

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Raised Quarter, Bridge & Forecastle.

(Type of Superstructures.)

Ship's Name <b>"GEORGE FRUSHER"</b>	Nationality and Port of Registry <b>British Lowestoft.</b>	Official Number <b>113975</b>	Gross Tonnage <b>662</b>	Date of Build <b>1901 8mo</b>
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Port of Survey Spanish  
Date of Survey 15<sup>th</sup> + 16<sup>th</sup> July 1932.  
Name of Surveyor A.B. Lammier  
Particulars of Classification +100A.I.  
S.S. from 2<sup>nd</sup> No. 3-4, 26  
S.S. from No. 1-30

Moulded Dimensions: Length 189 Breadth 29.0 Depth 13.4  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1260 tons  
Coefficient of fineness for use with Tables .725

Depth for Freeboard (D) Moulded depth ... .. <u>13.33</u> Stringer plate ... .. <u>.04</u> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>13.37</u>	Depth correction (a) Where D is greater than Table depth (D - Table depth) R = <u>(13.37 - 12.35) 1.425 = +1.45</u> (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) <u>29.0</u> Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>6.96</u> Ship's Round of Beam = <u>7.2</u> Difference <u>.54</u> Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) =$ <u>.54 (1 - .7475) = -.03</u>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	✓				
" overhang ... ..	✓				
R.Q.D. enclosed ... ..	<u>101.4</u>	<u>101.4</u>	<u>4.0</u>		<u>101.40</u>
" overhang ... ..	✓				
Bridge enclosed ... ..	<u>11.0</u>	<u>11.0</u>	<u>7.0</u>		<u>11.00</u>
" overhang aft ... ..	✓				
" overhang forward ... ..	✓				
Forecastle enclosed ... ..	<u>33.6</u>	<u>18.52</u>	<u>7.0</u>		<u>18.52</u>
" overhang ... ..	<u>18.52</u>	<u>7.49</u>			<u>7.49</u>
Trunk aft ... ..	<u>16.98</u>				
forward ... ..	✓				
Tonnage opening aft ... ..	✓				
" forward ... ..	✓				
Total ... ..	<u>145.90</u>	<u>138.41</u>			<u>138.41</u>

Standard Height of Superstructure 6.0  
" " R.Q.D. 3.57  
Deduction for complete superstructure 24.52  
Percentage covered  $\frac{S}{L} =$  78.78  
" "  $\frac{S_1}{L} =$  74.75  
" "  $\frac{E}{L} =$  74.75  
Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B. 68.84  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than .2L (if required)  
Deduction = 24.52 + .6884 = -16.88

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<u>29" 28.52</u>	1		<u>28.52</u>	<u>28.00</u>	<u>33.16</u>	1		<u>33.16</u>
$\frac{1}{8}$ L from A.P. ... ..	<u>14" 12.69</u>	4		<u>50.76</u>	<u>12.64</u>	<u>14.76</u>	4		<u>59.04</u>
$\frac{2}{8}$ L " ... ..	<u>3" 3.14</u>	2		<u>6.28</u>	<u>3.15</u>	<u>3.65</u>	2		<u>7.30</u>
Amidships ... ..		4					4		
$\frac{3}{8}$ L from F.P. ... ..	<u>8" 6.28</u>	2		<u>12.56</u>	<u>6.50</u>	<u>6.50</u>	2		<u>13.00</u>
$\frac{1}{8}$ L " ... ..	<u>24" 25.38</u>	4		<u>101.52</u>	<u>26.07</u>	<u>26.07</u>	4		<u>104.28</u>
F.P. ... ..	<u>59" 57.04</u>	1		<u>57.04</u>	<u>59.50</u>	<u>59.50</u>	1		<u>59.50</u>
Total ... ..				<u>256.68</u>					<u>276.28</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  - .39  
If limited on account of midship superstructure.

Mean actual sheer aft = Less  
Mean standard sheer aft  
Mean actual sheer forward = Less  
Mean standard sheer forward  
Length of enclosed superstructure forward of amidships = .107  
" " aft of " = .5

Act. H. R.Q.D. = 4.0  
Std " " = 3.57  
.43 + 12 = 5.16

$\frac{196.75 - 39.39}{18} = - .39$   
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. <u>+ 4' R.Q.D.</u> Depth to Freeboard Deck = <u>17.37</u> Summer freeboard = <u>4.46</u> Moulded draught (d) = <u>12.91</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>3.23 = 3\frac{1}{4}</u> Addition for Winter North Atlantic Freeboard (if required) = <u>3\frac{1}{2} + 2 = 5\frac{1}{4}</u>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line T = Deduction = $\frac{\Delta}{40 T}$ inches = <u>3\frac{1}{4}</u>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.725 + .68}{1.36} = \frac{1.405}{1.36}$ Depth Correction ... .. <u>1.45</u> Deduction for superstructures ... .. <u>16.88</u> Sheer correction ... .. <u>.39</u> Round of Beam correction ... .. <u>.03</u> Correction for Thickness of Deck amidships ... .. <u>48.0</u> Other corrections, scantlings, etc. ... .. Summer Freeboard = <u>53.46</u>	<u>20.63</u> <u>21.31</u> <u>22-7.32</u>
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## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... .. <u>6\frac{1}{2}</u>	Tropical Fresh Water Freeboard ... .. <u>4' - 5\frac{1}{2}</u>
Fresh Water Line " " ... .. <u>3\frac{1}{2}</u>	Fresh Water " " ... .. <u>4' - 2\frac{1}{4}</u>
Tropical Line " " ... .. <u>3\frac{1}{2}</u>	Tropical " " ... .. <u>4' - 2\frac{1}{4}</u>
Winter Line below " " ... .. <u>3\frac{1}{4}</u>	Winter " " ... .. <u>4' - 8\frac{3}{4}</u>
Winter North Atlantic Line " " ... .. <u>5\frac{1}{2}</u>	Winter North Atlantic " " ... .. <u>4' - 10\frac{3}{4}</u>



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		WELL TK.	R.Q.R.						
Dimensions of Hatchway		31'-5" x 16'-0"	31'-4" x 16'-0"						
COAMINGS	Height above Deck	32"	28"						
	Thickness { Sides Ends	3/8"	1/2"						
	Stiffeners	7x3 B.A.	7x3 B.A.						
	Brackets, Stays	3 PLATE KNEES, 3/8"							
HATCH BEAMS	Number	3	3						
	Spacing	7'-10"	7'-10"						
	Scantling and Sketch	Plates 33" x 3/4" x 3/4" Angles 3 1/2" x 3 1/2" x 3/8"							
	Bearing Surface	3"	3"						
FORE AND AFTERS	Number	3	3						
	Spacing	4'-0"	4'-0"						
	Unsupported Lengths								
	Scantling and Sketch	CENTRE → SIDE →							
HATCH COVERS	Material	W. PINE	W. PINE						
	Thickness	2 1/2"	2 1/2"						
	How fitted	THWART	THWART						
	Bearing Surface	2 1/4"	2 1/4"						
Spacing of Cleats		24	24						
Number of Tarpaulins		2	2						
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Yes</i></p>									

Particulars of fiddle, funnel and ventilator coamings:—

*Fiddle gratings closed by hinged steel covers.*  
*Funnel casings strongly constructed & in good condition.*  
*2. In P. Q. R. 15 1/2" x 14 1/2" dia. coamings 1/2" 3' 8" above P. Q. R. R.*  
*2. Vents to Stokerhold 14" dia.*  
*Eng. room skylight strongly constructed & in good condition.*  
*Messroom & galley skylights strongly constructed & in good condition.*  
*2. 6" mushroom vents, screw closing.*

Particulars of Flush Bunker Scuttles:—

*None.*

Particulars of Companionways:—

*One leading to crew quarters. 1/4 plating. 15" sill. casing from underside of upper deck to main dk.*  
*Steel hinged door. opening both sides.*

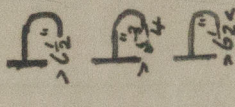
Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

*Main deck. 12. 25" coaming. 9 1/4" dia. x 25" high.*  
*P. Q. R. 12. 25" coaming. 6 1/4" " x 25" high.*  
*Bridge deck. 22 6" mushroom screw closing vents.*

*Efficient Closing appliances.*

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

*On main dk under foremast. (3 G. I.) for No 1. Tank.*  
*On P. Q. R. 3 for No 2 Tank.*  
*On " " 1 " after p. R.*



*Efficient Closing Appliances*

Particulars of Gangway Cargo and Coaling Ports:—

*None.*



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Particulars of Scuppers and Sanitary Discharge Pipes —

12 1/4" steam valve (C.I.) below main dk. in forward end of hold.  
10 1/4" dia. no steam valve on ship side, & in after peak tank.

Particulars of Side Scuttles:

Fore crew quarters, scuttles fitted with dead lights.  
Bridge house, Office quarters, scuttles but no dead lights.  
Cry room casings, scuttles but no dead lights.

Particulars of Guard Rails:—

Fore: Chain + rails. (2 tier) 3'-8" high, stanchions 4' 0" spacing.

Particulars of Gangways, Lifelines, etc.:—

Arrangements made for lifelines ~~to be fitted~~ for use in any part of the ship.

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 ... ..	101'-4" 107'-0"	39"	2'-6" x 1'-6" 2'-6" x 1'-6" 2'-6" x 1'-6"	2 2 2	645	20-28
Forward Well ... ..	38'-6"	51"	2'-6" x 1'-6"	3	10-3	10-35
State position of each freeing port ... .. } After Well:— 1-37' from aft end of bridge house, + 1-23' further aft. (F. and A. position and height above deck edge) } Forward Well:— Not 8' from side house, 1 centre + 1-21-9 from bridge house } 8" above deck. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— shutters, hinged on bars.						
Additional area where sheer is less than standard.						

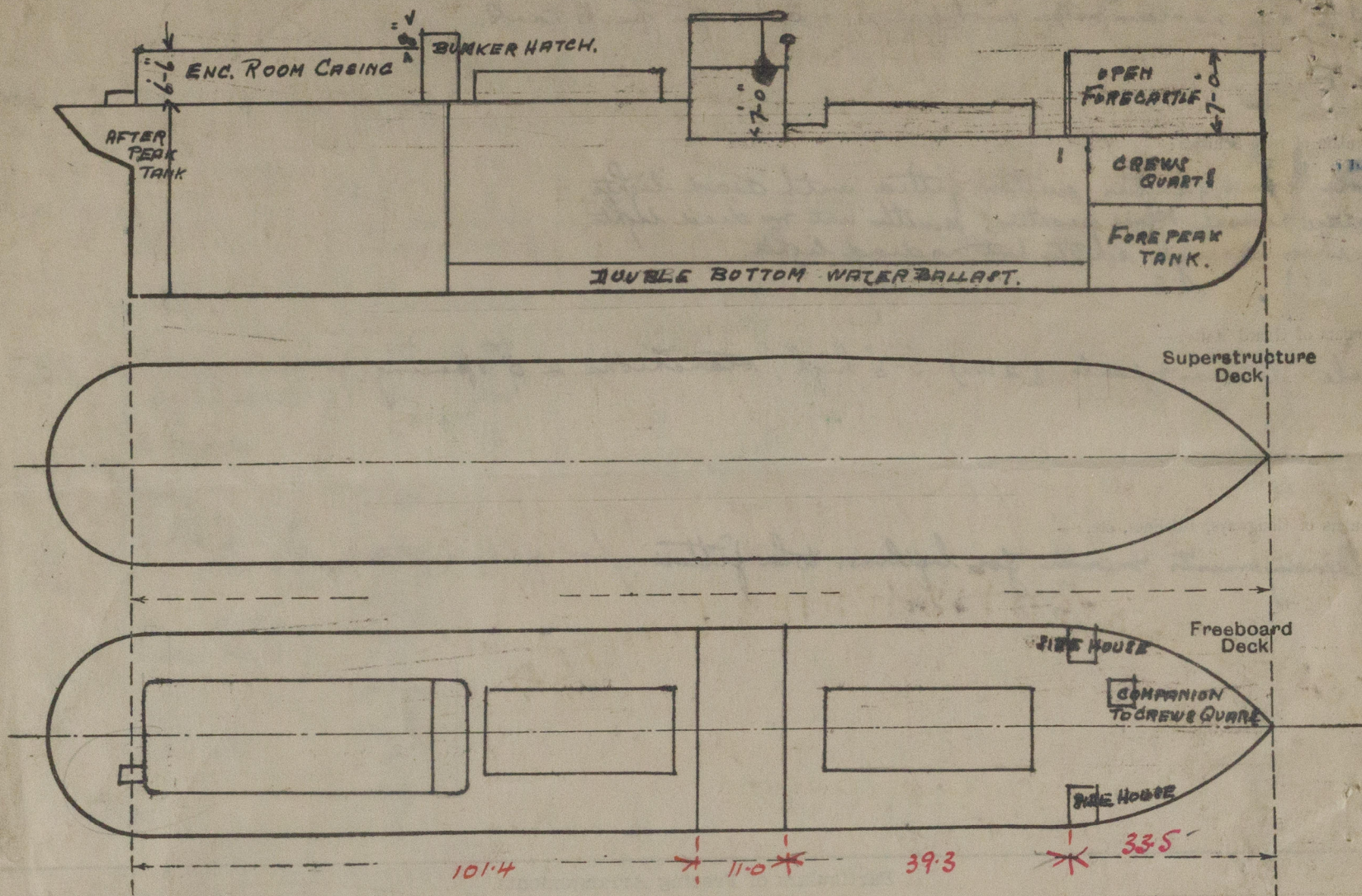
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	✓	✓						
Raised Quarter Deck Bulkhead ...	✓	✓						
Bridge, After Bulkhead ... ..	✓	1/4"	not visible close ceiling	36"	None	None	✓	3'-6" above R.Q.D.R.
Bridge, Forward Bulkhead ... ..	✓	1/4"	8"	30"	Perkto bottom	None	✓	7'-0"
Forecastle Bulkhead ... ..	None	✓	✓	✓	✓	✓	✓	✓
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	5/16"	1/4"	3 x 2 1/2 x 5/16"	36" average	Perkto top	4'-8" x 2'-0"	20"	6'-6"
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 ...	None.
Bridge, After Bulkhead ... ..	None.
Bridge, Forward Bulkhead ... ..	None.
Forecastle Bulkhead ... ..	No bulkhead. Steel hinged doors on companion.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Steel hinged doors. (To be made workable both sides)
Exposed Machinery Casings on Superstructure Decks ... ..	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	



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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:—



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

Builder's name and yard number

John Fullerton & Co. No 159.

Names of sister ships

Owners

Consolidated Fisheries Ltd.,

Fee £

6 : 16 : -

Received by me

Exps.

2 : 18 : -

8 - SEP 1932



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