

WRECK

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No. 570

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Poop, Bridge and Forecastle
(Type of Superstructures.)

Port of Survey London

Date of Survey 12th July 1932

Name of Surveyor R. Blake.

Particulars of Classification +100 A.1. Running beam with Freeboard. S.S. Bd. No. 1-29

Ship's Name LOCHMONAR Nationality and Port of Registry British London Official Number 147677 Gross Tonnage 9412 Date of Build 1924

Moulded Dimensions: Length 484.75 Breadth 62.0 Depth 38.75
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21,804 tons
Coefficient of fineness for use with Tables .771

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>38.75</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(38.75 - 32.32) 3</u> <u>6.43 x 3 = 19.41</u>	Moulded Breadth (B) <u>62.0</u> Standard Round of Beam = $\frac{B \times 12}{50} = 14.88$ Ship's Round of Beam = <u>12.00</u> Difference <u>2.88</u>
Stringer plate <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Restricted to
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2.88^2}{4} \left(1 - \frac{12.00}{62.0} \right) = 3.35$
Depth for Freeboard (D) = <u>38.79</u>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>40.5</u>	<u>40.50</u>	<u>8'-0"</u>		<u>40.50</u>
„ overhang	✓				
R.Q.D. enclosed	✓				
„ overhang	✓				
Bridge enclosed	<u>147.5</u>	<u>147.50</u>	<u>8'-5"</u>		<u>147.50</u>
„ overhang aft	<u>4.75</u>	<u>3.56</u>	<u>8'-5"</u>		<u>3.56</u>
„ overhang forward	<u>57.82</u>	<u>57.82</u>	<u>8'-0"</u>		<u>57.82</u>
„ F'cle enclosed	<u>1.43</u>	<u>.71</u>			<u>.71</u>
„ overhang	✓				
Trunk aft	✓				
„ forward	✓				
Tonnage opening aft	✓				
„ „ forward	✓				
Total	<u>252.00</u>	<u>250.09</u>			<u>250.09</u>

Standard Height of Superstructure <u>7.5</u>
„ „ R.Q.D.
Deduction for complete superstructure <u>42.00</u>
Percentage covered $\frac{S}{L} = 51.98$
„ „ $\frac{S_1}{L} = 51.59$
„ „ $\frac{E}{L} = 51.59$
Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Percentage from Table, Line B. <u>37.59</u> (corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = <u>15.79</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>58.47</u>	1		<u>58.47</u>	<u>35</u>	<u>35.0</u>	1		<u>35.00</u>
$\frac{1}{2}$ L from A.P.	<u>26.02</u>	4		<u>104.08</u>	<u>11.4</u>	<u>8.28</u>	4		<u>32.88</u>
$\frac{2}{3}$ L „	<u>6.43</u>	2		<u>12.86</u>	<u>2.34</u>	<u>2.00</u>	2		<u>-4.00</u>
Amidships	✓	4		✓	✓	✓	4		✓
$\frac{2}{3}$ L from F.P.	<u>12.86</u>	2		<u>25.72</u>	<u>11.8</u>	<u>15.66</u>	2		<u>31.32</u>
$\frac{1}{2}$ L „	<u>52.05</u>	4		<u>208.20</u>	<u>44.5</u>	<u>47.03</u>	4		<u>188.12</u>
F.P.	<u>116.95</u>	1		<u>116.95</u>	<u>96</u>	<u>96.0</u>	1		<u>96.00</u>
Total				<u>526.28</u>					<u>379.32</u>

Mean actual sheer aft = Deficient
Mean standard sheer aftMean actual sheer forward = Deficient
Mean standard sheer forwardLength of enclosed superstructure forward of amidships =
L
„ „ aft of „ =

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

If limited on account of midship superstructure.

$$\frac{526.28 - 379.32}{18} \left(\frac{75 - 2599}{2L} \right) = +4.00$$

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 = 38.79
Summer freeboard = 9.35
Moulded draught (d) = 29.44Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.36 = 7.4
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =
Tons per inch immersion at summer load water lineT =
Deduction = $\frac{\Delta}{40T}$ inchesTABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient

	+	-
Depth Correction	<u>19.41</u>	
Deduction for superstructures		<u>15.79</u>
Sheer correction	<u>4.00</u>	
Round of Beam correction	<u>.35</u>	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	<u>23.76</u>	<u>15.79</u>

Summer Freeboard = 112.SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<u>14.2</u>
Fresh Water Line „ „	<u>7.4</u>
Tropical Line „ „	<u>7.4</u>
Winter Line below „ „	<u>7.4</u>
Winter North Atlantic Line „ „	

Tropical Fresh Water Freeboard	<u>9.44</u>
Fresh Water „ „	<u>8.12</u>
Tropical „ „	<u>8.9</u>
Winter „ „	<u>9.11</u>
Winter North Atlantic „ „	

MARKING FORM
1 - AUG 1933

RECEIVED

MARKING FORM

RECEIVED

Lloyd's Register
Foundation

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
← Freeboard Deck → Bridge Deck									
Description of Hatchway	1	2	3	4	5	6	3		
Dimensions of Hatchway	25'-0" x 20'-0"	37'-6" x 22'-0"	22'-6" x 20'-0"	10'-0" x 20'-0"	18'-10" x 20'-0"	25'-0" x 20'-0"	22'-6" x 20'-0"		
COAMINGS	Height above Deck ... 3'-10" Thickness { Sides44" { Ends44" Stiffeners ... 8 1/2 BA Brackets, Stays ... 2	Same as N° 1 3	9" B.A. ✓ ✓ ✓	Same as N° 1. 8 1/2 BA NONE	Same as 8 1/2 BA 1	Same as N° 1 8 1/2 BA 2	3'-10" .44" .44" 8 1/2 BA 2		
HATCH BEAMS	Number ... 4 Spacing ... 5'-0" Scantling and Sketch ... 4 as A 18" deep Bearing Surface ... 3 1/2"	8 4'-2" 8 as A 18" deep 3 1/2"	3 5'-7 1/2" 3 as B 15 3/4" deep 3 1/2"	1 5'-0" 1 as A 18" deep 3 1/2"	3 4'-8 1/2" 3 as A 18" deep 3 1/2"	4 5'-0" 4 as A 18" deep 3 1/2"	3 5'-7 1/2" 3 as A 20 1/2" deep 3 1/2"		
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...	A 	B 						
HATCH COVERS	Material ... W.P. Thickness ... 23/4" How fitted ... F & A Bearing Surface ... 3"	W.P. 23/4" F & A 3"	W.P. 23/4" F & A 3"	W.P. 23/4" F & A 3"					
Spacing of Cleats	24"	24"	3'-8"	24"					
Number of Tarpaulins	3	3	2	3					

*Are wood fore and afters steel shod at all bearing surfaces? *yes.*

Are battens and wedges efficient and in good condition? *yes.*

Are tarpaulins in good condition and in accordance with rule requirements? *yes.*

Are lashings provided in accordance with rule requirements? *yes.*

Particulars of fiddley, funnel and ventilator coamings :—

Funnel and Ventilator coverings in good condition.

Engine Room Skylight of steel and substantial construction.

Particulars of Flush Bunker Scuttles:—

None.

Motor Vessel.

Particulars of Companionways :—

2	Wood	Entrance doors	on	Bridge b ⁸	to	Engineers' Alleyway	Having	sills	16" high	-
1	Steel	"	"	"	"	"	"	"	19" "	-
1	"	W.T.	"	"	"	Air Cooler	"	"	18" "	-
1	Wood	"	"	"	"	Crews Quarters	"	"	12" "	-

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

Forecastle B.R.

1-15" dia vent, coaming 2'-9" x .38" from Lone Peak.
1-10" " " " 3'-0" x .38" Contactin House.

Freeboard BR

4- 22" dia Vents on top of House in Fore Well Coaming 2'-6" x 44" from Hold. -
 2- 15" " " coaming 12'-0" high x 44" from Hold. *Efficiently supported*
 2- 12" " " " 3'-0" " x 38" " " *ALL VENT COAMING CLOSED*

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

1. C.I. air Pipe $2\frac{1}{2}$ " dia \times 2'-7" high on Forecastle 8th led to Fore Peak.

1	"	"	"	4"	x	2'-0"	"	"	"	"	D.B. oil Fuel Tank
10	"	"	"	4"	x	2'-6"	"	"	"	"	Freeboard
4	"	"	"	2 1/2"	x	2'-6"	"	"	"	"	"
1	"	"	"	4"	x	6'-0"	"	"	"	"	oil fuel bays
2	"	"	"	2"	x	2'-6"	"	"	"	"	Double bottom
2	"	"	"	2"	x	2'-4"	"	"	"	"	"
1	"	"	"	2"	x	1'-8"	"	"	"	"	"

Particulars of Gangway Cargo and Coaling Ports:—

NONE.

Particulars of Scuppers and Sanitary Discharge Pipes:—

Discharges from Poop space led below freeboard deck to storm valves in ship's side.

Discharges from spaces on Bridge deck led to storm valves in ship's side below freeboard deck.

Particulars of Side Scuttles:—

No Side Scuttles below Freeboard deck.

Particulars of Guard Rails:—

Forecastle deck 3'-9" high, 3 rods, Stanchions 4'-6" apart.

Poop deck 3'-9" " 3 " " 4'-8" "

Particulars of Gangways, Lifelines, etc.:—


Suitable provision for rigging lifelines which are available for use in any part of the ship which may be used by the crew in the regular working of the ship.

Crew berthed in Poop.

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 ...	120'-0"	4'-3"	3'-0" x 19"	5.	23.75	24.00
Forward Well ...	117'-6"	4'-6"	3'-0" x 19"	5.	23.75	23.50

State position of each freeing port (F. and A. position and height above deck edge) { After Well:— 19'-4" 21'-3" 30'-0" 23'-5" 27'-0" 7'-0" BHD
Forward Well:— PF BE.

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 2 Bars thus  FF.

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"	38"	6x3x40 BA	30"	Lugs	2x5'-6"x2'-0" 1x5'-6"x2'-0" 1x5'-6"x3'-0"	12"	8'-0" Steel
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ...	50"	38	5x3x40 L	27 1/2"	Bkts	2x5'-8"x6'-0" 1x5'-6"x4'-0" 1x5'-3"x2'-0"	16" 15" 19"	8'-5" Steel
Bridge, Forward Bulkhead ...	50"	44	9x3 1/2x44 BA	30"	Bkts	2x5'-0"x4'-0"	15"	8'-0" Steel
Forecastle Bulkhead ...	30"	25"	3x3x30	30"	none	2x6'-0"x4'-0" 2x5'-6"x2'-0" 1x5'-6"x4'-3"	12" 16" 16"	8'-0" Steel
Trunk, Aft ...	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ...	✓	✓	✓	✓	✓	✓	✓	✓
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 ...	50"	30"	3x2 1/2x3 1/8	30"	none	2x5'-0"x2'-0"	17"	8'-0"
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

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

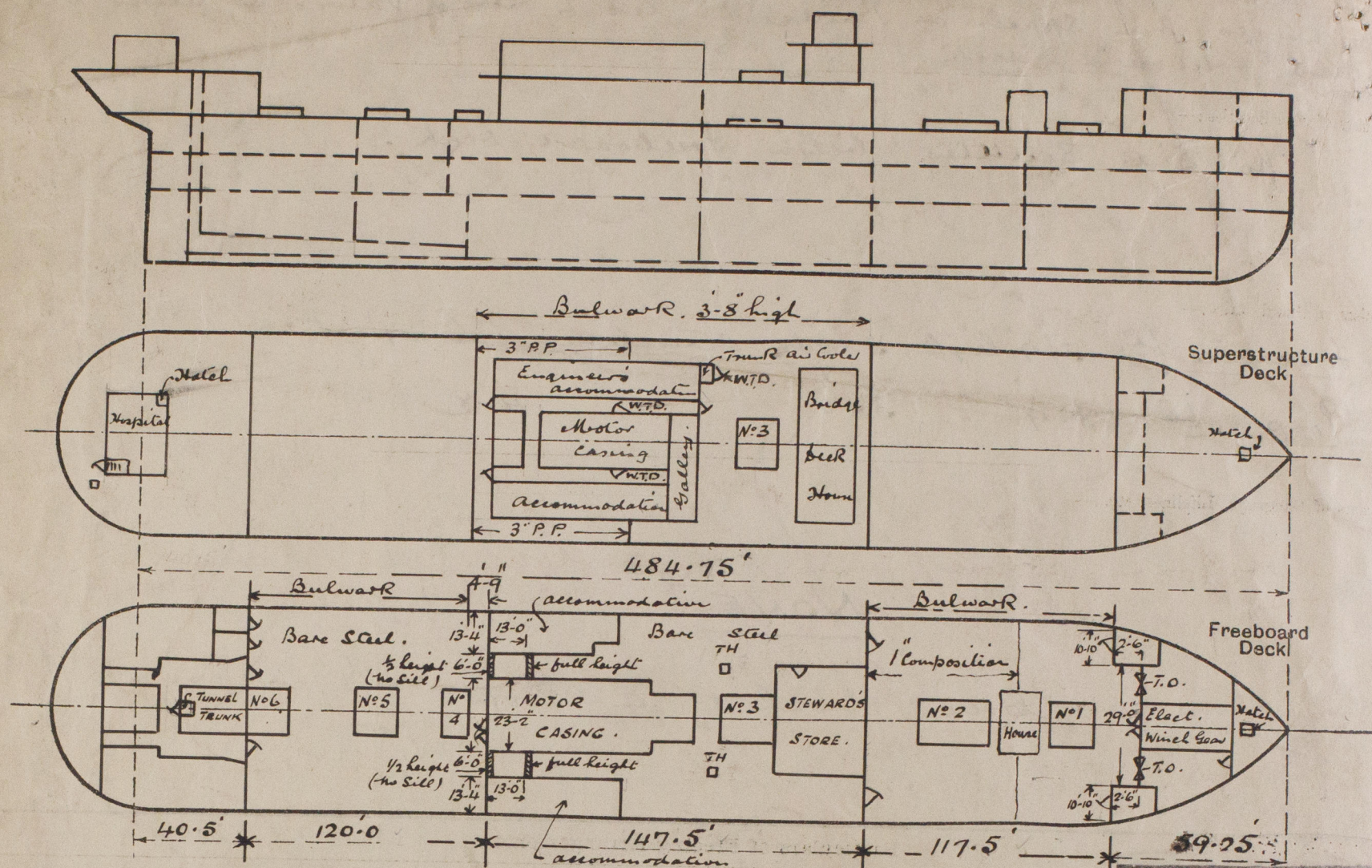
Poop Bulkhead ...	3 hinged steel doors operated from both sides
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	2 Tonnage openings. 3" Battens carried full height in steel channels and efficiently stiffened. Hinged steel double doors operated from both sides.
Bridge, Forward Bulkhead ...	2 Hinged steel Watertight doors operated from both sides.
Forecastle Bulkhead ...	2 Tonnage openings. 3" Battens carried full height in steel channels.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	3 hinged steel 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 ...	✓



© 2020

Lloyd's Register Foundation

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:—



3" Pitch Pine Sheathing on Poop Deck over Crew's Quarters.
3" " " " Bridge " in way of accommodation (below)

File 59.25-29+2.5=59.25-1.43
OMIT 57.87
O'hang = 1.43

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

Forecastle Deck.

1 Hatch 3'-0" x 3'-0" coaming 5" angle Hinged steel W.T. cover.

Freeboard Deck.

1 Hatch 3'-0" x 3'-0" coaming 3" angle. wood grating cover

2 " 2'-10" x 2'-6" " 9" B.A. Hinged steel W.T. covers.

Poop Deck.

1 Hatch 3'-2" x 3'-0" coaming 16" high, wood covers, cleats, battens, & tarpaulins.

1 " 3'-4" x 3'-4" " 9" B.A. " " " " " "

This vessel was surveyed afloat. Survey confined to freeboard.

Builder's name and yard number. Harland & Wolff, Belfast. N° 517.

Names of sister ships

Owners. R. M. S. P. Meat Transport Ltd.

Fee £ 17 : 0 : 0 Received by me

1/17/32



© 2020

Lloyd's Register Foundation