

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

GLASGOW REPORT No 58303

Computation of Freeboard for <i>Motor Cargo Steamer</i> , Sailing Ship, Tanker having <i>Shellin Deck with Tonnage opening.</i>					Port of Survey <i>Glasgow</i>	
(Type of Superstructures.) <i>7149 407.15648</i>					Date of Survey <i>Whitby building</i>	
Ship's Name <i>"SALACIA"</i>		Nationality and Port of Registry <i>British Glasgow.</i>	Official Number <i>165910</i>	Gross Tonnage <i>5495</i>	Date of Build <i>Building</i>	
Moulded Dimensions: Length <i>425'0"</i> ✓ Breadth <i>57'0"</i> ✓ Depth <i>38'9"</i> ✓ <i>Shellin Deck.</i> Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>12780</i> tons Coefficient of fineness for use with Tables <i>.706</i>					Name of Surveyor <i>T.R. McIlvenna</i>	
Particulars of Classification <i>+100 A.1.</i> <i>with freeboard corresponding to that for C.P.S. Vessel with Tonnage opening.</i>						

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ...	<i>30.75</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>38</i> <i>(30.75 - 28.33) 3 = + 7.26</i>		Moulded Breadth (B)	<i>57'0"</i>
Stringer plate <i>42"</i> ...	<i>.04</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>13.68"</i>
Sheathing on exposed deck ✓ $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures ✓		Ship's Round of Beam =	<i>13 3/4"</i>
Depth for Freeboard (D) =	<i>30.79</i>			Difference <i>Excess</i> =	<i>.04"</i>
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$ =	<i>.04</i> x <i>.0063</i> = <i>NIL.</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>29'28"</i>	<i>29.66</i>	<i>8'0"</i>	✓	<i>29.66</i>
" overhang ...	<i>.66</i>				
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...	<i>389'44"</i>	<i>389.92</i>	<i>8'0"</i>	✓	<i>389.92</i>
" overhang forward ...	<i>.92</i>				
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<i>5'5"</i>	<i>2.71</i>	<i>8'0"</i>	✓	<i>2.71</i>
" forward ...	<i>.42</i>				
Total ...	<i>425.00</i>	<i>422.29</i>			<i>422.29</i>

Standard Height of Superstructure	<i>7.50'</i>
" " R.Q.D.	✓
Deduction for complete superstructure	<i>42.00"</i>
Percentage covered $\frac{S}{L} =$	<i>100.00</i>
" " $\frac{S_1}{L} =$	<i>99.37</i>
" " $\frac{E}{L} =$	<i>99.37</i>
Percentage from Table, Line A.	<i>99.22</i>
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B	✓
(corrected for absence of forecastle (if required))	✓
Interpolation for bridge less than 2L (if required)	✓
Deduction =	<i>42.00 x .9922 = 41.64"</i>

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<i>52.50</i>	<i>1</i>	<i>52.50</i>	<i>51.5"</i>	<i>51.50</i>	<i>1</i>	<i>51.50</i>
1/8 L from A.P. ...	<i>23.36</i>	<i>4</i>	<i>93.44</i>	<i>23.0"</i>	<i>25.59</i>	<i>4</i>	<i>102.36</i>
3/8 L " ...	<i>5.77</i>	<i>2</i>	<i>11.54</i>	<i>6.0"</i>	<i>6.32</i>	<i>2</i>	<i>12.64</i>
Amidships ...	-	<i>4</i>	-	-	-	<i>4</i>	-
5/8 L from F.P. ...	<i>11.55</i>	<i>2</i>	<i>23.10</i>	<i>12.0"</i>	<i>12.32</i>	<i>2</i>	<i>24.64</i>
1/2 L " ...	<i>46.72</i>	<i>4</i>	<i>186.88</i>	<i>45.5"</i>	<i>49.84</i>	<i>4</i>	<i>199.36</i>
F.P. ...	<i>105.00</i>	<i>1</i>	<i>105.00</i>	<i>106.0"</i>	<i>112.00</i>	<i>1</i>	<i>112.00</i>
Total ...			<i>472.46</i>	<i>+ 6"</i>			<i>508.50</i>

Mean actual sheer aft =	<i>Excess</i>	Mean standard sheer aft =	<i>Excess</i>
Mean actual sheer forward =	<i>Excess</i>	Mean standard sheer forward =	<i>Excess</i>
Length of enclosed superstructure forward of amidships =	<i>L</i>	" aft of " =	<i>L</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{36.04}{18} (.75 - .50) = -.50"$

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)	<i>79.35</i>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.706 + .68}{1.36} = \frac{1.386}{1.36}$	<i>80.86</i>
Depth to Freeboard Deck = <i>30.79</i>	$\Delta = 13376$	Depth Correction ...	<i>7.26</i>
Summer freeboard = <i>3.83</i>	Tons per inch immersion at summer load water line	Deduction for superstructures ...	<i>41.64</i>
Moulded draught (d) = <i>26.96</i>	$T = 47.93$	Sheer correction ...	<i>.50</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.74 = 6 3/4"</i>	Deduction = $\frac{\Delta}{40T}$ inches = <i>6.98 = 7"</i>	Round of Beam correction ...	-
Addition for Winter North Atlantic Freeboard (if required) = ✓		Correction for Thickness of Deck amidships ...	-
		Other corrections, scantlings, etc. ...	<i>.38</i>
		Summer Freeboard =	<i>45.95</i>

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

Tropical Fresh Water Line above Centre of Disc ...	<i>13 3/4"</i>	Tropical Fresh Water Freeboard ...	<i>2' 8 1/4"</i>
Fresh Water Line " " ...	<i>7"</i>	Fresh Water " " ...	<i>3' 3"</i>
Tropical Line " " ...	<i>6 3/4"</i>	Tropical " " ...	<i>3' 3 1/4"</i>
Winter Line below " " ...	<i>6 3/4"</i>	Winter " " ...	<i>4' 4 3/4"</i>
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	✓

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.											
SHELTER DECK						UPPER DECK					
Description of Hatchway	...	...	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...

FORE AND AFTERS	Number	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...

Spacing of Cleats	...	...	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...	...	...

Particulars of fiddley, funnel and ventilator coamings:—

Funnel + Ventilator of Steel Strongly Constructed.

Motor Room Skylight of Steel Strongly Constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

SHELTER DECK AFT. Entrance to Crew spaces in Steering Gear House (P.R.S) Sill 18" ✓ wood Hinged Doors 5'x2' of substantial construction operated from both sides.

Entrance to Tunnel escape aft end Steering Gear House Sill 18" ✓ Steel Door Hinged 5'x2' operated from both sides.

Entrance to Fan Control room on upper Deck for P.R.S. Steel House opening 5'6"x2'3" Sill 6" ✓ Hinged steel door operated from both sides.

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

FOCLE DECK: 1 @ 8" dia 36"x30 Coaming to Store. ✓ 2 @ 6" " 36"x30 " to Hospital. ✓

SHELTER DECK: 2 @ 24" dia. 36"x40 Coaming to No 1 Hold. ✓ 2 @ 24" " 36"x40 " " No 3 " ✓ 2 @ 10" " 36"x32 " " Deep Tank ✓ 2 @ 24" " 36"x40 " " No 6 Hold ✓ 2 @ 6" " 36"x30 " " Crew ✓ 2 @ 9" " 36"x32 " " Crew ✓ 1 @ 8" " 36"x30 " " aft Store ✓ 10 @ 24" Derrick Post Ventilators plating 40 supported by brackets.

All Ventilators are fitted with wood Plugs + Canvas Covers.

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

FOCLE DECK: 2 C.I. 3" dia 18" to Lip to F.P. Tank. ✓ 1 " 3" " 18" " " No 1 O.B. Tank ✓

SHELTER DECK: 2 C.I. 3" dia 24" to Lip to No 1 O.B. Tank ✓ 4 " 3" " 24" " " " 2 " " ✓ 4 " 5" " 24" " " " 3 " " ✓ 4 " 4 " 24" " " " 4 " " ✓ 4 " 3 " 24" " " " 5 " " ✓ 4 " 5 " 24" " " " 7 " " ✓

UPPER DECK: 3 C.I. 3" dia 24" to Lip to No 8 O.B. Tank. ✓ 1 C.I. 2 1/2 " 24" " " " Rudder Trunk. ✓ 2 " 3 " 24" " " " A.P. Tank. ✓ 4 " 3 " 24" " " " Oil Fuel Bunkers. ✓ 4 " 4 " 24" " " " Settling Tanks. ✓ 2 " 3 " 24" " " " Lub Oil O.B. Tank. ✓ 2 " 3 " 24" " " " O.B. C/Dams. ✓ 2 " 2 1/2 " 24" " " " O.B. C/Dams. ✓

All Air Pipes to Water Tanks fitted with wood Plugs.

All Air Pipes to Oil Tanks fitted with Gauge.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes :— all Scuppers from Shelter Tween Decks are led overboard & storm valves are fitted as Ships Side. ✓
all sanitary discharges are led overboard & storm valves fitted at Ships Side. ✓
No Scuppers or discharges from spaces below Freeboard Deck are led overboard. ✓

Particulars of Side Scuttles :— Sidelights 9" dia are fitted in Crew Space aft & under lock.
Sidelights 9" dia are fitted to Engineers Store, Workshop, & Refrig. machy below Freeboard Deck
all Sidelights are of Substantial Construction & fitted with hinged steel deadlights. ✓

Particulars of Guard Rails :— SHELTER DECK :- 3'-6" high. 3 Rods. Stanchions spaced about 5'-0" apart.
FOCLE DECK :- 3'-6" high. 3 Rods. Stanchions spaced about 5'-0" apart. ✓

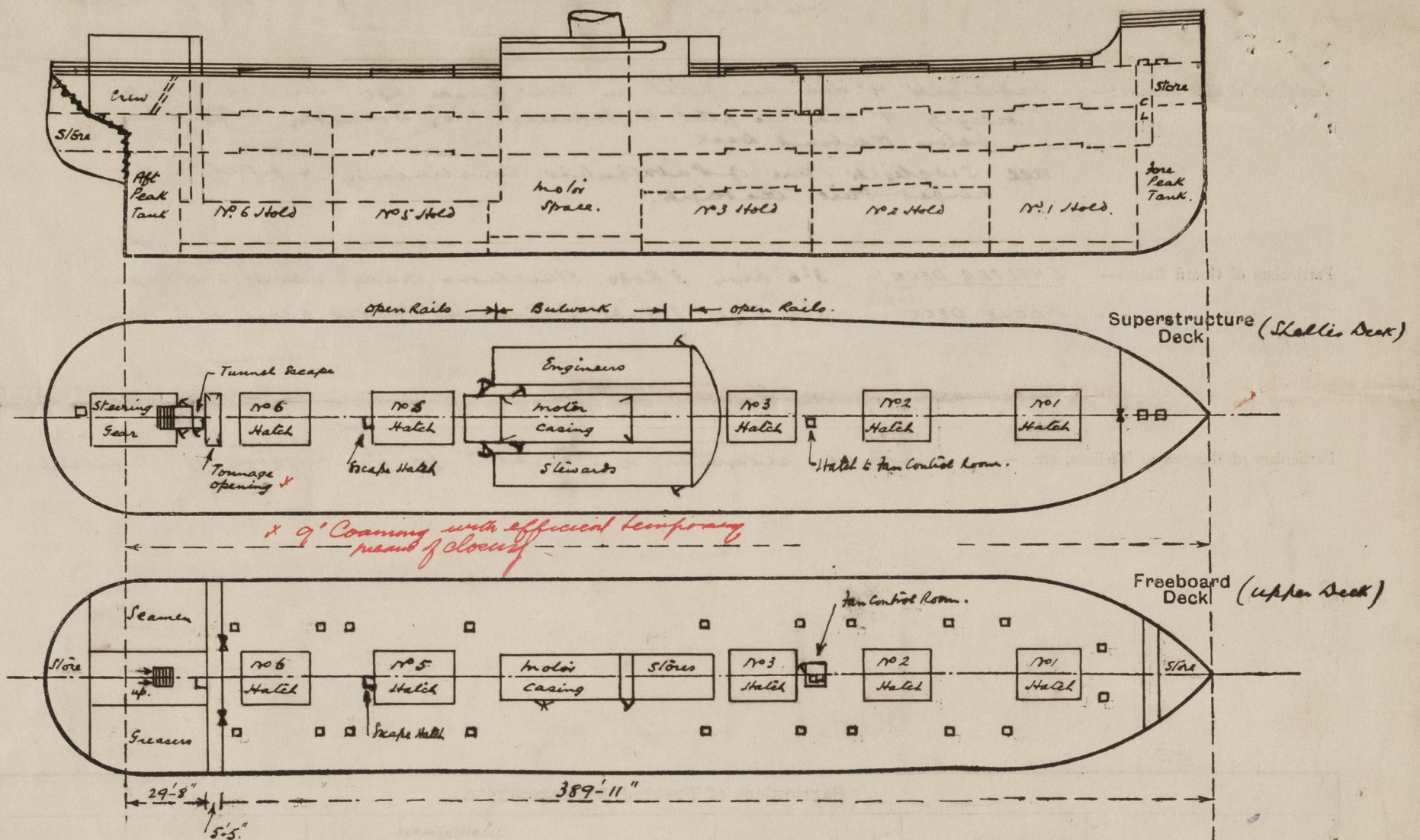
Particulars of Gangways, Lifelines, etc. :— Suitable provision is made for the rigging of Lifelines. ✓

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark Tween Deck	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well (2mm age well)	5'-5"	8'-0"	2'-3" x 1'-3"	one.	2.8 ⁵ / ₈ "	✓
Forward Well						
State position of each freeing port } After Well :— In Centre of space 5" above Deck edge. 1 Rod. ✓ (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 ... ..	.25	.25 ✓	3" flanges ✓	3'-0" max. ✓	none	none ✓	✓	8'-0" ✓
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..	.25	.25 ✓	3" flanges ✓	3'-0" max. ✓	none	2 @ 5'-0" x 4'-0"	15" ✓	8'-0" ✓
Bridge, Forward Bulkhead								
Forecastle Bulkhead ... ..	.30	.30	4 x 3 x .32	2'-6"	none	1 @ 5'-0" x 4'-0"	18"	8'-0"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	.26	.26 ✓	3 x 2 1/2 x .30 ✓	2'-8 1/2" ✓	BKs at Coaming Top	1 @ 5'-0" x 2'-0" 1 @ 4'-0" x 4'-3"	18" 32 1/2" ✓	8'-0" ✓
Exposed Machinery Casings on Superstructure Decks ... ..	.26	.26 ✓	3 x 2 1/2 x .30 ✓	2'-8 1/2" ✓	"	2 @ 5'-6" x 2'-6"	12" ✓	8'-0" ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ... Midship Deck House	.30	.26 ✓	3 1/2 x 2 1/2 x .32	2'-8 1/2" ✓	BKs at Top & Bkt away 3rd Stiff at Bottom	4 @ 5'-3" x 2'-5 1/2"	18" ✓	8'-0" ✓

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	none. No openings.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	3 1/2" wood Sheathing Boards full height fitted in steel riveted channels. ✓
Bridge, Forward Bulkhead	
Forecastle Bulkhead	3 1/2" wood Sheathing Boards full height fitted in steel riveted channels.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Hinged steel doors capable of being operated from both sides. ✓
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors capable of being operated from both sides. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ... Midship Deck House	Solid wood doors of substantial construction capable of being operated from both sides. ✓

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:—

SMALL HATCHES:—

Escape Hatch aft end No. 5 Hatch on Shell Deck.
2'-9" x 2'-2" Coaming 3'-0" x .44
40 Hinged Steel W.T. Cover
Secured by clips, Hasp + Padlock.

Escape Hatch aft end No. 3 Hatch on Upper Deck. 2'-6" x 2'-0" Coaming
9" B.A. 2 1/2" Wood Hatch Cover.
Cleats 18" apart. 3" bearing for Cover. One tarpaulin.

Hatch (to aft. Store) on Shell Deck.
4'-0" x 3'-0" Coaming 2'-0" x .44
Steel Hinged W.T. Cover. 44
Secured by clips, Hasp + Padlock.

Hatch (to Fan Control Room) on Shell Deck.
2'-6" x 2'-6" Coaming 2'-6" x .44
Hinged Steel Cover. 40
Secured by clips, Hasp + Padlock.

Hatch (to Fore Store) on Shell Deck
3'-3" x 3'-0" 9" B.A. Coaming 2 1/2" Wood
Covers. 3" bearing cleats 24" apart
One tarpaulin.

Hatch (to Chain Locks) on Shell Deck.
3'-0" x 1'-9" 9" B.A. Coaming.
2 1/2" Wood Cover 3" bearing cleats
24" apart One tarpaulin.

20 Trimming Hatches on Upper Deck.
2'-6 1/2" x 2'-6 1/2" 9" Bull plate Coaming
2 1/2" Wood Covers 2 1/2" bearing
Cleats 18" apart One tarpaulin.

Hatches in Fan Control Room on
Upper Deck.
1 @ 3'-0" x 2'-9" 1 @ 3'-0" x 2'-4"
9" B.A. Coaming. 2 1/2" Wood Covers
3" Bearing (no battening arrangement)

External Displacement at 26'-6" = 13000 Tons.
" 27'-6" = 13570 Tons.
Tons per inch " 36'-6" = 47.6 Tons.
" 27'-6" = 48.1 Tons.

Builder's name and yard number *Harland & Wolff Ltd.* *170,982.G.*

Names of sister ships *✓*

Owners *Donaldson Line Ltd.*

Fee £ *16* : 0 : 0. Received by me *[Signature]*