

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

20 JUL 1932

GLASGOW REPORT No. 52741

Computation of Freeboard for Steamer, ~~Sailing Ship, Tug~~  
 having Raised Quarter Deck, Bridge and Forecastle  
 (Type of Superstructures.)

Port of Survey Glasgow  
 Date of Survey 18<sup>th</sup> July 1932  
 Name of Surveyor H. H. Kerson  
 Particulars of Classification + 100.A.1.  
S.S. App No. 3-10,21  
S.S. App No. 2-30

Ship's Name <b>FELSPAR</b>	Nationality and Port of Registry <u>British Glasgow</u>	Official Number <u>128199</u>	Gross Tonnage <u>199</u>	Date of Build <u>1908</u>
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Moulded Dimensions: Length 199 ✓ Breadth 29.9 ✓ Depth 13.58 ✓  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 1,509 tons  
 Coefficient of fineness for use with Tables .769 ✓

<b>Depth for Freeboard (D)</b> Moulded depth ... <u>13.58</u> ✓ Stringer plate <u>R.Q.D. .40"</u> ... <u>03</u> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>13.61</u>	<b>Depth correction</b> (a) Where D is greater than Table depth (D-Table depth) R = $(13.61 - 13.58) \times 1.531 = .52$ (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	<b>Round of Beam correction</b> Moulded Breadth (B) <u>29.9</u> ✓ Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>7.18</u> ✓ Ship's Round of Beam = <u>7.18</u> ✓ Difference <u>.32</u> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S}{L} \right) = \frac{.32}{4} \times (.2465) = .02$
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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 ...						Standard Height of Superstructure <u>6.0</u>
„ overhang ...						„ „ R.Q.D. <u>3.66</u>
R.Q.D. enclosed ...	<u>110.5</u> ✓	<u>110.50</u>	<u>4.0</u>		<u>110.50</u>	Deduction for complete superstructure <u>25.9</u>
„ overhang ...						Percentage covered $\frac{S}{L} =$ <u>79.65</u>
Bridge enclosed ...	<u>11.0</u> ✓	<u>11.00</u>	<u>7.5</u>		<u>11.00</u>	„ „ $\frac{S_1}{L} =$ <u>75.35</u>
„ overhang aft ...						„ „ $\frac{E}{L} =$ <u>75.35</u>
„ overhang forward ...	<u>2.0</u> ✓	<u>1.00</u>			<u>1.00</u>	Percentage from Table, Line A. <u>69.58</u>
Forecastle enclosed open ...	<u>35.0</u> ✓	<u>27.45</u>	<u>6.85</u>		<u>27.45</u>	(corrected for absence of forecastle (if required))
„ overhang ...						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>18.02</u>
„ „ forward						
Total ...	<u>159.50</u>	<u>149.95</u>			<u>149.95</u>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>29.90</u>	1		<u>29.90</u>	<u>42</u>	<u>42.00</u>	1		<u>42.00</u>	Mean actual sheer aft = <u>Excess</u>
1/4 L from A.P. ...	<u>13.31</u>	4		<u>53.24</u>	<u>18.5</u>	<u>18.57</u>	4		<u>74.28</u>	Mean standard sheer aft
1/2 L „ „	<u>3.29</u>	2		<u>6.58</u>	<u>4.5</u>	<u>4.64</u>	2		<u>9.28</u>	Mean actual sheer forward = <u>Excess</u>
Amidships ...		4					4			Mean standard sheer forward
3/4 L from F.P. ...	<u>6.58</u>	2		<u>13.16</u>	<u>7.5</u>	<u>7.85</u>	2		<u>15.70</u>	Length of enclosed superstructure forward of amidships = <u>.11</u>
1/4 L „ „	<u>26.61</u>	4		<u>106.44</u>	<u>31</u>	<u>31.40</u>	4		<u>125.60</u>	„ „ aft of „ = <u>.50</u>
F.P. ...	<u>59.80</u>	1		<u>59.80</u>	<u>72</u>	<u>72.00</u>	1		<u>72.00</u>	
Total ...				<u>269.12</u>					<u>351.56</u>	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{269.12 - 351.56}{18} \left( .75 - \frac{39.82}{2 \times 199} \right) = 1.61$   
 If limited on account of midship superstructure. ✓  
 If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to <u>R. Quarter</u> Deck = <u>17.61</u> Ft. Summer freeboard = <u>4.44</u> Moulded draught (d) = <u>13.17</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{13.17}{4} = 3.29 = 3 \frac{1}{4}$ Addition for Winter North Atlantic Freeboard (if required) = $2 + 3 \frac{1}{4} = 5 \frac{1}{4}$	<b>Deduction for Fresh Water.</b> 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 = $\frac{18.02}{40 \times 199} = .02$	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{769 + 65}{1.36} = 580$ Depth Correction ... <u>.52</u> Deduction for superstructures ... <u>18.02</u> Sheer correction ... <u>1.61</u> Round of Beam correction ... <u>.02</u> Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. <u>R.Q.D.</u> ... <u>48.00</u> Summer Freeboard <u>17.61</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 3/4</u>	Tropical Fresh Water Freeboard ...	<u>4.57</u>
Fresh Water Line „ „ ...	<u>3 1/2</u>	Fresh Water „ „ ...	<u>3.01</u>
Tropical Line „ „ ...	<u>3 1/4</u>	Tropical „ „ ...	<u>4.13</u>
Winter Line below „ „ ...	<u>3 1/4</u>	Winter „ „ ...	<u>4.84</u>
Winter North Atlantic Line „ „ ...	<u>5 1/4</u>	Winter North Atlantic „ „ ...	<u>5.17</u>

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		Fore Hatch in Well No. 1	Aft Hatch on R.Q. Deck No. 2	Hatch on Fore Deck Under Fide	Bunker Hatch on Casings Top	Skylight on R.Q. Deck to accommodation aft			
Dimensions of Hatchway		31'2" x 16'6"	33'0" x 16'6"	1'7 1/2" x 7'11"	9'0" x 14'1"	2'2" x 2'6"			
COAMINGS	Height above Deck	30"		18"	10"	11"			
	Thickness	44"		34"	28"	25"			
	Stiffeners	None		None	None	None			
	Brackets, Stays	2-B.P. 3/4" each side		None	None	None			
HATCH BEAMS	Number	2							
	Spacing	10'4 3/4"							
	Scantling and Sketch	3 x 8 x 36 40 31 1/2	No. 1 Hatch						
	Bearing Surface	5 x 3 1/2 x 35							
FORE AND AFTERS	Number	3							
	Spacing	4'1 1/2"							
	Unsupported Lengths	9'11 3/4"							
	Scantling* and Sketch	3 x 8 x 36 8 x 50 8 x 40	Same as						
	Bearing Surface	2 1/2 x 2 1/2 x 30 1 1/2							
HATCH COVERS	Material	Wood	Wood	Wood	Wood	Leath. flap			
	Thickness	2 1/2"	2 1/2"	2 3/4"	2 1/2"	1 1/2"			
	How fitted	Thrust	Thrust	Thrust	F&A	2"			
	Bearing Surface	2"	2"	2 1/4"	2"	2"			
Spacing of Cleats		24"	24"	21"	24"	24"			
Number of Tarpaulins		3	3	2	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>Ring bolts fitted</i></p>									

Particulars of fiddle, funnel and ventilator coamings:—

*Stakehold gratings covered by strong steel hinged covers. —*  
*Funnel, funnel and ventilators in efficient condition. —*  
*Engine room skylight of steel strongly constructed. —*

Particulars of Flush Bunker Scuttles:—

*None*

Particulars of Companionways:—

*The steel Companion 3'6" x 3'0" x 4'0" high on forecastle deck leading to open forecastle and to crew space below freeboard deck. Door above forecastle deck 1 3/4" thick with 3/4" panel 1 1/2" sill. Door operated from both sides. Door in forecastle of steel, 8" sill, door operated from both sides. —*  
*Companion in steel house on raised quarter deck aft to engine's accommodation, door 1 3/4" thick with 3/4" panel 18" sill, door operated from both sides. —*

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

*2 Vents on Fore Deck 7 1/2" dia Coamings 24" x 30" to crew space —*  
*Vent " " 11 1/2" " 24" x 30" to hold. —*  
*Vents " Bridge " 5" " 12" x 25" to accom: in Bridge —*  
*Vent " R.Q. " 11 1/2" " 36" x 28" to hold. —*

*No plugs nor Canvas covers to Vents. Efficient closing appliances provided.*

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

*Pipes on Freeboard Deck under Forecastle 6 1/2" high x 3" dia from D.B. tanks —*  
*Pipe " " " 13" x 3" " Fore peak tank —*  
*Pipes " Bridge " 4" x 2 1/2" " D.B. tanks —*  
*Pipe " R.Q. " 1 1/2" x 2 1/4" " after peak tank —*  
*No plugs nor Canvas covers to Air pipes. Efficient closing appliances provided.*

Gangway Cargo and Coaling Ports:—

*None*

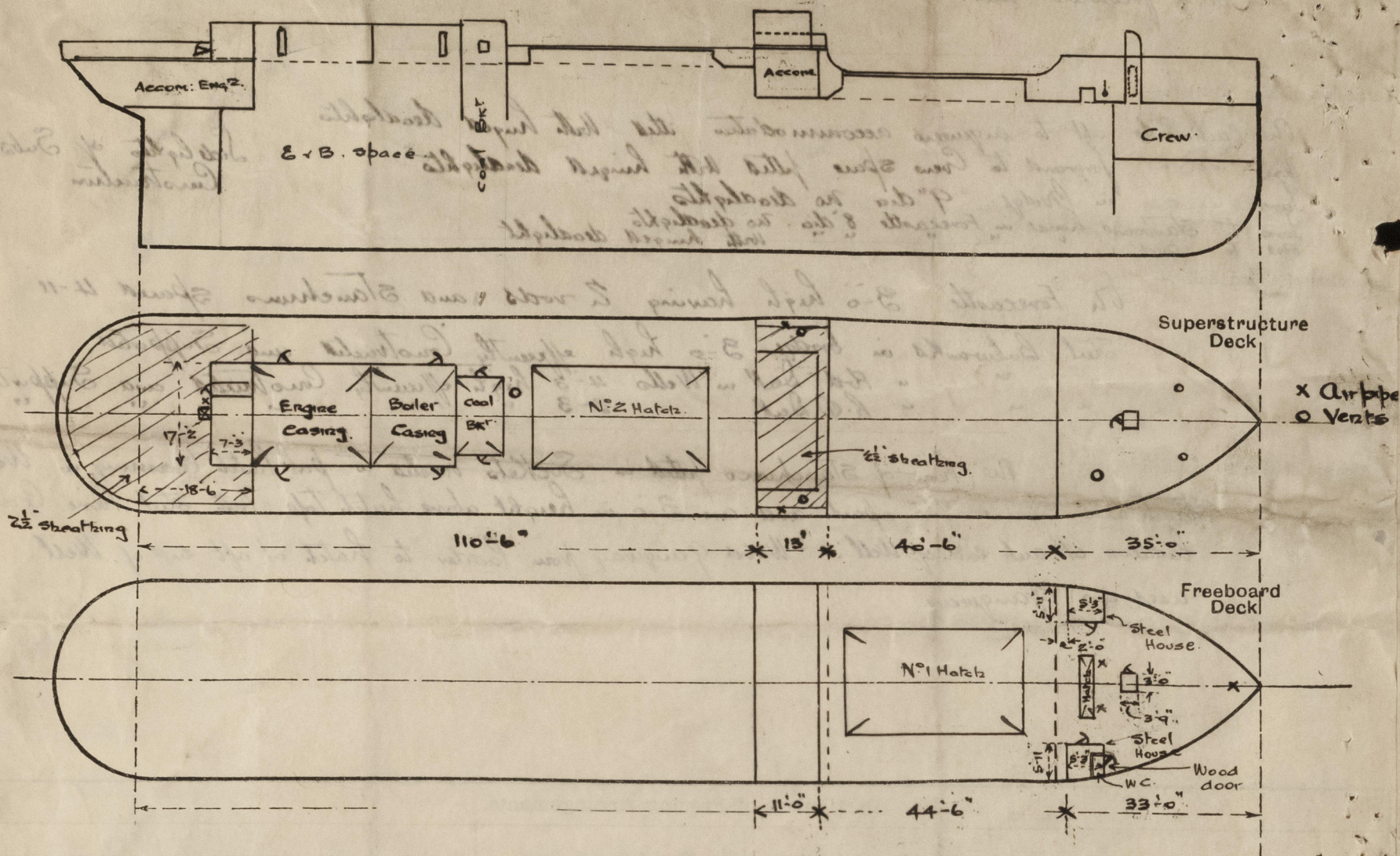








Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



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

Tons per inch at 14-0 extreme draught 12-05  
 13-0 11-99  
 12-0 11-92

The Survey has been held afloat and confined to an examination of the means for closing the openings in the deck and sides of the ship.

Coasting trade

Builder's name and yard number

A. Hodges & Co. N° 406

Names of sister ships

Owners

W. Robertson

Fee £

6 : 16

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