

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

16 MAY 1932

Index No. **33580**
(For London Office only.)

10, 844

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~
having Roofs, Bridge & Forecastle

(Type of Superstructures.)

Ship's Name "CORABANK"	Nationality and Port of Registry British Japan Belfast	Official Number 161876	Gross Tonnage 8898	Date of Build 1932 Contemplated
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Moulded Dimensions: Length **470'-0"** Breadth **63'-6"** Depth **35'-4"**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **20041** tons
Coefficient of fineness for use with Tables **.783**

Port of Survey **Belfast**
Date of Survey **May 11/32**
Name of Surveyor **Jas. Rennie**
Particulars of Classification **Contemplated
+100A1**
Carrying petroleum in bulk

<p>Depth for Freeboard (D)</p> <p>Moulded depth ... 35'-4"</p> <p>Stringer plate83"</p> <p>Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$.07</p> <p>Depth for Freeboard (D) = 35'-40"</p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = (35'-40" - 31'-33") 3 = +12'-21"</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓</p> <p>If restricted by superstructures ✓</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) 63'-5"</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$ 15'-24"</p> <p>Ship's Round of Beam = 16" 15'-00"</p> <p>Difference 24"</p> <p>Restricted to 63'-5"</p> <p>Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{24}{4} (1 - \frac{365}{11365}) = +0'-04"$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	103'-3"	103'-29"	7'-9"	-	103'-29"	
" overhang ...	✓	✓				
R.Q.D. enclosed ...	✓	✓				
" overhang ...	✓	✓				
Bridge enclosed ...	33'-0"	33'-0"	8'-0"	-	33'-00"	
" overhang aft ...	✓	✓				
" overhang forward ...	✓	✓				
F'cle enclosed ...	35'-5 1/2"	35'-46"	7'-6" to 7'-9"	✓	35'-46"	
" overhang ...	✓	✓				
Trunk aft ...	✓	✓				
" forward ...	✓	✓				
Tonnage opening aft ...	✓	✓				
" " forward ...	✓	✓				
Total ...	171'-75"	171'-75"			171'-75"	

Standard Height of Superstructure **7'-50"**

" " R.Q.D. **✓**

Deduction for complete superstructure **42"**

Percentage covered $\frac{S}{L} =$ **36.54%**

" " $\frac{S_1}{L} =$ **36.54%**

" " $\frac{E}{L} =$ **36.54%**

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **Tanker** **27.54%**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **42 x 27.54 = -11'-57"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	57.00	1		57.00	61.5	61.50	1		61.50	
1/8 L from A.P. ...	25.37	4		101.48	26.5	26.47	4		105.88	
2/8 L " ...	6.27	2		12.54	6.6	6.62	2		13.24	
Amidships ...	-	4		-	✓	-	4		✓	
3/8 L from F.P. ...	12.54	2		25.08	13.7	13.75	2		27.50	
1/8 L " ...	50.73	4		202.92	55.0	55.00	4		220.00	
F.P. ...	114.00	1		114.00	127.0	127.00	1		127.00	
Total ...				513.02					555.12	

Mean actual sheer aft = **excess**
Mean standard sheer aft = **excess**

Mean actual sheer forward = **excess**
Mean standard sheer forward = **excess**

Length of enclosed superstructure forward of amidships = **does not apply**
" " aft of " = **apply**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{42.10}{18} \left(\frac{75-18}{11365} \right) = -1'-33"$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 35'-40"</p> <p>Summer freeboard = 7'-12"</p> <p>Moulded draught (d) = 28'-28"</p> <p>Deduction for Tropical freeboard and addition for Winter-freeboard = $\frac{d}{4}$ inches = 7'-07"</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 4'-7" = 4'-3/4"</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line 19018 tons</p> <p>Tons per inch immersion at summer load water line 59.94</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches = 7'-93" = 8"</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.783 + .680}{1.36} = \frac{1.463}{1.36}$</p> <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>12'-21"</td> <td>✓</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>✓</td> <td>11'-57"</td> </tr> <tr> <td>Sheer correction ...</td> <td>✓</td> <td>1'-33"</td> </tr> <tr> <td>Round of Beam correction ...</td> <td>✓</td> <td>.04</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>12'-25"</td> <td>12'-90"</td> </tr> </table> <p>Summer Freeboard = 85'-62"</p>		+	-	Depth Correction ...	12'-21"	✓	Deduction for superstructures ...	✓	11'-57"	Sheer correction ...	✓	1'-33"	Round of Beam correction ...	✓	.04	Correction for Thickness of Deck amidships ...	✓	-	Other corrections, scantlings, etc. ...	✓	-		12'-25"	12'-90"
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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 ...	15'	Tropical Fresh Water Freeboard ...	5'-10 1/2"
Fresh Water Line " " ...	8'	Fresh Water " " ...	6'-5 1/2"
Tropical Line " " ...	7'	Tropical " " ...	6'-6 1/2"
Winter Line below " " ...	7'	Winter " " ...	7'-8 1/2"
Winter North Atlantic Line " " ...	11 3/4'	Winter North Atlantic " " ...	8'-1 1/4"

W1312-0188 1/2

MARKING FORM
RECEIVED 18 AUG 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
<div> <div>Freeboard Deck</div> <div> <div>34 off.</div> <div>10 ft</div> <div>10 ft</div> <div>20 ft</div> <div>20 ft</div> <div>Fore</div> <div>Aft</div> </div> </div>									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	31"	30"	30"	6"	9"	9" 3/4	30"	
	Thicknes { Sides	40	44	44	6 3/4 x 40 L	9 3/4 x 50 L		40	
	Thicknes { Ends								
	Stiffeners ...	✓	✓	✓	✓	✓	✓	✓	
HATCH BEAMS	Brackets, Stays	✓	✓	✓	✓	✓	✓	✓	
	Number ...								
	Spacing ...								
	Scantling and Sketch								
FORE AND AFTERS	Bearing Surface								
	Number ...								
	Spacing ...								
	Unsupported Lengths								
HATCH COVERS	Scantling* and Sketch								
	Bearing Surface								
	Material ...	Steel O.T.	Steel W.T.	Steel W.T.	Steel O.T.	Steel W.T.	Wood	Wood	
	Thickness ...	.60"	.52"	.50"	.50"	.50"	3"	3"	
Spacing of Cleats	How fitted						laid in	laid in	
	Bearing Surface						3"	2 1/2"	
	Number of Tarpaulins	15"	24"	24"	25 1/2"	20"	24" x 33"	18"	
		✓	✓	✓	✓	✓	one	one	
<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? not required.</p>									

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel & ventilator coamings of steel, rivetted, efficient.
Engine room skylight of steel, rivetted, efficient.

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:—

Entrance way port & starboard at aft end of deckhouse on poop deck forming stairway down to Poop Space. The deckhouse is of steel, rivetted. The entrance door p. & st. is of teak, hunged 1 1/2" thick, solid, securing from either side.

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

Position	Space to	No.	Height	dia.	Indicators	Attachment	Closing Appliance
Fore Dk.	Below Freeboard Dk.	2	36"	9" 15"	32, 36	Rule	Wooden plug & canvas cover
Upper Dk.	do	2	7'-0"	12" 15"	34	do	do
Pump Room Top	do	2	18"	12"	34	do	do
Poop Deck	do	2	30"	9"	32	do	do
do	do	5	24"	12" 1/2"	30	do	do
do	Poop Space	12	24"	12" 1/2"	30	do	do
do	do	4	24"	6" 1/2"	30	do	do
do	do	6	30"	6" 1/2"	32	do	do
Boat Decks	do	2	30"	9"	32	do	do

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

Position	Space to	No.	dia.	height to opening	Material	Closing Appliance
Fore Dk.	F.P. Tank Fore Deep T.	3	3 1/2, 4"	31"	W.I. & C.I.	do
Upper Dk.	Cofferdams	4	3, 4"	27", 54"	do	do
Poop Dk.	O.F. Bunkers	2	4"	30"	do	do
do	" Settling Tanks	2	2"	25"	do	do
do	D.B. Tanks	9	2 1/2"	30"	do	do
do	A.P. Tanks	1	3"	30"	do	do
do	F.W. Tanks & Poop	2	2"	30"	do	do

Particulars of Gangway Cargo and Coaling Ports:—

none.



W1312-0189

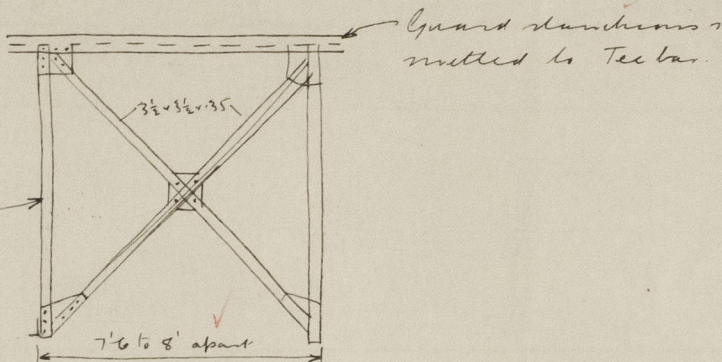
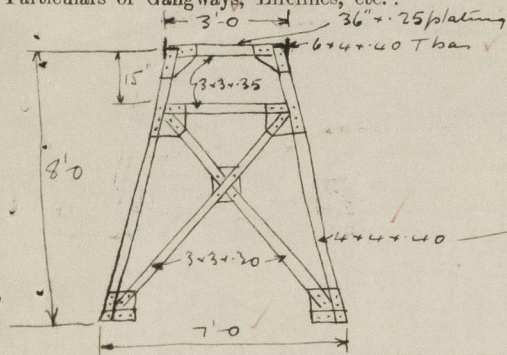
Particulars of Scuppers and Sanitary Discharge Pipes —	No.	At Shell.	At inner end
Item. Position of Discharge Space from.			
San. Disch. Bridge Side Bridge	1.	Storm Valve G. M.	✓
do Below Freebd. Dk. (7') Poops	4.	do	✓
Scuppers do do do	2.	do	Scupper plug.

Particulars of Side Scuttles:

The side scuttles are situated on the bridge & poop sides & are fitted with efficient hinged deadlights.

Particulars of Guard Rails:—	Fore Dk. 3 rows rails. 3'-6" high. Stanchions spaced 4'-3" (approx) apart.	✓
Poops " do do do	do do do	✓
Bridge Dk. 2 rows rails. 3'-9" high (afford)	do 4'-9" "	✓
do Steel bulwarks 3'-9" high fore end & sides.		✓
Well deck. 4 rows rails. 3'-6" high. Stanchions spaced 4'-3" & 4'-6" apart.		✓
F. & A. Gangway. 2 " " 3'-7" "	do 4'-1" apart.	✓

Particulars of Gangways, Lifelines, etc.:



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 ... 17.9' ...	27'	3'-6"	Open rails 152'	?	?	502 sqm rails
Forward Well 11.9'-3" ...	27	3'-6"	Open rails 92'-3"	?	?	...
State position of each freeing port ... { After Well:— ✓ (F. 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.						

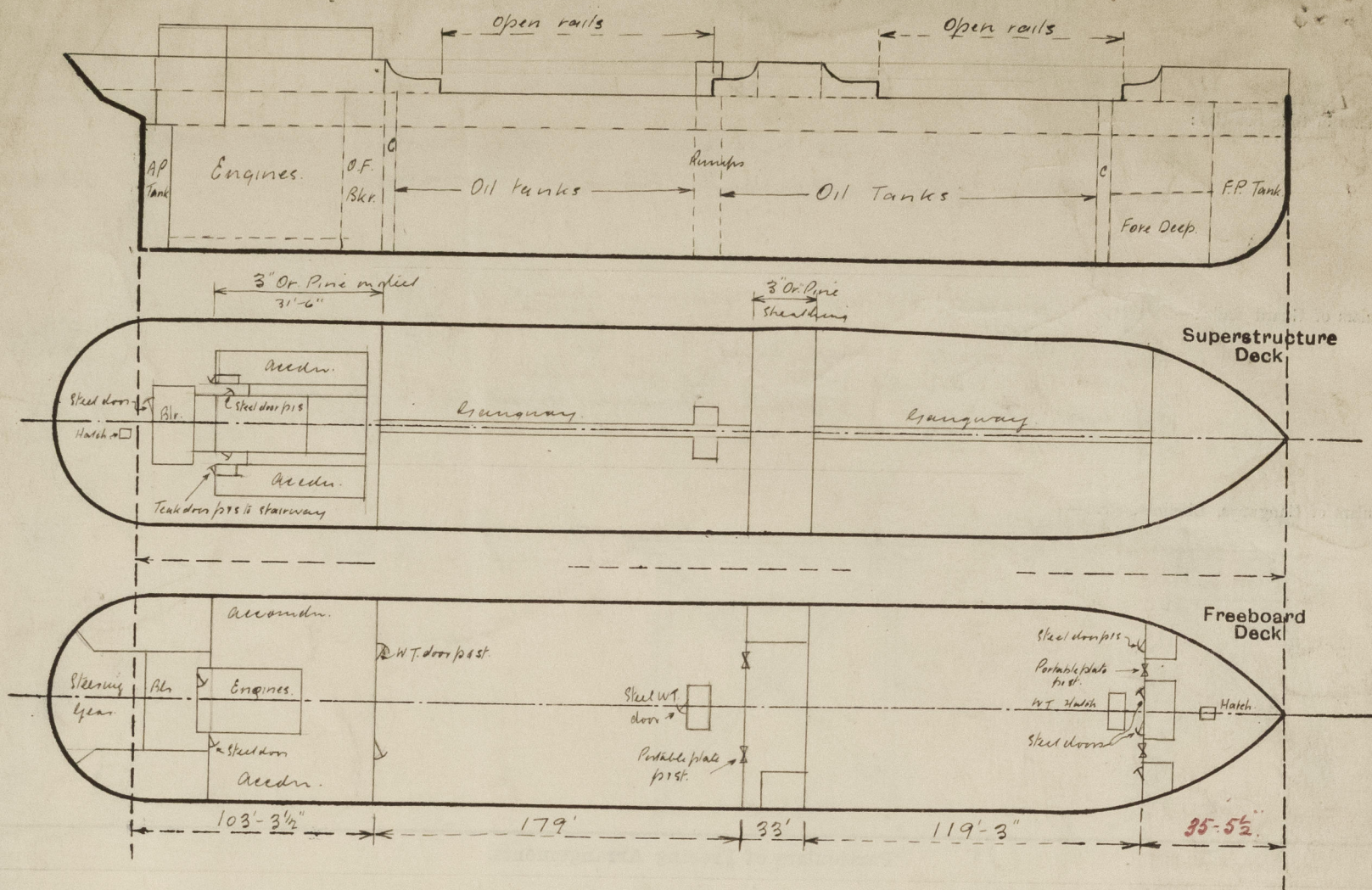
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	44	40	10 x 3 1/2 x 40 L	Average 29"	lugs	2 @ 5' x 3'	18 1/2"	7'-6"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	34	30	4 x 3 x 34 L	3 1/2"	Bottom. Deck bar.	2 @ 5' x 4'	18 1/2"	7'-9"
Bridge, Forward Bulkhead ...	44	40	40 webs & 2 steel bulkheads 9 x 3 1/2 x 40 L	Average 30"	lugs	nil	✓	7'-9"
Forecastle Bulkhead ...	30	26	4 x 3 x 34 L	Average 30"	Bottom. Deck bar.	2 @ 5' x 3'-3" 4 @ 5' x 2'	18 1/2"	7'-6"
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Superstructure Decks ...	34 & 30	30	4 x 3 x 34 L + 2 1/2" w. bar 4 x 3 x 34 3 1/2 x 2 1/2 x 30	3 1/2" 26" 30"	Top. Aft. & For. Dk. bar do do	1 @ 5' 6" x 2' 4" 2 @ 5' 3" x 2' 3"	15"	7'-10 1/2" 7'-2" side 7' 7'-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓							
Pump Room Freeboard Deckhouse on Flush Deck Ships ...	30	30	4 x 3 x 35 L	sides 33" Ends 35" x 38"	Bottom. Dk. bar. T & B. do.	1 @ 4' 6" x 2' 6"	18"	6'-9"

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

Poop Bulkhead ...	2 watertight steel hinged doors running from both sides.
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	2 portable plate doors secured by hook bolts through door spaced 12 1/2" C to C.
Bridge, Forward Bulkhead ...	None.
Forecastle Bulkhead ...	4 steel hinged doors running from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	2 portable plate doors secured by hook bolts through door spaced 13 1/4" C to C.
Exposed Machinery Casings on Superstructure Decks ...	None.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	3 steel hinged doors running from both sides.
Pump Room Upper Deckhouse on Flush Deck Ships ...	None.
Deckhouse on Flush Deck Ships ...	1 watertight steel hinged door running from both sides.

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:—

Waterline	External Displacement	Tons per Inch
27'	17982 1/2	59.7
28'	18703 "	59.9
29'	19424 "	60.0

all right

Builder's name and yard number Workman Clark (1928) Ltd. Yard No 516

Names of sister ships ✓

Owners Bank Line Ltd. (Andrew Men & Co. Managers)

Fee £ 16 : 3 : 0

Received by me

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