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Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tug MOTORSHIP.					Port of Survey <u>GREENOCK</u>
having <u>RAISED QUARTER DECK, BRIDGE & FORECASTLE</u>					Date of Survey <u>WHILE BUILDING</u>
(Type of Superstructures.)					Name of Surveyor <u>Kenneth Inglis</u>
Ship's Name <u>ACRITY</u>	Nationality and Port of Registry <u>BRITISH LONDON</u>	Official Number <u>163438</u>	Gross Tonnage <u>APPROX. 400</u>	Date of Build <u>NOW BUILDING</u>	Particulars of Classification <u>+100A.I. (CONTEMPLATED)</u>
Moulded Dimensions: Length <u>142.5</u> Breadth <u>25.5</u> Depth <u>10.25</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>693</u> tons					
Coefficient of fineness for use with Tables <u>766</u>					
Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth <u>10.25</u>		(a) Where D is greater than Table depth (D - Table depth) R = (10.25 - 9.50) 1.096 = +.85"		Moulded Breadth (B) <u>25.6"</u>	
Stringer plate <u>375"</u>		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50} = \frac{6.12}{50} = 6"$	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓		If restricted by superstructures ✓		Ship's Round of Beam = <u>6"</u>	
Depth for Freeboard (D) = <u>10.28</u>				Difference <u>.12</u>	
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.12}{4} \times .2315 = +.01"$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	8.5	0.55	2.5		
" overhang ...					
R.Q.D. enclosed ...	82.7	82.70	3'-6"		82.70
" overhang ...					
Bridge enclosed ...	9.59	9.59	7'-3"		9.59
" overhang aft ...					
" overhang forward ...	17.22	17.22	7'-0"		17.22
F'le enclosed ...	16				
" overhang ...	2.75				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	109.51	109.51			109.51

Standard Height of Superstructure	6.00
" R.Q.D.	3.283
Deduction for complete superstructure	20.25
Percentage covered $\frac{S_1}{L} = \frac{82.70}{109.51} = 76.85\%$	
" $\frac{S_1}{L} = 76.85\%$	
" $\frac{E}{L} = 76.85\%$	
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	71.42%
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = $20.25 \times 71.42 = 14.46$	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	24.25	1		24.25	30 1/2	24.25	1		24.25
1/4 L from A.P. ...	10.79	4		43.16	14	10.79	4		43.16
3/4 L " ...	2.67	2		5.34	3"	2.67	2		5.34
Amidships ...		4			0		4		
3/4 L from F.P. ...	5.33	2		10.66	4 3/4	4.75	2		9.50
1/4 L " ...	21.58	4		86.32	20	20.00	4		80.00
F.P. ...	48.50	1		48.50	51	51.00	1		51.00
Total ...				218.23					213.25

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4.98}{18} (.75 - .3842) = +.10"$$

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.

Depth to Freeboard Deck =	13.78
Summer freeboard =	3.67
Moulded draught (d) =	10.11

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4} \text{ inches} = 2.53 = 2 \frac{1}{2}"$$

Addition for Winter North Atlantic Freeboard (if required = 2")

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 10' = 812$$

$$\Delta = 9' = 726$$

Tons per inch immersion at summer load water line

$$T = 10' = 7.25$$

$$T = 9' = 7.21$$

$$\text{Deduction} = \frac{\Delta}{40 T} \text{ inches} = 2.85 = 2 \frac{3}{4}"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	.85	
Deduction for superstructures ...		14.46
Sheer correction ...	.10	
Round of Beam correction ...	.01	
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. <u>ht. of R.Q.D.</u>	42.00	
	42.96	14.46
Summer Freeboard =	43.94	

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

Tropical Fresh Water Line above Centre of Disc ...	2 3/4"
Fresh Water Line " " ...	2 3/4"
Tropical Line " " ...	N.L.
Winter Line below " " ...	2 1/2"
Winter North Atlantic Line " " ...	4 1/2"

Tropical Fresh Water Freeboard ...	3'-8"
Fresh Water " " ...	3'-5 1/4"
Tropical " " ...	3'-5 1/4"
Winter " " ...	3'-8" (Limited)
Winter North Atlantic " " ...	4'-0 1/2"

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		No.1	No.2						
Dimensions of Hatchway		MAIN DK	R. QR DK						
COAMINGS	Height above Deck	22'9" x 16'	35' x 16'	CHAIN LOCKER HATCH FORD ON MAIN DK					
	Thickness	3'3"	3'3"	23" x 20 1/2"					
	Stiffeners	7x3x35BA	7x3x35BA	COAMING 18" x .375 FITTED WITH 2 1/2" WOOD COVERS					
	Brackets, Stays	5x30BP	5x30BP	+ USUAL BATTENING ARRANGEMENTS INCLUDING CLEATS					
HATCH BEAMS	Number	2	3	+ 2 TARPAILINGS.					
	Spacing	7'9"	8'7"						
	Scantling and Sketch	18x36	17x36						
	Bearing Surface	3x3x40	3x3x40						
FORE AND AFTERS	Number	3	3						
	Spacing	4'0"	4'0"						
	Unsupported Lengths	7'3"	8'1"						
	Scantling* and Sketch	7x7 1/2"	8x7 1/2"						
HATCH COVERS	Material	W.P.	W.P.						
	Thickness	2 1/2"	2 1/2"						
	How fitted	TWARTSHIP	TWARTSHIP						
	Bearing Surface	3	3						
Spacing of Cleats		24	24						
Number of Tarpaulins		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 fiddley, funnel and ventilator coamings:—

Fiddley, funnel & ventilator coamings efficient.
Engine room skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

None

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

One 9" dia Ventilator to hold on Raised Quarter Dk. 36" x 32" coaming.
One 9" " " " " " Main Deck coaming 36" x 32".
Ventilator coamings fitted with wood plugs & canvas covers.

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

One 2 1/2" Air pipe to fore peak tank on 1/4" Dk. 18" high.
Two 2" Air pipes to oil fuel bunker on Raised Quarter Dk 30" high.
One 2 1/2" " " " aft peak tank " " " 30" high.
Air pipes fitted with canvas covers or gauze on air pipes to oil fuel bunkers.

Particulars of Gangway Cargo and Coaling Ports:—

None



Particulars of Scuppers and Sanitary Discharge Pipes —

Stringer bar cut for weather deck scuppers.
Sanitary discharges fitted with C. S. stem valves at ships side & efficient trap at inner end.

Particulars of Side Scuttles:

Sidelights on ships side in Bridge & Forecastle fitted with hinged deadlights.
Sidelights on bridge front fitted with galvanised portable plugs & no hinged deadlights.

Particulars of Guard Rails:—

Rails round forecastle 3'-3" high, consisting of 2 rods & stanchions 4'-6" apart.
Steel bulwark substantially constructed round freeboard deck forward & raised quarter deck.

Particulars of Gangways, Lifelines, etc.:—

Efficient lifelines fitted to enable crew to proceed to their quarters, fitted on top of forward hatch.

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	82'-6"	37"	2'-6" x 1'-6"	5	18.75	17.16.6
Forward Well	32	42"	2'-6" x 1'-6"	3	11.25	10.9.7

State position of each freeing port { After Well:— 1, 21, 37, 56 & 73 aft of aft end of bridge (3 1/2" above deck edge)
(F. and A. position and height above deck edge) { Forward Well:— 5, 14, 22 ft fwd of Bridge front (9" above deck edge).
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— fitted with one horizontal rail.

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 ✓								
Raised Quarter Deck Bulkhead ...	.26	.26	3 x 3 x .25	30" 7' BA	LUGGED	✓	✓	✓
Bridge, After Bulkhead ... ..	.26	.26	3 x 3 x .25	30" STIFFS AT DIAPHRAGMS		1'-9" x 22"	24"	✓
Bridge, Forward Bulkhead ... ..	.30	.26	5 x 3 x .35 BA	30"	BRACKETS	NONE	✓	✓
Forecastle Bulkhead ... ..	.26	.26	3 x 3 x .30	30"	NONE	54" x 22"	24"	✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	.30	.24	2 1/2 x 2 1/2 x .25	30"	NONE	NONE	✓	7'-0"
Exposed Machinery Casings on Superstructure Decks ✓								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ✓								
Deckhouses on Flush Deck Ships ... ✓								

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

Poop Bulkhead ✓	
Raised Quarter Deck Bulkhead ... ✓	
Bridge, After Bulkhead	Wood door capable of being manipulated from both sides.
Bridge, Forward Bulkhead	No openings.
Forecastle Bulkhead	Wood door, capable of being manipulated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	No openings, entrance to engine room through deckhouse & closed by steel door with 24" sill.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ✓	
Deckhouses on Flush Deck Ships ... ✓	

Lloyd's Register of Shipping.

COPY OF FREEBOARD REPORT.

Ship's Name *"ACRITY"*Official Number *163438*Type *Raised Quarter Deck, Bridge and Forecastle.*

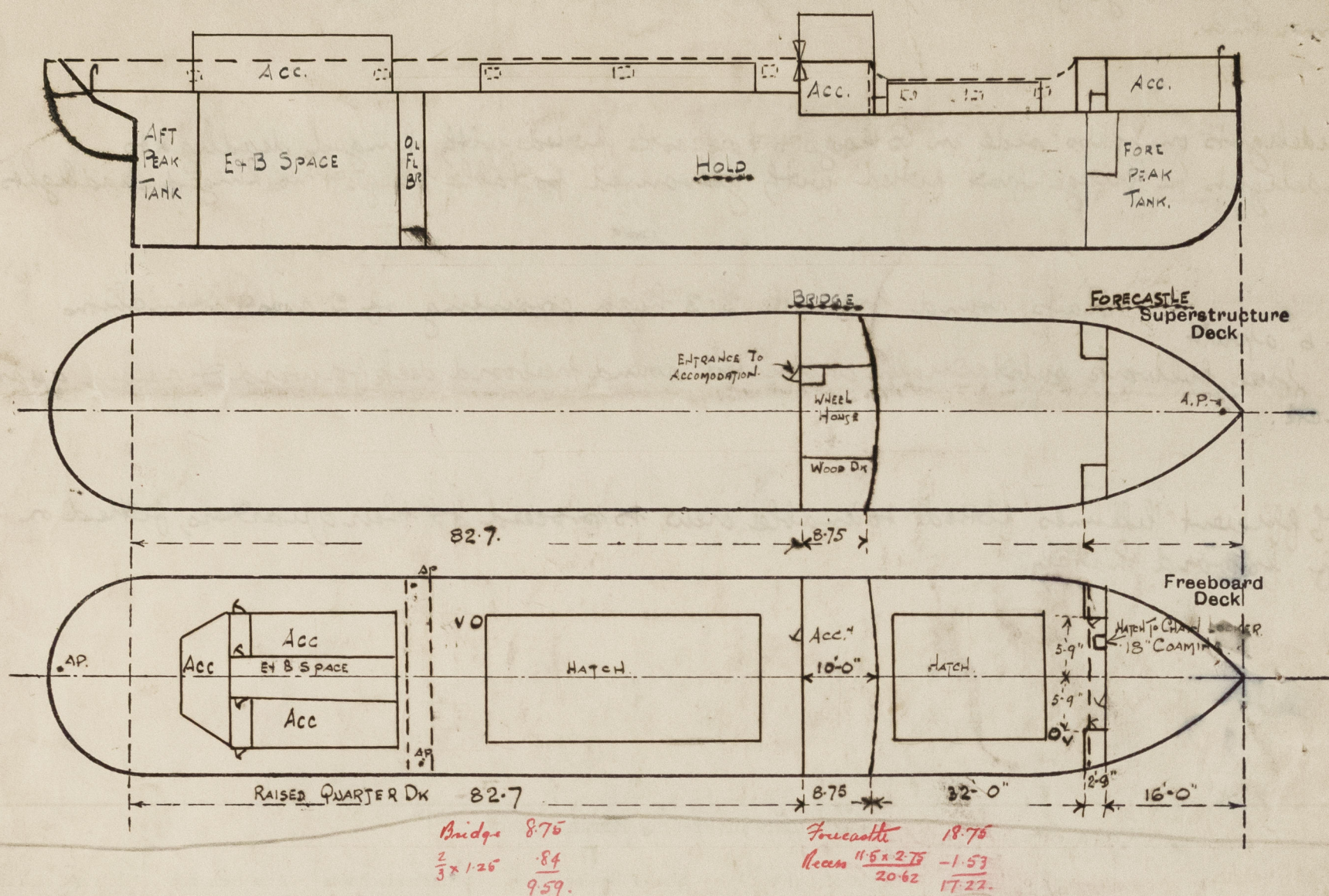
PARTICULARS OF SUPERSTRUCTURES.

	Mean covered length.	Height.
Poop enclosed - - - - -		
„ overhang - - - - -		
R.Q.D. enclosed - - - - -	<i>82.70'</i>	<i>3.50'</i>
„ overhang - - - - -		
Bridge enclosed <i>Equipt.</i> - - - - -	<i>9.59'</i>	<i>7.25'</i>
„ overhang aft - - - - -		
„ overhang forward - - - - -		
F'cle enclosed <i>Equipt.</i> - - - - -	<i>17.22'</i>	<i>7.00'</i>
„ overhang - - - - -		
Trunk aft - - - - -		
„ forward - - - - -		
Tonnage opening aft - - - - -		
„ „ forward - - - - -		
TOTAL - - - - -	<i>109.51'</i>	



Apricity

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 will be engaged on international trade. She is at present under construction & will be launched shortly.

The plans of midship section & profile & decks are forwarded herewith for reference & should be returned to this office.

A preliminary freeboard has been assigned for this vessel see assignment letter dated 12th January 1933.

Amint

Builder's name and yard number Geo Brown & Co Yard No 185.

Names of sister ships Geo Brown & Co No 184. M/V "APRICITY". Greenock, F.B. No 19561

Owners Frederick J. Everard & Sons Ltd

Fee £ 6 : 0 : 0 Received by me _____



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