p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{760+65}{1.36} = \frac{144}{1.36}$</p> <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>2.58</td> <td></td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td>19.16</td> </tr> <tr> <td>Sheer correction</td> <td></td> <td>.90</td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td>.04</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. R.Q.D. Deck</td> <td>48.00</td> <td></td> </tr> <tr> <td></td> <td>50.58</td> <td>20.10</td> </tr> <tr> <td>Summer Freeboard =</td> <td colspan="2"><u>66.90</u></td> </tr> </table>		+	-	Depth Correction	2.58		Deduction for superstructures		19.16	Sheer correction		.90	Round of Beam correction		.04	Correction for Thickness of Deck amidships			Other corrections, scantlings, etc. R.Q.D. Deck	48.00			50.58	20.10	Summer Freeboard =	<u>66.90</u>	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck:— 5-7

Tropical Fresh Water Line above Centre of Disc	...	Tropical Fresh Water Freeboard	...
Fresh Water Line	"	Fresh Water	"
Tropical Line	"	Tropical	"
Winter Line below	"	Winter	"
Winter North Atlantic Line	"	Winter North Atlantic	"

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	h ^o 1 on Freebd. Deck.	h ^o 2 on Freebd. Deck.	h ^o 3 on. R.Q.D.	h ^o 4 on R.Q.D.	2 Side Bunkers on Bridge Deck	2 Side Bunkers on Freebd. Deck.
Dimensions of Hatchway	...	...	...	30'-5" x 25'-0"	32'-11" x 25'-0"	31'-6" x 25'-0"	29'-6" x 25'-0"	6'-9" x 2'-10"	6'-9" x 2'-10"
COAMINGS	Height above Deck	...	...	42" ✓	42" ✓	36" ✓	36" ✓	30" ✓	9" x 3 1/2" x 40" ✓
	Thickness	...	Sides	44 ✓	As for	As for	As for	44 ✓	BA ✓
	Stiffeners	...	Ends	44 ✓				44 ✓	
	Brackets, Stays	...		7" x 3" x 40 BA. 2-2 1/2 dia ✓	h ^o 1. ✓	h ^o 1. ✓	h ^o 1. ✓	None.	None.
HATCH BEAMS	Number	...	...	2 Wch 3 Beams. 52 L ✓	As h ^o 1 5'-7" ✓	As h ^o 1 5'-3" ✓	As h ^o 1 4'-11" ✓		
	Spacing	...	...				
	Scantling and Sketch	...	...	3 off. 4'-3 1/2" x 32 12'-4" x 40 5 1/2" x 3" x 46" 40'-34" x 40 JL	As. for h ^o 1	As for h ^o 1 but Wch. 34"-28" dup	h ^o 1	None	None.
	Bearing Surface	...	...	5" ✓	5" ✓	5" ✓	5" ✓		
FORE AND AFTERS	Number	...	...				
	Spacing	...	...				
	Unsupported Lengths	...	...				
	Scantling* and Sketch	...	...				
	Bearing Surface	...	...				
HATCH COVERS	Material	...	...	B. pine ✓	As h ^o 1 ✓	As h ^o 1. ✓	As h ^o 1. ✓	B pine ✓	B pine ✓
	Thickness	...	...	3" ✓				3" ✓	3" ✓
	How fitted	...	...	F B A ✓				At least ✓	At least ✓
	Bearing Surface	...	...	2 1/2" ✓				2 1/2" ✓	2 1/2" ✓
Spacing of Cleats	...	...	...	22" ✓	22" ✓	22" ✓	22" ✓	22" ✓	22" ✓
Number of Tarpaulins	...	...	...	2 ✓	2 ✓	2 ✓	2 ✓	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 fiddley, funnel and ventilator coamings :—

Stokehold gratings covered by strong steel hinged covers. -
 Trolley and Funnel Ventilators in efficient condition. -
 Engine skylight of steel strongly constructed. -

Particulars of Flush Bunker Scuttles:—

June

Particulars of Companionways :—

None

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

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

2 - 16" Vents on R.Q.D. Coaming	36" x 38	led to Holds.	✓
2 - 16" " " " " platform	36" x 38	" " "	✓
1 - 5" Gals. Vent " " " "	11½" high	led to tunnel	✓
1 - 18" Vent. on Fore Well Deck. Coaming	36" x 40	led to Hold.	✓
1 - 14" " " " "	62" x 34	" " " (not specially supported).	
2 - 16" " " " " platform Coaming	36" x 38	led to Holds.	✓

5-5½" Vents on Forecastle Coaming 12" x 30 to water for air ✓
 4-5½" funnel Vents — " — " — " — " ✓
 2-4" " — " — " 7" x 30 " " " ✓

All ventilators fitted with wood plugs and canvas covers. ✓

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:—

1-4" Air pipe	Aft Peak tank	on R.Q.D.	36" high	✓
4-2" "	"	"	2-17" and 2-27" high	
2-2" "	"	"	Buddy Deck. 7" high	✓
2-2" "	"	"	Fore Well deck. 36" high	✓
1-2" "	"	"	" 36" & " high.	

Air pipes ~~not~~ fitted with ~~wood plugs~~ canvas covers
to stuffing holes in tops of heads of
air pipes 17" high on R.Q. Deck.

Particulars of Gangway Cargo and Coaling Ports :—

None

Particulars of Scuppers and Sanitary Discharge Pipes :—

2-4" Sanitary discharges from vitæd f. castle led below freeboard deck. fitted with cast steel storm valves and tail pipes ✓

Particulars of Side Scuttles :—

*3-9" in bridge space. } all fitted with hinged steel deadlights
8-9" in f. castle space }*

Particulars of Guard Rails :—

*On Bridge 3 rails 3'-6" high. Stanchions 4'-0" apart
On f. castle. 2 rails 2'-9" high. Stanchions 4'-0" apart. ✓*

Particulars of Gangways, Lifelines, etc. :—

One lifeline in stanchions fitted to hatch coaming stiffeners in well.

None

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. ...	101'- ⁵ / ₆ "	3'-6"	36" x 15"	4	15 sq. ft.	20.30
Forward Well ...	78'-4"	5'-0" - 4'-0"	39" x 15" 28" x 16½"	4 1	19.50 sq. ft.	15.67 ✓
State position of each freeing port ... } After Well :— (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 :— Additional area where sheer is less than standard.						
<i>Position as in sketch. From 12"-14" high. Each fitted with single horizontal bar.</i>						

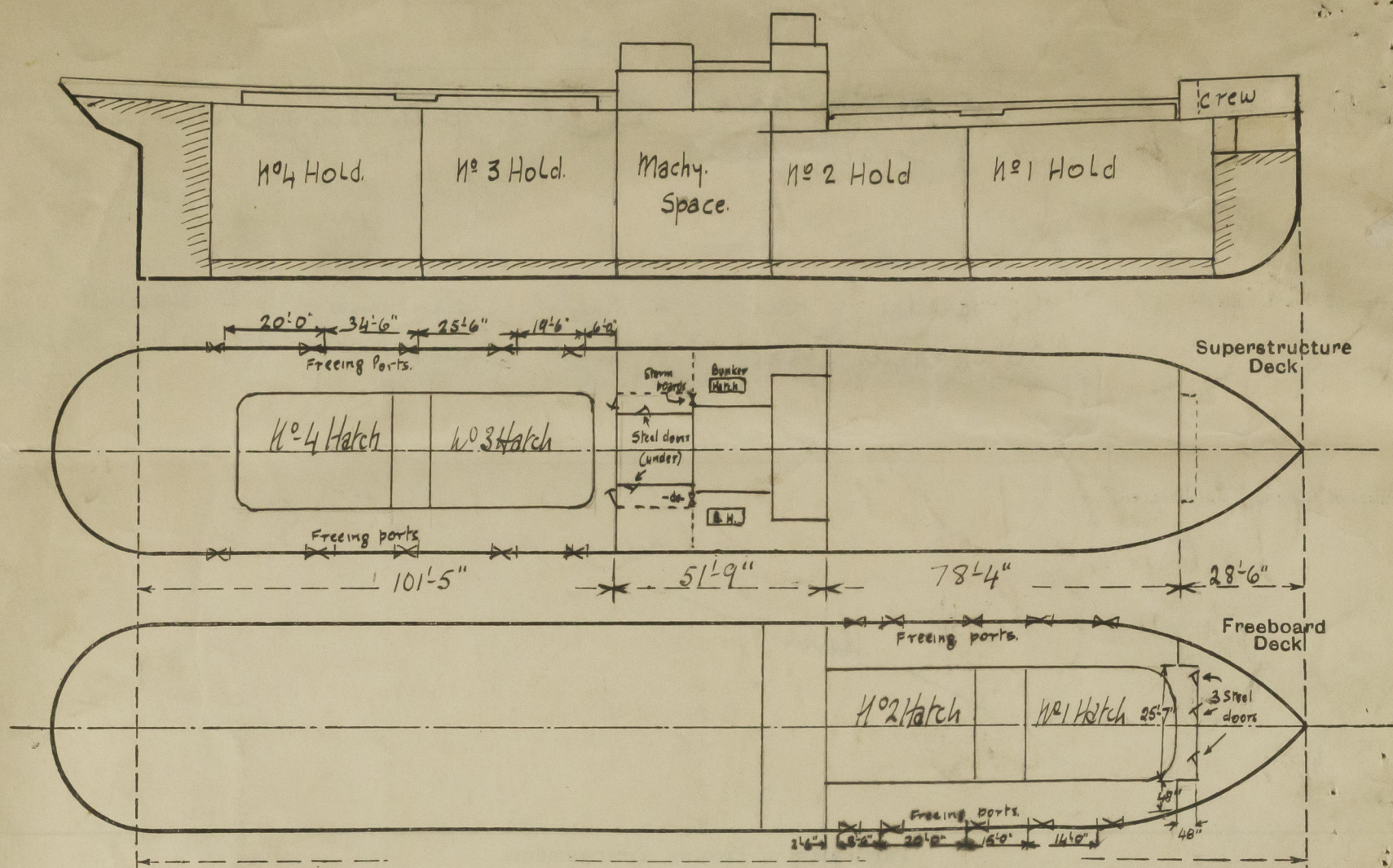
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	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 ...	34 ✓	32	3"x3"x.38	39"	None.	2'-4"6"x2'-0"	23"	—
Bridge, Forward Bulkhead ...	44 ✓	40	7"x3"x.44 B.A.	27½"	Brackets Top & Bottom	None	—	—
Forecastle Bulkhead ...	25 Vent. plating	3"x3"x.38	34"	—	None.	3'-5'-0"x1'-9"	15"	—
Trunk, Aft ...	—	—	—	—	—	—	—	—
Trunk, Forward ...	—	—	—	—	—	—	—	—
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	—	—	—	—	—	—	—	—
Exposed Machinery Casings on Superstructure Decks ...	32 ✓	30	3"x3"x.32	24" ✓	alternate brackets at top	None.	—	7'-0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	34 ✓	32 ✓	3"x3"x.32 ✓	24" ✓	—	4'-4'3"x1'-9"	18½"	—
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 ...	2-2" Wood doors. operated from both sides. ✓
Bridge, Forward Bulkhead ...	None openings
Forecastle Bulkhead ...	3 steel doors. 30 thick. operated from both sides ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	—
Exposed Machinery Casings on Superstructure Decks ...	None openings
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	4 Steel doors. 38 thick. operated from both sides ✓
Deckhouses on Flush Deck Ships ...	—

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangways, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



$10'6" = 26.00$
 closed 25.45
 $.55$
 $3.05 - .55 = 2.5$
 $50'6" 1.25$
 $.55$
 1.80
 $28.5 - 14.0 = 14.5$
 $4.0 \times 14.0 =$
 10.8
 $.95$
 25.45
 3.05
 28.50
 overhang

State any special features in the construction of the ship:— Vessel examined in Dry Dock.

Examined decks, hatches and hatchways, ventilators and coamings, deck openings, funnels and steering gear, and general equipment.

Builder's name and yard number *Ward Skinner & Co. Ltd.*

Names of sister ships

Owners *Gas Light & Coke Co Ltd (Stephenson Clarke & Ass. Co. Ltd).*

Fee £ *9* : *7* : *0*

Received by me



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