

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

15 MAR 1932  
Index No. 3  
(For London Office only.)

Shipping Ship, Tanker

h. hump opening + a

Port of Survey Barry

Date of Survey March 1932.

Name of Surveyor A. H. Harris

Particulars of Classification 400 A.1. with freeboard

Official Number 149912  
Gross Tonnage 4950  
Date of Build 1927  
Depth 28.25  
depth 11460. tons

Stringer plate ... .. 04  
Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$   
Depth for Freeboard (D) = 28.29

Depth correction  
(a) Where D is greater than Table depth  
(D - Table depth) R =  
 $(28.29 - 26.64) \times 3 = + 4.86$   
(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) 54.04  
Standard Round of Beam =  $\frac{B \times 12}{50} = 12.94$   
Ship's Round of Beam = 13.5  
Difference .53  
Restricted to  
Correction =  $\frac{\text{Diff}^0}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.53}{4} \times .0065 = .0008$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	29.92	29.92	8.0	✓	29.92
„ overhang ...	✓				
R.Q.D. enclosed ...	✓				
„ overhang ...	✓				
Bridge enclosed ...	364.92	364.92	8.0	✓	364.92
„ overhang aft ...	✓				
„ overhang forward ...	✓				
F'cle enclosed ...	✓				
„ overhang ...	✓				
Tank aft ...	✓				
„ forward ...	5.16	1/2 diff. 2.58	8.0	✓	2.58
Tonnage opening aft ...	✓				
„ „ forward ...	✓				
Total ...	400.0	394.42			394.42

Standard Height of Superstructure 4.50  
„ „ R.Q.D. ✓  
Deduction for complete superstructure 42.00  
Percentage covered  $\frac{S}{L} = 100.0$   
„ „  $\frac{S_1}{L} = 99.35$   
„ „  $\frac{E}{L} = 99.35$   
Percentage from Table, Line A. 99.20.  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B. ✓  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than 2L (if required)  
Deduction =  $42.00 \times .992 = - 41.64$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	50.00	1	50.00	51.0	51.00	1	51.00
1/4 L from A.P. ...	22.25	4	89.00	22.12	22.12	4	101.44
3/4 L „ ...	5.50	2	11.00	5.5	5.53	2	12.54
Amidships ...	✓	4	✓	0	✓	4	✓
3/4 L from F.P. ...	11.00	2	22.00	11.38	11.40	2	24.42
1/4 L „ ...	44.50	4	178.00	45.6	45.62	4	194.60
F.P. ...	100.00	1	100.00	105.0	105.00	1	111.00
Total ...			450.00				504.00

Mean actual sheer aft = Excess  
Mean standard sheer aft

Mean actual sheer forward = Excess.  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } C.S.S.  
L aft of „ = }

Actual height of T. Oks. = 8.0  
Standard „ „ = 4.50  
Excess 6.00

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{54.00}{18} \times (.75 - .50) = -.45$

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 = 28.29  
Summer freeboard = 3.23  
Moulded draught (d) = 25.06

Reduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.26 = 6 1/4  
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 12083$   
Tons per inch immersion at summer load water line  
 $T = 44.5$   
Deduction =  $\frac{\Delta}{40 T}$  inches = 6.49 = 6 1/2

TABULAR FREEBOARD corrected for Flush Deck (if required)  
Correction for coefficient

Depth Correction ... 4.86  
Deduction for superstructures ... 41.64  
Sheer correction ... .75  
Round of Beam correction ... ✓  
Correction for Thickness of Deck amidships ... ✓  
Other corrections, scantlings, etc. ... ✓

Summer Freeboard = 38.83

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

Tropical Fresh Water Line above Centre of Disc ... 13  
Fresh Water Line „ „ 6 3/4  
Tropical Line „ „ 6 1/2  
Winter Line below „ 6 1/2  
Winter North Atlantic Line „ „

Tropical Fresh Water Freeboard ... 2' 1 3/4  
Fresh Water „ 2' - 8  
Tropical „ 2' - 8 1/2  
Winter „ 3' - 9  
Winter North Atlantic „

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RECEIVED 18 MAR 1932 20 APR 1932



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
On superstructure deck											
Description of Hatchway	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
Dimensions of Hatchway	27' x 20'	31' x 20'	26' 5" x 20'	28' 5" x 20'	27' x 20'	31' x 20'	11' 4" x 20'	11' 4" x 20'	29' 5" x 20'	28' 5" x 20'	28' 5" x 20'
COAMINGS	Height above Deck	31'	31'	31'	31'	14'	14'	14'	14'	14'	14'
	Thickness	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
	Sides	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
	Ends	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
	Stiffeners	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3	7 x 3
HATCH BEAMS	Brackets, Stays	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.	24 lbs.
	Number	5	5	4	5	5	5	1	2	5	5
	Spacing	4' 6"	5' 2"	4' 1"	4' 1"	4' 6"	5' 2"	5' 2"	4' 4"	4' 1"	4' 1"
	Unsupp'd Lengths	16' 5" x 36'	14' 5" x 36'	12' 5" x 36'	14' 5" x 36'	16' 5" x 36'	18' 5" x 36'	18' 5" x 36'	18' 5" x 36'	18' 5" x 36'	18' 5" x 36'
	Scantling and Sketch	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
FORE AND AFTERS	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
	Number										
	Spacing										
	Unsupp'd Lengths										
	Scantling and Sketch										
HATCH COVERS	Bearing Surface										
	Material										
	Thickness										
	How fitted										
	Bearing Surface										
Spacing of Cleats											
Number of Tarpaulins											

Particulars of fiddle, funnel and ventilator coamings:—  
 Stanchion fiddle covered by strong hinged cover.  
 Ventilator & funnel ventilators in efficient condition.  
 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:—  
 On free. 1-6" dia. coaming 36" x 36" to Store Room. 2-20" dia. coaming 36" x 36" to Hold & Deck. On Shellin deck - 6-18" dia. coaming 36" x 40" to Hold & Deck. 3-12" dia. coaming 36" x 36" to Store. 2-12" dia. coaming 36" x 36" to 4. 7" dia. coaming 36" x 36" to Area quarter. 1-10" dia. coaming 36" x 36" to Tunnel. All fitted with wood flaps & canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
 On free. 3-4" for main (1 to TP 12 to 8th land). 12-4" for main to 2nd & 3rd. 9 1/2" above deck. 4-9" high to bunkers. 2-9" high to coaming. 2-4" to after store. 9" high. filled with wood flaps and of canvas covers.

Particulars of Gangway Cargo and Coaling Ports:—  
 None.

Underhigh

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Particulars of Scuppers and Sanitary Discharge Pipes:—  
 Sanitary discharge pipes with funnel valves with storm valve at ship's side discharging overboard above freeboard deck.  
 Four funnel scuppers on each side of Shellin & Deck fitted with storm valve discharging overboard above freeboard deck. also fitted with wood plug on inboard end.

Particulars of Side Scuttles:—  
 In crew quarters aft of substantial construction & filled with hinged deadlights.

Particulars of Guard Rails:—  
 Guard stanchions 4.6 to 5.0 apart with two rails 3.2 high fitted on free. On Shellin deck. Stanchions 4.6 apart with 3 rails 3.2 high all for aft except from fore end of Saloon House to aft end of Machinery Casings where bulwarks strongly constructed - 3.2 high & efficiently supported we fitted.

Particulars of Gangways, Lifelines, etc.:—  
 None.

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 - way	5.2	8.0	2.0 x 15	one	2.5 sq ft.	-
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) After Well:— 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	4	4	3 1/2 x 3 1/2 x 40	30"	none	none	✓	8' 0"
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	3	3	3 1/2 x 3 1/2 x 4	28"	none	5.0 x 3.0	24"	8' 0"
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	✓							
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓							
Exposed Machinery Casings on Superstructure Decks	7/16	4	3 1/2 x 3 1/2 x 4	36"	none	5.0 x 24"	18"	7' 9"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	7/16	7/16	3 1/2 x 3 1/2 x 2	36"	none	5.0 x 24"	18"	8' 0"
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	no openings.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	Shifting board. full length in riddled channels.
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	Steel hinged doors with locks manipulated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel hinged doors with locks manipulated from both sides.
Deckhouses on Flush Deck Ships	

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