

27 MAY 1932

Index. No. 32078  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

2449

 Computation of Freeboard for Steamer, *Boiler, Bridge & R.Q.D.*  
 having *Boiler, Bridge & R.Q.D.*
Port of Survey *Barrow*Date of Survey *10th to 20th May 1932*Name of Surveyor *Abel Crain*Particulars of Classification *100 A.1*

Ship's Name

(Type of Superstructures.)

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*Deck Hisher**British**Lancaster**128313**731*  
*429**1918*Moulded Dimensions: Length *180' 0"* Breadth *28' 8"* Depth *14' 5"*Moulded displacement at moulded draught = 85 per cent. of moulded depth *1365* tonsCoefficient of fineness for use with Tables *.45* *.748*

Depth for Freeboard (D)

Moulded depth ... *14' 5"*Stringer plate ... *.091*

Sheathing on exposed deck

 $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = *14' 5 3/4"* $\frac{L}{15} = 12$  Depth correction  $\frac{L}{150} R = 1.384$ (a) Where D is greater than Table depth  
(D - Table depth) R =  $(14.531 - 12) 1.384$ *= 3.50+*(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) *28' 8"*Standard Round of Beam =  $\frac{B \times 12}{50} = 6.864$ Ship's Round of Beam = *4.500*Difference *-636* *.59* *2194*Restricted to *636* *.22* *59* *(1 - 7306)*Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = .035 - .03$ 

## 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 ...	<i>104' 0"</i>	<i>104' 0"</i>	<i>3' 5"</i>	<i>3' 5" 3/4"</i>	<i>106' 1"</i>
" overhang ...	✓				
Bridge enclosed ...	<i>11' 0"</i>	<i>11' 0"</i>	<i>4' 2"</i>		<i>11' 0"</i>
" overhang aft ...	✓				
" overhang forward ...	✓				
Fore enclosed ...	<i>22' 5"</i>	<i>22' 5"</i>	<i>4' 2"</i>		<i>22' 5"</i>
" overhang ...	✓				
Trunk aft ...	✓				
" forward ...	✓				
Tonnage opening aft ...	✓				
" " forward ...	✓				
Total ...	<i>140' 5"</i>	<i>140' 5"</i>			<i>139' 6"</i>

Standard Height of Superstructure *6' 0"*" " R.Q.D. *3' 5 3/4"*Deduction for complete superstructure *24'*Percentage covered  $\frac{S}{L} = \frac{140.5}{180} = 78.06$ " "  $\frac{S_1}{L} = \frac{140.5}{180} = 78.06$ " "  $\frac{E}{L} = \frac{139.6}{180} = 77.56$ Percentage from Table, Line A. *72.225*(corrected for absence of forecastle (if required)) *72.30*

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = *-14' 33 3/4"*

(Measured afloat)

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>28' 00"</i>	1		<i>28' 00"</i>	<i>36' 36"</i>	<i>36' 00"</i>	1		<i>36' 00"</i>
$\frac{1}{4}$ L from A.P. ...	<i>12' 46"</i>	4		<i>49' 84"</i>	<i>16' 15' 30"</i>	<i>15' 30"</i>	4		<i>63' 20"</i>
$\frac{2}{4}$ L " ...	<i>3' 08"</i>	2		<i>6' 16"</i>	<i>4' 39' 5"</i>	<i>3' 95"</i>	2		<i>7' 90"</i>
Amidships ...		4			<i>0' 0"</i>	<i>0' 0"</i>	4		<i>0' 0"</i>
$\frac{3}{4}$ L from F.P. ...	<i>6' 16"</i>	2		<i>12' 32"</i>	<i>4' 7' 41"</i>	<i>4' 41"</i>	2		<i>14' 82"</i>
$\frac{1}{4}$ L " ...	<i>24' 92"</i>	4		<i>99' 68"</i>	<i>29' 29' 62"</i>	<i>29' 62"</i>	4		<i>118' 48"</i>
F.P. ...	<i>56' 00"</i>	1		<i>56' 00"</i>	<i>66' 66' 00"</i>	<i>66' 00"</i>	1		<i>66' 00"</i>
Total ...				<i>252' 00"</i>			18		<i>304' 40"</i>

Mean actual sheer aft = *Excess*Mean standard sheer aft = *Excess*Mean actual sheer forward = *Excess*Mean standard sheer forward = *Excess*Length of enclosed superstructure forward of amidships = *.15*" " aft of " = *.50*Standard sheer =  $.05L + 5 = 14'$ Ships mean sheer = *16' 88"*Difference = *2' 88"* $\frac{S}{2L} = .39$ Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{2.88(.75 - .39)}{18} = \frac{2.88 \times .36}{18} = 1.0368$ 

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.

RAISED QUARTER

Depth to Freeboard Deck = *14' 5 3/4"*Summer freeboard = *3' 98"*Moulded draught (d) = *12' 88"*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *3' 22"*Addition for Winter North Atlantic Freeboard (if required) = *2'*

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1598$  *1745*

Tons per inch immersion at summer load water line

T = *10' 5"* *10' 65"*Deduction =  $\frac{\Delta}{40T}$  inches*= 3' 8"* *409**= 4'*

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

Correction for coefficient  $\frac{.95 + .68}{1.36} \times 19.80$ *19' 80"**20' 81"*Depth Correction ... *3' 5"*Deduction for superstructures ... *14' 35' 40"*Sheer correction ... *1' 09' 68"*Round of Beam correction ... *.0350*

Correction for Thickness of Deck amidships

Other corrections, *RAISED QUARTER DECK**42' 00"* *18' 47"* *+ 27' 09"**45' 5"* *18' 40' 38"* *47' 82"*Summer Freeboard = *5' 90"*

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

Tropical Fresh Water Line above Centre of Disc ... *4' 3' 7 1/2"*Fresh Water Line " " ... *3' 8' 4"*Tropical Line " " ... *3' 5' 3"*Winter Line below " " ... *3' 2' 32"*Winter North Atlantic Line " " ... *3' 2' 5"*Tropical Fresh Water Freeboard ... *3' 4' 6"* *3' 44"*Fresh Water " " ... *3' 8' 7"* *3' 72"*Tropical " " ... *3' 5' 4"* *2' 72"*Winter " " ... *4' 3' 12"* *4' 30"*Winter North Atlantic " " ... *4' 3' 12"* *4' 30"*

31 MAY 1932

MARKING FORM

RECEIVED

RECEIVED

RECEIVED

13 OCT 1934



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	No 1	No 2	HATCH TO FORE PEAK ON FOREHEAD	ESCAPE HATCH ON R.Q.D.	BUNKER ON CASING TOP				
Dimensions of Hatchway	24'-9" x 15'-9"	29'-6" x 15'-9"	2'-6" x 2'-6"	2'-2" x 1'-4"	13'-0" x 6'-0"				
COAMINGS	Height above Deck	36"	36"	16"	12" above casing top				
	Thickness Sides	1/4"	1/4"	1/2"	1/2"				
	Thickness Ends	1/4"	1/4"	1/2"	1/2"				
	Stiffeners	7 x 3 x 40 Bk	6 x 3 x 36 Bk	none	none				
HATCH BEAMS	Brackets, Stays	none	none	none	none				
	Number	5	5	none	none				
	Spacing	5' 6"	5' 9"	none	none				
	Scantling and Sketch	Steel 3 x 3 x 36	Steel 3 x 3 x 36	none	none				
FORE AND AFTERS	Bearing Surface	2 1/2"	2 1/2"	none	none				
	Number	none	none	none	none				
	Spacing	none	none	none	none				
	Unsupported Lengths	none	none	none	none				
HATCH COVERS	Scantling* and Sketch	none	none	none	none				
	Bearing Surface	2 1/2"	2 1/2"	none	none				
	Material	White Pine	White Pine	Steel Plate 1/4"	Shiny Steel 1/4" thick				
	Thickness	3"	3"	1/4"	1/4"				
Spacing of Cleats	How fitted	4 x 4	4 x 4	4 x 4	4 x 4				
	Bearing Surface	2 1/2"	2 1/2"	2 1/2"	2 1/2"				
	Number of Tarpaulins	2	2	1	1				
	Are wood fore and afters steel shod at all bearing surfaces?	Yes	Yes	Yes	Yes				
Particulars of fiddle, funnel and ventilator coamings	Are battens and wedges efficient and in good condition?	Yes	Yes	Yes	Yes				
	Are tarpaulins in good condition and in accordance with rule requirements?	Yes	Yes	Yes	Yes				
	Are lashings provided in accordance with rule requirements?	Yes	Yes	Yes	Yes				
	Particulars of fiddle, funnel and ventilator coamings	Of steel, substantially constructed and in good condition	Of steel, substantially constructed and in good condition	Of steel, substantially constructed and in good condition	Of steel, substantially constructed and in good condition				

Particulars of fiddle, funnel and ventilator coamings: — Of steel, substantially constructed and in good condition. Engine room skylight of steel with fixed light. Ringed steel covers to fiddle gratings.

Particulars of Flush Bunker Scuttles: —

none

Particulars of Companionways: —

Roofy hatch to intact Forecastle of steel construction. 3/4" thick, situated on Fore Head. having steel hinged doors opening aft. 3'-6 1/2" x 1'-11 1/2". Sill 6". Deck house on Bridge deck covering stairway to intact bridge space. of steel plating 3/8" thick. Doors of Deck 5'-0" x 2'-0". Sill 18 1/2".

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

On Fore Head: 3 of 8" dia. 24" coaming. 22" thick. To accommodation and fore Peak.

On Bridge Deck: 2 of 8" dia. 24" coaming. 22" thick. To hold.

On R.Q.D.: 2 of 8" dia. 24" coaming. 22" thick. To hold.

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Particulars of Scuppers and Sanitary Discharge Pipes — none from below forehead deck.

One each from Forecastle, Bridge and R.Q.D. (Sanitary discharge fitted with storm valve inboard).

Particulars of Side Scuttles: —

On Forecastle: 1/2" dia. hinged brass frames with hinged cast iron dead lights. On Bridge: 8 1/2". On R.Q.D.: 9".

Particulars of Guard Rails: —

On Forecastle Deck: 3 rails 42" high, stanchion 48" apart. On Bridge Deck: Steel Bulwark 45" high with 6 1/2" Bulwark plate stays spaced 66" apart. On R.Q.D.: 36" with 6 1/2" Bulwark plate stays spaced 66" apart.

Particulars of Gangways, Lifelines, etc.: —

Gangways and lifelines provided in forward well.

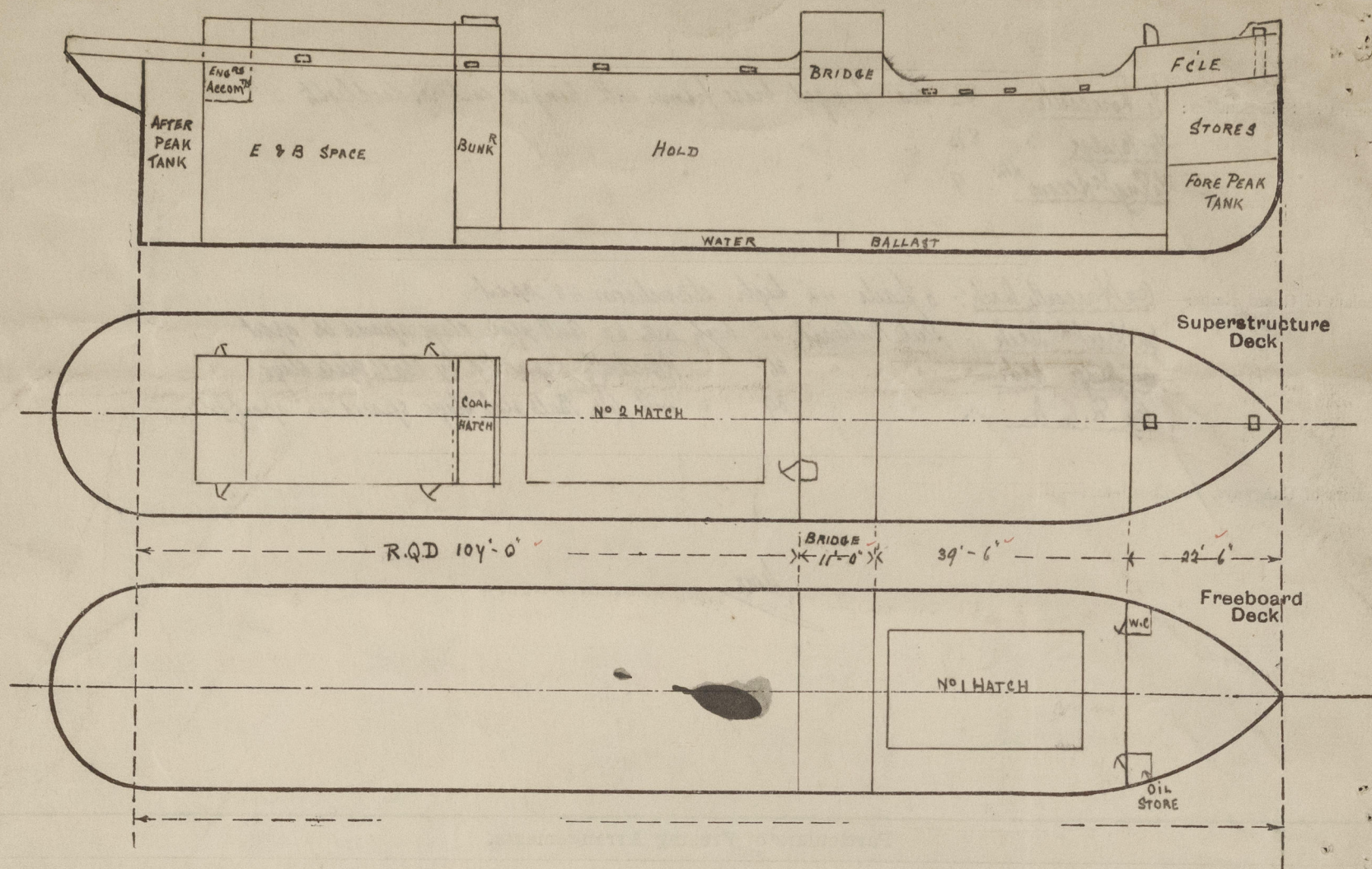
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well R.Q.D.	104 ft.	39"	3'-7 1/2" x 1'-7 1/2"	4	21.5	21.4
Forward Well	39-4"	45"	2'-0 1/4" x 1'-2 3/4"	4	10.53	10.5
State position of each freeing port. After Well: 2'-0 1/4" x 1'-2 3/4" 1/4" from midship. 38'-10" 64'-2" 1/4" from midship. 4'-1" above deck. (F and A. position and height above deck edge) Forward Well: 34'-6" 40'-5" 46'-11" 58'-5" 1/4" from midship. 10" " " State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — One 3/4" square bar. spaced 8 1/2". 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	none	35"	2 1/2 x 2 1/2 x 26"	24/26" 1/4" 1/4" 1/4"	none	5'-0" x 2'-0"	18 1/2"	3'-4" 800"
Bridge, Forward Bulkhead	none	35"	3 x 3 x 28"	30"	none	none	✓	4'-1"
Forecastle Bulkhead	none	30"	3 x 3 x 32"	24/30"	none	5'-2" x 2'-0"	12 1/2"	4'-0"
Trunk, Aft	none	30"	3 x 3 x 32"	24/30"	none	5'-2" x 2'-0"	12 1/2"	4'-0"
Trunk, Forward	none	30"	3 x 3 x 32"	24/30"	none	5'-2" x 2'-0"	12 1/2"	4'-0"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	32"	28"	2 1/4 x 2 1/4 x 34"	30 1/2"	1/4" 1/4" 1/4"	4'-10" x 2'-0"	18"	4'-0"
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	none
Bridge, After Bulkhead	Strong steel hinged doors operated from each side
Bridge, Forward Bulkhead	none
Forecastle Bulkhead	Strong steel hinged doors operated from each side
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
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 shewn on the following sketches:—



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

*This survey has been held afloat and confined to the parts detailed in the Report.*

Builder's name and yard number

*J. van Ruyvendijk No 214*

Names of sister ships

Owners

*J. Kishen & Sons Ltd.*

Fee £6

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Received by me



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