

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. **18103**  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having POOP, BRIDGE AND FO'LE

(Type of Superstructures)

Port of Survey MANCHESTER

Date of Survey 3<sup>rd</sup> AUGUST 1932

Name of Surveyor A. R. Gibbs

Particulars of Classification + 100 A1  
S.S. Mch. 1<sup>st</sup> No 3-11.30

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>"NEW PIONEER"</u>	<u>BRITISH MANCHESTER</u>	<u>119596</u>	<u>422</u>	<u>1905</u> <u>12 mo</u>

Moulded Dimensions: Length 193.0' Breadth 29.32' Depth 14.6' ✓

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

Coefficient of fineness for use with Tables .698

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>14.50</u>	(a) Where D is greater than Table depth (D - Table depth) R = $(14.54 - 12.87) 1.485$ = <u>+ 2.48"</u>	Moulded Breadth (B) <u>29.32</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{29.32 \times 12}{50} = 7.04$ Ship's Round of Beam = <u>7.4"</u> ✓ Difference <u>Excess .21</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 = $\frac{\text{Diff}^o}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.21}{4} \times 4.003 = -.02"$
Depth for Freeboard (D) = <u>14.54</u>		

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<u>19.00'</u> ✓	<u>19.00</u>	<u>7'-6"</u>		<u>19.00</u>
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... ..	<u>53.00'</u> ✓	<u>51.90</u>	<u>7'-6"</u>		<u>51.90</u>
" overhang aft ... ..		<u>.82</u>			<u>.82</u>
" overhang forward ... ..					
F'le enclosed ... ..	<u>44.00'</u> ✓	<u>44.00</u>	<u>7'-6"</u>		<u>44.00</u>
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<u>116.00</u>	<u>115.72</u>			<u>115.72</u>

Standard Height of Superstructure 6.00

" " R.Q.D. ✓

Deduction for complete superstructure 25.3

Percentage covered  $\frac{S}{L} = \frac{60.11}{100} = 60.11\%$

" "  $\frac{S_1}{L} = \frac{59.97}{100} = 59.97\%$

" "  $\frac{E}{L} = \frac{59.97}{100} = 59.97\%$

Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) 45.97%

Interpolation for bridge less than 2L (if required)

Deduction = 25.3  $\times$  .4597 = - 11.63"

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	<u>29.30</u>	1	<u>29.30</u>	<u>42"</u> ✓	<u>42.00</u>	1	<u>42.00</u>
$\frac{1}{2}$ L from A.P. ... ..	<u>13.04</u>	4	<u>52.16</u>	<u>16<math>\frac{1}{2}</math>"</u>	<u>16.98</u>	4	<u>67.92</u>
$\frac{3}{8}$ L " ... ..	<u>3.22</u>	2	<u>6.44</u>	<u>3<math>\frac{3}{4}</math>"</u>	<u>4.24</u>	2	<u>8.48</u>
Amidships ... ..	✓	4	✓	<u>0</u>	✓	4	✓
$\frac{3}{8}$ L from F.P. ... ..	<u>6.44</u>	2	<u>12.88</u>	<u>6<math>\frac{1}{2}</math>"</u>	<u>7.16</u>	2	<u>14.32</u>
$\frac{1}{2}$ L " ... ..	<u>26.08</u>	4	<u>104.32</u>	<u>28<math>\frac{1}{2}</math>"</u>	<u>28.63</u>	4	<u>114.52</u>
F.P. ... ..	<u>58.60</u>	1	<u>58.60</u>	<u>69"</u> ✓	<u>69.00</u>	1	<u>69.00</u>
Total ... ..			<u>263.70</u>				<u>316.24</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{52.54}{18} \left( .75 - \frac{30.05}{100} \right) = -1.31"$

If limited on account of midship superstructure.  $.131 \times \frac{1.59}{200} = -1.24"$  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 = 14.54'

Summer freeboard = .98'

Moulded draught (d) = 13.56'

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $\frac{13.56 \times 12}{4} = 39.15 = 3\frac{3}{4}"$

## Addition for Winter North Atlantic Freeboard (if required =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  not available

Tons per inch immersion at summer load water line

$T = 10.5$

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

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

Correction for coefficient  $\frac{.698 + .68}{1.36} = \frac{1.378}{1.36}$

	+	-
Depth Correction ... ..	<u>2.48</u>	-
Deduction for superstructures ... ..	-	<u>11.63</u>
Sheer correction ... ..	-	<u>1.24</u>
Round of Beam correction ... ..	-	<u>.02</u>
Correction for Thickness of Deck amidships ... ..	-	-
Other corrections, scantlings, etc. ... ..	-	-
	<u>2.48</u>	<u>12.89</u>
		<u>- 10.41</u>
		Summer Freeboard = <u>11.79</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 " " ... ..	...
Winter North Atlantic Line " " ... ..	...

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

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway		No 1 H. ON FOLL'D DECK	No 1 H. ON UPPER DECK	No 2.	No 3	X BUNKER HATCH AT END OF No 2 H.				
Dimensions of Hatchway		11'-1" x 11'-1"	11'-1" x 11'-1"	20'-4" x 11'-6"	25'-6" x 15'-0"	4'-9" x 15'-2"				
COAMINGS	Height above Deck	24"	12"	24"	28"	27"				
	Thickness { Sides	36	36	40	40	40				
	{ Ends			6-3L-15	6-3L-P	NONE				
	Stiffeners ...	NONE	NONE	NONE	NONE	NONE				
Brackets, Stays										
HATCH BEAMS	Number	5'-6 1/2"	5'-6 1/2"	10'-2"	8'-6"					
	Spacing									
	Scantling and Sketch	1 1/2 x 50 B.P.	1 1/2 x 50 B.P.	1 1/2 x 50 B.P.	1 1/2 x 50 B.P.	NONE				
	Bearing Surface	3"	3"	3"	3"					
WOOD FORE AND AFTERS	Number	3	2	3	3					
	Spacing	2'-9 1/4"	3'-8 1/2"	2'-10 1/2"	3'-9"					
	Unsupported Lengths	5'-1 1/2"	5'-1 1/2"	9'-9"	8'-1"					
	Scantling* and Sketch	Size 4 3/4 x 4 3/4 CS 5 1/2 x 6 1/2	Size 4 3/4 x 4 3/4 CS 5 1/2 x 6 1/2	Size 4 3/4 x 4 3/4 CS 5 1/2 x 6 1/2	Size 4 3/4 x 4 3/4 CS 5 1/2 x 6 1/2	NONE				
Bearing Surface		2" AND 3"	2" AND 3"	2" AND 3"	2" AND 3"					
HATCH COVERS	Material	N.P.				N.P.				
	Thickness	2 1/2"				2 1/2"				
	How fitted	7"				F.L.A.				
	Bearing Surface	2"	SAME	AS NO 1 HATCH.		2"				
Spacing of Cleats		24"				22"				
Number of Tarpaulins		2				2				

\*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? *RINGS BOLTS FOR LASHINGS ARE PROVIDED AT ALL HATCHWAYS.*

Particulars of fiddle, funnel and ventilator coamings:—

*Stokehold Grating covered by Strong Hinged Steel Cover.*  
*Funnel and Fidler vents are in efficient condition.*  
*E.R. Skylights of Steel Strongly constructed.*

Particulars of Flush Bunker Scuttles:—

*NONE.*

Particulars of Companionways:—

*1 Strong Wood Skylight to Galley situated on Bridge deck with 2 hinges*  
*Wood flaps - no cover is provided.*

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

*ON FOLL'D DECK.*  
*1 Ventilator to No 1 Holes 12" x 30" coaming - 35*  
*IN FORE WELL.*  
*1 Ventilator 12" x 36" x 35 To Holes*  
*ON BRIDGE DECK.*  
*11 G.N. Vents to Accommodation 4" dia x 4" to mouth*  
*IN AFTER WELL.*  
*1 Vent. 30 dia. 1 at 12" dia. 1 at 6" dia. x 36" coaming x 35.*  
*ON POOP.*  
*4 Vents. 6" dia x 12" coaming x 30 to accommodation*

*All ventilators are strongly constructed and are closed by wood plugs and canvas covers.*

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

*All air pipes to Double Bottom & Peak Tanks are flush with deck and are fitted with brass screw caps.*

Particulars of Gangway Cargo and Coaling Ports:—

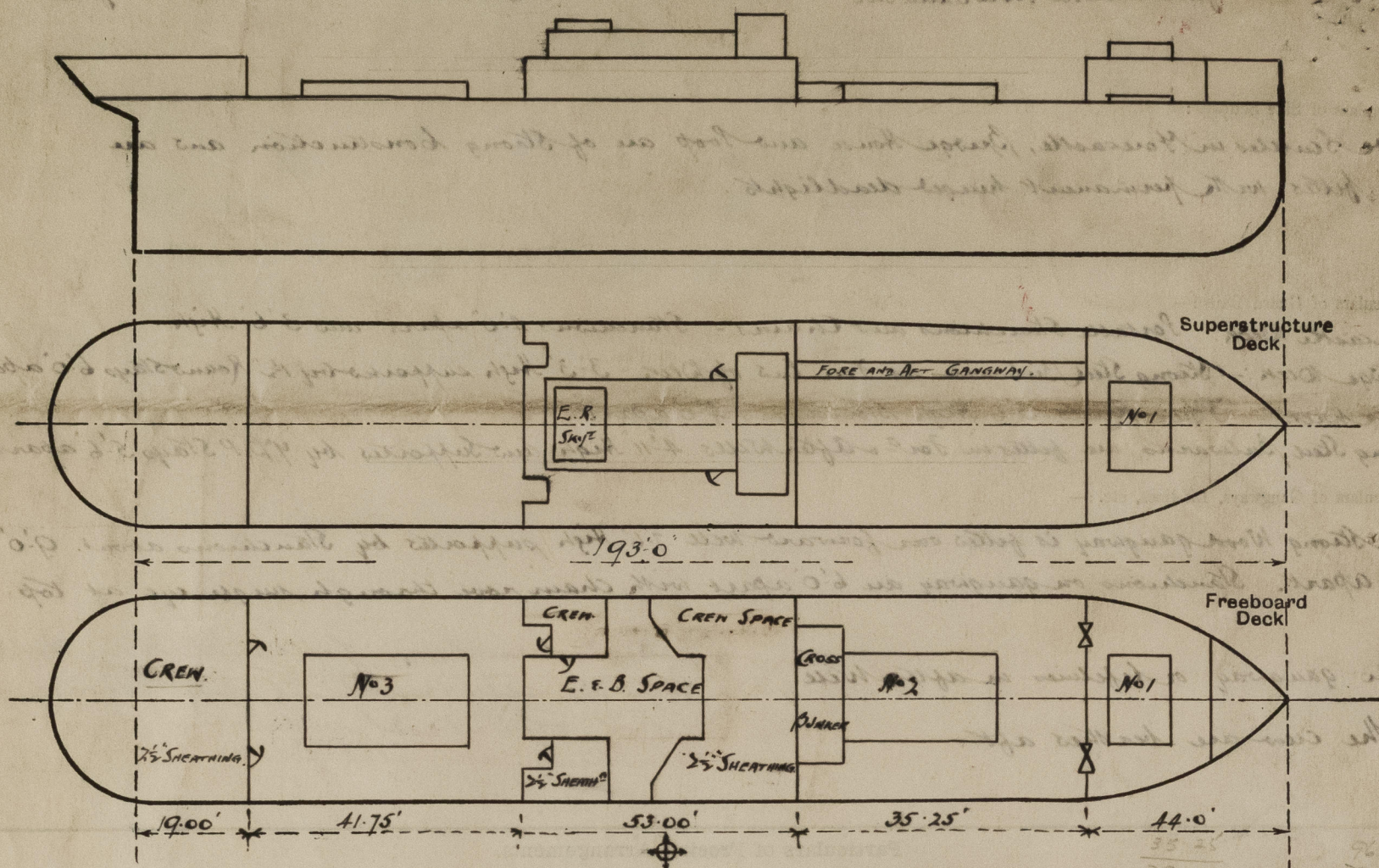
*NONE.*







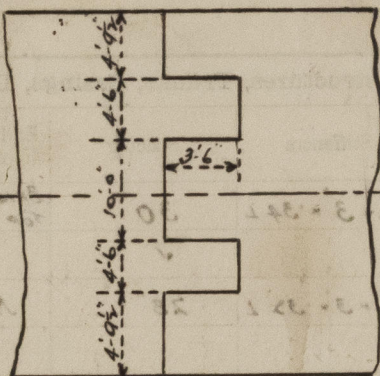
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



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

VESSEL SURVEYED AFLOAT FOR CONVENTION FREEBOARD PURPOSES ONLY.

Bridge 53.00  
 Recess 4.5 x 3.5 - 1.10  
 14.29 51.90



BRIDGE AFTER BULK

Builder's name and yard number W. HOBSON & CO. LTD. NEWCASTLE-ON-TYNE No. 145.

Names of sister ships

Owners CO-OPERATIVE WHOLESALE SOCIETY LTD.

Fee £ 6 : 16 : 0

Received by me



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