

# Floyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index No. 18214  
(For London Office only.)

22 JUN 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Raised Quarter Deck Bridge & Forecastle  
Demuth - Copenhagen  
(Type of Superstructures.)

Port of Survey Newcastle on TyneDate of Survey 21 June 1932Name of Surveyor A. J. AkesterParticulars of Classification +100 A1

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

Moulded Dimensions: Length 120' Breadth 22' Depth 9'9" to upper deck  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 411 tons  
Coefficient of fineness for use with Tables .658 .68 Fun

Depth for Freeboard (D)

Moulded depth R.Q.D. 13-3 U. 82.9-9Stringer plate ... .. 30"

Sheathing on exposed deck

 $P \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 9.78

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

 $(9.78 - 7.99) \cdot 922 = +1.65$ 

(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) 22'Standard Round of Beam =  $\frac{B \times 12}{50} = 5.28$ Ship's Round of Beam = 5.2Difference Gun .22

Restricted to

Correction =  $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.22^2}{4} \cdot 24.72 = -.01$ 

## 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>63.50</u>	<u>63.50</u>	<u>3.5</u>		<u>63.50</u>
" overhang ...					
Bridge enclosed ...	<u>8.75</u>	<u>8.75</u>	<u>6.75</u>		<u>8.75</u>
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	<u>18.00</u>	<u>18.00</u>	<u>4.0</u>	<u>4.2/6.0</u>	<u>12.63</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<u>90.25</u>	<u>90.25</u>			<u>84.88</u>

Standard Height of Superstructure 6.0" " R.Q.D. 3.13Deduction for complete superstructure 17.99Percentage covered  $\frac{S}{L} = 75.28$ " "  $\frac{S_1}{L} = 75.28$ " "  $\frac{E}{L} = 70.80$ Percentage from Table, Line A. 63.98

(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)

Deduction = -11.51

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>21.99</u>	1		<u>21.99</u>	<u>21</u>	<u>21.00</u>	1		<u>21.00</u>
$\frac{1}{2}L$ from A.P. ...	<u>9.78</u>	4		<u>39.12</u>	<u>9.5</u>	<u>9.48</u>	4		<u>37.92</u>
$\frac{2}{3}L$ " ...	<u>2.42</u>	2		<u>4.84</u>	<u>2.35</u>	<u>2.37</u>	2		<u>4.74</u>
Amidships ...		4					4		
$\frac{2}{3}L$ from F.P. ...	<u>4.84</u>	2		<u>9.68</u>	<u>4.15</u>	<u>4.15</u>	2		<u>8.30</u>
$\frac{1}{2}L$ " ...	<u>19.57</u>	4		<u>78.28</u>	<u>16.6</u>	<u>16.59</u>	4		<u>66.36</u>
F.P. ...	<u>43.98</u>	1		<u>43.98</u>	<u>36</u>	<u>36.00</u>	1		<u>36.00</u>
Total ...				<u>197.89</u>					<u>176.61</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  $\frac{21.28}{18} \left( .75 - \frac{.3764}{2} \right) = +.44$ 

If limited on account of midship superstructure.

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

Actual height of R.Q.D. = 3.50  
Standard " " " " 3.13  
 $.37 \times 12 = 4.44$

Mean actual sheer aft = Excess  
Mean standard sheer aft

Mean actual sheer forward = Deficient  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .102" " aft of " = .50

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to R.Q. Deck = 13.28 Ft.  
Summer freeboard = 3.70  
Moulded draught (d) = 9.58

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 2.39 : 2 1/2Addition for Winter North Atlantic Freeboard (if required) = 2 1/2 + 2 = 4 1/2

## 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 =  $\frac{\Delta}{40T}$  inches $=$ 2 1/2

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

Correction for coefficient unus .68Depth Correction ... .. 1.65Deduction for superstructures ... .. 11.51Sheer correction ... .. .44Round of Beam correction ... .. .01Correction for Thickness of Deck amidships 42.00

Other corrections, scantlings, etc. ... ..

44.09 11.52 + 32.57Summer Freeboard = 44.56SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, RAISED QUARTER Steel Deck:-Tropical Fresh Water Line above Centre of Disc ... .. 3"Fresh Water Line " " " " ... .. 2 1/2"Tropical Line " " " " ... .. 1 1/2"Winter Line below " " " " ... .. 2 1/2"Winter North Atlantic Line " " " " ... .. 4 1/2"Tropical Fresh Water Freeboard ... .. 3' - 5 1/2"Fresh Water " " " " ... .. 3' - 6"Tropical " LIMITED " " " " ... .. 3' - 8"Winter " " " " ... .. 3' - 11"Winter North Atlantic " " " " ... .. 4' - 1"

© 3' - 8 1/2"

3' - 5 1/2"

3' - 6"

3' - 8"

3' - 11"

4' - 1"

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS					
Description of Hatchway	No 1 on U.S.K. for	No 2 on R.Q. SK.	Coal Hatch on Casings		
Dimensions of Hatchway	17'6" x 9'6"	15'9" x 9'6"	12' x 3'6"		
COAMINGS	Height above Deck	30"	24"		
	Thickness Sides	45	45		
	Thickness Ends	40	40		
	Stiffeners	none	none		
HATCH BEAMS	Number	one	one		
	Spacing	8'9"	7'10"		
	Scantling and Sketch	3 1/2 x 3 1/2 x 40	9 x 5 1/2 x 45		
	Bearing Surface	3 1/2	3		
FORE AND AFTERS	Number	one in Centre	one in Centre		
	Spacing	8'9"	8'9"		
	Unsupported Lengths	12' 3/4	12' 3/4		
	Scantling* and Sketch	Wood 3 1/2 x 3 1/2 x 40	No 1 Hatch		
HATCH COVERS	Material	wood	wood		
	Thickness	2 1/2	2 1/2		
	How fitted	Trans.	Trans.		
	Bearing Surface	1 1/2 at sides 3/4 at Centre	1 1/2 at sides 3/4 at Centre		
Spacing of Cleats	7' 2 1/2"	7' 2 1/2"	9' 2 1/2"		
Number of Tarpaulins	3	3	one		

Particulars of fiddle, funnel and ventilator coamings:-

Stokehold gratings covered by strong steel hinged covers.  
Fiddle, funnel & ventilators in efficient condition.  
Engine skylight of wood strongly constructed.

Particulars of Flush Bunker Scuttles:-

Two 15 scuttles on R.Q. SK. of cast steel fitted with bayonet joints.

Particulars of Companionways:-

One steel companion 3'6" x 2'6" x 6'6" high from upper deck giving access to bunk fore-castle accommodation, door of wood operated from both sides & having 21" sill.

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

8" Vent on Fore-castle deck to f'cle Coaming 18" x 40"  
9" " " Upper dk. for to Hold " 36" x 25"  
2 @ 6" mushroom vents on Bridge to accom. " 12"  
9" Vent on R.Q. dk. to Hold " 36" x 25"  
All ventilators constructed in accordance with the Rules.  
Wood flaps provided for closing ventilators

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

3" Air pipe on f'cle deck leading to fore peak tank 3" high  
2 @ 3" " " R.Q. dk. " after peak " 32"  
Wood flaps provided for closing air pipes

Particulars of Gangway Cargo and Coaling Ports:-

A hinged W.T. Cargo door in Port & Starboard sides size 17' x 8' and 15' below R.Q. dk., fitted with two bolts & strong back.  
These doors are not now in use.

Particulars of Scuppers and Sanitary Discharge Pipes:-

Two 4" Sanitary discharge pipes from f'cle side house & bridge house, both on f'cle side & one from accn. aft on Starboard side discharging below freeboard deck & fitted with brass storm valve at ship's side.

Particulars of Side Scuttles:-

Ports in f'cle of strong construction & fitted with hinged deadlights. No deadlights to ports in bridge bulk heads.

Particulars of Guard Rails:-

On f'cle deck 3'3" high, 2 rods & stanchions 4'6" apart.  
On Bridge wood bulwark 3'3" high efficiently constructed & supported.  
Steel bulwarks on upper & R.Q. dks. efficiently constructed & supported.

Particulars of Gangways, Lifelines, etc.:-

none fitted

## 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 on R.Q. dk.	63'6"	36"	30" x 17" 27" x 15" 3" above deck	2	5.62 sq. ft. 12.85	12.85
Forward Well U.S.K.	29'9"	48"	33" x 21" 12" above deck	2	9.62 " "	9.48

State position of each freeing port ... After Well: 9'6", 15'4", 37'4" from Bridge end } to Centre of port.  
(F. and A. position and height above deck edge) Forward Well: 5'4" & 17'4" }  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:-  
Fitted with hinged shutters.

Additional area where sheer is less than standard.

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

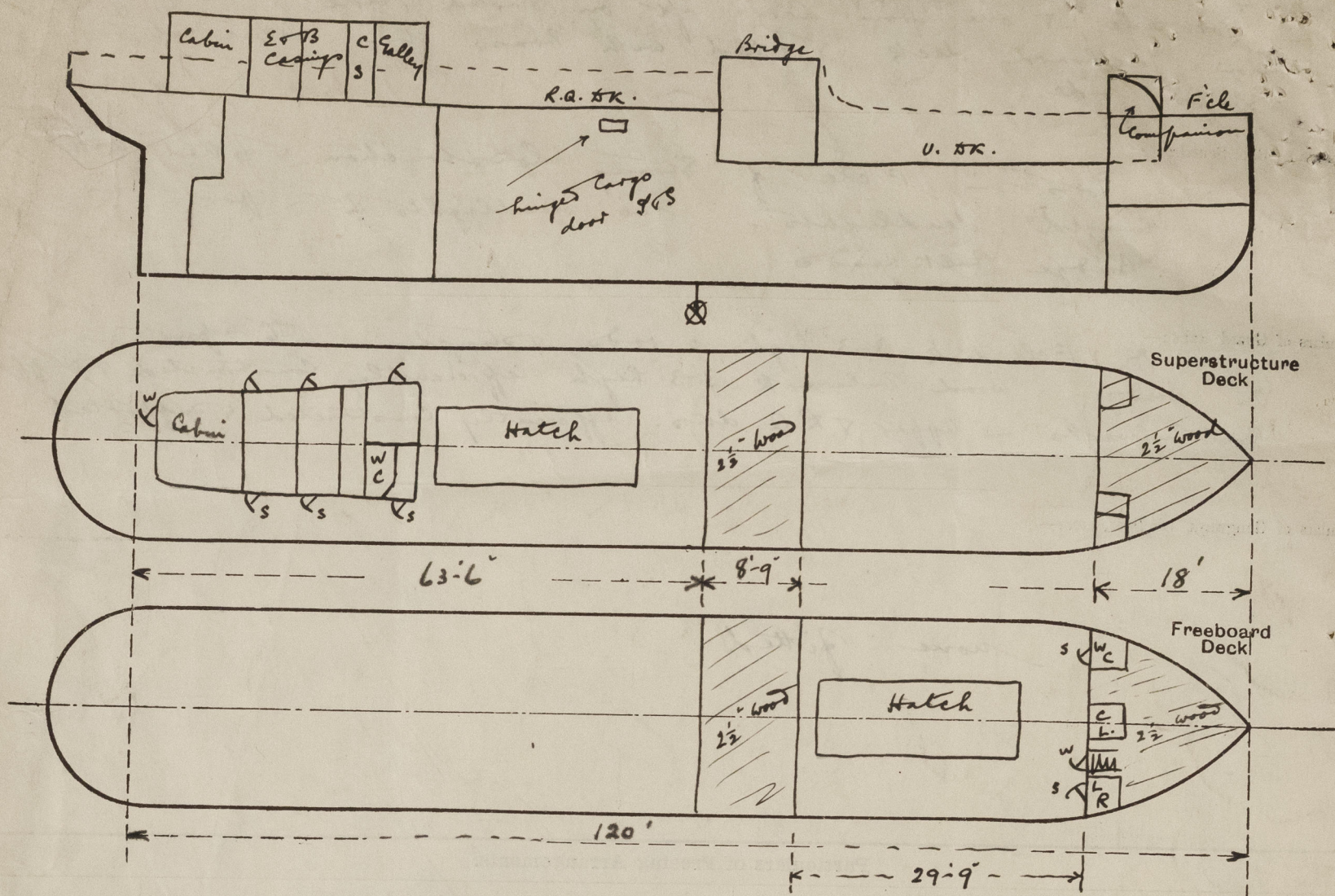
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	✓	.25	3 1/2 x 3 x .25	30"	✓	none	✓	3'3" from R.Q. dk.
Bridge, Forward Bulkhead	30 x 30	.25	6 x 3 x .35	30"	Bkts.	none	✓	6'9"
Fore-castle Bulkhead	✓	.25	3 x 2 1/2 x .30	24" & Side Trans. & Companion	✓	1 wood door 4'6" x 22" 2 steel " 4'6" x 22" } 21"	✓	F'cle 4' from U.S.K. Companion 5' Side houses 6'6"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	30 x 30	.25	2 1/2 x 2 1/2 x .25	30"	✓	4'6" x 2'	18"	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	
Bridge, After Bulkhead	none
Bridge, Forward Bulkhead	none
Fore-castle Bulkhead	wood door to companion operated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Steel door to Side house P.O.S. fastened outside only.
Exposed Machinery Casings on Superstructure Decks	Six steel & one wood door all being made to operate from both sides. The wood door is entrance to Cabin.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	



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:—

would appear to be similar to same owners  
"Fairy" — now. Reg. C. H. 88358.

This vessel is at present undergoing special survey  
2nd No 3 & damage repairs, and is expected  
to finish in a week or so.

4.8  
349.5 of 7.77  
63.5 = 1.10  
413.0 8.87  
2 inch  
411

8.87  
7.77  
1.10 x 12 x 4.8 = 63.5

Builder's name and yard number G. Brown & Co. No 30

Names of sister ships

Owners East Coast S.S. Co. Ltd.

Fee £ 3 : 8 : 0

Received by me



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