

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

31 MAY 1932

Index No. 21773  
(For London Office only.)

No. 19322

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Top Gallant Forecastle, Bridge House & Raised Quarter Deck

KILWORTH (Type of Superstructures.)

Ship's Name "ESKWOOD" HOLDERNOLL 4100 1911 18/8/47

Nationality and Port of Registry British London 128813 791 1911-8

Gross Tonnage 803 791

Date of Build 1911-8

Moulded Dimensions: Length 195.0 Breadth 29.78 Depth 13.83

Moulded displacement at moulded draught = 85 per cent. of moulded depth 1462 tons

Coefficient of fineness for use with Tables .750

Port of Survey Swansea

Date of Survey 21<sup>st</sup> & 28<sup>th</sup> May 1932

Name of Surveyor J. H. Williams J. H. Williams

Particulars of Classification +100 91.

Depth for Freeboard (D)

Moulded depth ... 13.83

Stringer plate ... 13.10

Sheathing on exposed deck

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

Depth for Freeboard (D) = 13.87

Depth correction

(a) Where D is greater than Table depth  
(D - Table depth) R = (13.87 - 13.00) x 1.50 = +1.31

(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) 29.78

Standard Round of Beam =  $\frac{B \times 12}{50} = 7.15$

Ship's Round of Beam 7.2 = 7.50

Difference 14.00 - 3.5

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{3.5}{4} \left( 1 - \frac{7.15}{29.78} \right) = .25$

### 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>108.0</u>	<u>108.00</u>	<u>3.6</u>	<u>3.5</u>	<u>104.10</u>
" overhang ...				<u>3.633</u>	
Bridge enclosed ...	<u>13.0</u>	<u>13.00</u>	<u>7.2</u>	<u>7.2</u>	<u>13.00</u>
" overhang aft ...					
" overhang forward ...	<u>5.2</u>	<u>5.2</u>	<u>2.3</u>	<u>2.3</u>	<u>2.3</u>
Fore enclosed ...	<u>24.0</u>	<u>22.38</u>	<u>7.3</u>		<u>22.38</u>
" overhang ...	<u>5.2</u>	<u>1.04</u>			<u>1.04</u>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>145.92</u>	<u>144.65</u>			<u>140.75</u>

Standard Height of Superstructure 6.0

" " R.Q.D. 3.633

Deduction for complete superstructure 25.50

Percentage covered  $\frac{S}{L} = \frac{74.82}{104.10} = 72.18$

" "  $\frac{S_1}{L} = \frac{74.18}{104.10} = 71.28$

" "  $\frac{E}{L} = \frac{72.18}{104.10} = 69.33$

Percentage from Table, Line A. 65.68

(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 = 25.5 x 65.68 = -16.75

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>29.50</u>	1		<u>29.50</u>	<u>38</u>	<u>38.00</u>	1		<u>38.00</u>
$\frac{1}{4}$ L from A.P. ...	<u>13.13</u>	4		<u>52.52</u>	<u>16.5</u>	<u>16.59</u>	4		<u>66.36</u>
$\frac{2}{4}$ L " ...	<u>3.24</u>	2		<u>6.48</u>	<u>4</u>	<u>4.14</u>	2		<u>8.28</u>
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	<u>6.49</u>	2		<u>12.98</u>	<u>9</u>	<u>7.59</u>	2		<u>15.18</u>
$\frac{1}{4}$ L " ...	<u>26.26</u>	4		<u>105.04</u>	<u>31</u>	<u>30.41</u>	4		<u>121.64</u>
F.P. ...	<u>59.00</u>	1		<u>59.00</u>	<u>69</u>	<u>69.00</u>	1		<u>69.00</u>
Total ...				<u>265.52</u>					<u>318.46</u>

Mean actual sheer aft = 1.25

Mean standard sheer aft = 1.25

Mean actual sheer forward = 1.25

Mean standard sheer forward = 1.25

Length of enclosed superstructure forward of amidships = 1205

" " aft of " = 50

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{52.94}{18} \left( .75 - \frac{37.41}{104.10} \right) = -1.11$

If limited on account of midship superstructure.

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.

Depth to Freeboard Deck = 17.37

Summer freeboard = 4.06

Moulded draught (d) = 13.31

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 3.32 = 3\frac{1}{4}

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

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  1692

Tons per inch immersion at summer load water line

$T =$  11.8

Deduction =  $\frac{\Delta}{40T}$  inches = 3.58

= 3\frac{1}{2}

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<u>1.31</u>	
Deduction for superstructures ...		<u>16.75</u>
Sheer correction ...		<u>1.11</u>
Round of Beam correction ...		<u>.02</u>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...	<u>42.00</u>	
	<u>43.31</u>	<u>17.88</u>

Summer Freeboard = 48.83

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{3}{4}</u>	Tropical Fresh Water Freeboard ...	<u>3\frac{1}{4}</u>
Fresh Water Line " " ...	<u>3\frac{1}{2}</u>	Fresh Water " " ...	<u>3\frac{1}{4}</u>
Tropical Line " " ...	<u>3\frac{1}{2}</u>	Tropical " " ...	<u>3\frac{1}{4}</u>
Winter Line below " " ...	<u>3\frac{1}{2}</u>	Winter " " ...	<u>4\frac{1}{4}</u>
Winter North Atlantic Line " " ...	<u>5\frac{1}{4}</u>	Winter North Atlantic " " ...	<u>4\frac{1}{4}</u>



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway	Nº1	Nº2	Bunker	To Poop						
Dimensions of Hatchway	38'-6" x 18'-0"	35'-0" x 18'-0"	7'-3" x 18'-0"	30' x 30'						
COAMINGS	Height above Deck	36"	30"	79"	20"					
	Thickness	45"	45"	30"	25"					
	Stiffeners	none	none	✓	✓					
	Brackets, Stays	Bulk Plate	✓	✓	✓					
HATCH BEAMS	Number	6	5							
	Spacing	5'-5"	5'-10"							
	Scantling and Sketch	23" x 19 x 35	22 1/2" x 16 1/2 x 35	none	none					
	Bearing Surface	3 1/2"	3 1/2"							
FORE AND AFTERS	Number	none	none	none	none					
	Spacing									
	Unsupported Lengths									
	Scantling* and Sketch									
HATCH COVERS	Material	White wood	White wood	White wood	Steel plate					
	Thickness	3"	3"	2 1/2"	25"					
	How fitted	F+A	F+A	F+A	Bolted					
	Bearing Surface	3"	3"	2 1/2"	3"					
Spacing of Cleats	24" x 20"	24" x 20"	25"	✓						
Number of Tarpaulins	Two	Two	Two	✓						
*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i> Are battens and wedges efficient and in good condition? <i>Yes</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i> Are lashings provided in accordance with rule requirements? <i>Yes</i>										

Particulars of fiddle, funnel and ventilator coamings:— *Gratings covered by Hinged slot in plates.*  
*Funnel Coaming 20 plate 36" high*  
*Engine room skylights wood hinged*  
*Plates 2" thick fitted with glass bulkheads.*  
*2 Strokehold Ventilators 21" diameter x 35 plate (protected by machinery space casings)*  
*2 Engine room Ventilators 12" dia x 3'-0" high x 35 Coamings.*

Particulars of Flush Bunker Scuttles:—

*none*

Particulars of Companionways:—

*none.*

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

*Forecastle Deck*  
*2-6" dia x 25 Coaming x 18" high*  
*2-32" x 37 1/2" (Castiron) x 5" Space.*  
*Well Deck*  
*2-12" dia x 35 Coaming x 3'-0" high to Hold.*  
*Raised Quarter Deck*  
*2-12" dia x 35 —" x 3'-0" —" to hold.*  
*Ventilators provided with wood plugs & canvas covers.*

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

*1- Well Deck (in way of Forecastle Bulkhead)*  
*2 1/2" diameter A = 36"*  
*1- Raised Quarter Deck*  
*5 1/2" —" A = 30"*  
*Air pipes provided with wood plugs & canvas covers.*

Particulars of Gangway Cargo and Coaling Ports:—

*none*





Particulars of Scuppers and Sanitary Discharge Pipes —

1 (Crews Quarters in R.Q Deck) 4 1/2" diameter. fitted with storm valve (below R.Q Deck) ✓

Particulars of Side Scuttles: In Forecastle. 7" Hinged frames with deadlights ✓  
In Bridge 8" — " — without deadlights ✓  
above Raised Quarter Deck. 8" — " — without deadlights ✓  
(Crews Quarters)

Particulars of Guard Rails:— Forecastle Deck Hinged stanchions. 3'-2" high, spaced 5'-1" apart, with two rows of chains. ✓

Particulars of Gangways, Lifelines, etc.:— Lifelines fitted in forward well, port & starboard, to the forecastle where the crew are berthed.  
~~None.~~

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
R.Q.B. Well ... ..	108'-0" ✓	3'-0" ✓	$\left\{ \begin{array}{l} 3'-0" \times 1'-3" \\ 2'-6" \times 1'-3\frac{1}{2}" \\ 1'-6" \times 1'-3" \end{array} \right.$	$\left\{ \begin{array}{l} 3 \\ 3 \\ 1 \end{array} \right.$	$\left\{ \begin{array}{l} 22.7 \\ 9.6 \\ 1.7 \end{array} \right.$	21.6
Forward Well ... ..	5'-0"-0" ✓	3'-8" ✓	3'-3" x 1'-9 1/2"	2	11.6	11.5 ✓
State position of each freeing port ... .. } R.Q.B. FORD < 27'-0" → 32'-2" → 22'-6" → 4 1/2' above deck (F. and A. position and height above deck edge) } Forward Well: 9'-0" → 21'-0" → 8 1/2' above deck. ✓ State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Additional area where sheer is less than standard. Hinged plate shutters ✓						

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 ... ..	3/5 ✓	✓				none	1'	3'-6" ✓
Bridge, Forward Bulkhead ... ..	3/5 ✓	25 ✓	5 1/2" x 3" x 44 MB ✓	39" ✓	Brackets T & B ✓	none ✓	✓	7'-0" ✓
Forecastle Bulkhead ... ..	25 ✓	25 ✓	2 1/2" x 2 1/2" x 25 OA ✓	36' ✓	none	3'-4" x 1'-11" ✓	19" ✓	7'-3" ✓
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	3/5 ✓	30% 25 ✓	3 x 3 x 3/5 (Fore) ✓	33" ✓	none ✓			
Exposed Machinery Casings on Super-structure Decks ... ..	✓	✓	3 x 2 1/2" x 1/4" ✓	33" ✓	none (full height) ✓	4'-3" x 1'-11" ✓	17' ✓	7'-0" ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓	✓						
Deckhouses on Flush Deck Ships ...								

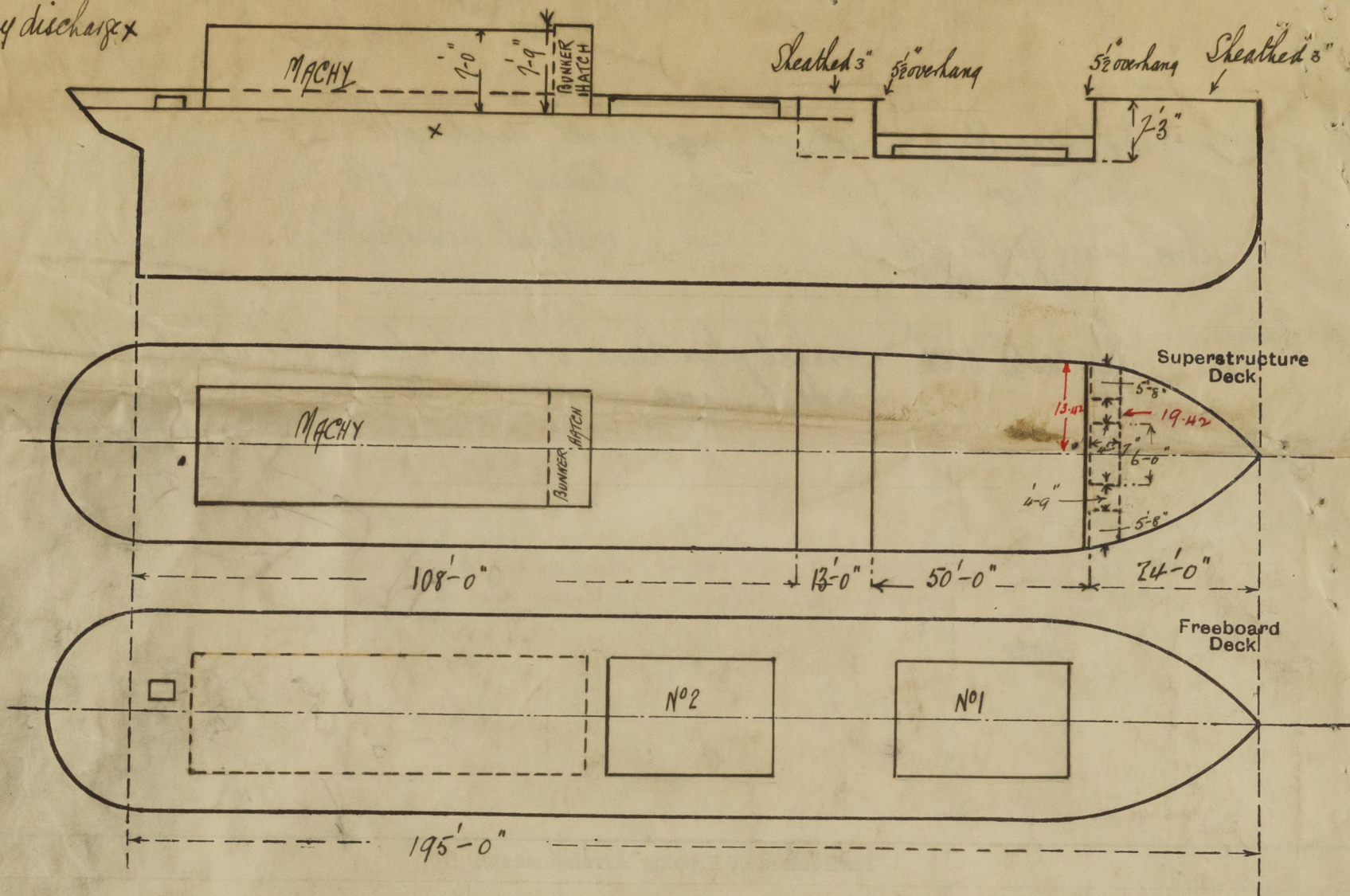
Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	✓
Raised Quarter Deck Bulkhead ...	✓ } no openings
Bridge, After Bulkhead ... ..	✓ } no openings.
Bridge, Forward Bulkhead ... ..	✓ } no openings.
Forecastle Bulkhead ... ..	Hinged steel doors. 25" opening from both sides ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Hinged steel doors. 25" — " — " — " ✓
Exposed Machinery Casings on Super-structure Decks ... ..	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	✓



Eskewood

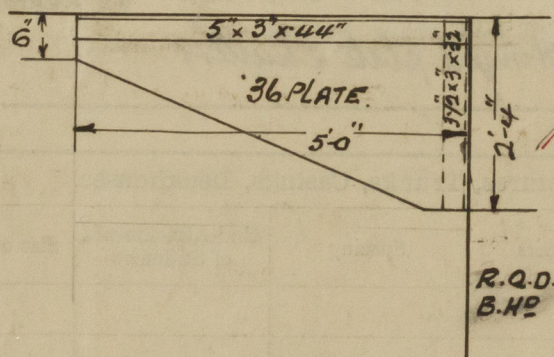
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—

Sanitary discharge x



Particulars taken when vessel afloat.

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



Builder's name and yard number *W. Harkess & Son. Ltd*

Names of sister ships

Owners *S. & R. Steamship Ltd (Stone & Rolfe Ltd Ings)*

Fee £ *6* : *16* : *0*

Received by me

*Over*



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