

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

19 AUG 1932

GLASGOW REPORT No. 52824

Computation of Freeboard for Steamer, Sailing Ship, Tanker						Port of Survey <i>Swine.</i>
having <i>Ranis Quarter deck of Newcastle</i>						Date of Survey <i>16.8.32.</i>
<i>N.N. PORTSLADE</i> (discounted.)						Name of Surveyor <i>M. Macleod.</i>
(Type of Superstructures.)						Particulars of Classification <i>+100A1.</i>
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build		
<i>"NEPHRITE"</i> <i>London</i>	<i>Glasgow British</i>	<i>149914</i>	<i>924</i>	<i>1924/10.</i>		
Moulded Dimensions: Length	<i>200.25</i>	Breadth	<i>30.75</i>	Depth	<i>14.95</i>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth				<i>1610.</i>	tons	
Coefficient of fineness for use with Tables				<i>.718</i>		

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>14.70</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(14.82 - 13.35) / 1.540 = 2.26</i>	Moulded Breadth (B) <i>30.75</i>
Stringer plate ... <i>47.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>7.38</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>unstable</i>	If restricted by superstructures	Ship's Round of Beam = <i>8"</i>
Depth for Freeboard (D) = <i>14.82</i>		Difference <i>.62 excess</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>.62 / 4 x .1929 = (-).03</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Superstructure enclosed ...						Standard Height of Superstructure <i>6.0</i>
" overhang ...						" " R.Q.D. <i>3.668</i>
R.Q.D. enclosed ...	<i>139.33</i>	<i>139.33</i>	<i>4.1</i>	<i>✓</i>	<i>139.33</i>	Deduction for complete superstructure <i>26.02</i>
" overhang ...						Percentage covered $\frac{S}{L} =$ <i>81.24</i>
Bridge enclosed ...						" " $\frac{S_1}{L} =$ <i>80.71</i>
" overhang aft ...						" " $\frac{E}{L} =$ <i>80.71</i>
" overhang forward ...	<i>21.29</i>					Percentage from Table, Line A. <i>76.18</i>
F'cle enclosed EQUIV. ...	<i>21.29</i>	<i>21.29</i>	<i>7.1</i>	<i>✓</i>	<i>21.29</i>	(corrected for absence of forecastle (if required))
" overhang ...	<i>2.07</i>	<i>1.03</i>			<i>1.03</i>	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = <i>.7618 x 26.02 = 19.82</i>
" " forward						
Total ...	<i>162.69</i>	<i>161.65</i>			<i>161.65</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<i>30.02</i>	1		<i>30.02</i>	<i>41.00</i>	<i>44.98</i>	1		<i>44.98</i>	Mean actual sheer aft = <i>excess.</i>
1/4 L from A.P. ...	<i>13.36</i>	4		<i>53.44</i>	<i>18.14</i>	<i>20.02</i>	4		<i>80.08</i>	Mean actual sheer forward = <i>excess.</i>
1/2 L " ...	<i>3.30</i>	2		<i>6.60</i>	<i>4.54</i>	<i>4.95</i>	2		<i>9.90</i>	Mean standard sheer forward
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = <i>.196</i>
3/4 L from F.P. ...	<i>6.61</i>	2		<i>13.22</i>	<i>4.90</i>	<i>4.90</i>	2		<i>15.80</i>	" " aft of " = <i>.5</i>
1/4 L " ...	<i>26.72</i>	4		<i>106.88</i>	<i>31.60</i>	<i>31.60</i>	4		<i>126.40</i>	
F.P. ...	<i>60.05</i>	1		<i>60.05</i>	<i>72.00</i>	<i>72.00</i>	1		<i>72.00</i>	
Total ...				<i>270.21</i>					<i>349.16</i>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{78.95}{18} \left(.75 - \frac{.4061}{2} \right) = 1.51$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 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 $\frac{.428 + .68}{1.36} \frac{1.408}{1.36}$
<i>N.Q.</i>	$\Delta =$ <i>1900</i>	Depth Correction ... <i>2.26</i>
Depth to <i>Deck</i> = <i>18.82</i>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <i>19.02</i>
Summer freeboard = <i>4.40</i>	$T =$ <i>12.25</i>	Sheer correction ... <i>1.51</i>
Moulded draught (d) = <i>14.42</i>	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... <i>.03</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>3.60</i>	<i>3.89</i>	Correction for <i>Deck</i> amidships ... <i>48.00</i>
Addition for Winter North Atlantic Freeboard (if required) = <i>2.</i>	<i>4"</i>	Other corrections, scantlings, etc. ...
		50.26 21.36 + 28.90
		Summer Freeboard = <i>52.86</i>

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

Tropical Fresh Water Line above Centre of Disc ...	<i>6 3/4"</i>	Tropical Fresh Water Freeboard ...	<i>4' - 4 3/4"</i>
Fresh Water Line " " ...	<i>4"</i>	Fresh Water " " ...	<i>3' - 10"</i>
Tropical Line " " ...	<i>2 3/4"</i>	Tropical " " ...	<i>4' - 0 3/4"</i>
Winter Line below " " ...	<i>3 1/2"</i>	Winter " " ...	<i>4' - 8 1/4"</i>
Winter North Atlantic Line " " ...	<i>5 1/2"</i>	Winter North Atlantic " " ...	<i>4' - 10 1/4"</i>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway			WELL No. 1	R. Q. D. No. 2	No. 3.				
Dimensions of Hatchway			32' 9" x 18' 11" / 17' 0"	23' 11" x 19'	23' 10" x 19'	Coaling Hatch on Fiddley Top. 14' x 4' craming 6" Bull angle. Cleats 22" apart. rest bars 2 1/2" Cover 2 1/2"			
COAMINGS	{	Height above Deck	3' 7 1/2"	2' 7 1/2"	2' 7"				
		Thickness { Sides	43	43	43				
		Ends	43	43	43				
		Stiffeners	43	43	43				
Brackets, Stays			Round Iron Strap 8' 0" apart.						
HATCH BEAMS	{	Number	6	4	4				
		Spacing	4' 9"	4' 9"	4' 9"				
		Scantling and Sketch	16' 10" x 35" Angles 4' x 3' x 44"			Escape Hatches on platform between No. 2 & 3 Hatchways 24' x 19' 12" craming Cleats 16" apart. rest bars 2 1/4" Hatch to hold under Forecastle on Freeboard Deck 24' square. 16" craming Cleats 15 1/2" apart 2 1/2" cover. rest bars 2 1/4" Tarpaulins & Battening down arrangements are fitted to above Hatches.			
		Bearing Surface	3"	3"	3"				
FORE AND AFTERS	{	Number							
		Spacing							
		Unsupported Lengths							
		Scantling* and Sketch	none.						
Bearing Surface									
HATCH COVERS	{	Material	wood.						
		Thickness	2 1/2"						
		How fitted	for aft.	do.	do.				
		Bearing Surface	4"						
Spacing of Cleats			24"	24"	24"				
Number of Tarpaulins			Two.	Two	Two.				
<div>*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/></div> <div>Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Yes.</div> <div>Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Yes.</div> <div>Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> All right.</div>									

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers.
Fiddley and Funnel vents in efficient condition.
Engine Room Skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None.

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

1 Vent on F'dle deck 15" diam. craming 34" x 38" led to hold.
1 Vent on F'dle " 15" " " 48" x 40" " " "
2 Vents on R.Q.D. 15" " " 36" x 38" " " "
Ventilators constructed in accordance with rule requirements.
closed with wood plugs & canvas cover.

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

1 C.S. air pipe on F'dle dk. (immediately behind stem) 10" high. 3 dia. led to Fore peak Tank.
2 C.S. " " on F'dle dk. under F'dle dk. 22" high. 3" dia. led to D.B. Tank.
2 C.S. " " on R.Q. dk. 26" high. 3" dia. led to D.B. Tank.
2 C.S. " " " 25" " 3" " " "
2 C.S. " " " 27 1/2" " 2 1/2" " " "
1 C.S. " " " 29" " 2 1/2" " " "
"smifling holes" fitted & air pipes closed with canvas cover.

Particulars of Gangway Cargo and Coaling Ports:—

None.



Nephrite

Particulars of Scuppers and Sanitary Discharge Pipes:—

*No scuppers below freeboard deck.
Sanitary discharges from spaces above freeboard deck
fitted with gunmetal storm valves on ships side.*

Particulars of Side Scuttles:—

*Above freeboard deck fitted with hinged deadlights.
All scuttles of substantial construction.*

Particulars of Guard Rails:—

*Forecastle. 3 ft high: 2 rails. Stanchions 4' 6" apart.
Well, R. Q. 19" Bulwarks. Steel plates, efficiently supported.*

Particulars of Gangways, Lifelines, etc.:—

*Stanchions & Lifeline fitted between raised quarter deck & Pole.
Top of hatchway forming platform. Stanchions 3 ft high.
Spaced about 7' 6" apart fitted into sockets in hull bulk angle
stiffeners. Lifeline fitted with lashings at ends.*

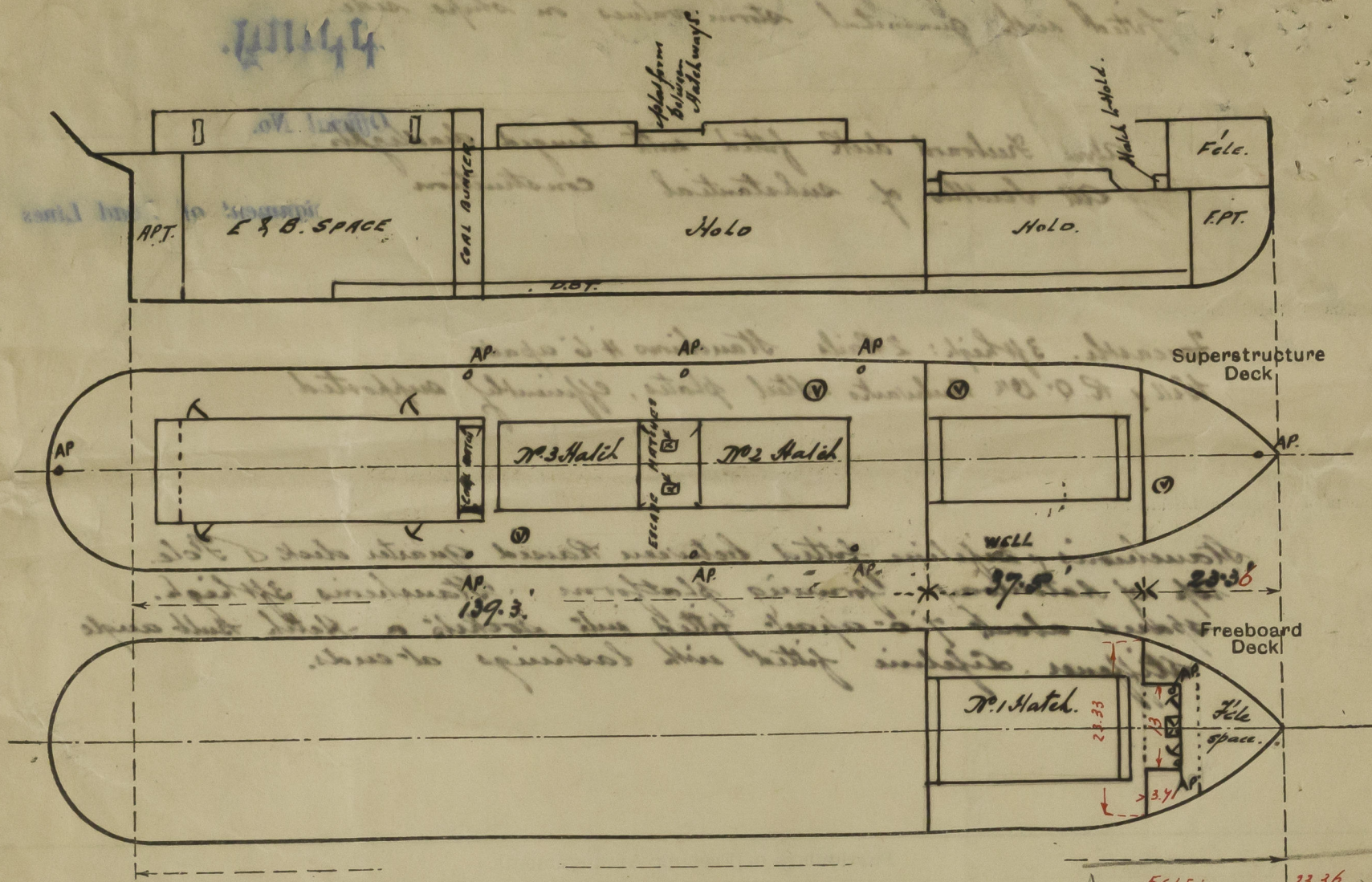
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	<i>139' 3 1/2"</i>	<i>3' 2"</i>	<i>3' 0" x 1' 3"</i> <i>2' 6" x 1' 3"</i>	<i>4</i> <i>3</i>	<i>28.125</i>	<i>27.18</i>
Forward Well	<i>37' 5 1/2"</i>	<i>3' 4"</i>	<i>3' 3" x 1' 6"</i>	<i>3</i>	<i>14.625</i>	<i>10</i>
State position of each freeing port (F. and A. position and height above deck edge) { After Well — <i>10' 4" 11' 2" 19' 2" 54' 6" 62' 6" 72' 3" 84' 6"</i> from forward gun end to gun end of port. Forward Well — <i>10' 18' 9" 24' 10"</i> from forward gun end to aft end of port. <i>75' 10" 10' 11"</i> from aft end of port to aft end of ship.						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: <i>balanced hinged shutters, 1st class.</i>						
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	<i>40</i>	<i>40</i>	<i>50 stringer plate 40. Spaced 5' 0" apart.</i>			<i>none</i>		
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	<i>30</i>	<i>30</i>	<i>3 x 3 x 25</i>	<i>30"</i>	<i>none</i>	<i>20 1/2" at 1st</i>	<i>19 1/2"</i>	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Raised Quarter Decks	<i>32</i>	<i>28</i>	<i>4 x 3 x 28</i>	<i>30"</i>	<i>All at top.</i>	<i>2 each side 6' 7" x 1' 11"</i>	<i>18"</i>	<i>6' 10 1/2"</i>
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	<i>1</i>
Raised Quarter Deck Bulkhead	<i>none</i>
Bridge, After Bulkhead	<i>none</i>
Bridge, Forward Bulkhead	<i>none.</i>
Forecastle Bulkhead	<i>2 stringer plate</i>
Exposed Machinery Casings on Raised Quarter Decks	<i>2 " " " (on each side) manipulated from both sides.</i>
Exposed Machinery Casings on Superstructure Decks	<i>1</i>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	<i>1</i>
Deckhouses on Flush Deck Ships	<i>1</i>

Sketch

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:—



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

*This vessel is engaged in coasting & Continental Trade
Timber freeboard not required.*

*This vessel is at present on slipway undergoing
Special Survey No. 1. Report will be forwarded in due course.*

*External Deep. at 14' 0" Extreme dft. 1823 Tons = 12.14 tons per inch
" " " 15' 0" " 1970 Tons = 12.32 " " "*

Builder's name and yard number

J. Lewis Sons Ltd Aberdeen. No. 104.

Names of sister ships

5' Olive. Sh. No. 444 No. 52680.

Owners

W. Robertson.

Fee £

6 : 16 : 0

Received by me

[Signature]



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