

Clond's Register of Shipping. SURVEYS FOR FREEBOARD.

 Index. No. 18339
(For London Office only.)

 29617
D160
Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~having Peep, Long Bridge & Forecastle, disconnected.Port of Survey Antwerp

(Type of Superstructures.)

Date of Survey Aug. 9th 1932

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>"KENMORE"</u>	<u>British</u> <u>Liverpool</u>	<u>147199</u>	<u>3783</u>	<u>1923-2</u>

Name of Surveyor N. E. Gray.

Moulded Dimensions: Length 362.75 Breadth 52.0 Depth 26.7 $\frac{1}{2}$
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 9035 tons
 Coefficient of fineness for use with Tables .741

Particulars of Classification +100 A1 S.36S.S. Ant. No. 1-27

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... <u>26.62</u>	(a) Where D is greater than Table depth (D - Table depth) R =	<u>(26.67 - 24.18) 2.49</u>	Moulded Breadth (B)	<u>52.0</u>
Stringer plate	... <u>.05</u>	<u>2.49 x 2.72 = 6.95</u>		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>12.48</u>
Sheathing on exposed deck	<u>None.</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	<u>13.00</u>
$T \left(\frac{L-S}{L} \right) =$				Difference	<u>.52</u>
Depth for Freeboard (D) =	<u>26.67</u>	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$	<u>= .52 (1.1864) = .02</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>32.50</u>	<u>32.50</u>	<u>7-$\frac{1}{2}$</u>		<u>32.50</u>	Standard Height of Superstructure <u>7.127</u>
„ overhang ...	<u>.33</u>	<u>.16</u>			<u>.16</u>	„ „ R.Q.D. <u>5.505</u>
R.Q.D. enclosed ...	<u>✓</u>					Deduction for complete superstructure <u>39.515</u>
„ overhang ...	<u>✓</u>					Percentage covered $\frac{S}{L} =$ <u>82.03</u>
Bridge enclosed...	<u>178.75</u>	<u>178.75</u>	<u>7-$\frac{1}{2}$</u>		<u>178.75</u>	„ „ $\frac{S_1}{L} =$ <u>81.36</u>
„ overhang aft ...	<u>2.83</u>	<u>2.12</u>			<u>2.12</u>	„ „ $\frac{E}{L} =$ <u>81.36</u>
„ overhang forward	<u>.33</u>	<u>.17</u>			<u>.17</u>	Percentage from Table, Line A.
Fore enclosed ...	<u>80.00</u>	<u>80.00</u>	<u>8.0</u>		<u>80.00</u>	(corrected for absence of forecastle (if required))
„ overhang ...	<u>2.83</u>	<u>1.41</u>			<u>1.41</u>	Percentage from Table, Line B. <u>76.99</u>
Trunk aft ...	<u>✓</u>					(corrected for absence of forecastle (if required))
„ forward ...	<u>✓</u>					Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...	<u>✓</u>					Deduction = <u>30.42</u>
„ „ forward	<u>✓</u>					
Total ...	<u>297.57</u>	<u>295.11</u>			<u>295.11</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>46.27</u>	<u>1</u>		<u>46.27</u>	<u>.96</u>	<u>11.5</u>	<u>11.5</u>	<u>1</u>	<u>11.50</u>	Mean actual sheer aft = <u>Deficient</u>
$\frac{1}{2}$ L from A.P. ...	<u>20.59</u>	<u>4</u>		<u>82.36</u>	<u>7.8</u>	<u>2.8</u>	<u>2.8</u>	<u>4</u>	<u>11.20</u>	Mean actual sheer forward = <u>Deficient</u>
$\frac{3}{8}$ L „ ...	<u>5.09</u>	<u>2</u>		<u>10.18</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>✓</u>	Mean standard sheer forward
Amidships ...	<u>✓</u>	<u>4</u>		<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>✓</u>	Length of enclosed superstructure forward of amidships = <u>60.25'</u>
$\frac{3}{8}$ L from F.P. ...	<u>10.18</u>	<u>2</u>		<u>20.36</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>✓</u>	„ „ aft of „ = <u>118.5'</u>
$\frac{1}{2}$ L „ ...	<u>41.18</u>	<u>4</u>		<u>164.72</u>	<u>3.3</u>	<u>3.3</u>	<u>3.3</u>	<u>4</u>	<u>13.20</u>	
F.P. ...	<u>92.55</u>	<u>1</u>		<u>92.55</u>	<u>13.0</u>	<u>13.0</u>	<u>13.0</u>	<u>1</u>	<u>13.00</u>	
Total ...				<u>416.44</u>					<u>48.90</u>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$										
<u>416.44</u>										
<u>367.54</u> (<u>.75 - .4102</u>) = <u>6.94</u>										
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 = 26.67
 Summer freeboard = 3.87
 Moulded draught (d) = 22.80

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 5.70 = 5 $\frac{3}{4}$

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 9162

Tons per inch immersion at summer load water line

 $T =$ 36.91Deduction = $\frac{\Delta}{40T}$ inches= 6.21= 6 $\frac{1}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

.741 + .65 = 1.391

	+	-
Depth Correction ...	<u>6.95</u>	
Deduction for superstructures ...		<u>30.42</u>
Sheer correction ...	<u>6.94</u>	
Round of Beam correction ...		<u>.02</u>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		

Summer Freeboard = 46.38SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<u>12</u>	Tropical Fresh Water Freeboard ...	<u>2-10$\frac{1}{2}$</u>
Fresh Water Line „ „ ...	<u>6$\frac{1}{4}$</u>	Fresh Water „ „ ...	<u>3-4$\frac{1}{4}$</u>
Tropical Line „ „ ...	<u>5$\frac{3}{4}$</u>	Tropical „ „ ...	<u>3-4$\frac{3}{4}$</u>
Winter Line below „ „ ...	<u>5$\frac{3}{4}$</u>	Winter „ „ ...	<u>4-4$\frac{1}{4}$</u>
Winter North Atlantic Line „ „ ...		Winter North Atlantic „ „ ...	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	Fore			Aft			Upper Deck		
	Fek. Dk. No. 1	Well Dk. No. 2	Bridge Deck No. 3	Deck No. 4	Well Dk. No. 5	In Fek. No. 1	In Bridge No. 3	T. Dks. No. 4	
Dimensions of Hatchway	24'-11 1/2" x 4'-3"	33'-0" x 18'-0"	24'-9 1/2" x 18'-0"	33'-0" x 18'-0"	30'-7 1/2" x 18'-0"	24'-11 1/2" x 4'-3"	24'-9 1/2" x 18'-0"	33'-0" x 18'-0"	
COAMINGS	Height above Deck	31"	36"	31"	31 1/2"	9"	9"	20	
	Thickness Sides	46"	50"	46"	50"	46"	46"	40	
	Thickness Ends	44"	44"	44"	44"	44"	44"	40	
	Stiffeners	7" B.A.	10" B.A.	10" B.A.	10" B.A.	7" B.A.	7" B.A.	10" B.A.	
HATCH BEAMS	Number	5	7	5	7	5	5	7	
	Spacing	4'-0"	4'-1"	4'-1"	4'-1"	4'-0"	4'-1"	4'-1"	
	Scantling and Sketch	12" x 30"	14" x 34"	12" x 30"	14" x 34"	12" x 34"	14" x 38"	14" x 38"	
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
HATCH COVERS	Material	Wood	as	as	as	as	as	as	
	Thickness	2 1/4"	as	as	as	as	as	as	
	How fitted	F.A.	as	as	as	as	as	as	
	Bearing Surface	3"	as	as	as	as	as	as	
Spacing of Cleats	23" Tello palm					21	24	20	
Number of Tarpaulins	4	4	3	3	4	2	2	20	

Particulars of fiddle, funnel and ventilator coamings:—

2 Large Ventilators to Stokerhold Mechanically worked.
Bilge Room Gratings fitted with Steel hinged Storm Covers.
Engine Room Skylight Steel with hinged flaps & bulboyes.
4 Large Ventilators to Engine Room.
Coal Bunker Hatch to Tween Decks. 9" B.A. Coaming.

All in good order.

Particulars of Flush Bunker Scuttles:— None.

Particulars of Companionways:—

Steel Deck house on poop deck aft giving access to Crew's Quarters below.
30 plating with 3 x 3 x 35 stiffeners 42" apart. Head wood door in same
4'-6" x 2'-0" with 15" sill above wood deck.

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

Forecastle Dk. 7 Ventilators with Steel Coamings 38" high x 38" thick
1 Grommet, Houses in Bow Chock with work plug. H=21"
Bridge Deck 18 Ventilators with Steel Coamings 37" high x 38" thick.
6 Grommets with work plugs H=22"
Poop Deck 5 Ventilators with Steel Coamings 38" high x 38" thick
4 Grommets. 2-H=25", 2-H=20"
All Ventilator Coamings fitted with work plugs & Canvas Covers & all in good order.
No Ventilation in the Wells.

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

Forecastle Deck. 1 Air Pipe to P.P. Tank H=25 1/2" no plug.
4" " " D.B. Tanks. Fitted with Tyros Non Return Valves. (oil fuel)
Bridge Deck. 4 Air pipes to D.B. Tanks H=20 1/2" no plug.
10" " " " (oil fuel) fitted with Tyros patent N.R. Valve.
Poop Deck. 2 to A.P. Tank H=25" no plug.
4" " " " (oil fuel) fitted with Tyros patent N.R. Valve.
Can pipes fitted with wood plugs attached by chain.

Particulars of Gangway Cargo and Coaling Ports:— None.

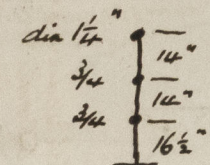
Particulars of Scuppers and Sanitary Discharge Pipes:—

Fore Deck. 1 Scupper P+S in Staircase Angle + 1 P+S discharge below Upper Dk. No NRV.
Bridge " 1 " P+S. discharges overboard in bridge Tween deck. No NRV.
" Tween Deck. 2 " P+S. N.R. Valves fitted.
After Deck. 1 " P+S in Staircase Angle + 1 P+S discharge below Upper Dk. No NRV.

Captain's Coffees W.C. discharge overboard in bridge Tween Decks. N.R.V. fitted.
Crews W.C. & aft discharge overboard below the upper deck. N.R.V. fitted.

Particulars of Side Scuttles:—

Particulars of Guard Rails:— on Poop, Bridge & Fore Dks.



Stanchions 4'-5" apart

Particulars of Gangways, Lifelines, etc.:—

Fore & aft gangway of substantial construction fitted between the Poop & Bridge Decks.

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	29.93'	4'-0"	2'-7" x 1'-6"	3	11.71	9.50
Forward Well	35.25'	3'-11"	2'-8" x 1'-6"	3	12.00	10.03

State position of each freeing port (F. and A. position and height above deck edge) After Well:— Poop 9'-4" 8'-7" 5'-0" Bridge 8'-4" 15'-10" Fore 19" aft.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 3 Vert. Rods fitted.
Additional area where sheer is less than standard.

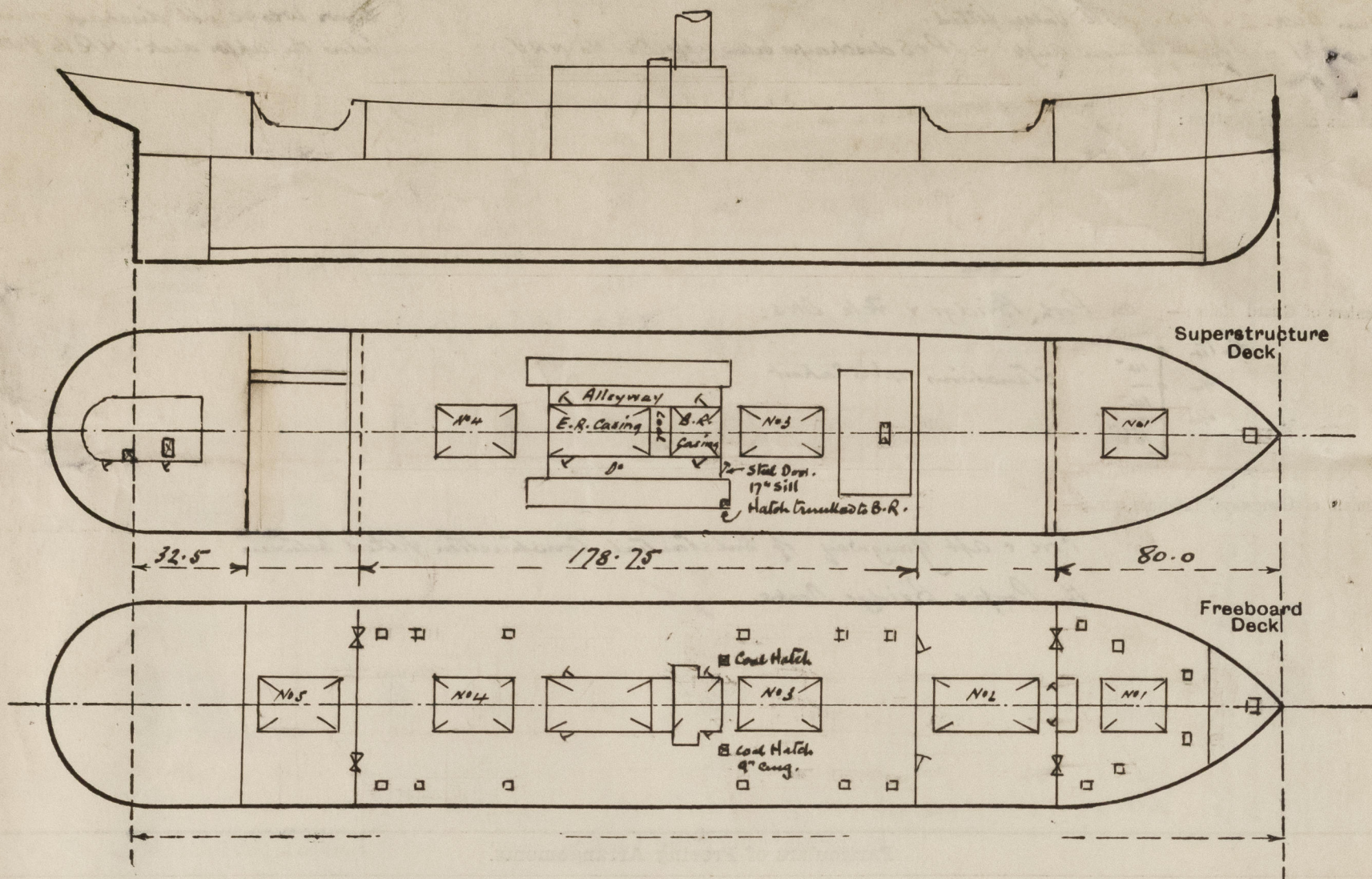
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	40	40	7 x 3 x 45 B.A.	30"	Bkts. Top & Bot.	None.		
Raised Quarter Deck Bulkhead					Bkts. Top & Bot.	5'-0" x 3'-0"	1'-6"	
Bridge, After Bulkhead	40	36	6 x 3 x 40 O.A.	41 1/2"	Bkts. Top & Bot.	4'-11 1/2" x 3'-0 1/2"	1'-9 1/2"	
Bridge, Forward Bulkhead	40	40	10 x 3 x 40 B.A.	27"	None.	5'-2 x 3'-1 1/2"	1'-6"	
Forecastle Bulkhead	40	35	6 x 3 x 32 O.A.	39	None.	4'-6 x 1'-10 1/2"		
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks					None	4'-9 x 2'-0"	1'-6"	7'-6"
Exposed Machinery Casings on Superstructure Decks	38	36	Fore End 4 x 3 x 40 Sides 3 1/2 x 3 x 35	29 1/2" 33	Bkts. Top & Bot.	2'-0 x 1'-6"	4'-9"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	50	36	3 1/2 x 3 x 35	33	None at foot	4'-1 1/2 x 1'-5 1/2"	2'-2"	
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	Storm Boards full height in riveted channels.
Bridge, Forward Bulkhead	Hinged Steel Watertight Door. 1 Pat. + 1 Std. Seamed with bolts & nuts. Open from well deck only.
Forecastle Bulkhead	2 Hinged Steel doors full height in riveted channels.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	Door port & starboard to Stokerhold in alleyway. ordinary door latch with lock & key. Open from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged Steel door. Door 2'-0 x 1'-6 to Stokerhold fastened in Bridge Tween decks. 4'-1 1/2 x 1'-5 1/2. ordinary door latch with lock & key. Open from both sides.
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:—

Vessel examined in Dry Dock & Special Survey No. 2 in Course of Completion

A Small General Arrangement Plan loaned from the Captain is forwarded herewith which plan returns. The Huddlestons' Surveyors have been requested to obtain particulars of Draft, &c & forward same direct to the London Office.

Builder's name and yard number.

Names of sister ships.

Owners

Furness & Witherby & Co. Ltd

Fee *£* *27.00* — : *12-8-32* Received by me.



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