

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index No. 20138  
(For London Office only.)
 having ANNING DECK WITH POOP - BRIDGE - FORECASTLE.
Port of Survey HONGKONG

(Type of Superstructures.)

Date of Survey 27.12.1932

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

DUNAFRIC.BRITISH GLASGOW.148926.3489.1909.Name of Surveyor J. L. MorrisonMoulded Dimensions: Length 329.75 Breadth 47.0 Depth 28.0 TO ANNING DECK.Moulded displacement at moulded draught = 85 per cent. of moulded depth 8310 tonsCoefficient of fineness for use with Tables. .789Particulars of Classification +100 ΔI ANNING DECK WITH FREEBOARD.

Depth for Freeboard (D)

Depth correction

Round of Beam correction

Moulded depth ... 28.00Stringer plate ... .04Sheathing on exposed deck 2 1/2" TEAK. $T \left( \frac{L-S}{L} \right) = .21 \times \frac{196.41}{329.75} = .12$ Depth for Freeboard (D) = 28.16

(a) Where D is greater than Table depth (D-Table depth) R =

 $(28.16 - 21.98) 2.536 = +15.67$ 

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

If restricted by superstructures

Moulded Breadth (B)

Standard Round of Beam =  $\frac{B \times 12}{50} = 11.28$ Ship's Round of Beam = 11.50Difference .03

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.03}{4} \times .5956 = \text{nil}$ 

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>30.92</u>	<u>30.92</u>	<u>7.0</u>	✓	<u>30.92</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	<u>65.42</u>	<u>65.42</u>	<u>7.6</u>	✓	<u>65.42</u>
" overhang aft ...					
" overhang forward					
Fore enclosed ...	<u>37.0</u>	<u>37.00</u>	<u>7.0</u>	✓	<u>37.00</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	<u>133.34</u>	<u>133.34</u>			<u>133.34</u>

Standard Height of Superstructure 6.7975

" " R.Q.D. ✓

Deduction for complete superstructure 37.315Percentage covered  $\frac{S}{L} = 40.44\%$ "  $\frac{S_1}{L} = 40.44\%$ "  $\frac{E}{L} = 40.44\%$ Percentage from Table, Line A. 23.87

(corrected for absence of forecastle (if required)) ✓

Percentage from Table, Line B. 27.87

(corrected for absence of forecastle (if required)) ✓

Interpolation for bridge less than .2L (if required)  $\frac{.1984}{.2} \times 4 = 3.97$ Deduction =  $37.315 \times .2784 = -10.39$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>42.975</u>	1		<u>42.98</u>	<u>30.60</u>	<u>30.00</u>	1		<u>30.00</u>
L from A.P. ...	<u>19.12</u>	4		<u>76.48</u>	<u>14.22</u>	<u>14.22</u>	4		<u>56.88</u>
L " ...	<u>4.73</u>	2		<u>9.46</u>	<u>3.55</u>	<u>3.55</u>	2		<u>7.10</u>
Amidships ...	✓	4		✓	✓	✓	4		✓
L from F.P. ...	<u>9.45</u>	2		<u>18.90</u>	<u>7.70</u>	<u>7.70</u>	2		<u>15.40</u>
L " ...	<u>38.25</u>	4		<u>153.00</u>	<u>30.81</u>	<u>30.81</u>	4		<u>123.24</u>
F.P. ...	<u>85.95</u>	1		<u>85.95</u>	<u>66.60</u>	<u>66.00</u>	1		<u>66.00</u>
Total ...				<u>386.77</u>					<u>298.62</u>

Mean actual sheer aft = DeficientMean actual sheer forward = DeficientLength of enclosed superstructure forward of amidships = .084" " aft of " = .115Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{88.15}{18} \times (.75 - .2022) = +2.68$ 

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck = 28.04Summer freeboard = 5.12Moulded draught (d) = 22.92

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 5.73 = 5 3/4

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 17285$ 

Tons per inch immersion at summer load water line

 $T = 330.20$ Deduction =  $\frac{\Delta}{40T}$  inches= 6.03= 6"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.789 + .68}{1.36} = 1.469$ Depth Correction ... 15.67Deduction for superstructures ... 10.39Sheer correction ... 2.68Round of Beam correction ... 1.44Correction for Thickness of Deck amidships ... 1.44Other corrections, scantlings, etc. ... 1.44Summer Freeboard = 61.53SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 5'-1 1/2"

Tropical Fresh Water Line above Centre of Disc ...	...
Fresh Water Line " " " " " " " "	...
Tropical Line " " " " " " " "	...
Winter Line below " " " " " " " "	... <u>5 3/4</u>
Winter North Atlantic Line " " " " " " " "	...

Tropical Fresh Water Freeboard ...	...
Fresh Water " " " " " " " "	...
Tropical " " " " " " " "	...
Winter " " " " " " " "	... <u>5'-7 1/4"</u>
Winter North Atlantic " " " " " " " "	...



### PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway			NO. 1 CARGO.	NO. 2 CARGO.	NO. 3 CARGO.	NO. 4 CARGO.					BUNKER HATCH.
Dimensions of Hatchway			22'0" x 14'0"	30'0" x 14'0"	28'0" x 14'0"	24'0" x 14'0"					2'-11" x 1'-7"
COAMINGS	{	Height above Deck	22"	22"	22"	23"					24"
		Thickness { Sides	10/20	10/20	9/20	10/20	9/20	9/20			6/20
		Ends	10/20	9/20	9/20	10/20	9/20	9/20			6/10
		Stiffeners	-	-	9 x 4" 8/16 BA	-	-	-			
Brackets, Stays	-	-	-	3 ONLY	-	-					
HATCH BEAMS	{	Number	7'-4"	9'-0"	9'-4"	8'-0"					
		Spacing	7'-4"	9'-0"	9'-4"	8'-0"					
		Scantling and Sketch	SHOE ANGLES. 3" x 3" 1/20"	3" x 3" 1/20"	3" x 3" 1/20"	CONTINUOUS.					
		PLATES 6" 1/20 THK.									
Bearing Surface	BOTTOM ANGLES. 6" x 4" 8/16 CONTIN.										
FORE AND AFTERS	{	Number	3"	3"	3"	3"					
		Spacing	3'-6"	3'-6"	3'-6"	3'-6"					
		Unsupported Lengths	7'-4"	9'-0"	9'-4"	8'-0"					
		Scantling* and Sketch	At CENTRE 10" x 10" 1/20 BULB PLATES	3" x 3" 1/20 ANGLES.							
Bearing Surface	At SIDS 7" x 5" 6/20 BULB TEES.										
HATCH COVERS	{	Material	WOOD.	WOOD.	WOOD.	WOOD.					WOOD.
		Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"					2 1/2"
		How fitted	ATHWART.	ATHWART.	ATHWART.	ATHWART.					ATHWART.
		Bearing Surface	2"	2"	2"	2"					2"
Spacing of Cleats			22"	24"	22"	24"					23"
Number of Tarpaulins			3.	3.	3.	3.					3.
*Are wood fore and afters steel shod at all bearing surfaces? <b>FORE &amp; AFTERS &amp; STEEL.</b>											
Are battens and wedges efficient and in good condition? <b>YES.</b>											
Are tarpaulins in good condition and in accordance with rule requirements? <b>YES.</b>											
Are lashings provided in accordance with rule requirements? <b>YES.</b>											

Particulars of fiddley, funnel and ventilator coamings :- FUNNEL & VENTILATOR COAMINGS TO MOTOR ROOM EFFICIENT. ✓  
Motor Room SKYLIGHTS: 1 @ 14'-6" x 9'-6"; 1 @ 7'-0" x 4'-6". HAVING STEEL COAMING 27" HIGH x  $\frac{3}{8}$ " THICK, WITH WOOD SKYLIGHT TOPS. GLASS IN FLAPS COVERED WITH BRASS GRATINGS, PROVISION IS MADE FOR BATTENING DOWN WITH TARPAULIN COVERS. ✓ CLEATS SPACED 22" APART. ✓  
Also two complete steel skylights with coamings 14" high. ✓

Particulars of Flush Bunker Scuttles:— NONE. ✓

Particulars of Companionways :— ONE ON POOP TO DECK STORE.

STEEL DOOR RUBBER JOINTED; CLOSED WITH CLIPS  
OPERATED FROM EITHER SIDE. ✓

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— ON FCL: 2 @ 16" Dia. 31" COAMING x  $\frac{5}{8}$ " TO HOLD. 4 @ 10" Dia. 33" COAMING x  $\frac{5}{8}$ " TO FCL. 1 @ 7" Dia. 15" COAMING x  $\frac{5}{8}$ " TO GALLEY. 1 C.I. GOOSENECK 33" HIGH 6" x  $\frac{1}{2}$ " TO W.C. 1 @ 7" Dia MUSHROOM VENT 8" HIGH WITH SCREEN DOWN TOP. GALLEY FUNNEL COAMING 12" Dia. 33" HIGH x  $\frac{5}{8}$ ". FOR WELL: 2 @ 14" Dia. 29" COAMING x  $\frac{5}{8}$ " TO HOLD. 2 DERRICK POST VENTS BUILT TO DERRICK TABLE 10'-6" x 18'-2" 2 D.P. VENTS SUPPORTED AT BKG. FRONT. AFTER WELL: 2 DERRICK POST VENTS BUILT TO DERRICK TABLE 10'-6" x 18'-2". 2 @ 15" Dia 33" COAMING x  $\frac{5}{8}$ " TO HOLD. ON POOP: 2 @ 12" Dia. 25" COAMING x  $\frac{5}{8}$ ". 5 @ 6" Dia. 14" COAMING x  $\frac{5}{8}$ ". ON BRIDGE: 10 C.I. GOOSENECKS 21" HIGH TRUNKED TO HOLDS. 2 @ 6" Dia. 15" COAMING x  $\frac{5}{8}$ " TO ACC. 2 @ 10" Dia MUSHROOMS 8" HIGH x  $\frac{5}{8}$ " SCREEN DOWN TOPS. WOOD FLUSS & CANALS COVERS PROVIDED. ✓

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks: — ON FLE: To FORE PEAK 1@ 3" Dia. C.I. 8" HIGH; 1@ 3" Dia. W.I. PIPE 27" HIGH TO N°1. D.B.; 1@ 3" Dia. W.I. PIPE 32" HIGH TO N°1 & 2. D.B. ON BRIDGE: 11@ 3" Dia. W.I. PIPE 28" HIGH TO ENG. ROOM D.B. TANKS. AFTER NELL: 4@ 3" Dia. W.I. PIPE 36" HIGH TO N°4 & 5 D.B. ON POOP: 1@ 3" Dia. W.I. PIPE TO N°5 D.B. @ 2 1/2" Dia. W.I. PIPE TO AFT PEAK. 28" HIGH.

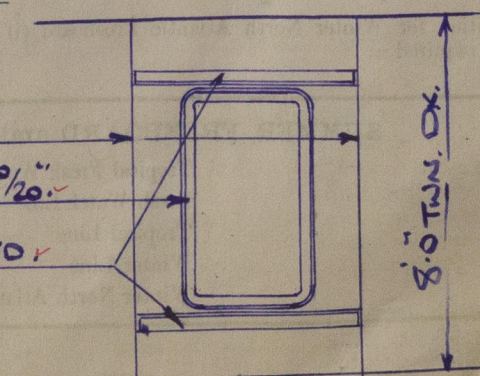
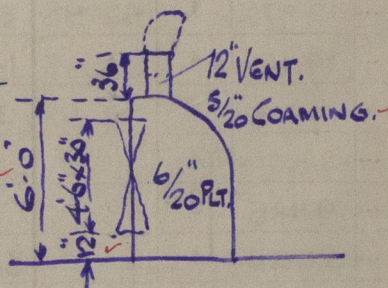
Particulars of Gangway Cargo and Coaling Ports:—CARGO DOORS SPACED AS PER PROFILE 4'10" x 25".

Web FRS. 14" x 11/20 BULB RATE. ✓

ROOF FRAME 4" x 4" x 10 1/2"

5' x 3' x 10 1/2" Top & Bottom Box ENDED ✓

$\frac{12}{20}$  INSIDE DOUBLING FOR ONE FRAME SPACE EACH SIDE; TOP HALF. ✓



Particulars of Scuppers and Sanitary Discharge Pipes — 3 N.C. SOILS FROM F.C.E. HAVE CAST IRON STORM VALVES. ✓  
STEERING GEAR HOUSE SCUPPERS HAVE W.T. BENDS. ✓ 2 SCUPPERS IN PASSAGE & 1 SINK DISCHARGE HAVE BRASS BENDS.  
OFFICERS & CAPTAIN'S N.C.S & BATH DISCHARGES HAVE BRASS STORM VALVES. ✓ ANNING OK. SCUPPERS THRO' SHELL. ✓

FOR POSITIONS SEE PROFILE. ✓

Particulars of Side Scuttles: NO SIDE SCUTTLES FITTED BELOW FREEBOARD DECK. ✓  
SIDE SCUTTLES TO FOLE. SPACE HAVE HINGED DEADLIGHTS. ✓  
NO DEADLIGHTS FOR POOP OR BRIDGE SPACE. ✓

Particulars of Guard Rails:—

	ROUND PILE:-	2 RODS	STANCHIONS	3'-3" HIGH,	SPACED ABOUT	4'-4" APART.	
BRIDGE OK. :-	3	"	"	3'-3"	"	"	3'-9" ✓
POOP. :-	3	"	"	3'-0"	"	"	4'-0" ✓

Particulars of Gangways, Lifelines, etc. :— ROPE LIFELINES STRETCHED WHEN REQUIRED.

Lifelines have been fitted in the forward and after wells, for the protection of the crew.

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 ... ..	$\begin{array}{l} P \quad 88.17 \\ 96.3 \\ S \quad 96.17 \end{array}$	3'-6" ✓	3'-0" x 18" ✓	$\begin{array}{l} P. \quad 3. \checkmark \\ S. \quad 4. \checkmark \end{array}$	$\begin{array}{l} 13.5 \text{ sq.} \\ 18. \text{ sq.} \end{array}$	$\begin{array}{l} 17.6 \text{ sq.} \\ 19.2 \text{ sq.} \end{array}$	
Forward Well ... ..	$\begin{array}{l} 100.9 \\ 100.24 \end{array}$	3'-6" ✓	3'-0" x 18" ✓	4. ✓	18 sq. ✓	20. sq. ✓	

State position of each freeing port ... .. { After Well: —  $\begin{array}{l} P \quad 33.6 \\ 53.3 \end{array}$  } FROM BOGE END } MEASURED TO CR. OF OPENINGS.  
(F. and A. position and height above deck edge) { Forward Well: —  $\begin{array}{l} 53.3 \\ 15.0 \end{array}$  } FROM FLE. } ALL ARE 12' ABOVE DECK EDGE.  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — HINGED STEEL FLAP & 1 RD FITTED HORIZONTAL.

Additional area where sheer is less than standard.

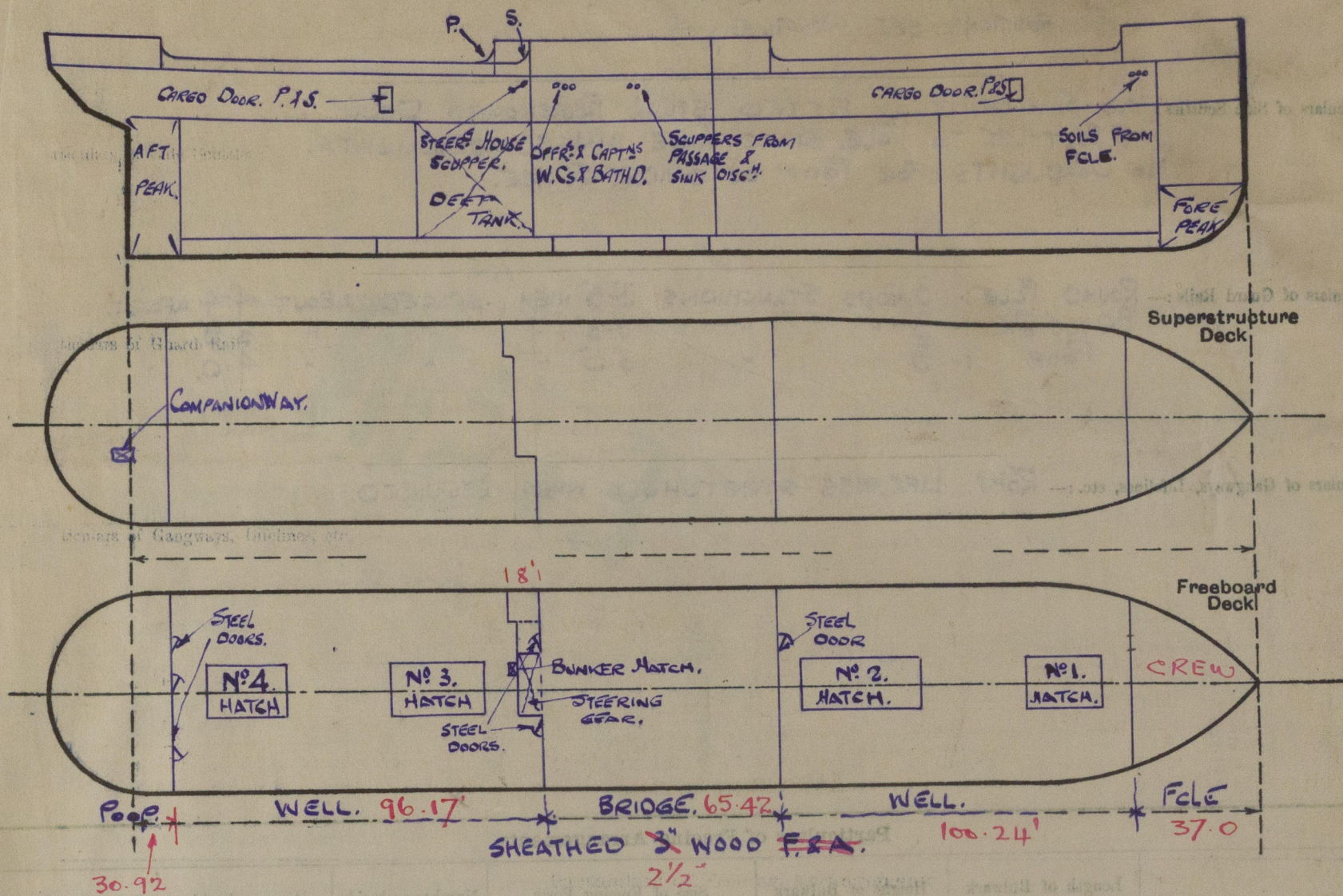
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	8 1/2" / 20"	7 1/2" / 20"	5 1/2" x 3" x 6 1/2" / 20"	28"	TAKES TOP & BOTTOM ANGLE.	10' 4" 9" x 33" / 20' 4" 9" x 26"	13"	7'-0"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..	VERT. PLT. 6"	5" / 20"	FLANGED 3 1/2"	40"	-	20' 4" 10" x 28"	16 1/2"	7'-6"
Bridge, Forward Bulkhead ... ..	8 1/2" / 20"	7 1/2" / 20"	40" 4" x 5" x 13"	30"	BRACKETS.	4' 10" x 25"	16"	7'-6"
Forecastle Bulkhead ... ..	VERT. PLT. 6"	6" / 20"	FLANGED. 3"	30"	-	5' 3" x 2' 8"	13"	7'-0"
Trunk, Aft ... ..								
Trunk, Forward ... ..								
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 ... ..	8 / 20"	5 / 20"	4" x 2 1/2" x 7 / 20"	24"	BRACKETS AT TOP.	5' 0" x 26"	16"	7'-6"
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ... ..	STEEL DOORS FASTENED WITH CLIPS. OPERATED FROM EITHER SIDE. ✓
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ... ..	STEEL DOORS. OPERATED FROM EITHER SIDE. ✓
Bridge, Forward Bulkhead ... ..	STEEL DOOR. OPENS FROM INSIDE BRIDGE SPACE ONLY. ✓
Forecastle Bulkhead ... ..	WOOD DOOR. OPERATED FROM EITHER SIDE. ✓
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 ... ..	STEEL DOORS. OPERATED FROM EITHER SIDE. ✓
Deckhouses on Flush Deck Ships ...	



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:—

med Or = 20'-10<sup>3</sup>/<sub>4</sub>  
Keel = 2'<sup>1</sup>/<sub>4</sub>  
21'-1"

21'-0" 7255 T.P.I. 30.2  
Δ = 7285

The vessel surveyed while afloat.

Builder's name and yard number

BARCLAY, CURLE & Co. LTD.

N°476.

Names of sister ships

Owners

BANK LINE, LTD

Fee \$8293.00

Received by me



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