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(For London Office only.)

Rpt. C.11.

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 5 2 2 6 5

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Glasgow</u>	
having <u>Top Gallant Forecastle, Bridge, and Quarter Deck</u>					Date of Survey <u>30<sup>th</sup> Mar. 1932</u>	
(Type of Superstructures.)					Name of Surveyor <u>G. Nicol &amp; J. Dobson</u>	
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification <u>* 100 A.1</u>	
<u>S. S. "ROWAN"</u>	<u>British Newry</u>	<u>160292</u>	<u>499.88</u>	<u>1932</u>		
Moulded Dimensions: Length <u>166.66</u> ✓ Breadth <u>25.5</u> ✓ Depth <u>12.08</u> ✓						
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>878</u> tons						
Coefficient of fineness for use with Tables <u>.7043</u>						
Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth ...	... <u>12.08</u>	(a) Where D is greater than Table depth	(D - Table depth) R = <u>(12.11 - 11.11) 1.282</u>		Moulded Breadth (B) <u>25.5</u>	
Stringer plate ...	... <u>.89</u>	(D - Table depth) R = <u>(12.11 - 11.11) 1.282</u>	= <u>+1.282</u>		Standard Round of Beam = $\frac{B \times 12}{50} = \frac{25.5 \times 12}{50} = 6.12$	
Sheathing on exposed deck	... <u>.11</u>	(b) Where D is less than Table depth (if allowed)	(Table depth - D) R = <u>✓</u>		Ship's Round of Beam = <u>8"</u>	
T $\left(\frac{L-S}{L}\right) =$	... <u>✓</u>	(Table depth - D) R = <u>✓</u>	If restricted by superstructures <u>✓</u>		Difference <u>1.88</u>	
Depth for Freeboard (D) =	<u>12.44</u>				Restricted to <u>✓</u>	
					Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{1.88}{4} \times \left(1 - \frac{11}{166.66}\right) = \frac{1.88}{4} \times .9342 = .442$	

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Deep enclosed ...					
" overhang ...					
R.Q.D. enclosed	<u>97.16</u>	<u>97.16</u>	<u>4.0</u>		<u>97.16</u>
" overhang					
Bridge enclosed...	<u>8.96</u>	<u>8.96</u>	<u>7.0</u>		<u>8.96</u>
" overhang aft ...					
" overhang forward					
F'cle enclosed ...	<u>23.00</u>	<u>19.83</u>	<u>2.0</u>		<u>20.22</u>
" overhang ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<u>139.12</u>	<u>125.95</u>			<u>125.95</u>

Standard Height of Superstructure 6.00

" " R.Q.D. 3.445 ✓ 41.34

Deduction for complete superstructure 22.67 ✓

Percentage covered  $\frac{S}{L} = \frac{139.12}{166.66} = 77.48\%$

" "  $\frac{S_1}{L} = \frac{125.95}{166.66} = 75.58\%$

" "  $\frac{E}{L} = \frac{125.95}{166.66} = 75.58\%$

Percentage from Table, Line A. 69.84 ✓  
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. ✓  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required) .64 L

Deduction =  $22.67 \times .6984 = -15.83$  ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>26.67</u>	1		<u>26.67</u>	<u>33.0</u>	<u>39.66</u>	1		<u>39.66</u>
1/4 L from A.P. ...	<u>11.87</u>	4		<u>47.48</u>	<u>15.0</u>	<u>17.65</u>	4		<u>70.60</u>
1/2 L " ...	<u>2.93</u>	2		<u>5.86</u>	<u>5.5</u>	<u>4.36</u>	2		<u>8.72</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>0</u>	<u>✓</u>	4		<u>✓</u>
3/4 L from F.P. ...	<u>5.86</u>	2		<u>11.72</u>	<u>6.5</u>	<u>6.71</u>	2		<u>13.42</u>
1/4 L " ...	<u>23.74</u>	4		<u>94.96</u>	<u>27.0</u>	<u>26.86</u>	4		<u>107.44</u>
F.P. ...	<u>53.34</u>	1		<u>53.34</u>	<u>60.0</u>	<u>60.00</u>	1		<u>60.00</u>
Total ...	<u>240.03</u>			<u>240.03</u>					<u>299.84</u>

Mean actual sheer aft = Excess

Mean standard sheer aft = Excess

Mean actual sheer forward = Excess

Mean standard sheer forward = Excess

Length of enclosed superstructure forward of amidships =  $\frac{22.79}{166.66} = .136 L$

" " aft of " = .5 L

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75 - S}{2L} \right) = \frac{59.81}{18} \left( \frac{75 - 38.74}{362.6} \right) = -1.20$

If limited on account of midship superstructure. ✓

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

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 12.44

Summer freeboard = 4.19

Moulded draught (d) = 11.92

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $\frac{11.92}{4} = 2.98 = 3"$

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

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1043$  tons

Tons per inch immersion at summer load water line

T = 8.44

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

=  $\frac{1043}{40 \times 8.44} = 3.14 = 3 1/4"$

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{7043 + 68}{1.36} = \frac{13843}{1.36}$

	+	-
Depth Correction ...	<u>1.28</u>	<u>-</u>
Deduction for superstructures ...	<u>-</u>	<u>15.83</u>
Sheer correction ...	<u>-</u>	<u>1.20</u>
Round of Beam correction ...	<u>-</u>	<u>.11</u>
Correction for Thickness of Deck amidships ...	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. ... R.Q.D.	<u>48.00</u>	<u>-</u>

Summer Freeboard = 50.29

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

Tropical Fresh Water Line above Centre of Disc ...	<u>3 1/2"</u>
Fresh Water Line " " ...	<u>3 1/4"</u>
Tropical Line " " ...	<u>1/4"</u>
Winter Line below " " ...	<u>3"</u>
Winter North Atlantic Line " " ...	<u>5"</u>

Tropical Fresh Water Freeboard ...	<u>3 - 10 3/4"</u>
Fresh Water " " ...	<u>3 - 11"</u>
Tropical " " ...	<u>4 - 2"</u>
Winter " " ...	<u>4 - 5 1/4"</u>
Winter North Atlantic " " ...	<u>4 - 7 1/4"</u>



## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Particulars of fiddley, funnel and ventilator coamings :—

Engine Room Vents 10" dia. ceiling 4'-4" high x  $\frac{3}{32}$ " On Ceiling Top,  
 Stake hold Vents 24" " " 4'-6" " x  $\frac{1}{16}$ " 6'-10" above R.R. OR  
 Hatched gratings to boiler space fitted with steel plate hinged  
 shutters  
 Engine Skylight of steel strongly constructed.

## None

Companion to lower Forecastle; Plating 25"  
Pitch pine door 1½" thick; doorway 4'-6" x 22", sill 15" above deck  
operated from both sides.

Hold vents 10" dia. Coaming 36" x 32" on upper and R.D. Ohs  
Vent to Deck space 4" dia. Steel tube between upper and fore-castle decks - 25" thick: coaming  
on fore-castle deck 18" high 20" thick  
Mushroom vent to Deck space 6" dia. 30" high: 25" thick  
Stave pipes to Deck space, Coamings 7 1/2" dia. 30" high: 30" thick  
Hold vents fitted with wooden plugs and canvas covers

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

Air pipe to fore peak tank 4" dia. 21" above upper deck with buffed led to aft end of fore.

Rix pipes to double bottom tanks 38" above upper and Raised Quarter decks with hook on top.

Air pipe to aft peak tank 3½" dia. 25" to top above R.Q. deck with sampling hole drilled in upper part of bend.

Canvas covers provided for all air pipes.

## None ✓

2 pipe Scupper each side in way of Engine Room  
W.C. discharge with storm valve at ship's side in way of Eng. Room ✓  
3 Scupper each side discharging thro' gunwale bar above upper deck ✓  
3 " " " " " " R.B. "

To lower fore-castle. 7" dia. with hinged deadlights. 4  
on each side

On Forecastle deck 3 ft high 2 rails, stanchions 5 ft apart  
On Bridge " " " "

Life line between Forecastle and Bridge along port side  
at 10, hotel with 2 Bartolls. Slashed into

Ship's Name ROWAN.

Official Number 160292.

Type Raised. Quarter Deck, Bridge and Forecastle.

## PARTICULARS OF SUPERSTRUCTURES.

	Mean covered length.	Height.
Poop enclosed		
„ overhang		
R.Q.D. enclosed	97.16'	4.0'
„ overhang		
Bridge enclosed	8.96'	7.0'
„ overhang aft		
„ overhang forward		
File <del>enclosed</del> open.	23.00'	7.0'
„ overhang		
Trunk aft		
„ forward		
Tonnage opening aft		
„ „ forward		
TOTAL	129.12'	

5m.437.

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

Roop Bulkhead	...	...	...
Raised Quarter Deck Bulkhead	...		
Bridge, After Bulkhead	...	...	
Bridge, Forward Bulkhead	...	...	
Forecastle Bulkhead	...	...	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...		
Exposed Machinery Casings on Superstructure Decks	...	...	
Machinery Casings within Superstructure not fitted with Class I Closing Appliances	...	...	
Deckhouses on Flush Deck Ships	...		

*Open forecassell.  
Steel doors in halves, operating from both Sides!*

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Then forecask.  
Steel doors in halves, operative from both sides.

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## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

FORE  
AND  
AFTER

### Spacing of Number of

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Are tarpa  
Are lashi

Particulars

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

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

Air pipe to fore peak tank 4" dia. 21" above upper deck with bulkhead to aft end of fore.

Air pipes to double bottom tanks 38" above upper and raised quarter decks with bulkheads.

Air pipe to aft peak tank 3½" dia. 25" to lip above R.Q. deck with sampling hole drilled in upper part of bend.

Canvas covers provided for all air pipes

Particulars of Gangway Cargo and Coaling Ports:—

None ✓

Particulars of Scuppers and Sanitary Discharge Pipes —

2 pipe Scupper each side in way of Engine Room  
W.C. discharge with storm valve at ship's side in way of Eng. Room ✓  
3 Scupper each side discharging thro' gunwale bar above upper deck ✓  
3 " " " " " " R.B. " ✓

Particulars of Side Scuttles :

To lower fore-castle. 7" dia. with hinged deadlight. 4  
on each side

Particulars of Guard Rails :—

On Forecastle deck 3 ft high 2 rails, stanchions 5 ft apart  
On Bridge " " " "

Particulars of Gangways, Lifelines, etc. :—

Life line between Forecastle and Bridge along port side of No. 1 hatch with 3 Portable Stanchions fitted into sockets on coaming and wood gangway at fore end.

## 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. 17 ...	94'-2"	40"	36" x 19" 27" x 18"	2 3	19.5 10.5	19.43 ft
Forward Well ...	34'-0"	45"	2 @ 27" x 18" 1 @ 27" x 18"	3	10.5	6.8 ft

State position of each freeing port ... } After Well: *from off Bridge Bulk*  
(F. and A. position and height above deck edge) } Forward Well: *" fore "*  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: *18'-9" x 16'-0" 62'-0" to fore end of port  
1'-6" 12'-10" 24'-5" to aft end "  
4" above R.A. 2" above upper deck  
Balanced steel shutters fitted to all ports  
except port at aft end fore well, which has  
a bar only*

## Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
<del> poop Bulkhead</del> ... ..								
Raised Quarter Deck Bulkhead ...		28"	3 x 2 1/2 x 28"	30"	None	None	None	4'-0"
Bridge, After Bulkhead ... ..	28"	28"	3 x 2 1/2 x 28"	30"	None	None	None	3'-0"
Bridge, Forward Bulkhead ... ..	32"	28"	5 x 3 x 38 OA. 5 x 3 x 4 BA.	30"	Large top. dup top bottom	None	None	7'-0"
Forecastle Bulkhead ... ..	None							
Trunk, Aft ... ..	✓							
<del>Trunk, Forward</del> ... ..	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	30"	26"	3 x 2 1/2 x 28"	30"	Black at top	4'-7" x 1'-8"	18"	6'-9" Side 7'-0" center
Exposed Machinery Casings on Super- structure Decks ... ..								
Machinery Casings within Superstruc- tures 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).

Roop Bulkhead	...	...	...
<del>Raised Quarter Deck Bulkhead</del>	...		
Bridge, After Bulkhead	...	...	
<del>Bridge, Forward Bulkhead</del>	...	...	
<del>Forecastle Bulkhead</del>	...	...	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...		
<del>Exposed Machinery Casings on Superstructure Decks</del>	...	...	
<del>Machinery Casings within Superstructures not fitted with Class I Closing Appliances</del>	...	...	
Deckhouses on Flush Deck Ships	...		

*Open forecassle.  
Steel doors in halves, operative from both sides*

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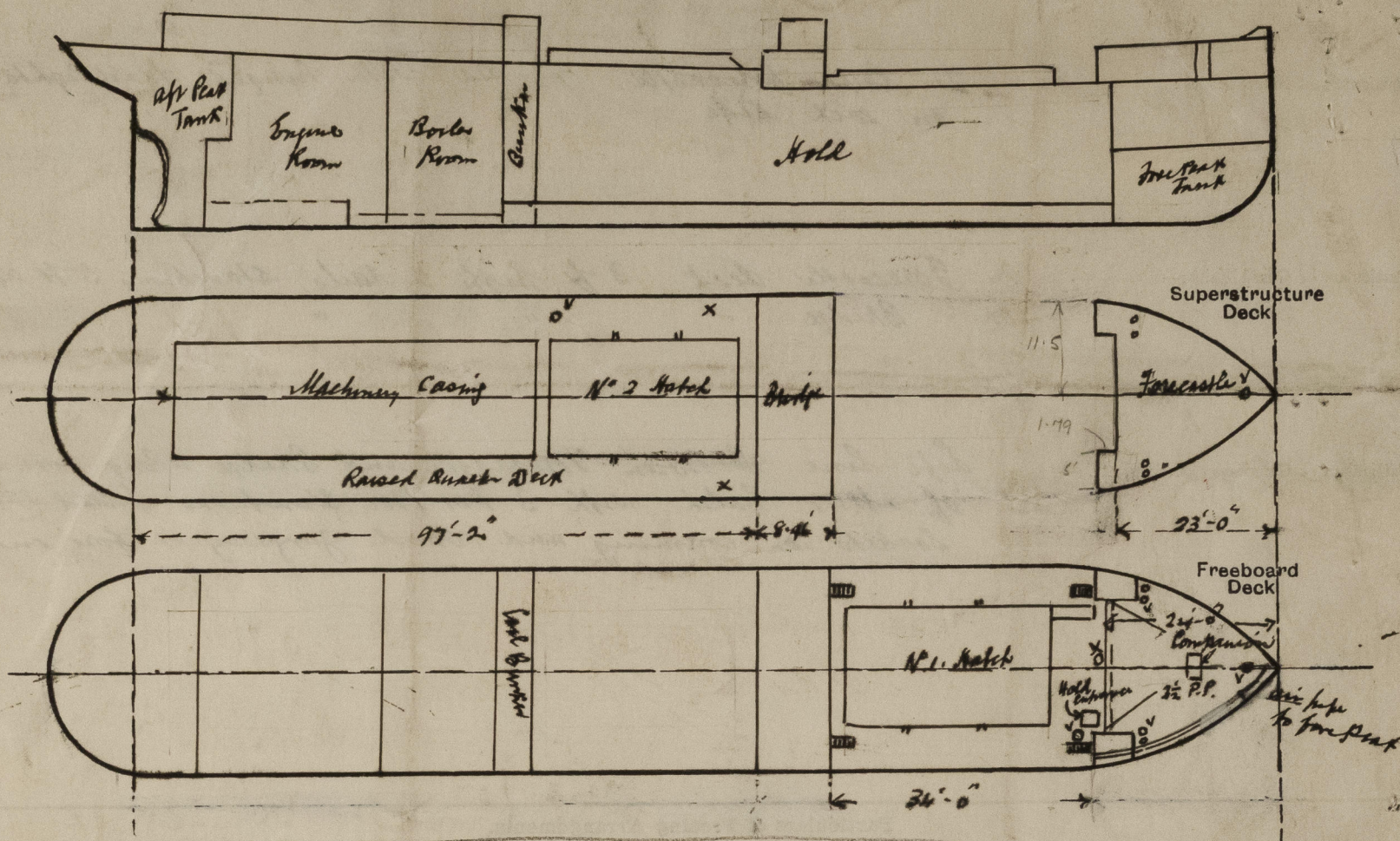
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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

Repo



x air pipes  
v vents

Fore casing	23.00
S. House	5 x 1.79
	11.5
	23.78

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

Coasting Trade.

$\Delta @ 12.35 = 1043 \text{ Tons}$

Summer Modelled = 11.92  
Keel .59  
12.51

$\Delta @ 12.51$   
1043  
16  
1059

Builder's name and yard number

Scott & Sons N. 321

Names of sister ships

Owners

Frontier Town Steamship Co. Ltd (J. Fisher & Co. Ltd. Managers)

Fee £

5 : 2 0

Received by me



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