

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 54080

Computation of Freeboard for ~~Steamer~~ ^{MOTOR} Sailing Ship, Tanker

having A POOP, BRIDGE AND FORECASTLE

Port of Survey GLASGOW.

(Type of Superstructures.)

Date of Survey 18TH DEC. 1933

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

" KARABAGH

BRITISH
LONDON.

162683

6426.63

1934

Name of Surveyor H. Thuman

Moulded Dimensions: Length 425'-0" Breadth 57'-0" Depth 32'-1 1/2"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 14740 tons

Coefficient of fineness for use with Tables .780

Particulars of Classification + 100 A.I.
CARRYING PETROLEUM IN BULK
(CONTEMPLATED)

Depth for Freeboard (D)

Moulded depth ... 32.12

Stringer plate ... 6405

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 32.17

Depth correction

(a) Where D is greater than Table depth

(D-Table depth) R =

(32.17 - 28.33) 3.0 = + 11.52

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

(Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 57.0

Standard Round of Beam = $\frac{B \times 12}{50} = 13.68$

Ship's Round of Beam = 14.25

Difference .57

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.57}{4} \times .6114 = -.09$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	88.75	88.75	7'-9"	✓	88.75
overhang ...	none	✓	✓	✓	✓
R.Q.D. enclosed ...					
overhang ...					
Bridge enclosed ...	28.00	28.00	7'-9"	✓	28.00
overhang aft ...	4.25	3.18	✓	✓	3.18
overhang forward ...	3.25	1.62	✓	✓	1.62
Fore enclosed ...	40.89	40.89	7'-9"	✓	40.89
overhang ...	3.30	2.17	✓	✓	2.17
Trunk aft ...	3.86	2.73	✓	✓	2.73
forward ...					
Tonnage opening aft ...					
forward ...					
Total ...	169.00	165.17			165.17

Standard Height of Superstructure 7.5

R.Q.D. ✓

Deduction for complete superstructure 42.0

Percentage covered $\frac{S}{L} = 39.76$ $\frac{S_1}{L} = 38.86$ $\frac{E}{L} = 38.86$ Percentage from Table, Line A.
(corrected for absence of forecastle (if required))Percentage from Table, ~~Line B. TANKER~~ 29.86
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = $42.0 \times 29.86 = -12.54$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.50	1	✓	52.50	60	60.00	1	✓	60.00
1/8 L from A.P. ...	23.36	4	✓	93.44	26 3/4	26.75	4	✓	107.00
2/8 L " ...	5.77	2	✓	11.54	7 3/4	7.75	2	✓	15.50
Amidships ...	-	4	✓	-	-	-	4	✓	-
2/8 L from F.P. ...	11.55	2	✓	23.10	15 3/4	15.75	2	✓	31.50
1/8 L " ...	46.73	4	✓	186.92	53 3/4	53.25	4	✓	213.00
F.P. ...	105.00	1	✓	105.00	120	120.00	1	✓	120.00
Total ...	1492.5		✓	472.50				✓	547.00

Mean actual sheer aft = EXCESS
Mean standard sheer aftMean actual sheer forward = EXCESS
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = } TANKER
" " aft of " = }Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{74.50}{18} \left(\frac{75-119.88}{2} \right) = -2.28$

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 = 32.17

Summer freeboard = 5.85

Moulded draught (d) = 26.32

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $\frac{26.32}{4} = 6.58$

Addition for Winter North Atlantic Freeboard (if required) = 4.25 = 4 1/4

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 14215$

Tons per inch immersion at summer load water line

 $T = 49.1$ Deduction = $\frac{\Delta}{40T}$ inches

= 7.24

= 7 1/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.780 + .680}{1.36} =$

Depth Correction ... 11.52

Deduction for superstructures ... 12.54

Sheer correction ... 2.28

Round of Beam correction09

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = 70.31

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

Tropical Fresh Water Line above Centre of Disc ... 13 3/4

Fresh Water Line " " ... 7 1/4

Tropical Line " " ... 6 1/2

Winter Line below " " ... 6 1/2

Winter North Atlantic Line " " ... 10 3/4

Tropical Fresh Water Freeboard ... 5'-10 1/4"

Fresh Water " " ... 4'-8 1/2"

Tropical " " ... 5'-3"

Winter " " ... 5'-3 3/4"

Winter North Atlantic " " ... 6'-4 3/4"

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	MAIN OIL HATCHES	SUMMER TANK HATCHES	HATCH TO FORE HOLD	TO FORE PEAK	TO FORE PUMP	TO FORE HOLD	TO GALLEY COAL
Dimensions of Hatchway	...	...	6'-0" x 4'-0"	6'-0" x 3'-0"	11'-0" x 10'-0"	2'-6" x 2'-0"	2'-6" x 1'-9"	2'-2" x 2'-2"	3'-4" x 2'-2"
COAMINGS	Height above Deck	...	30	30	30	15 1/2	30	30	30
	Thickness	Sides	.40	.40	.40	.36	.36	.36	.36
	Stiffeners	Ends	.40	.40	.40	.36	.36	.36	.36
	Brackets, Stays	...	none		none		none		none
HATCH BEAMS	Number	...							
	Spacing	...							
	Scantling and Sketch	...	none		none		none		none
FORE AND AFTERS	Number	...							
	Spacing	...							
	Unsupported Lengths	...							
	Scantling* and Sketch	...	none		none		none		none
HATCH COVERS	Bearing Surface	...							
	Material	...	steel	steel	steel	steel	steel	W.P.	W.P.
	Thickness	...	plate	plate	plate	plate	plate	2 1/2	2 1/2
	How fitted	...	W.T.	W.T.	W.T.	W.T.	W.T.	✓	✓
Spacing of Cleats	...	...	none	none	none	none	none	18	18
	Number of Tarpaulins	...	none	none	none	none	none	2	2
<p>*Are wood fore and afters steel shod at all bearing surfaces? none ✓</p> <p>Are battens and wedges efficient and in good condition? yes ✓</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? yes ✓</p> <p>Are lashings provided in accordance with rule requirements? none ✓</p>									

Particulars of fiddle, funnel and ventilator coamings:—

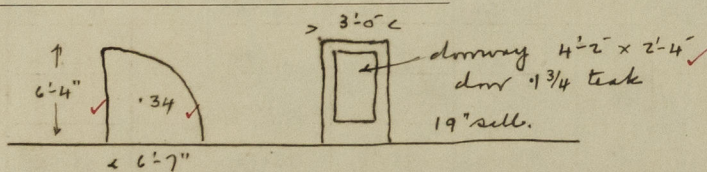
Engine skylight on casing top of steel & strongly constructed ✓
 Fiddle openings protected by hinged plate covers. ✓
 Ventilators on casing top of strong construction ✓

Particulars of Flush Bunker Scuttles:—

1 scuttle is fitted on p + s side of poop deck where shown on sketch
 Scuttles 22" dia of cast steel with bayonet joints. ✓

Particulars of Companionways:—

Entrance to tween deck on
 poop deck. ✓



Entrance to pump rooms 4'-4" x 3'-0" - 18" sills.
 Hinged steel W.T. doors ✓

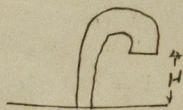
Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

1	ventilator on fore deck to fore peak	coaming	36 x 12 x .34
1	-	hold	36 x 18 x .40
2	-	tween deck	24 x 7 x .30
4	-	upper	36 x 16 x .36
4	-	lower	36 x 12 x .34
1	-	hold	36 x 18 x .40
1	-	fore pump room	30 x 9 x .32
1	-	engine room	36 x 13 x .34
3	-	tween deck	24 x 6 x .30
1	-	-	24 x 10 x .32

Ventilator coamings closed with
 wood plugs & canvas covers. ✓

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

for Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:			
1	air pipe on fore deck to fore peak tank	36 x 2 1/2	
2	- - - - - deep tank	14 x 4	
4	- - - upper - - - copperdun	36 x 2 1/2	
2	- - - - - oil fuel tank	6'-7" x 4"	stayed
3	- - - poop - - - after peak tank	15 x 3	
12	- - - - - double bottom	15 x 3	
1	- - - - - tween deck	15 x 6	
5	- - - - - - - -	15 x 4	



Efficient
 means of closing air pipes
 provided.

Particulars of Gangway Cargo and Coaling Ports:—

none ✓



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Particulars of Scuppers and Sanitary Discharge Pipes:—

There are no scupper or sanitary pipes discharging below the foremast deck. ✓

Particulars of Side Scuttles:—

Side scuttles in poop 10" dia. fitted with hinged steel deadlights ✓
 " " " bridge 11" " " " " " " " ✓
 " " " fore 10" " " " " " " " ✓

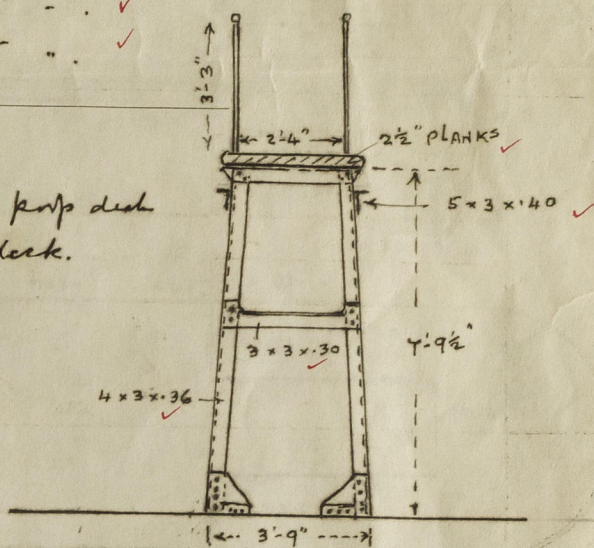
Particulars of Guard Rails:—

Guard rails on upper deck 3'-5½" high stanchions 5'-0" apart ✓
 " " " poop - 3'-7" " " 5'-0" " " ✓
 " " " bridge " 3'-6" " " 4'-6" " " ✓
 " " " fore " 3'-6½" " " 5'-0" " " ✓

Particulars of Gangways, Lifelines, etc.:—

a gangway as per sketch is fitted between the poop deck + bridge deck and bridge deck + foremast deck.

Gangway supports average spacing 10'-0" ✓



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	<i>Open rails</i>					
Forward Well						
State position of each freeing port } After Well :— (P and A. position and height above deck edge) } 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.

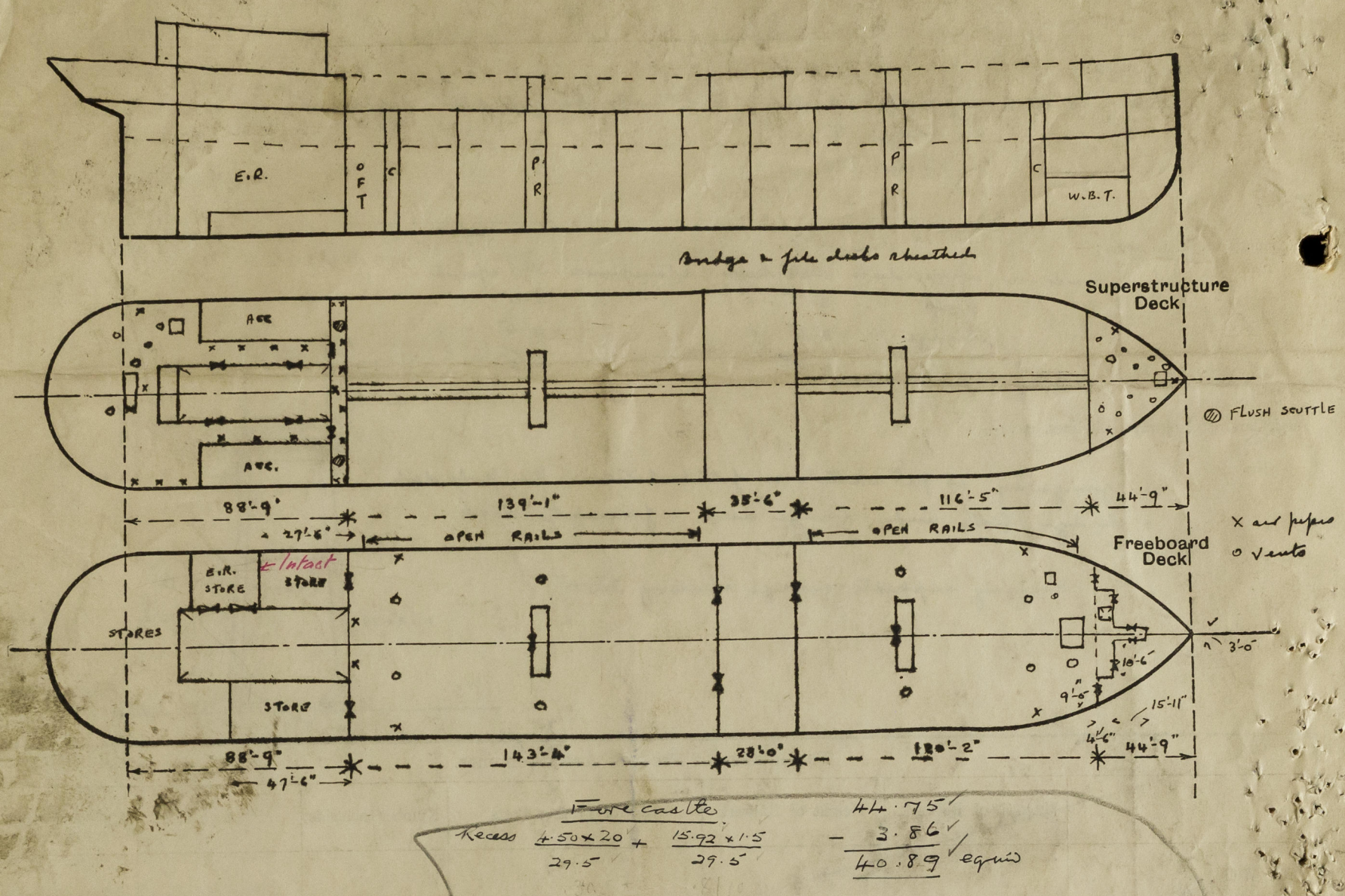
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	21 x 44 ✓	.40 ✓	9 x 3½ x 36 BA ✓	30 ✓	lugs T + B	4'-6" x 3'-1" ✓	21" ✓	✓
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	nme	.30 ✓	3 x 3 x 30 ✓	30 ✓	brackets at tip	4'-6" x 3'-1" ✓	18" ✓	✓
Bridge, Forward Bulkhead	30 x 44 ✓	.40 ✓	8 x 3 x 36 BA ✓	30 ✓	brackets T + B	4'-6" x 2'-6" ✓	22" ✓	✓
Forecastle Bulkhead	nme	.26 ✓	fl 3" ✓	30 ✓	nme	5'-0" x 2'-2" ✓	18" ✓	✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks	nme	.38 - .26 ✓	3 x 3 x 30 ✓	30 ✓	nme	5'-0" x 2'-1" ✓	18" ✓	7'-9" ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	nme	.40 - .26 ✓	3½ x 3 x 30 ✓	30 ✓	nme	5'-0" x 5'-0" port only ✓	18" ✓	✓
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	Wood shifting boards 3" thick in channels riveted to bulkhead ✓
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Wood shifting boards 3" thick in channels riveted to bulkhead ✓
Bridge, Forward Bulkhead	Hinged steel w.t. door manipulated from both sides. ✓
Forecastle Bulkhead	Hinged teak door 1¾" thick manipulated from both sides ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	Hinged steel door manipulated from both sides ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Wore nothing to Engineer's store.
Deckhouses on Flush Deck Ships ...	

Kara-hagh

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:—

The keel of this vessel was laid on 30th May 1930.

Plans of Midship section, Profile & decks (2 plans) are forwarded herewith for reference.

This vessel is not yet completed and the original forward certificates, returned herewith, have never been handed over to the Builders.

Builder's name and yard number... Blythburgh S.B. Co Ltd. No 32

Names of sister ships... none

Owners... Baltic Trading Co Ltd.

Fee £ 5-00 letters

Received by me. [Signature]