

Rpt. C.11.

Index. No. 21241  
(For London Office only.)Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having R. Q. R. D. K., BRIDGE, & FOLE.Port of Survey MILFORD HAVEN.

(Type of Superstructures.)

Date of Survey 17. 1. 36.Ship's Name  
"ENDCLIFFE."Nationality and Port of Registry  
BRITISH.  
Cardiff LIVERPOOL.Official Number  
131316.Gross Tonnage  
368.Date of Build  
1911.  
1 Mo.Name of Surveyor  
Robt. Chestman  
& for G. E. WilliamsParticulars of Classification  
+100. A.1.Moulded Dimensions: Length 35.20 x Breadth 25.00 Depth 11.45  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 647 tons  
Coefficient of fineness for use with Tables .690

## Depth for Freeboard (D)

Moulded depth ... 11.45Stringer plate ... .03

Sheathing on exposed deck

$$T \left( \frac{L-S}{L} \right) =$$

Depth for Freeboard (D) =

11.45

## Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =  $(11.45 - 7.01) \times 1.04$   
= +2.54"(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) 25.00Standard Round of Beam =  $\frac{B \times 12}{50} = 6.00"$ Ship's Round of Beam = 6.25"Difference Excess .25"

Restricted to

Correction =  $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L}) = \frac{.25}{4} \times .3821 = .0239$

## 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>49.00</u>	<u>49.00</u>	<u>3.50</u>	<u>✓</u>	<u>49.00</u>
" overhang ...					
Bridge enclosed ...	<u>7.00</u>	<u>7.00</u>	<u>6.66 + 3"</u>	<u>✓</u>	<u>7.00</u>
" overhang aft ...					
" overhang forward	<u>26.62</u>				
Fore enclosed <u>SEE SK.</u>	<u>26.45</u>	<u>26.62</u>	<u>5.75</u>	<u>5.75</u>	<u>25.51</u>
" overhang ...				<u>5.75</u>	
Trunk aft ...	<u>1.83</u>	<u>.91</u>		<u>6.00</u>	<u>.87</u>
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<u>84.45</u>	<u>83.53</u>			<u>82.38</u>

Standard Height of Superstructure 6.00" " R.Q.D. 3.233Deduction for complete superstructure 19.52Percentage covered  $\frac{S}{L} = 62.47\%$ " "  $\frac{S_1}{L} = 61.79\%$ " "  $\frac{E}{L} = 60.94\%$ Percentage from Table, Line A 47.60%  
(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 =  $19.52 \times .476 = -9.29$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>23.52</u>	1		<u>23.52</u>	<u>26.50</u>	<u>26.50</u>	1		<u>26.50</u>
$\frac{1}{2}$ L from A.P. ...	<u>10.465</u>	4		<u>41.86</u>	<u>10.27</u>	<u>10.27</u>	4		<u>41.08</u>
$\frac{3}{8}$ L " ...	<u>2.59</u>	2		<u>5.18</u>	<u>2.56</u>	<u>2.56</u>	2		<u>5.12</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
$\frac{5}{8}$ L from F.P. ...	<u>5.17</u>	2		<u>10.34</u>	<u>5.92</u>	<u>5.92</u>	2		<u>11.84</u>
$\frac{3}{4}$ L " ...	<u>20.93</u>	4		<u>83.72</u>	<u>23.70</u>	<u>23.70</u>	4		<u>94.80</u>
F.P. ...	<u>47.04</u>	1		<u>47.04</u>	<u>48.00</u>	<u>48.00</u>	1		<u>48.00</u>
Total ...	<u>211.68</u>			<u>211.66</u>					<u>227.228.34</u>

Correction =  $\frac{\text{Difference between sums of products}}{18}$ 

$$\left( \frac{.75 - S}{2L} \right) = \frac{1546.68}{18} \left( \frac{.75 - .3123}{2} \right) = - .38$$

If limited on account of midship superstructure.

$$\frac{.014}{.200} \times .38 = -.003$$

If limited to maximum allowance of 1½ ins. per 100 ft.

## Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.  
Depth to Freeboard Deck = 11.45  
Summer freeboard = .58  
Moulded draught (d) = 10.87

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $2.72" = 2\frac{3}{4}"$ 

Addition for Winter North Atlantic Freeboard (if required) =

## 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

$$\frac{d}{4} = 2\frac{3}{4}$$

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

Correction for coefficient

$$\frac{.69 + .68}{1.36} = \frac{1.37}{1.36}$$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = 6.97SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:

Existing freeboards measured, being more favourable than those computed under the Convention regulations

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

Tropical Fresh Water Freeboard ...	<u>0-2 1/4"</u>
Fresh Water " " ...	<u>0-4 1/4"</u>
Tropical " " ...	<u>0-5 1/2"</u>
Winter " " ...	<u>0-8 1/2"</u>
Winter North Atlantic " " ...	<u>1'-0 1/2"</u>



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	No. 1.								
Dimensions of Hatchway	42' x 15'								
COAMINGS									
Height above Deck	36"								
Thickness	3/16"								
Stiffeners	3/16" x 3"								
Bulkhead Stays	3/16" x 3"								
HATCH BEAMS									
Number	3								
Spacing	10'-6"								
Scantling and Sketch									
Bearing Surface									
FORE AND AFTERS									
Number	3								
Spacing	10'-0"								
Unsupported Lengths									
Scantling and Sketch									
Bearing Surface									
HATCH COVERS									
Material	W. Pine								
Thickness	3/4"								
How fitted	Oh								
Bearing Surface									
Spacing of Cleats	24"								
Number of Tarpaulins	2								

\*Are wood fore and afters steel shod at all bearing surfaces? *No. Yes*  
 Are battens and wedges efficient and in good condition? *Battens good. Wedges missing. No*  
 Are tarpaulins in good condition and in accordance with rule requirements? *No. Renew or replace in good condition. Yes*  
 Are lashings provided in accordance with rule requirements? *Yes None.*

Particulars of fiddle, funnel and ventilator coamings:—

Steel grating. Covered. Hinged steel cover. Cover to renewed  
 Fidler, funnel and ventilator coamings in efficient condition.  
 Engine Skylight of Teak strongly constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None.

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

Vent. on Deck. 6' dia. Coaming 15' x 12.5' to Deck. *No. renewed*  
 Vent. in Well. 9' " 36' x 30' " Hold.  
 " " 9' " 30' x 30' " "  
 Ventilators constructed in accordance with Rules. *No. closing appliances.*

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

Feet. 1 and 2 high to mouth, 2 1/2' dia. Cast Iron, to Fore Pk. Tank. *No. closing appliance.*

Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes:—

From Forward Well. 3 Scuppers P.B. through Str. angle. *JK.*  
 " R.Q. DK. 2 " " " "

Particulars of Side Scuttles:—

In Fide. fitted with hinged deadlights.  
 " Br. " " " "  
 All Scuttles of Substantial Construction.

Particulars of Guard Rails:—

On Fide. Sides and end. 3'-3" high, 2 rods, Stanchions 4'-6" apart.  
 Steel bulwarks on front and Sides of Br. and for full length of R.Q. DK.  
 efficiently Constructed and Supported.

Particulars of Gangways, Lifelines, etc.:—

No Lifelines. *new lifelines fitted over main hatchway to*  
 Gangway fitted P.B. from Br. front ladders to after end of  
 hatchway. 18' wide, and 2'-0" above deck, of wood 2 1/2" thick.

## 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	49.00	3'-3"	2.00 x 1.33	2	5.32	10.90
Forward Well	50.75	3'-9"	2.26 x 1.50	3	12.32	11.58

State position of each freeing port (F. and A. position and height above deck edge) { After Well: R.Q.DK. 9'-0" and 12'-3" from Br. end. Sills 10'  
 Forward Well: 3'-4", 12'-0" and 12'-0" from Br. front end. Sills 10'  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Hinged steel shutters except at aft end of well which have 2 fore and aft rods.

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	✓	.35	3 x 3 x .35	36"	None	None	✓	✓
Bridge, After Bulkhead	✓	.30	3 x 3 x .40 with do. do. do. Rod.	"	"	"	✓	✓
Bridge, Forward Bulkhead	✓	.35	3 x 3 x .40 with do. do. do. Rod.	27"	Ends bracketed.	"	✓	✓
Forecastle Bulkhead	✓	.30	3 x 3 x .30	30"	None	SEE SK. 4'-0" x 2'-0"	18"	✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	.40	.35	2 1/2 x 2 1/2 x .30	30"	Plated at top.	2'-3" x 2'-0"	24"	6'-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

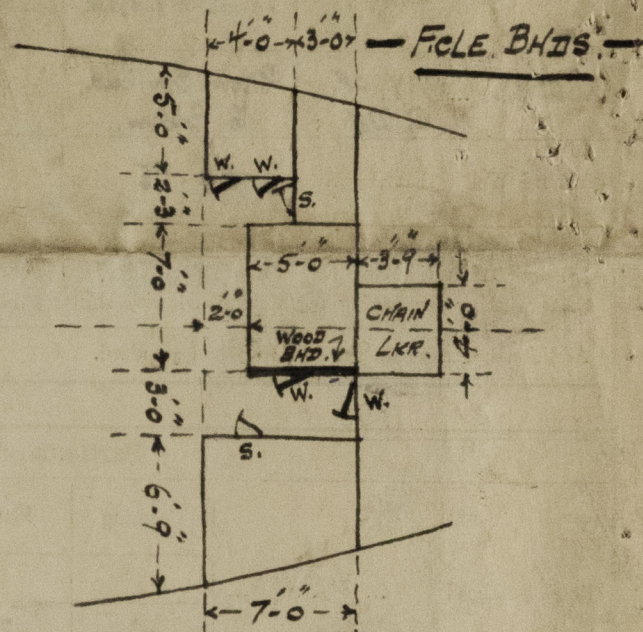
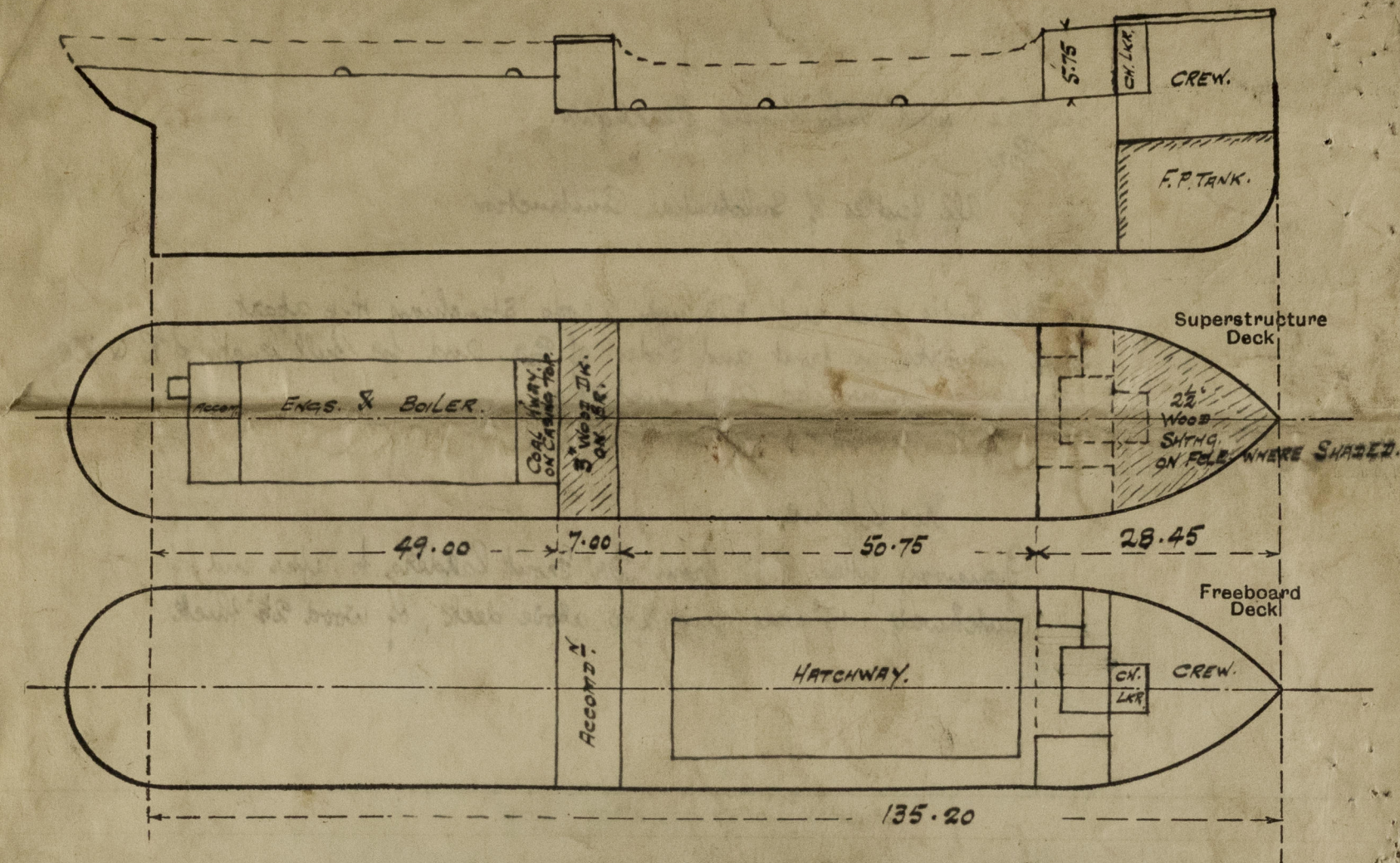
## Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	✓ No openings
Bridge, After Bulkhead	✓ No openings
Bridge, Forward Bulkhead	✓ No openings
Forecastle Bulkhead	Hinged steel and wood doors as indicated on sketch. Closing appliances to overhaul and make workable from both sides of doors.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged steel doors. To make workable from both sides. <i>not manipulated from both sides.</i>
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	



Endeliff

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:—

This Vessel is undergoing 2<sup>nd</sup> S.S. No. 3.  
Vessel measured in dry dock.

Forecastle 28.45  
Recesses. 2.25 x 4.00 = 9.00  
7.00 x 2.00 = 14.00  
3.00 x 7.00 = 21.00  
44.00  
8MIT 24.00  
— 1.83 O.H.  
26.62 equiv.

Wood lhd. only at thickened line shown, remainder steel.

W = Wood doors.  
S = Steel doors.

Note:— No stiffeners on after lhd. of P.S. Side Houses.

Builder's name and yard number

Names of sister ships

Owners

J. W. Ward & Co.

Fee £

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