

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **33251**
(For London Office only.)

16 NOV 1931

Computation of Freeboard for Steamer, **Forecastle, Bridge House and Poop disconnected.**

having **Forecastle, Bridge House and Poop disconnected.**

(Type of Superstructures.)

Port of Survey **PORT NATAL**
Darf

Date of Survey **October 1931**
December 1931

Name of Surveyor **J. H. Boyle**
A. R. Harris

Particulars of Classification **+100. A.I.**

Ship's Name **"WEARWOOD"**

Nationality and Port of Registry **British**
Middlesbrough

Official Number **160727**

Gross Tonnage **4578**

Date of Build **1930**

Moulded Dimensions: Length **382'-0"** Breadth **51'-9"** Depth **29'-0"**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **10600 (See main wood)** tons

Coefficient of fineness for use with Tables **.761**

Depth for Freeboard (D) **29'-0"**

Moulded depth ... **29'-0"**

Stringer plate ... **.03"**

Sheathing on deck **.90"**

T ($\frac{S}{L}$) = **.03**

Depth for Freeboard (D) = **29'-075"**

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = **(29.03 - 25.47) 2.938 = +10.46**

(b) Where D is less than Table depth (if allowed)
(Table depth - D) R = **3.56**

If restricted by superstructures **✓**

Round of Beam correction

Moulded Breadth (B) **51'-9"**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{51.75 \times 12}{50} = 12.42"$

Ship's Round of Beam = **12.75"**

Difference **.33" EXCESS.**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.33}{4} \times .5233 = .04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	33'-5"	33'-5"	8'-0"		33.50	Standard Height of Superstructure 7.32'
" overhang ...	114'-20"	114'-20"				" " R.Q.D. -
R.Q.D. enclosed ...	114'-20"	114'-20"				Deduction for complete superstructure 40.80"
" overhang ...	114'-20"	114'-20"				Percentage covered $\frac{S}{L} = 47.8$
Bridge enclosed ...	114'-20"	114'-20"	8'-0"		114.20	" $\frac{S_1}{L} = 47.64$
" overhang aft ...	1.94'	1.48'			1.48	" $\frac{E}{L} = 47.64$
" overhang forward ...	29'-92"	29'-92"				Percentage from Table, Line A. -
Forecastle enclosed ...	29'-11"	29'-11"	8'-0"		29.92	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. 34.02
" forward ...						(corrected for absence of forecastle (if required))
Tonnage opening aft ...						Interpolation for bridge less than 2L (if required) ✓
" forward ...	182'-59"	182'-10"				Deduction = 40.8 x .3402 = 13.88
Total ...	182'-7"	181'-8"			182.10	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	48.2	1	48.2	55	55	55	1	55	55	Mean actual sheer aft = 28.66 = 3.68 EXCESS.
$\frac{1}{8}$ L from A.P. ...	21.45	4	85.8	23	23	23	4	92	92	Mean standard sheer aft = 24.98
$\frac{3}{8}$ L " ...	5.30	2	10.6	8	8	8	2	16	16	Mean actual sheer forward = 58.0 = 8.04 EXCESS.
Amidships ...	-	4	-	-	-	-	4	-	-	Mean standard sheer forward = 49.96
$\frac{3}{8}$ L from F.P. ...	10.6	2	21.2	13	13	13	2	26	26	Length of enclosed superstructure forward of amidships = 99.33 = .26 L.
$\frac{1}{8}$ L " ...	42.89	4	171.56	50	50	50	4	200	200	" " aft of " = 82.33 = .21 L.
F.P. ...	96.4	1	96.4	111	111	111	1	111	111	
Total ...			433.76					500.1		

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{67.24}{18} = 3.735$

If limited on account of midship superstructure. **✓**

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **29.03**

Summer freeboard = **5.37**

Moulded draught (d) = **23.64**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **✓**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 10295$ Tons

Tons per inch immersion at summer load water line **T = 39.32**

Deduction = $\frac{\Delta}{40 T}$ inches = **6.54**

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient $\frac{.761 + .68}{1.36} = \frac{1.441}{1.36} = 1.06$

Depth Correction ... **10.46**

Deduction for superstructures ... **13.88**

Sheer correction ... **1.91**

Round of Beam correction ... **.04**

Correction for Thickness of Deck amidships ... **-**

Other corrections, scantlings, etc. assigned under B of T (1906) Rules ... **.31**

Summer Freeboard = **64.25**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: **64.25 - 5 - 4 1/4**

Tropical Fresh Water Line above Centre of Disc ...	11 1/2	Tropical Fresh Water Freeboard ...	4 - 11 3/4
Fresh Water Line " " ...	6 1/2	Fresh Water " " ...	4 - 9 3/4
Tropical Line " " ...	5	Tropical " " ...	4 - 11 1/4
Winter Line below " " ...	5 1/2	Winter " " ...	5 - 9 3/4
Winter North Atlantic Line " " ...	5	Winter North Atlantic " " ...	5 - 9 3/4

010369-010377-0311 1/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS		WEATHER DECKS						(WITHIN SUPERSTRUCTURE)	
Description of Hatchway		Nº1	Nº2	Nº2.A	Nº3	Nº4	Nº2.A		
Dimensions of Hatchway		29'-9" X 21'-6"	29'-9" X 21'-6"	20'-6" X 21'-6"	29'-9" X 21'-6"	29'-9" X 21'-6"	23' X 21'-6"		
COAMINGS	Height above Deck	3'-0"	3'-0"	2'-6"	3'-6"	3'-0"	9"		
	Thickness	46"	46"	44"	46"	46"	50"		
	Sides	44"	44"	44"	44"	44"	50"		
	Stiffeners	7" X 3" X 1/8"	BULB. DO.	DO.	DO.	DO.	DO.		
HATCH BEAMS	Brackets, Stays	2" DIAM.	DO.	DO.	DO.	DO.	DO.		
	Number	5	5	3	5	5	3		
	Spacing	5'-0"	5'-0"	5'-8"	5'-0"	5'-0"	5'-8"		
	Scantling and Sketch	15 1/4" X 3 3/8"	18 1/4" X 3 3/8"	16 1/4" X 3 3/8"	18 1/4" X 3 3/8"	18 1/4" X 3 3/8"	21" X 3 3/8"		
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"		
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface			NONE					
HATCH COVERS	Material	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD		
	Thickness	3"	3"	3"	3"	3"	3"		
	How fitted	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT	FORE & AFT		
	Bearing Surface	3"	3"	3"	3"	3"	3"		
	Spacing of Cleats	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"		
	Number of Tarpaulins	3 FITTED 1 SPARE	DO.	DO.	DO.	DO.	DO.		
*Are wood fore and afters steel shod at all bearing surfaces? NONE. 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 fiddle, funnel and ventilator coamings:—

X no particulars of fiddle, Top (current)
Fitted on top of machinery casing, on superstructure deck
or funnel or vent. coamings

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

One fitted on poop superstructure deck, for access to crew's quarters.
Steel casing with 1 3/4" hardwood door, capable of being secured
from both sides. Height of sill - 17" above deck.

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

All ventilators fitted with steel coamings of substantial
construction, rivetted to the deck. to give height of coamings
4' closing on upper deck.

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

All air pipes fitted with substantial steel goose-necks at top,
with arrangements for closing the opening. Heights from deck to open
Height from deck to opening - 12 1/2". Wood plugs fitted and drilled in all air pipes.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes:—

One scupper fitted each side of Bridge superstructure, with
storm valve.
W.C. & other discharges - where situated & if
fitted with storm valves?

Particulars of Side Scuttles:—

Side scuttles 9 1/2" diam. fitted with deadlights.
are fitted in Forecastle Bulkhead. Front of Saloon House. Poop Bulkhead & Poop side in
quarters.

Particulars of Guard Rails:—

Efficient guard rails or bulwarks fitted to all exposed decks.
Cable fitted on Fore & Poop decks & after end of Bridge deck. Bulwarks fitted all fore & aft in fore
after wells & at sides of Bridge deck.

Particulars of Gangways, Lifelines, etc.:—

No gangways fitted. No lifelines fitted.
Lifelines fitted on each side in forward
and after wells for the protection
of the crew.

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	107'-9"	3'-6"	9'-0" X 7 1/2"	4	22.5 sq. ft.	22 sq. ft.
Forward Well	91'-8"	3'-5"	8'-0" X 7 1/2"	4	20.0 sq. ft.	19 sq. ft.
State position of each freeing port ... { After Well: 19'-7" from aft. Bulwark and 5'-10" from fwd. Bulwark. 1'-3" above deck. (F. and A. position and height above deck edge) { Forward Well: 6'-2" " " " " " 21'-2" " " " " " 1'-1" " " " State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Open ports without fittings.</i> 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	✓	3/8"	6" X 3" X 3/8"	2'-2"	6" X 6" X 3/8" ANGLES	2 PORTS - 9 1/2" DIAM. ONLY, FROM DECK.	5'-8" FROM DECK.	8'-0"
Raised Quarter Deck Bulkhead						4'-6" X 24" (2)	18"	
Bridge, After Bulkhead	✓	5/16"	3 1/2" X 3" X 3/8"	2'-6"	None	5'-0" X 3'-0"	17"	8'-0"
Bridge, Forward Bulkhead	2'-9" X 1 1/8"	3/8"	9" X 3" X 3/8"	2'-2"	6" X 6" X 3/8" ANGLES	2 PORTS - 12 1/2" DIAM. ONLY, FROM DECK.	5'-6"	8'-0"
Forecastle Bulkhead	✓	5/16"	3 1/2" X 3" X 5/16"	2'-11"	None	4'-1 1/2" X 3'-1"	17"	8'-0"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	18" X 3/8"	3/8"	3" X 3" X 1/4"	2'-7"	ALTERNATE STIFFENERS WITH 24" X 24" BRACKETS.	4'-3" X 2'-0"	18"	8'-0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	36	28	3" X 3" X 3/2"	3 1/2"	OVERLAPS boundary angle from bulwark to bulkhead	24" X 36" X 23"	21"	
Deckhouses on Flush Deck Ships								

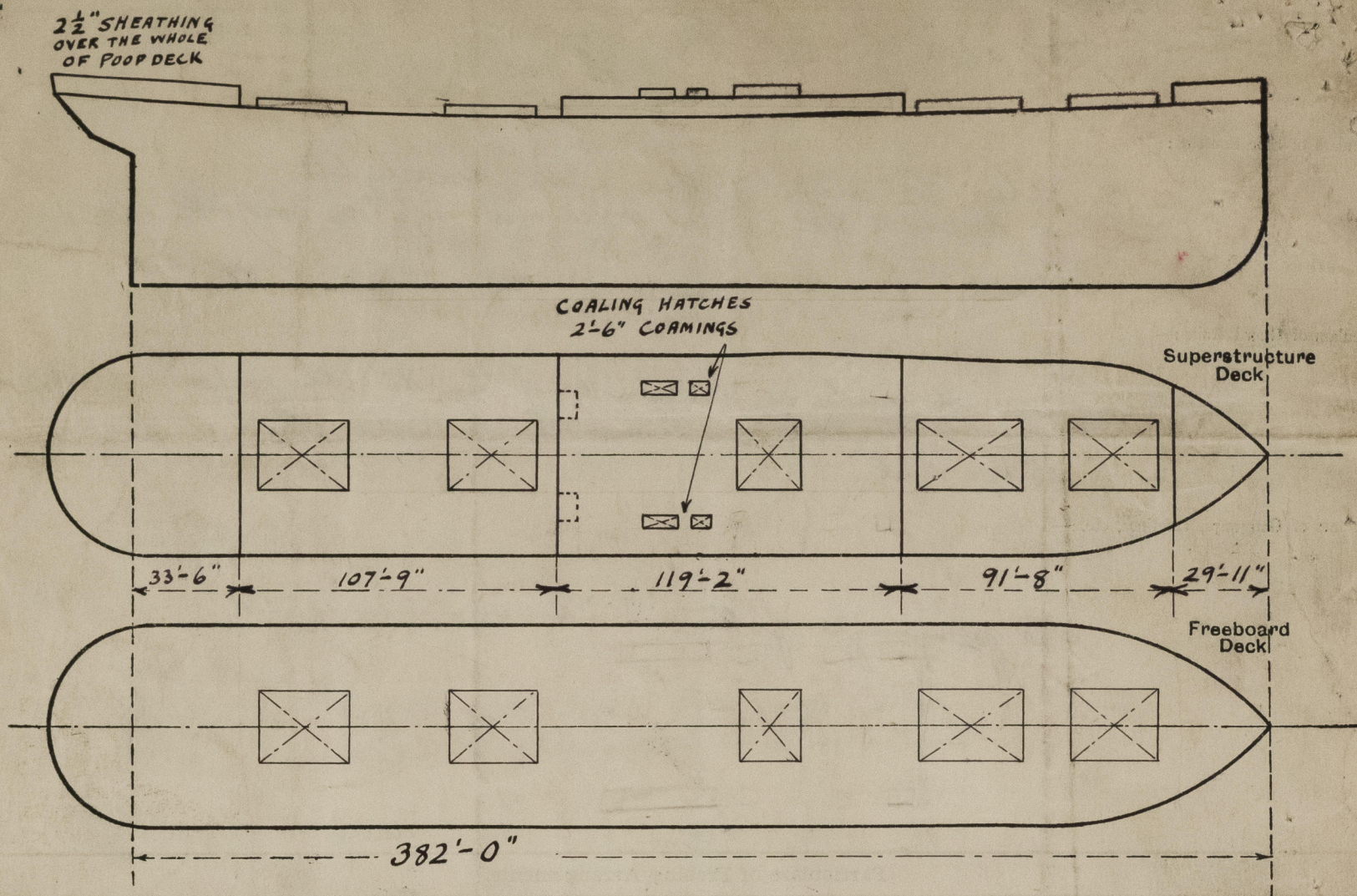
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	✓ Hinged steel doors, secured by lock capable of operation from both sides.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	Steel plates secured by 12-7/8" hook bolts; not passing thro aft plating.
Bridge, Forward Bulkhead	✓ No openings.
Forecastle Bulkhead	Steel plates secured by 10-7/8" hook bolts.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

Steel hinged doors with locks. Sills 18" above deck.

Give particulars of openings, height of sills, means of securing.

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:—

For Timber Deck Cargo

Rule LXXXII

Show extent of longitudinal division in double bottom

" LXXXVI

Access to crews quarters, guard rails above deck cargo, gangway over cargo to be opened.

LXXXVII

State kind of steam chains & specification of same. Give particulars of machinery & steering arrangement.

LXXXVIII

State type of rig, masts & spacing of same.

LXXXIX

Give spacing & action of eyeballs for lashing, ropes & type of blocks & splicing of sockets.

(Plan have been received from the Owners)?

Builder's name and yard number

Northumbria Shipbuilding Co. (1927) Ltd. Yard No 412.

Names of sister ships

Owners

Joseph Constantine S.S. Line Ltd. Middlesbrough.

Fee £

Received by me



© 2021

Lloyd's Register
Foundation