

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Index No. **28369**  
 (For London Office only.)

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~  
 having POOP, BRIDGE & FORECASTLE CONNECTED BY  
TRUNKS OF FULL HEIGHT.  
 (Type of Superstructures.)

Port of Survey Gatham  
 Date of Survey 6<sup>th</sup> April 1952  
 Name of Surveyor Chas. H. Stocks  
 Particulars of Classification +100A1

Ship's Name <u>WAR BRAHMIN</u>	Nationality and Port of Registry <u>BRITISH LONDON</u>	Official Number <u>144353</u>	Gross Tonnage <u>5545</u> <u>5567.06</u>	Date of Build <u>1920-2</u>
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Moulded Dimensions: Length 400'0 Breadth 52'0 Depth 31'0  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 12040 tons  
 Coefficient of fineness for use with Tables 767  
 FROM SHIPS PAPERS:  $DISP @ 26'1 = 11895$   
 $25'7 = 11670 - TPI = 41.2$   
 $25'1 = 11403$

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>31.00</u>	(a) Where D is greater than Table depth (D - Table depth) R = $(31.04 - 26.67) \times 3.0 = +13.11$	Moulded Breadth (B) <u>52.0</u> Standard Round of Beam = $\frac{B \times 12}{50} = 12.48$ Ship's Round of Beam = <u>13.00</u> Difference <u>.52</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 = $\frac{Diff}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.52}{4} \left( 1 - \frac{.7662}{1186} \right) = .03$
Depth for Freeboard (D) = <u>31.04</u>		

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	49.5	49.50	7.5	7.25	47.86
„ overhang ...	✓	✓	✓	✓	✓
R.Q.D. enclosed ...	✓	✓	✓	✓	✓
„ overhang ...	✓	✓	✓	✓	✓
Bridge enclosed ...	121.0	108.90	7.5	12.0	108.90
„ overhang aft ...	✓	✓	✓	✓	✓
„ overhang forward ...	✓	✓	✓	✓	✓
Forecastle enclosed ...	39.0	39.00	7.5	6.50	33.80
„ overhang ...	✓	✓	✓	✓	✓
Trunk aft ...	87.0	45.17	7.5	✓	45.17
„ forward ...	103.5	58.06	7.5	✓	58.06
Tonnage opening aft ...	✓	✓	✓	✓	✓
„ forward ...	✓	✓	✓	✓	✓
Total ...	209.5	298.63			295.79

Standard Height of Superstructure	7'-6"
„ „ R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	52.37
„ „ $\frac{S_1}{L} =$	74.66
„ „ $\frac{E}{L} =$	72.94
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	66.62
Percentage from Table, Line B. TANKER (corrected for absence of forecastle (if required))	66.62
Interpolation for bridge less than 2L (if required) TANKER	
Deduction =	42.00 × 66.62 = -27.98

NOTE: NO SHEAR OVER HALF LENGTH.

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	50.00	1	50.00	48.0	48.00	1	48.00
$\frac{1}{2}$ L from A.P. ...	22.25	4	89.00	10.0	10.00	4	40.00
$\frac{2}{3}$ L „ ...	5.50	2	11.00	0	-	2	-
Amidships ...	-	4	-	0	-	4	-
$\frac{2}{3}$ L from F.P. ...	11.00	2	22.00	0	-	2	-
$\frac{1}{2}$ L „ ...	44.50	4	178.00	14.0	14.00	4	56.00
F.P. ...	100.00	1	100.00	89.0	89.00	1	89.00
Total ...			450.00				233.00

 Mean actual sheer aft = deficient  
 Mean standard sheer aft =

 Mean actual sheer forward = deficient  
 Mean standard sheer forward =

 Length of enclosed superstructure forward of amidships =  
 „ „ aft of „ = } Tanker.

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{217}{18} \left( .75 - \frac{2618}{4882} \right) = +5.89$$

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. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>31.04</u> Summer freeboard = <u>4.79</u> Moulded draught (d) = <u>26.25</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.56</u> Addition for Winter North Atlantic Freeboard (if required) = <u>4</u>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ <u>12020</u> Tons per inch immersion at summer load water line $T =$ <u>42</u> Deduction = $\frac{\Delta}{40T}$ inches = <u>7.15</u> <u>7.15 = 7.15</u>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{767+68}{1.36} \frac{1.447}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>13.11</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>27.98</td> </tr> <tr> <td>Sheer correction</td> <td>5.89</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td>.032</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td>19.00</td> <td>28.012</td> </tr> <tr> <td>Summer Freeboard =</td> <td>57</td> <td></td> </tr> </table>		+	-	Depth Correction	13.11	-	Deduction for superstructures	-	27.98	Sheer correction	5.89	-	Round of Beam correction	-	.032	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		19.00	28.012	Summer Freeboard =	57	
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## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	13.5	Tropical Fresh Water Freeboard ...	3.1
Fresh Water Line „ „ ...	7.4	Fresh Water „ „ ...	4.1
Tropical Line „ „ ...	6.2	Tropical „ „ ...	
Winter Line below „ „ ...	6.2	Winter „ „ ...	
Winter North Atlantic Line „ „ ...	10.2	Winter North Atlantic „ „ ...	



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS						
Description of Hatchway	TRUNK TOP		BRIDGED		POOP DECK	
	CARGO HOLD	CARGO TANKS	CROSS BUNKER	SIDE BK (6)	CARGO HOLD	SIDE BK (6)
Dimensions of Hatchway	12'9" x 18'0"	3'9" x 2'9"	6'7" x 18'0"	8'6" x 3'10"	13'0" x 13'0"	8'0" x 4'0"
COAMINGS	Height above Deck	30"	7"	30"	30"	10"
	Thickness	44"	44"	44"	44"	40"
	Stiffeners	12" down	7" B.A.	44"	44"	40"
	Brackets, Stays	✓	✓	✓	7" B.A.	✓
HATCH BEAMS	Number	2	1	2	2	2
	Spacing	4'8"	3'3 1/2"	4'8"	4'8"	4'8"
	Scantling and Sketch	4 x 3 x 44"	4 x 3 x 44"	4 x 3 x 44"	4 x 3 x 44"	4 x 3 x 44"
	Bearing Surface	16 x 36"	13 x 36"	16 x 36"	16 x 36"	16 x 36"
FORE AND AFTERS	Number	✓	✓	✓	✓	✓
	Spacing	✓	✓	✓	✓	✓
	Unsupported Lengths	✓	✓	✓	✓	✓
	Scantling* and Sketch	✓	✓	✓	✓	✓
HATCH COVERS	Material	P.P.	STEEL	P.P.	P.P.	P.P.
	Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	How fitted	F.A.	O.T.	THWART	F.A.	THWART
	Bearing Surface	3	COVERS	3	3	3
Spacing of Cleats	24"	15"	23"	20-24"	20-22"	25"
Number of Tarpaulins	2	✓	2	2	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? *Yes*

Particulars of fiddle, funnel and ventilator coamings:— *Fiddle, funnel & ventilator coamings of substantial construction and height, efficient condition. Stockhold openings on top fitted with padlocks and strong steel hinged covers. Engine room skylight of steel with steel hinged flaps.*

Particulars of Flush Bunker Scuttles:—

✓

Particulars of Companionways:—

POSITION	CONSTRUCTION	DOOR	OPENING	SILL	OPERATED	TO SPACE
FORECASTLE DECK COMPANION	PLATING 30 STIFF 3" HALF ROUND	STEEL HINGED	42 1/2 x 24	16"	BOTH SIDES	FORECASTLE
FORWARD PUMP ROOM	30 " 3 x 3 x 40 @ 39" Bk	1 1/2" SOLID WOOD	30 x 14 1/2	16"	—	PUMP ROOM
SALOON HOUSE AFT END	30 " "	—	42 1/2 x 24	18"	—	STORE
AFTER END OF CASING ON BR. DECK	30 NO STIFF (33" x 42")	—	42 1/2 x 14 1/2	18"	—	TUNNEL
AFTER PUMP ROOM	30 3 x 3 x 40 @ 36" Bk	—	50 x 14 1/2	15"	—	PUMP ROOM
POOP DECK COMPANION	25 3 x 3 x 40	—	42 1/2 x 42 1/2	18"	—	CREW SPACE

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

ON FORECASTLE DECK — 1 @ 10 1/2" dia COAMING 38 x 3/16 TO FORE HOLD  
 BRIDGE DECK — 1 @ 7" " 38 x 1/4 " FORE PEAK STORE  
 POOP DECK — 1 @ 8" " 18 x 1/2 " BRIDGE STORE  
 " " 7 @ 11" " 37 x 1/4 " AFTER HOLD & POOP  
 " " 2 @ 9" " 37 x 1/4 " AFTER STORE & POOP  
 " " 3 @ 5" " 18 x 3/8 " POOP M.V.  
 " " 6 @ 6" " 18 x 3/8 " POOP M.V.

*Covers and Canvas hoods are provided.*

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

On Forecastle Deck — 1 @ 3 1/2" dia 10" High from Fore peak tank  
 Bridge Deck — 1 @ 2 1/2" " 11 1/2" " N. 1/2 S.  
 Poop Deck — 1 @ 2 1/2" " 11" " Boiler Room  
 " " 1 @ 2 1/2" " 7 1/2" " Engine Room  
 " " " " " After peak tank

*All air pipes have wood plugs and saifing holes.*

Particulars of Gangway Cargo and Coaling Ports:—

✓

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Particulars of Scuppers and Sanitary Discharge Pipes

Forward & After Trunks - 3 deck scupper post. 7 1/2" through gunwale bar.  
 From Bridge Deck gutters - 3 deck scupper discharging through Bridge side plating 2'6" below Bridge Deck no valve.  
 Accommodation - 25 x 1/2" L.C. Dia 2" 2'6" below Upper Deck fitted with storm valve.  
 Bridge Tweedacks - 2 P & S Scupper 3" 2'6" below Upper Deck fitted with storm valve.  
 Poop Crew Space - 1 P & S H.C. Dia 4" through Poop side plating above Upper Deck storm valve.  
 - 1 P & S Scupper 2" 2'6" below Upper Deck fitted with storm valve.

Particulars of Side Scuttles:

Side scuttles in Forecastle, Bridge & Poop are of Substantial Construction and are fitted with portable deadlights stowed in adjacent racks.

Particulars of Guard Rails:

On Forecastle Deck - Height 3'4" 2 Rails Stanchions spaced 4'9"  
 - For & After Trunk tops - " " " " 6'0"  
 - Bridge Deck - " " " " 4'6"  
 - Poop Deck - " " " " 4'8"  
 - Ship's side in Wells - " 3'6" " " 4'8"

Particulars of Gangways, Lifelines, etc.:

Trunk top as gangway fitted with rails as above.

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 ...	Open Rails in Forward & After Wells					
Forward Well ...	Sheentake stands 14" above deck, scuppers as above.					

State position of each freeing port (F. and A. position and height above deck edge) } After Well: -  
 } 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.

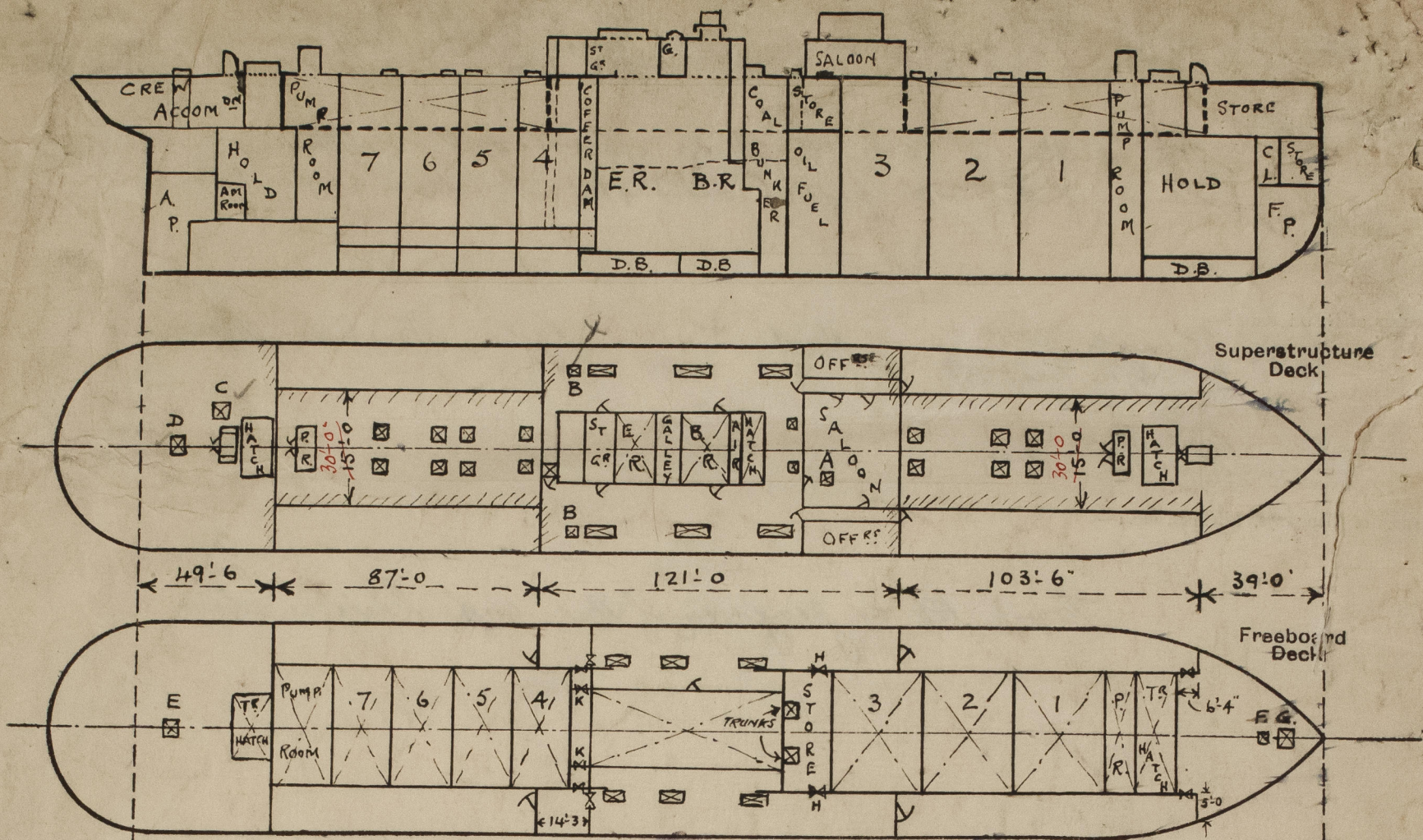
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	40	34	7 x 3 1/2 x 40 A	39"	Bkt at top	nil	✓	7'6"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ...	40	30	4 x 3 x 40 A	32"	Bkt top & bot	5'0 x 3'1 1/2	18"	7'6"
Bridge, Forward Bulkhead ...	44	44	8 x 3 x 50 BA	38"	-	5'0 x 3'1 1/2	17"	7'6"
Forecastle Bulkhead ...	40	30	3 x 3 x 40 A	28"	Nil	5'0 x 3'5	18"	7'6"
Trunk, Aft ...	60	60	9 x 3 1/2 x 44 BA	30"	Bkt & rails	✓	✓	7'6"
Trunk, Forward ...	60	60	-	-	-	✓	✓	7'6"
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Superstructure Decks ...	40	30	3 1/2 x 3 x 40 A	31"	Bkt at top	5'0 x 1'11	19"	7'10"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	40	30	One 7 1/2 x 3 x 44 BA Long with vertical ribs	-	Bkt	24" x 18"	42"	7'6"
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

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

Poop Bulkhead ...	✓	No openings
Raised Quarter Deck Bulkhead ...	✓	Doors
Bridge, After Bulkhead ...	3/8" steel linged door	secured by 9 bolts.
Bridge, Forward Bulkhead ...	3/8" steel linged door	secured by 16 bolts
Forecastle Bulkhead ...	3/8" portable steel plate	secured by hook bolts spaced 21" apart
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	2 steel linged doors	operated & secured from both sides.
Exposed Machinery Casings on Superstructure Decks ...	1 steel linged door	with clamp fastenings operated both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	-	-
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:



Small Hatches other than on Page 2.

A Hatch Bridge deck in Saloon House	29' x 28'	Flush fitted with grating cover gully.	✓
B After end	23' x 23'	Coaming 12' x 40' Steel H.T. Cover with clamps spaced 13'	✓
C Poop deck to Amun Room	3'-4' x 3'-4'	20' x 40' 2 1/2" P.P. Cover with battening down angle	✓
D to Store	4'-3' x 4'-0'	19' x 40' " " " " " " " " " " " "	✓
E Upper deck to Chain	4'-3' x 4'-0'	3 1/2' x 40' " " " " " " " " " " " "	✓
F Fore Peak	2'-0' x 1'-11"	9" BA. " " " " " " " " " " " "	✓
G	3'-0' x 2'-11"	9" BA. " " " " " " " " " " " "	✓

State any special features in the construction of the ship:

1. Cement and composition fitted on decks in and over Accom<sup>th</sup> spaces only. ✓
2. Single thickness stringer plate .44 amidships in way of Deck<sup>th</sup> marking. ✓
3. Opening in Trunk side plating within Bridge (marked H above) 3'-0' x 3'-0' Sill 21" above upper deck fitted with steel hinged H.T. door - leading to Bridge. Stow only. ✓
4. Opening in Trunk side plating p.s. within Bridge (marked K above) 24' x 19" Sill 10" above upper deck fitted with bolted steel cover secured by chain. ✓
5. Lower Bulk<sup>th</sup> at After end of Bridge. Space same scantlings as After Bulk<sup>th</sup> of Bridge, opening 5'-0' x 3'-1" Sill 18" fitted with channel slots and shifting boards. ✓
6. Closing appliances on Bridge House Alleyway - Fore end, Steel hinged door 5'-0' x 2'-4" Sill 19" secured by lock & 2 toggles operated both sides. ✓  
- After end, <sup>light</sup> steel hinged door 4'-7' x 2'-2" Sill 18" operated from both side.

Builder's name and yard number

Messrs Lithgow & Co. Ltd N<sup>o</sup> 720

Names of sister ships

Admiralty War Class Tankers (with modifications)

Owners

The Admiralty

Fee £

13: 12: 0

Receivable by me

3: 1: 0

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