

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Box 556

19 MAY 1932

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

Port of Survey Newcastle-on-Tyne.

Date of Survey 17th May 1932.

Name of Surveyor Chapman.

Ship's Name MILLPOOL Nationality and Port of Registry British West Hartlepool. Official Number 124317. Gross Tonnage 4218 Date of Build 1906.10

Moulded Dimensions: Length 355'-0" Breadth 50'-0" Depth 23'-6" (31-31 equid)
Moulded displacement at moulded draught = 85 per cent. of moulded depth 9956 tons
Coefficient of fineness for use with Tables .800

Particulars of Classification +100A1.
Trunk deck no shear.
29 and 30.3-10.31.

Depth for Freeboard (D) ... 31.31

Stringer plate05

Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓

Depth for Freeboard (D) = 31.36

Depth correction
(a) Where D is greater than Table depth
(D-Table depth) R = $(31.36 - 23.67) 2.731 = +21.00"$
(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) 50.8 ✓
Standard Round of Beam = $\frac{B \times 12}{50} = 12.19$ ✓
Ship's Round of Beam = 12.4 ✓
Difference .56 ✓
Restricted to
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times 9.55 = .14"$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed <u>shear</u> ...	<u>32'-0"</u>	<u>16'-00"</u>	<u>7'-0"</u> <u>+3" sheathing</u>		<u>16'-00"</u>
" overhang ...					
Trunk aft ...			<u>7'-2"</u>		
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>32'-00"</u>	<u>16'-00"</u>			<u>16'-00"</u>

Standard Height of Superstructure 7.05 ✓
" " R.Q.D. 5.40
Deduction for complete superstructure 39.00 ✓
Percentage covered $\frac{S}{L} = 9.01$ ✓
" " $\frac{S_1}{L} = 4.50$
" " $\frac{E}{L} = 4.50$
Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 2.25
Percentage from Table, Line B. (corrected for absence of forecastle (if required))
Interpolation for bridge less than .2L (if required) No Bridge
Deduction = 39.00 × 0.225 = 8.8

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>45.50</u>	1		<u>45.00</u>			1		
$\frac{1}{2}$ L from A.P. ...	<u>20.25</u>	4		<u>81.00</u>			4		
$\frac{3}{4}$ L " ...	<u>5.00</u>	2		<u>10.00</u>			2		
Amidships ...	<u>✓</u>	4		<u>✓</u>			4		
$\frac{3}{4}$ L from F.P. ...	<u>10.00</u>	2		<u>20.00</u>			2		
$\frac{1}{2}$ L " ...	<u>40.50</u>	4		<u>162.00</u>			4		
F.P. ...	<u>91.00</u>	1		<u>91.00</u>			1		
Total ...				<u>409.50</u>					

Mean actual sheer aft = Deficient
Mean standard sheer aft = Deficient
Mean actual sheer forward = Deficient
Mean standard sheer forward = Deficient
Length of enclosed superstructure forward of amidships = Trunk deck
" " aft of " = No Bridge

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{409.5}{18} (.75 - .045) = +16.04"$$

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 $\frac{800 + .68}{1.36} = \frac{1480}{1360}$
Ft.	$\Delta =$	Depth Correction ... <u>21.00</u> ✓
Depth to Freeboard Deck = <u>38.47</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>.88</u>
Summer freeboard = <u>5.32</u>	T =	Sheer correction ... <u>16.04</u> ✓
Moulded draught (d) = <u>23.10</u>	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction ... <u>.14</u> ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =		Correction for Thickness of Deck amidships ...
Addition for Winter North Atlantic Freeboard (if required) =		Other corrections, scantlings, etc. ... <u>34.68</u>
		<u>37.04</u> <u>35.90</u> + <u>1.34</u>
		Summer Freeboard = <u>66.28</u> <u>64.4</u>

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

Tropical Fresh Water Line above Centre of Disc ...	11	Tropical Fresh Water Freeboard ...	4 - $2\frac{3}{4}$
Fresh Water Line " " ...	6	Fresh Water " " ...	4 - $8\frac{3}{4}$
Tropical Line " " ...	5	Tropical " " ...	4 - $9\frac{3}{4}$
Winter Line below " " ...	5	Winter " " ...	5 - $4\frac{3}{4}$
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

[illegible]

Particulars of fiddle, funnel and ventilator coverings — Engine Room skylight of steel with 19th wood flaps. ~~Running quadrants~~
~~regions~~ ^{regions} ~~regions~~ ^{regions}
 Funnel in good condition. Fiddle ventilator ~~regions~~ ^{efficient} ~~regions~~ ^{regions}
 Four ~~steel~~ fiddle grating plates with steel binding covers; ~~two gratings with loose steel covers.~~
 Four C.I. ventilating scuttles with loose steel covers on fiddle top: ~~one broken regions~~
~~regions~~ ^{regions}

Particulars of ~~Deck~~ Bunker Scuttles:— On Foreboard deck 2 circular bunker hatches, 22" diam. with steel covers secured by close pitched bolts. Channel surrounding 6" high.

Particulars of Companionways :	(1). On trunk deck in strong steel house. Opening 3' 9" x 3' 7" x 10' incl. with 1 1/2" solid wood door operated from both sides.
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Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

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

On Forecastle deck	10' 6" dia.	10" high	2 1/2" to Peak Store.
" "	2 @ 11 "	18 " "	.82 " " " "
" " "	2 @ 14 "	30 " "	2 1/2 " to Holdrs.
" " "	2 @ 11 "	30 " "	2 1/2 " to Bulkheads
" " "	2 @ 17 "	30 " "	1 1/2 " to 3 1/2 " to Hold.

*all vents fitted with sheet iron covers or wood
flaps. Canvas covers supplied: none in use
of repair.*

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

On Forecastle deck.	1 @ 1½" dia.	3 to mouth.	To Fore peak.	Efficient means of closing provided.
" Trunk	" 1 @ 2"	" 4" above deck	Fitted with screw plug.	" C.O.B.
" Foreboard	" 8 @ 2½"	" " " "	" " " "	" " " "
" Trunk	" 1 @ 2"	" " " "	" " " "	" After Peak.

Particulars of Gangway Cargo and Coaling Ports:—

none.

Particulars of Scuppers and Sanitary Discharge Pipes —

W.C. discharges below freeboard deck fitted with brass storm valves. ✓
See diagram on back page.

Particulars of Side Scuttles :

Sidelights in crew quarters in Forecastle and in Fairboard ducts fore
fitted with hinged deadlights. ✓

Sidelights in lower quarters aft. fitted with dead lights. ✓

Particulars of Guard Rails :—

On Faircastle dade.	Rails 3'-0" high	2 rods	stanchions 4'-3" apart.
" " "	" 3'-0"	2 chains	" 3'-9"
" Fair to end "	" 4'-0"	2 "	" 3'-9" to 6'-0" apart.

Particulars of Gangways, Lifelines, etc. :—

none

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 } After Well :— (F. and A. position and height above deck edge) } 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.						

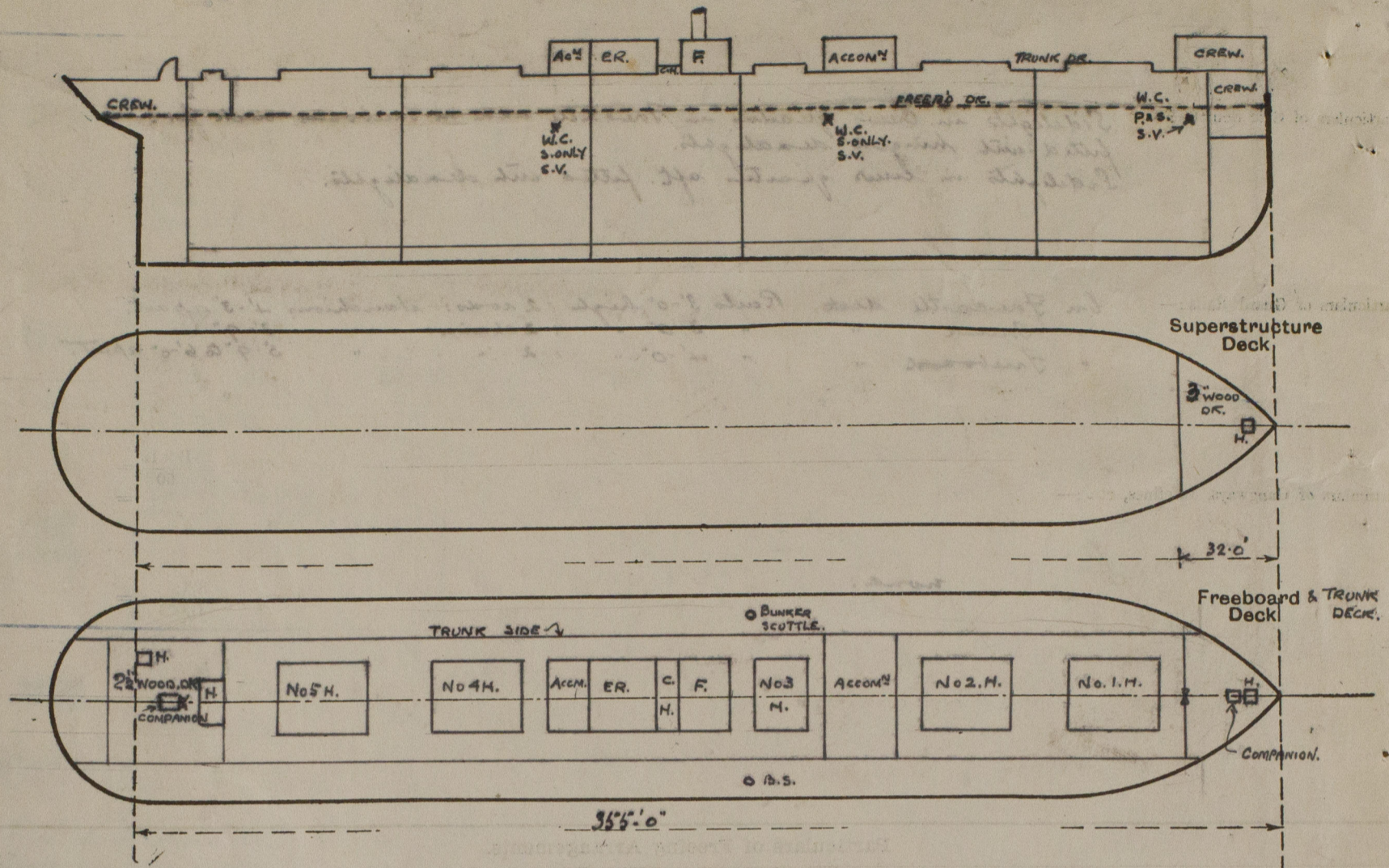
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	36	26	3 1/2 x 3 1/2 = 26			10' 5 1/2" x 41"	18'	7' 0"
Trunk, Aft	40	36	5 1/2 x 5 1/2 = 36	24"	But to Bottom at 1/2 Blk at Top.			7' 0"
Trunk, Forward	40	36	5 1/2 x 3 1/2 = 36	24"	"			7' 0"
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structures Deck ...	42	36	5 x 3 1/2 = 42	42"	Blks at Top.	20' 4 1/2" x 24" 20' 4 1/2" x 23"	20'	7' 0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								

[illegible]

Poop Bulkhead	...	...	...
Raised Quarter Deck Bulkhead	...		
Bridge, After Bulkhead	...	...
Bridge, Forward Bulkhead	...	...
Forecastle Bulkhead	...	...	...
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...	...
Exposed Machinery Casings on Super-structure Decks	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...
Deckhouses on Flush Deck Ships	...	...	...

WS56-0011 2/2

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:—

Trunk deck running right fore and aft, with freeboard head.

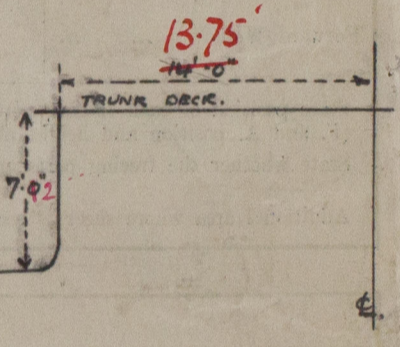
$$\text{Area of Trunk} = 27.5 \times 7.17$$

$$\text{Add to Moulded Depth} \left(\frac{27.5 \times 7.17 \times 7}{48.05} = 2.87 \right) + \left(\frac{1.17 \times 1.25}{2 \times \frac{48.05}{2}} \times 7 = .02 \right)$$

$$= 2.89$$

$$\text{Equivalent M.O. Depth} = 28.42 + 2.89 = 31.31'$$

Ship measured afloat.



Builder's name and yard number Ropner & Son Ltd. Stockton: 770.430.

Names of sister ships

Owners Pool Shipping Co. Ltd.

Fee £ 12 : 15 : - ✓ Received by me



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