

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer~~ Shipping Ship Tanker  
having RAISED QUARTER DECK AND FORECASTLE

Port of Survey LONDON

Date of Survey 21<sup>st</sup> Nov<sup>r</sup> 1932

Name of Surveyor G. Scantlebury

Particulars of Classification 2100A1  
Carrying petroleum in bulk.  
S.S. Lon. No. 1-30

Ship's Name ANN M  
EX LIDO

(Type of Superstructures.)

Nationality and Port of Registry BRITISH LONDON

Official Number 148787

Gross Tonnage 160

Date of Build 1926 8mo

Moulded Dimensions: Length 92.5 Breadth 21.25 Depth 8.75

Moulded displacement at moulded draught = 85 per cent. of moulded depth 301 tons

Coefficient of fineness for use with Tables .721

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>8.75</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(8.75 - 6.17) .712 = +1.86</u>	Moulded Breadth (B) <u>21.25</u>
Stringer plate ... .. <u>.03</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>5.10</u>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>5</u>
Depth for Freeboard (D) = <u>8.78</u>		Difference <u>.10</u>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.10}{4} \times .3205 = +.01$

## DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..					Standard Height of Superstructure <u>6.0</u>
" overhang ... ..					" " R.Q.D. <u>3.0</u>
R.Q.D. enclosed ... ..	<u>31.5</u>	<u>2.00</u>	<u>3.0</u>	<u>21.00</u>	Deduction for complete superstructure <u>15.25</u>
" overhang ... ..					Percentage covered $\frac{S}{L} =$ <u>54.60</u> %
Bridge enclosed ... ..					" " $\frac{S_1}{L} =$ <u>67.95</u> %
" overhang aft ... ..					" " $\frac{E}{L} =$ <u>47.70</u> %
" overhang forward ... ..					Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed ... ..	<u>19.00</u>	<u>6.25</u>	<u>✓</u>	<u>19.00</u>	Percentage from Table, <u>Line B. TANKER</u> <u>38.70</u> % (corrected for absence of forecastle (if required))
" overhang ... ..					Interpolation for bridge less than 2L (if required)
Trunk aft <u>35</u> x <u>7.5</u> ... ..					Deduction = <u>15.25</u> x <u>.387</u> = <u>- 5.90</u>
" forward ... ..	<u>12.35</u>	<u>2.00</u>	<u>3.0</u>	<u>4.12</u>	
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<u>50.50</u>	<u>62.85</u>		<u>44.12</u>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..	<u>19.25</u>	<u>1</u>	<u>✓</u>	<u>19.25</u>	<u>8</u>	<u>8.00</u>	<u>1</u>	<u>✓</u>	<u>8.00</u>	Mean actual sheer aft = <u>Deficient</u>
$\frac{1}{8}L$ from A.P. ... ..	<u>8.57</u>	<u>4</u>	<u>✓</u>	<u>34.28</u>	<u>1.50</u>	<u>1.50</u>	<u>4</u>	<u>✓</u>	<u>6.00</u>	Mean actual sheer forward = <u>Deficient</u>
$\frac{2}{8}L$ " ... ..	<u>2.12</u>	<u>2</u>	<u>✓</u>	<u>4.24</u>	<u>-.50</u>	<u>-.50</u>	<u>2</u>	<u>✓</u>	<u>-1.00</u>	Mean standard sheer forward
Amidships ... ..	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>✓</u>	Length of enclosed superstructure forward of amidships =
$\frac{2}{8}L$ from F.P. ... ..	<u>4.23</u>	<u>2</u>	<u>✓</u>	<u>8.46</u>	<u>3.0</u>	<u>3.00</u>	<u>2</u>	<u>✓</u>	<u>6.00</u>	" " aft of " =
$\frac{1}{8}L$ " ... ..	<u>17.13</u>	<u>4</u>	<u>✓</u>	<u>68.52</u>	<u>11.25</u>	<u>11.25</u>	<u>4</u>	<u>✓</u>	<u>45.00</u>	
F.P. ... ..	<u>38.50</u>	<u>1</u>	<u>✓</u>	<u>38.50</u>	<u>30</u>	<u>30.00</u>	<u>1</u>	<u>✓</u>	<u>30.00</u>	
Total ... ..				<u>173.25</u>					<u>94.00</u>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{79.25}{18} \times (.75 - .273) = +2.10$										
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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.721 + .68}{1.36} = \frac{1.401}{1.36}$	<u>9.25</u>
Depth to Freeboard Deck = <u>8.78</u>	$\Delta =$	Depth Correction ... .. <u>1.86</u> <u>✓</u>	<u>9.53</u>
Summer freeboard = <u>.62</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... .. <u>✓</u> <u>5.90</u>	
Moulded draught (d) = <u>8.16</u>	T =	Sheer correction ... .. <u>2.10</u> <u>✓</u>	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.04</u> = <u>2</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>2</u>	Round of Beam correction ... .. <u>.01</u> <u>✓</u>	
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ... .. <u>✓</u> <u>✓</u>	
		Other corrections, scantlings, etc. ... .. <u>✓</u> <u>✓</u>	
		<u>3.97</u> <u>5.90</u> <u>- 1.93</u>	
		Summer Freeboard = <u>7.60</u>	

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

Tropical Fresh Water Line above Centre of Disc ... ..	
Fresh Water Line " " ... ..	
Tropical Line " " ... ..	
Winter Line below " " ... ..	<u>2</u>
Winter North Atlantic Line " " ... ..	

Tropical Fresh Water Freeboard ... ..	
Fresh Water " " ... ..	
Tropical " " ... ..	
Winter " " ... ..	
Winter North Atlantic " " ... ..	

© 2020

Lloyd's Register

Foundation

Assigned.



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway ... ..			Nº 1	Nº 2	Nº 3	Nº 4					
Dimensions of Hatchway ... ..			39"X27"	39"X27"	39"X27"	39"X27"					
COAMINGS	{	Height above Deck ...	6" ✓	6" ✓	6" ✓	6" ✓					
		Thickness { Sides ...	1/4" ✓	1/4" ✓	1/4" ✓	1/4" ✓					
		Ends ...	1/4" ✓	1/4" ✓	1/4" ✓	1/4" ✓					
		Stiffeners ... ..	✓	✓	✓	✓					
Brackets, Stays ... ..			✓	✓	✓	✓					
HATCH BEAMS	{	Number ... ..	OIL TIGHT								
		Spacing ... ..	HATCH								
		Scantling and Sketch ...	WITH STEEL								
			HINGED COVERS								
			1/2" THICK	AS Nº 1 ✓	AS Nº 1 ✓	AS Nº 1 ✓					
Bearing Surface ... ..			SECURED WITH BUTTERFLY NUTS. SPACED 10 1/2"								
FORE AND AFTERS	{	Number ... ..									
		Spacing ... ..									
		Unsupported Lengths ...									
		Scantling* and Sketch ...									
Bearing Surface ... ..											
HATCH COVERS	{	Material ... ..	STEEL								
		Thickness ... ..	1/2" ✓								
		How fitted ... ..	HINGED								
		Bearing Surface ... ..	AS Nº 1 ✓	AS Nº 1 ✓	AS Nº 1 ✓						
Spacing of Cleats ... ..			10 1/2" ✓	10 1/2" ✓	10 1/2" ✓	10 1/2" ✓					
Number of Tarpaulins ... ..											

\*Are wood fore and afters steel shod at all bearing surfaces?  
 Are battens and wedges efficient and in good condition?  
 Are tarpaulins in good condition and in accordance with rule requirements?  
 Are lashings provided in accordance with rule requirements?

Particulars of fiddle, funnel and ventilator coamings:—  
 Fiddle, funnel and vents in efficient condition. Engine room skylights of steel strongly constructed.  
 (No stowhold gratings) ✓

Particulars of Flush Bunker Scuttles:—

\_\_\_\_\_

\_\_\_\_\_

Particulars of Companionways:—

\_\_\_\_\_

\_\_\_\_\_

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
 2 vents on forecastle deck. 6" dia coaming. 36" X 34 led to crew quarters. ✓  
 Satisfactory means of closing provided

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
 One air pipe on freeboard deck. 2" high x 3" dia from forward cofferdam. ✓  
 One " " " Trunk " 1 1/2" " x 3" " " after " ✓  
 Two " " " R. Q Deck. 2 1/2" " x 3" " " Fuel Tanks. ✓  
 One " " " " " 2 1/2" " x 2" " " " " ✓  
 Air pipes fitted with gauze wire diaphragms ✓

Particulars of Gangway Cargo and Coaling Ports:—

\_\_\_\_\_

\_\_\_\_\_



Particulars of Scuppers and Sanitary Discharge Pipes:—

Sanitary discharge fitted with storm valve.

Particulars of Side Scuttles:—

all side scuttles fitted with hinged deadlights

Particulars of Guard Rails:—

On Forecastle 2-6" high having two rods and stanchions spaced 4-6 apart.  
On Foreboard Deck 2-9" " " three wires " " 5-0"  
Bulwarks around R. O. Deck 2-9" high.

Particulars of Gangways, Lifelines, etc.:—

Permanent guard wires lifelines along port-side of trunk.

#### 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 ... ..						

State position of each freeing port ... ..  
(F. and A. position and height above deck edge)

After Well:—  
Forward Well:—

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.

#### 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 ... ..								
Bridge, Forward Bulkhead ... ..								
Forecastle Bulkhead ... ..	14" X 30	.25	2 1/2 X 2 1/2 X .25	26"	Brackets Top & Bottom	1 @ 4-0" X 2-0"	13"	6-25"
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	14" X 36	.25	2 1/2 X 2 1/2 X .25	24"	Brkts @ Top	2 @ 4-6" X 2-0"	15"	6-25"
Exposed Machinery Casings on Super-structure Decks ... ..								
Machinery Casings within Superstruc-tures 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 ...	
Bridge, After Bulkhead ... ..	
Bridge, Forward Bulkhead ... ..	
Forecastle Bulkhead ... ..	Steel door operated from both sides
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	(This door is difficult to close)
Exposed Machinery Casings on Super-structure Decks ... ..	Steel doors operated from both sides.
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances ... ..	
Deckhouses on Flush Deck Ships ...	



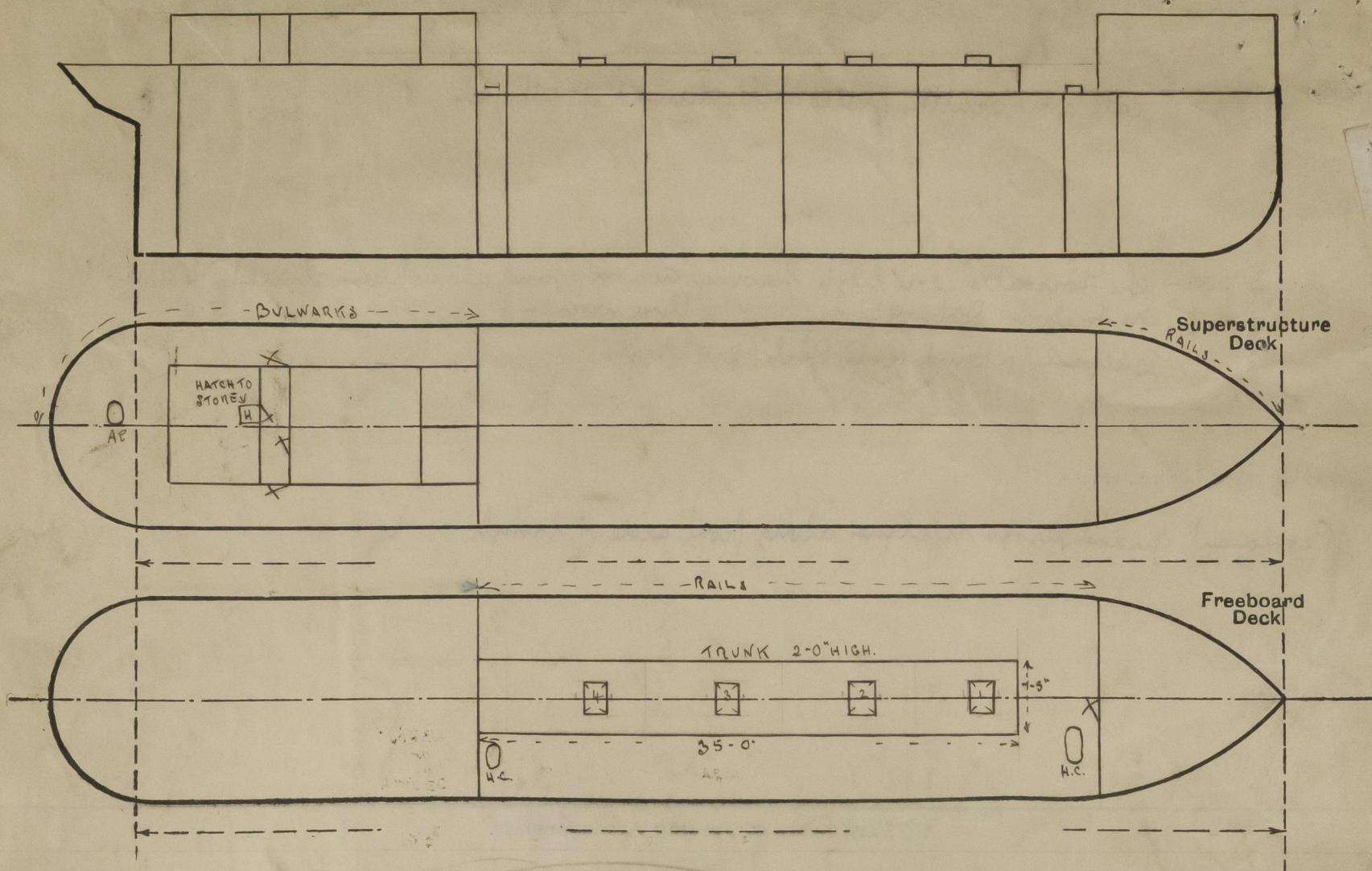
© 2020

Lloyd's Register Foundation

002427-002434-0071 2



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatches, 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:—



Survey confined to above.

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

Hatch to Forward Boffordem HC of steel 3-0" X 1-6" X 8" high with hinged steel cover secured with butterfly nuts. ✓  
 Hatch to after Boffordem HC of steel 18" X 14" X 8" high covered with bolted plate. ✓  
 Manhole cover to after Peak AP secured with dog. ✓

Builder's name and yard number JAMES POLLOCK SONS & CO LTD No 1194

Names of sister ships

Owners UNION LIGHTERAGE CO.

Fee £ 3 8 0 Received by me  
 (22 NOV 1932)



© 2020

Lloyd's Register  
 Foundation