

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Complete shelter deck with tanks opening aft.*
Swicathle & Bridge in shelter deck.
(Type of Superstructures.)

Ship's Name "ARABIAN PRINCE"	Nationality and Port of Registry <i>British London.</i>	Official Number 164728	Gross Tonnage <i>2000</i> 1960	Date of Build 1936.
----------------------------------------	------------------------------------------------------------	----------------------------------	---------------------------------------------	-------------------------------

Moulded Dimensions: Length **290'** Breadth **44'** Depth **19.16'**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **1085** tons
Coefficient of fineness for use with Tables **.688**

Port of Survey *Port Glasgow.*
Date of Survey *While Building*
Name of Surveyor *N. L. Swinton.*
Particulars of Classification **100 A1**
with freeboard (contingent)

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... 19.16'	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B) 44'
Stringer plate ... .03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 10.56$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	(19.33 - 19.19) 2.231 = - .31	Ship's Round of Beam 4" = 4.00
Depth for Freeboard (D) = 19.19	If restricted by superstructures ✓	Difference 6.56
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{6.56^2}{4} \times .0076 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	✓ 26.75	✓ 26.75			✓ 26.75
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward	✓ 258.75	✓ 258.75	8.0'		✓ 258.75
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	✓ 4.5	✓ 2.25			✓ 2.25
" forward					
Total ...	✓ 290.00	✓ 287.75			✓ 287.75

Standard Height of Superstructure	6.40
" " R.Q.D.	✓
Deduction for complete superstructure	34.67
Percentage covered $\frac{S}{L} = 100\%$	✓
" " $\frac{S_1}{L} = 99.24\%$	✓
" " $\frac{E}{L} = 99.24\%$	✓
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	99.06
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = 34.67 × .9906 = - 34.34	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	39.00	1	✓	39.00	+19.2	58.57	1	✓	58.57
1/4 L from A.P. ...	17.35	4	✓	69.40	17.12	26.06	4	✓	104.24
1/2 L " ...	4.29	2	✓	8.58	4.37	6.44	2	✓	12.88
Amidships ...		4			0		4		
3/4 L from F.P. ...	8.58	2	✓	17.16	8.12	11.08	2	✓	22.16
3/4 L " ...	34.71	4	✓	138.84	34.12	44.81	4	✓	179.24
F.P. ...	78.00	1	✓	78.00	+19.2	100.70	1	✓	100.70
Total ...				350.98					477.99

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{126.81}{18} \left(.75 - \frac{.50}{1} \right) = - 1.76$$

If limited on account of midship superstructure. ✓

Mean actual sheer aft	6.88
Mean standard sheer aft	6.40
Mean actual sheer forward	6.88
Mean standard sheer forward	6.40

Length of enclosed superstructure forward of amidships =	6.55
" " aft of " =	

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	✓ 19.19
Summer freeboard =	✓ .40
Moulded draught (d) =	✓ 18.79

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.69 = 4 3/4 ✓
Addition for Winter North Atlantic Freeboard (if required) = 6 3/4 ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line	Δ = 4883
Tons per inch immersion at summer load water line	T = 25.24
Deduction = $\frac{\Delta}{40T}$ inches	= 4.84
	= 4 3/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{.688 + .68}{1.36} = \frac{1.368}{1.36}$
Depth Correction	... .31
Deduction for superstructures	... 34.34
Sheer correction	... 1.76
Round of Beam correction	... .01
Correction for Thickness of Deck amidships	... -
Other corrections, scantlings, etc.	... -
Summer Freeboard =	4.84

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

Tropical Fresh Water Line above Centre of Disc	7 1/2	Tropical Fresh Water Freeboard	MINUS 2 3/4
Fresh Water Line	4 3/4	Fresh Water	NIL
Tropical Line	2 3/4	Tropical	0 - 2" (limited)
Winter Line below	4 3/4	Winter	0 - 9 1/2
Winter North Atlantic Line	6 3/4	Winter North Atlantic	0 - 11 1/2

18 SEP 1936

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS														
ON SHELTER DECK.					ON FREEBOARD DECK.									
Description of Hatchway	...	...	...	...	FORNATE OPENING.	N: 1.	N: 2.	CORNER MATCH.	N: 3.	TRIMMING MATCHES.	
Dimensions of Hatchway	...	...	...	...	4'-6" x 16'-0"	27' x 15'	36' x 16'	11'-3" x 16'-0"	36' x 16'	2'-0" x 2'-6"	2'-0" x 2'-0"
COAMINGS	Height above Deck	...	...	...	9' x 3' x 40' B.A.	30"	30"	30"	30"	9' x 3' x 40' B.A.	9' x 3' x 40' B.A.
	Thickness	...	...	...		48"	48"	48"	48"		
	Sides	...	...	...		44"	44"	44"	44"		
	Stiffeners	...	...	...		44"	44"	44"	44"		
Brackets, Stays				R. 2.	2'	3'	3'	3'						
HATCH BEAMS	Number	...	...	...	AT TEND IN WAY OF WOOD DECK.	4.	6.	1.	6.	None.	
	Spacing		5'-5 1/2"	4'-10 1/2"	5'-2 1/2"	5'-4 1/2"			5'-1 1/2"	5'-1 1/2"	
	Scantling and Sketch		16' x 36'	11' x 34'	11' x 32'	16' x 36'			14' x 34'	18' x 38'	15' x 34'
	T.O.B. sliding type		3 1/2" x 3"	3 1/2" x 3"	3 1/2" x 3"	3 1/2" x 3"			3 1/2" x 3"	3 1/2" x 3"	
Bearing Surface				...	4"	4"	4"	4"						
FORE AND AFTERS	Number	Cover opening by secure.	Sketch of W. 1, 2 & 3								
	Spacing		Hatch side coaming								
	Unsupported Lengths		to suit T.O.B. sliding beams.								
	Scantling and Sketch		10' x 32' x 44' B.A.								
Bearing Surface				...	30"	4"	4"	4"	4"					
HATCH COVERS	Material	...	...	...	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.
	Thickness	...	...	...	3"	3"	3"	2 1/2"	3"	2 1/2"	2 1/2"
	How fitted	...	...	...	1.0 A.	1.0 A.	1.0 A.	1.0 A.	1.0 A.	1.0 A.	1.0 A.
	Bearing Surface	...	...	...	3"	3"	3"	3"	3"	3"	3"
Spacing of Cleats	...	...	...	...	24"	24"	24"	24"	24"	18"	18"
Number of Tarpaulins	...	...	...	...	3.	3.	3.	2.	2.	2.	2.

*Are wood fore and afters steel shod at all bearing surfaces? ☒

Are battens and wedges efficient and in good condition? ☒

Are tarpaulins in good condition and in accordance with rule requirements? ☒

Are lashings provided in accordance with rule requirements? ☒

Covering hatchway on Bridge Deck.

6'-0" x 16'-0". Cam 30" x 30.

Steel hinges cover efficiently slipped & secured by clips 1'-0" apart.

*Are wood fore and afters steel shod at all bearing surfaces? ☒
 Are battens and wedges efficient and in good condition? ☒
 Are tarpaulins in good condition and in accordance with rule requirements? ☒
 Are lashings provided in accordance with rule requirements? ☒

Coaling hatchway on Bridge deck
 6' 0" x 16' 0". Coam 30" x 30".
 Steel hinges cover efficiently stiffened
 & secured by clips 1' 0" apart.

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel & vent. coamings efficient.
 Engine room skylight of steel strongly constructed.
 Fiddle gratings covered with strong steel hinged cover,
 permanently attached & efficiently secured.

Manhole opening on Surt. deck
 at fore end Boiler casing port side
 opening 18' x 13' closed by steel jlt.
 secured by studded bolts 4' apart.
 Hatch on Surt. deck to fore peak
 3' 9" x 3' 0". Coam. 9' x 3' x 10' R.A. Coam 22"
 Rest 3' cleats 24" off! 2 tarp.

Particulars of Flush Bunker Scuttles:—

Removed Dec 4 contd 3.7.19
 1 on bridge deck 18' dia. Cast Iron. fitted with bayonet joint. Cover attached by chain.
 1 on shelter deck off do. do. do. do.

Particulars of Companionways:—

Entrance to crew space in shelter deck off from stl. deckhouse on shelter deck.
 Opening 5' 0" x 2' 0". closed by steel hinged door, Monop. both sides. Sill 18".
 Entrance to Refig. room in shelter deck. inside from stl. deckhouse on shelter deck.
 Opening 5' 0" x 2' 0" closed by hinged steel W.T. door. Sill 18". Door Monop. both sides.

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

1 on side deck 12' dia. Coam 36' x 34' to fore peak.
 2 on Surt. deckhouse 20' dia. Coam 30' x 40' to hold.
 2 do. 24' - 33' x 40' -
 1 on shelter deck 10' dia. Coam 36' x 32' to transverse.
 1 do. 12' - 36' x 32' to Main room.
 4 do. 6' - 36' x 20' to Casew.
 2 on boat deck 12' - 30' x 34' to Casew.
 1 do. 12' - 30' x 34' to Refig. space.
 2 on shelter deck 24' dia. Coam 30' x 40' fitted on 24' of pedestal 30' high.
 2 do. 22' do. 30' x 40' do. do. do. do.
 1 on side deck 27' dia. Coam 78' x 40' -
 2 on Boat deck 22' do. 78' x 40' -
 all vents to Rule.
 Wind plugs & covers supplied.
 checked at house under
 with opening for access to
 exhaust for closed with
 W.T. door. Sill 18" above
 shelter deck.

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

1 on side deck 3 1/2' dia. 18" high. to fore peak tank.
 1 on " 3 1/2' " 18" " to W. 1. O.T.B.
 2 on shelter deck 3 1/2' " 30" " to W. 2. " "
 2 on Bridge deck 3 1/2' " 9" " to W. 3. " "
 2 on " 3 1/2' " 18" " to dry tank.
 2 on " 3 1/2' " 18" " to C.R. " "
 1 on shelter deck 3 1/2' " 18" " to aft peak tank.
 Openings of air pipes
 closed with canvas covers.

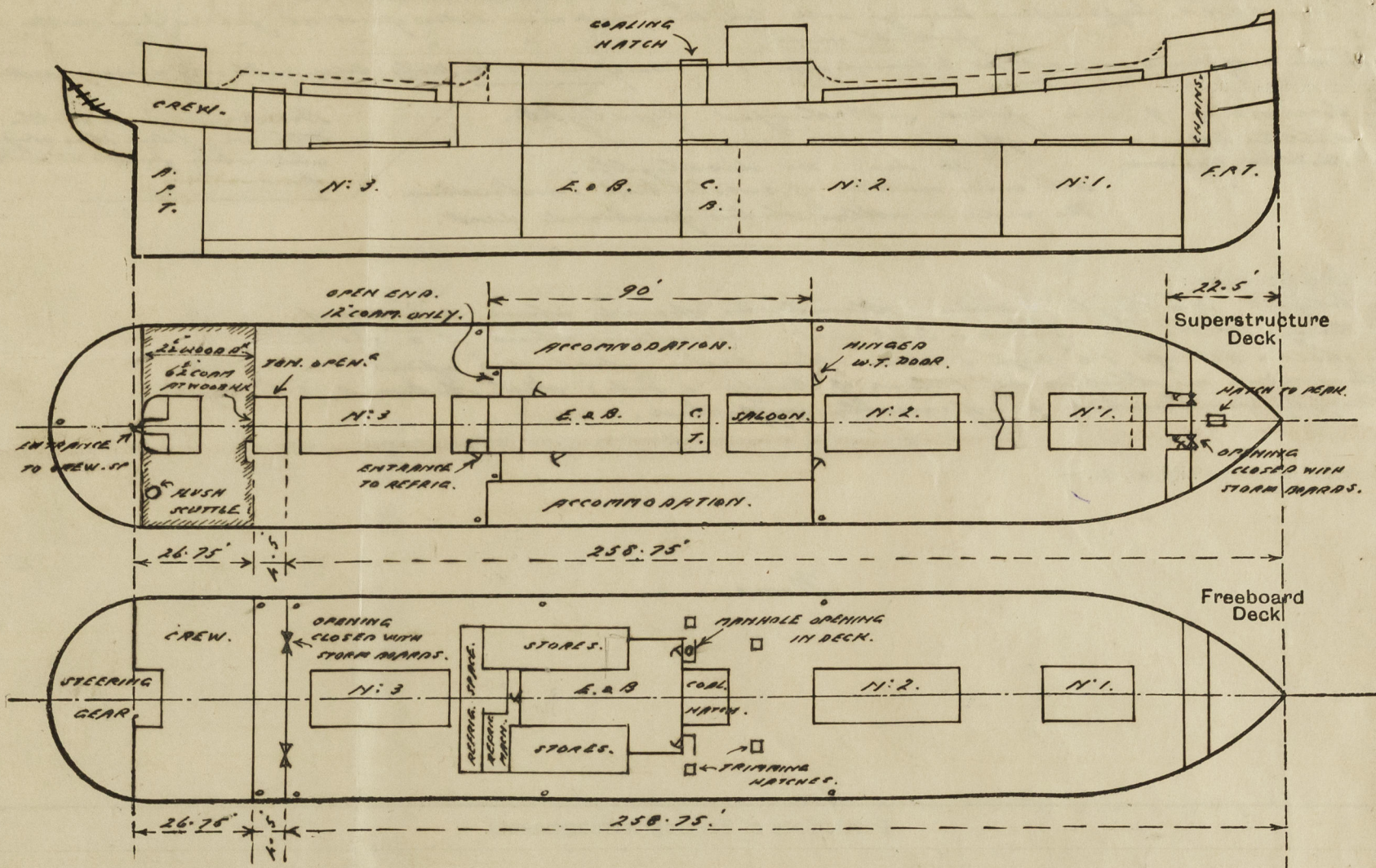
Particulars of Gangway Cargo and Coaling Ports:—

None.



Araban Pierce

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:—

This vessel has been built in accordance with the approved plans & in general conformity with the Society's Rules for the Class Contemplated. The approved plans of Midship Section & Profile & S.R. plans are forwarded for reference. Freeboard request forwarded. The vessel is to be engaged on International Trade.

Note: The Builder request the Certified Copy of Certificate in duplicate.

Please see Preliminary Assignment F. 2-12-35.

Displacement at 18'0" sp. draught 4602 tons. 24.9 Tons per inch.
 D. 19'0" D. 4902 tons. 25.27 D.

Builder's name and yard number W. Hamilton & Co. Ltd. W. 425.

Names of sister ships.

Owners Princes Line Ltd. London.

Fee £ 11 : 0 : 0
 ESTIMATED.

Received by me



© 2021

Lloyd's Register Foundation