

Rpt. 11 (Comp.).

ASKA 36016.

ARONDA

Newcastle-on-Tyne No. 96770
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(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "AMRA"	Official Number 166600	Nationality and Port of Registry British London	Gross Tonnage 8313.76	Date of Build 10.38.	Port of Survey Newcastle-upon-Tyne
Moulded Dimensions: Length 440'0" Breadth 61'0" Depth 28'3"					Date of Survey Whilst building
Moulded displacement at moulded draught = 85 per cent. of moulded depth $= 24'0\frac{1}{8}"$					Surveyor's Signature W J Carr
Coefficient of fineness for use with Tables .687.					Particulars of Classification +100 A.1.
Moulded displacement at moulded draught = 85 per cent. of moulded depth $= 24'0\frac{1}{8}"$ 12644 tons <i>including 34 tons for brassing and 17 tons for crumple stem</i>					
Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth ... 28'3"		(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B) = 61'00"	
Stringer plate .43		✓		Standard Round of Beam = $\frac{B \times 12}{50} = 14'64"$	
Sheathing on exposed deck 2 1/2"		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam 9'00"	
$T \left(\frac{L-S}{L} \right) = .21 \times .1598 = .03$		(29.33-28.32)3 = -3.03"		Difference deficiency 5.64"	
Depth for Freeboard (D) = 28.32		If restricted by superstructures yes NIL		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{5.64}{4} \times .2318 = +.33$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	75.08	75.08	7'9" centre 8'0" sides	✓	75.08	Standard Height of Superstructure 7.50'
.. overhang33	.16	"	✓	.16	.. R.Q.D. ✓
R.Q.D. enclosed ...						Deduction for complete superstructure 42.00"
.. overhang ...						Percentage covered $\frac{S}{L} = .8402$
Bridge enclosed...	185.98	185.98	7'9" centre 8'0" sides	✓	185.98	$\frac{S_1}{L} = .7682$
.. overhang aft ...	15.85	11.89	"	✓	11.89	$\frac{E}{L} = .7682$
.. overhang forward	34.00	17.00	"	✓	17.00	Percentage from Table, Line A.
F'cle enclosed ...	23.58	23.58	7'9" centre	✓	23.58	(corrected for absence of forecastle (if required))
.. overhang ...	13.83	13.83	"	✓	13.83	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
BRIDGE forward open	21.00	10.50	"	✓	10.50	Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = 42" x .7139 = 29.98"
.. " forward						
Total ...	369.65	338.02			338.02	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate inches	Effective Ordinate	S	M	Product	
A.P. ...	54.00	1		54.00	40.25	40.25	1		40.25	Mean actual sheer aft = Deficient. less than 50% of Standard ✓
1/4 L from A.P. ...	24.03	4		96.12	10.5	10.50	4		42.00	Mean actual sheer forward = Excess.
1/2 L " ...	5.94	2		11.88	-1.0	-1.00	2		-2.00	
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = Deficient
3/4 L from F.P. ...	11.88	2		23.76	15.9	11.88	2		23.76	aft of " = Excess
1/4 L " ...	48.06	4		192.24	49.0	48.06	4		192.24	
F.P. ...	108.00	1		108.00	102.0	108.00	1		108.00	
Total ...				486.00					404.25	
Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{81.75}{18} = 4.54$										
If limited on account of midship superstructure. +1.50"										

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	84.00
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.687 + .68}{1.36} = \frac{1.367}{1.36}$	84.43
Depth to Freeboard Deck = 28.29	$\Delta = 12531$	Depth Correction ...	
Summer freeboard = 4.67	Tons per inch immersion at summer load water line	Deduction for superstructures ...	29.98
Moulded draught (d) = 23.62	T = 57.66	Sheer correction ...	1.50
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 5.90 = 6"	Deduction = $\frac{\Delta}{40T}$ inches = 6.06 = 6"	Round of Beam correction33
Addition for Winter North Atlantic Freeboard (if required) = ✓	For displacement and T.P.I. See rule 4	Correction for Thickness of Deck amidships36
		Other corrections, scantlings, etc. ...	
		1.83 30.34 - 28.51	
		Summer Freeboard = 55.92	

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

Tropical Fresh Water Line above Centre of Disc ...	12"	Tropical Fresh Water Freeboard ...	3'8"
Fresh Water Line " " ...	6"	Fresh Water " " ...	4'2"
Tropical Line " " ...	6"	Tropical " " ...	4'2"
Winter Line below " " ...	6"	Winter " " ...	5'2"
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	✓

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"AMRA."

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

W. J. Clark
10.10.38

overshell displacement at 23'-0" full draft = 12014 tons excluding 34 tons bossing and 17 tons currier steel
 " " " 24'-0" " " = 12634 " " " " " "
 Tons per inch mld " 23'-0" = 51.3
 " " " " 24'-0" = 51.73

Depth of keel = 13 $\frac{3}{4}$ "

The watertight subdivision has been approved by the Board of Trade for a moulded draft of 23'-3 $\frac{1}{2}$ "

Trade of ship

Indian Coast

Names of sister ships

✓

Builder's name and yard number

Swan Hunter & Wigham Richardson Ltd 1570

Owners

British India S.S. Co. Ltd.

Fee £

£ 19-0-0

charged with £ 6



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