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Rpt. G.11.

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Index. No. **28590**  
 (For London Office only.)  
**13 SEP 1932**

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
 having *Complete Superstructure without Tonnage opening*  
 Port of Survey *London*  
 Date of Survey *30<sup>th</sup> August, 1932.*  
 Name of Surveyor *W.T. Hudson*  
 Particulars of Classification *+100A-1 Shelter*  
*all with freeboard.*  
 J.S.G. No 2.28.

**KRONOBORG** (Type of Superstructures.)  
 Ship's Name *PORT CURTIS* Nationality and Port of Registry *FINNISH BRITISH LONDON* Official Number *144533* Gross Tonnage *8287* Date of Build *1920-4*  
 Moulded Dimensions: Length *449.5* Breadth *58.0* Depth *40.0*  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *19300* tons  
 Coefficient of fineness for use with Tables *.762*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>40.0</i>	(a) Where D is greater than Table depth (D - Table depth) R = $(40.05 - 29.96)3$ = <i>+ 30.27</i>	Moulded Breadth (B) <i>58.00</i> Standard Round of Beam = $\frac{B \times 12}{50} = 13.92$ Ship's Round of Beam = <i>12.0</i>
Stringer plate <i>60</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>—</i>	Difference <i>Deficient 1.92</i> Restricted to <i>—</i> Correction = $\frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L}) = \frac{1.92^2}{4} (1 - \frac{17.35}{17.31}) = +.40$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <i>—</i>	
Depth for Freeboard (D) = <i>40.05</i>		

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	35.00	35.00	7'-3"	7.46	34.81
" overhang ...			7'-9"	7.50	
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward					
Fore enclosed ...	43.00	43.00	7'-6"		43.00
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	78.00	78.00			77.81

Standard Height of Superstructure *7.50*  
 " " R.Q.D. *—*  
 Deduction for complete superstructure *42.00*  
 Percentage covered  $\frac{S}{L} = 17.35$   
 " "  $\frac{S_1}{L} = 17.35$   
 " "  $\frac{E}{L} = 17.31$   
 Percentage from Table, Line A. *8.65*  
 (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 =  $42.00 \times .0865 = 3.63$

## SHEER CORRECTION.

*No shear between frames 55 and 105*

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	54.95	1		54.95	56	56.00	1		56.00
$\frac{1}{2}$ L from A.P. ...	24.45	4		97.80	13.70	13.70	4		54.80
$\frac{2}{3}$ L " ...	6.04	2		12.09	0	0	2		0
Amidships ...	—	4		—	0	0	4		0
$\frac{2}{3}$ L from F.P. ...	12.09	2		24.18	0	0	2		0
$\frac{1}{2}$ L " ...	48.91	4		195.64	14.10	14.10	4		56.40
F.P. ...	109.90	1		109.90	60	60.00	1		60.00
Total ...				494.55					227.20

Mean actual sheer aft = *Deficient*  
 Mean standard sheer aft = *—*  
 Mean actual sheer forward = *Deficient*  
 Mean standard sheer forward = *—*

Length of enclosed superstructure forward of amidships = *—*  
 " " aft of " = *—*

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{267.35}{18} \left( .75 - \frac{.0867}{2} \right) = +9.85$

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.

Ft.  
 Depth to Freeboard Deck = *40.05*  
 Summer freeboard = *11.02*  
 Moulded draught (d) = *29.03*

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = *7.26 = 7\frac{1}{4}*  
 Addition for Winter North Atlantic Freeboard (if required) = *—*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 16317$

Tons per inch immersion at summer load water line

T = *53.0*

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

= *7.70 = 7\frac{3}{4}*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.762 + .68}{1.26} = \frac{1.442}{1.36}$

Depth Correction ... *30.27*  
 Deduction for superstructures ... *3.63*  
 Sheer correction ... *9.85*  
 Round of Beam correction ... *4.0*  
 Correction for Thickness of Deck amidships ... *—*  
 Other corrections, scantlings, etc. ... *3.17*

43.69 3.63 + 40.00  
 Summer Freeboard = *132.25*

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

Tropical Fresh Water Line above Centre of Disc ... *15'-38"*  
 Fresh Water Line " " ... *197"*  
 Tropical Line " " ... *184"*  
 Winter Line below " " ... *184"*  
 Winter North Atlantic Line " " ... *—*

Tropical Fresh Water Freeboard ... *9'-9\frac{1}{2}"*  
 Fresh Water " " ... *10'-4\frac{1}{2}"*  
 Tropical " " ... *10'-5"*  
 Winter " " ... *11'-7\frac{1}{2}"*  
 Winter North Atlantic " " ... *—*

11'-0\frac{1}{2}" *3359*  
 9'-9\frac{1}{2}" *2978*  
 10'-4\frac{1}{2}" *3162*  
 10'-5" *3175*  
 11'-7\frac{1}{2}" *3548*

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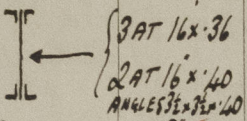
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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK											
Description of Hatchway			1 <sup>st</sup> 27'0" x 18'0"	COALING HATCH No 1	COALING HATCH No 2	ACCESS HATCHES No 1	COALING HATCHES No 2	COALING HATCHES No 3			
Dimensions of Hatchway			27'0" x 18'0"	5'2" x 14'4"	6'0" x 18'0"	2'0" x 3'0"	2'9" x 4'6"	5'6" x 2'6"			
COAMINGS	{	Height above Deck	33"	33"	32"	36"	19"	20"			
		Thickness	Sides	44"	44"	44"	44"	44"	44"		
			Ends	44"	44"	44"	44"	44"	44"		
		Stiffeners	4" 3A	—	—	—	—	—	—		
		Brackets, Stays	TWO	—	—	—	—	—	—		
HATCH BEAMS	{	Number	5								
		Spacing	4'-6"								
		Scantling and Sketch									
		Bearing Surface	3"								
FORE AND AFTERS	{	Number									
		Spacing									
		Unsupported Lengths									
		Scantling* and Sketch									
		Bearing Surface									
HATCH COVERS	{	Material	W. PINE	W. PINE	W. PINE	W. PINE	W. PINE	W. PINE			
		Thickness	3"	3"	3"	3"	3"	3"			
		How fitted	F.L.A.	F.L.A.	F.L.A.	F.L.A.	F.L.A.	F.L.A.			
		Bearing Surface	3"	3"	3"	3"	3"	3"			
Spacing of Cleats			24"	24"	24"	24"	24"	24"			
Number of Tarpaulins			2	2	2	2	2	2			
*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>											
<i>Hatch covers to Freeboard and all Hatchways to renew &amp; repair as necessary</i>											

Particulars of fiddle, funnel and ventilator coamings:—

*Fiddle vents & funnel in efficient condition.*  
*Engine skylight of steel efficiently constructed. Stokerhold gratings fitted with steel hinged covers.*

Particulars of Flush Bunker Scuttles:—

*None.*

Particulars of Companionways:—

*None.*

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

*Two vents on Fore deck 2'8" x 18" diam x 40. Three vents on Poop deck 2'6" x 18" diam x 40.*  
*Freeboard deck 10 vents 3'0" x 18" diam x 40, 6 vents 3'0" x 12" x 40 to holds etc.*  
*Ventilation fitted with wood plugs & canvas covers.*

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

*Deck Fore peak 2 1/2" high x 3 1/2" diam*  
*Freeboard deck, 28 C.I. air pipes 2 1/2" high x 2 1/2" diam to d.b. tanks etc.*  
*No closing appliances fitted as wood plugs & canvas covers*

Particulars of Gangway Cargo and Coaling Ports:—

*Two W.T. Cargo Doors (1P+1S) 5'6" x 4'0" to upper Green deck bunkers.*  
*W.T. Meak ports to No. 1, 2 & 4 lower Green decks (3P+3S) 2'0" x 2'0"*  
*The above W.T. doors all strongly constructed.*

Particulars of Scuppers and Sanitary Discharge Pipes:—

*Two scuppers each side, 4" diam, discharging through Freeboard bulkheads.*  
*All sanitary discharge pipes fitted with storm valves at outer end & efficient traps inboard.*

Particulars of Side Scuttles:—

*All side scuttles of substantial construction.*  
*Several hinged steel deadlights to Crew space aft in Upper Green Deck missing & others in this space broken.*  
*No deadlights fitted to scuttles to Crew space in Poop or Freeboard deck.*

Particulars of Guard Rails:—

*Fore 3'9" H. 4 1/4" x 4'0" Apart, 3 Rods.*  
*Freeboard 3'9" " x 4'0" " , 4 "*  
*Poop 3'3" " x 4'6" " , 3 "*  
*Side bulwarks on Freeboard 4'0" high, efficiently constructed & supported.*

Particulars of Gangways, Lifelines, etc.:—

*None.*

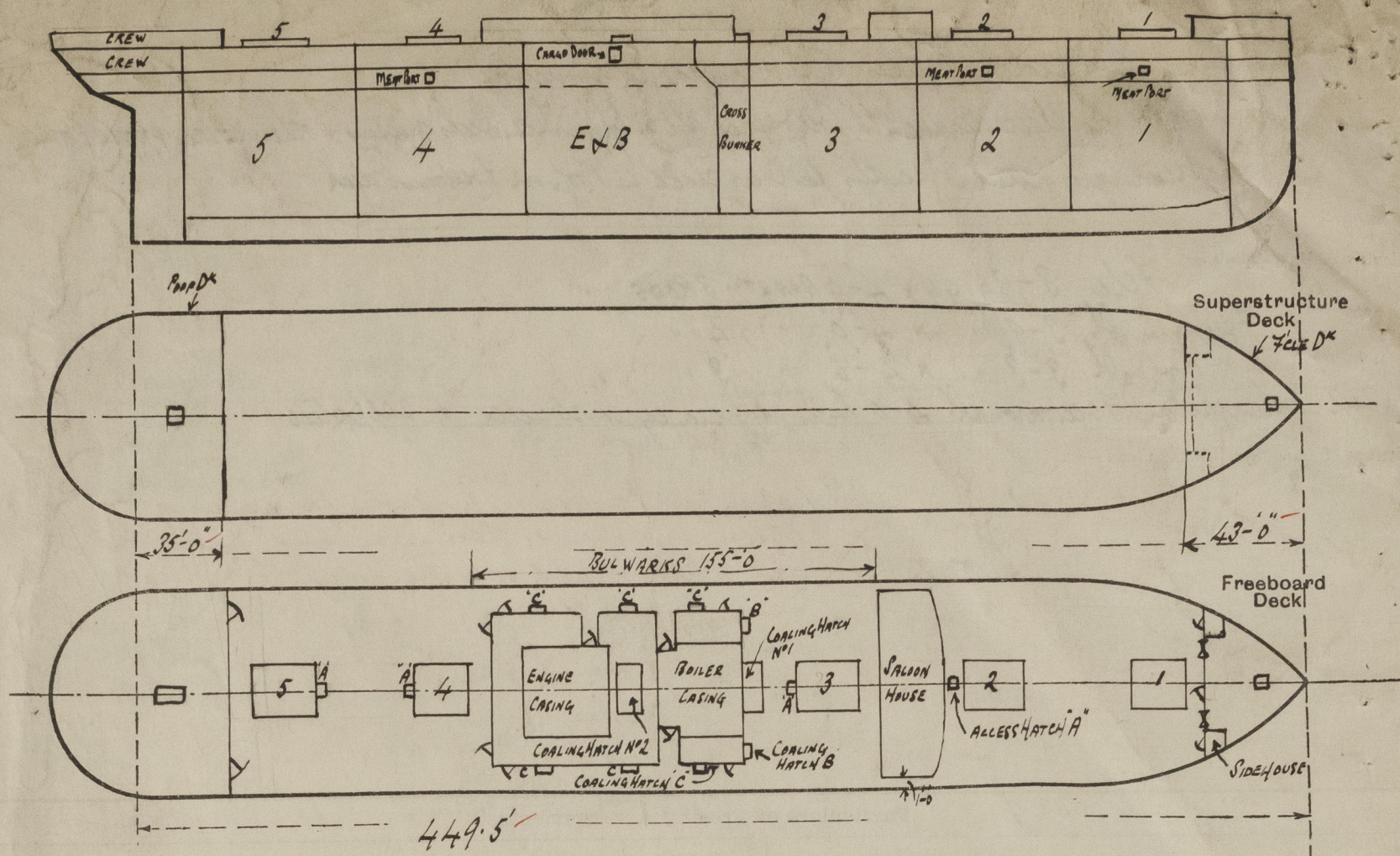
*Suitable provision is made for rigging lifelines available for use in any part of the ship which is used by the crew in the regular working of the ship.*

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	—	—	—	—	—	—
Forward Well	—	—	—	—	—	—
<p>State position of each freeing port ... After Well:—</p> <p>(F. and A. position and height above deck edge) Forward Well:—</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—</p> <p>Additional area where sheer is less than standard.</p>						

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 (ON FREEBOARD D.)	40	40	5 x 3 1/2 x 5 1/4	2'5"	LOGGED TO B	18' 4'10" x 3'0"	20"	4'3" to 4'9"
Raised Quarter Deck Bulkhead	—	—	—	—	—	—	—	—
Bridge, After Bulkhead	—	—	—	—	—	—	—	—
Bridge, Forward Bulkhead	—	—	—	—	—	—	—	—
Forecastle Bulkhead (ON FREEBOARD D.)	32	32	3 1/2 x 2 1/2 x 4 1/2	3'0"	NONE	2 (1P+1S) 5'6" x 3'6" → 3'0" x 1'9"	18"	4'6"
Trunk, Aft	—	—	—	—	—	—	—	—
Trunk, Forward	—	—	—	—	—	—	—	—
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	44	30	4 x 3 x 4 1/4	3'0"	NONE	5'0" x 2'0"	18"	4'9"
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 (ON FREEBOARD D.)	Two steel hinged doors with 3 clip handles in height & 2 T & B, operated from both sides.							
Raised Quarter Deck Bulkhead	—							
Bridge, After Bulkhead	—							
Bridge, Forward Bulkhead	One steel hinged door with 2 clip handles in height & 1 T & B, operated from both sides.							
Forecastle Bulkhead (ON FREEBOARD D.)	Weather boards in riveted channels full height of openings (1P+1S)							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Solid 2" teak doors operated from both sides.							
Exposed Machinery Casings on Superstructure Decks	—							
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 shown on the following sketches:—



T.P. 1. 29'-0" 53.6  
 28'-0" 53.3  
 27'-0" 53.0

State any special features in the construction of the ship:— "G" TYPE STANDARD VESSEL. Freeboard deck steel throughout.

— SMALL HATCHWAYS —

POSITION	NO	SIZE	COAMINGS.	BATTENING DOWN ARRANGEMENTS
FORE DECK TO FORE STORE	1	3'-0" x 3'-0"	21" x 40	Wood cover, cleats, battens, tarpaulins etc.
FORE DECK TO FORE PEAK STORE	1	3'-0" x 3'-0"	3 1/2 x 3 1/2 x 40	Solid wood trunk to the deck, with 2" solid down at aft end.
COMPANION HATCH (NEAR DECK TO CREWS)	1	4'-6" x 2'-6"	4 x 3 1/2 x 40	None
POOP DECK	1	2'-6" x 3'-0"	15" x 40	Wood cover, cleats, battens, tarpaulins etc.

Vessel afloat & survey confined to the above.  
 (Vessel at present laid up in the River Blackwater)

Builder's name and yard number *Workman, Clark & Co Ltd* No. 447

Names of sister ships *"G" TYPE STANDARD VESSEL.*

Owners *Commonwealth & Dominion Line, Ltd*

Fee £ *16 : 3 : 0*

Received by me

EXPENSES *— : 12 : 0*

*13 SEP 1932*



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