

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

12 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having FLUSH DECK.

(Type of Superstructures.)

Ship's Name <u>AUTOCRAT</u>	Nationality and Port of Registry <u>BRITISH HULL</u>	Official Number <u>139 262</u>	Gross Tonnage <u>128</u>	Date of Build <u>1915-84.</u>
--------------------------------	---	-----------------------------------	-----------------------------	----------------------------------

Moulded Dimensions: Length 84.5 Breadth 20.5 Depth 10.6 10.50  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 247 tons  
Coefficient of fineness for use with Tables in envelope .559

Port of Survey HULL  
Date of Survey 9th JULY 1932  
Name of Surveyor W. J. S. J. S. J.  
Particulars of Classification +100A1  
S.S. Hull. No. 3-4, 27 FOR TONNAGE PURPOSES. S.S. Hull. No. 1-31.

Depth for Freeboard (D) <u>10.50</u>	Depth correction	Round of Beam correction
Moulded depth ... <u>10.6</u>	(a) Where D is greater than Table depth (D-Table depth) R = $(10.74 - 5.63) .65 = + 3.32$	Moulded Breadth (B) <u>20.5</u>
Stringer plate ... <u>.40</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 4.92$
Sheathing on exposed deck <u>UPPER DECK</u> <u>2 1/2</u>		Ship's Round of Beam = <u>6 3/4</u>
$T \left( \frac{L-S}{L} \right) =$ <u>FORE AND AFT ENDS</u> <u>.21</u>		Difference <u>even</u> <u>1.83</u>
Depth for Freeboard (D) = <u>10.74</u>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{1.83}{4} = .46$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...					

Standard Height of Superstructure \_\_\_\_\_  
" " R.Q.D. \_\_\_\_\_  
Deduction for complete superstructure \_\_\_\_\_  
Percentage covered  $\frac{S}{L} =$  \_\_\_\_\_  
" "  $\frac{S_1}{L} =$  \_\_\_\_\_  
" "  $\frac{E}{L} =$  \_\_\_\_\_  
Percentage from Table, Line A. \_\_\_\_\_  
(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 = Nil

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	18.45	1		18.45	27.5	27.50	1		27.50
1/4 L from A.P. ...	8.21	4		32.84	13	12.84	4		51.36
1/2 L " ...	2.03	2		4.06	3 1/2	3.21	2		6.42
Amidships ...		4					4		
3/4 L from F.P. ...	4.06	2		8.12	4 1/2	4.54	2		9.08
1/4 L " ...	16.42	4		65.68	18	18.17	4		72.68
F.P. ...	36.90	1		36.90	41.5	41.50	1		41.50
Total ...				166.05					208.54

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75 - 8}{2L} \right) = \frac{166.05 - 208.54}{18} \times \frac{67}{2 \times 84.5} = \frac{-42.49}{18} \times .75 = -1.77$   
If limited on account of midship superstructure. NIL

Mean actual sheer aft = even  
Mean standard sheer aft = \_\_\_\_\_  
Mean actual sheer forward = even  
Mean standard sheer forward = \_\_\_\_\_  
Length of enclosed superstructure forward of amidships = NIL  
" " aft of " = NIL

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <u>Under .65</u>
Depth to Freeboard Deck = <u>10.74</u>	$\Delta =$	Depth Correction ... <u>3.32</u>
Summer freeboard = <u>1.04</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ...
Moulded draught (d) = <u>9.70</u>	T =	Sheer correction ...
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.42</u>	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... <u>.46</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>12.58</u>

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

Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...
Fresh Water Line " " ...	Fresh Water " " ...
Tropical Line " " ...	Tropical " " ...
Winter Line below " " ... <u>2 1/2</u>	Winter " " ...
Winter North Atlantic Line " " ...	Winter North Atlantic " " ...

# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...
HATCH BEAMS	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
FORE AND AFTERS	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
HATCH COVERS	Unsuported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Material	...	...	...	...	...	...	...	...
Spacing of Cleats	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Number of Tarpaulins	...	...	...	...	...	...	...	...

\*Are wood fore and afters steel shod at all bearing surfaces?  
 Are battens and wedges efficient and in good condition?  
 Are tarpaulins in good condition and in accordance with rule requirements?  
 Are lashings provided in accordance with rule requirements?

Particulars of fiddle, funnel and ventilator coamings:— *Fiddle gratings closed by steel hinged storm covers.*  
*Coal hatch 6'0" x 9'6" coaming 7" Bull angle, 2 1/2" cover, ~~Not been suited to renew~~*  
*Pattern and cleats, 1 Tarpaulin.*  
*2 Boiler room ventilators in good condition.*

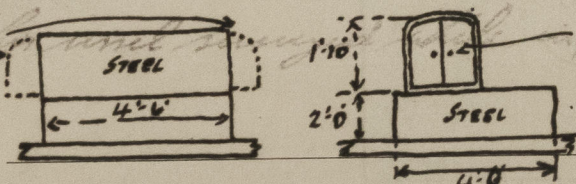
Particulars of Flush Bunker Scuttles:—

*Upper deck to fore peak flush scuttle 15" dia with bayonet joint.*  
*" " Bunker 2 port and 2 starboard cut in flush scuttles Woollen patent secured joint.*

Particulars of Companionways:—

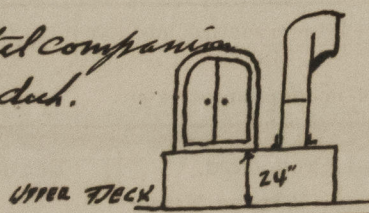
*On upper deck to crew quarters situated abaft engine casing. Steel companion with wood door.*  
*~~Locks and handles to repair.~~*

*Wood Doors 1 5/8" thick at each end in halves.*



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

*1 Coal ventilator to crew space 6' dia fitted on top of steel companion coaming 15" x 5/8" thick. 24" above top of wood upper deck.*



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

*None.*

Particulars of Gangway Cargo and Coaling Ports:—

*None.*

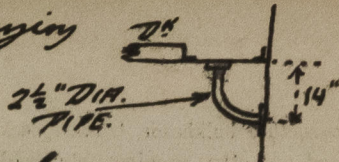


© 2021

Lloyd's Register Foundation

Autocrat

Upper deck scupper 6P and 6S. discharging  
14" below upper deck.



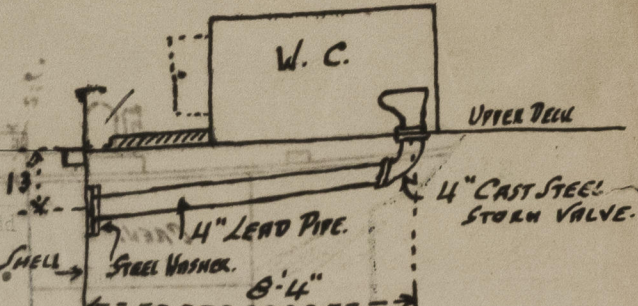
Particulars of Scuppers and Sanitary Discharge Pipes —

Upper deck W.C. in deckhouse at forward end of boiler casing, discharging  
13" below upper deck then

Particulars of Side Scuttles:

None.

BRITISH HULL 139 262 128 1915-8 H. 20.5 10.6"

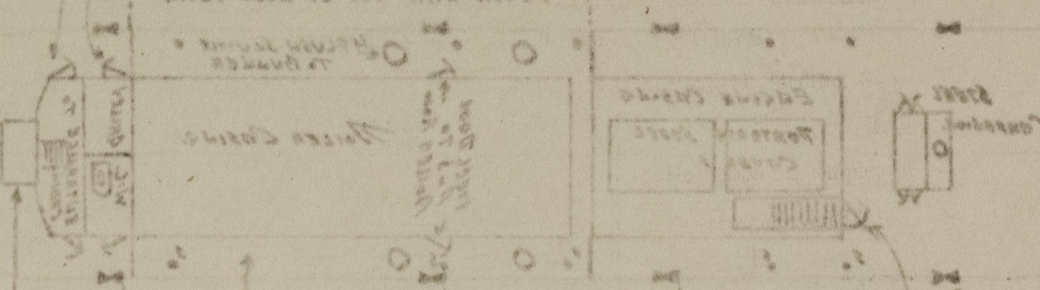


Particulars of Guard Rails:—

Steel bulwark all forward and aft.

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 ... } all Pu. ...	84'6"	2'7"	18" x 9"	4	4.5 f	16.9 f
Forward Well ... } aft. ...						

State position of each freeing port ... } After Well:—  
(F. and A. position and height above deck edge) } Forward Well:—

For position see sketch on page 4.

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Height above deck 6"  
2 horizontal rods 3/4" DIA.

Additional area where sheer is less than standard.

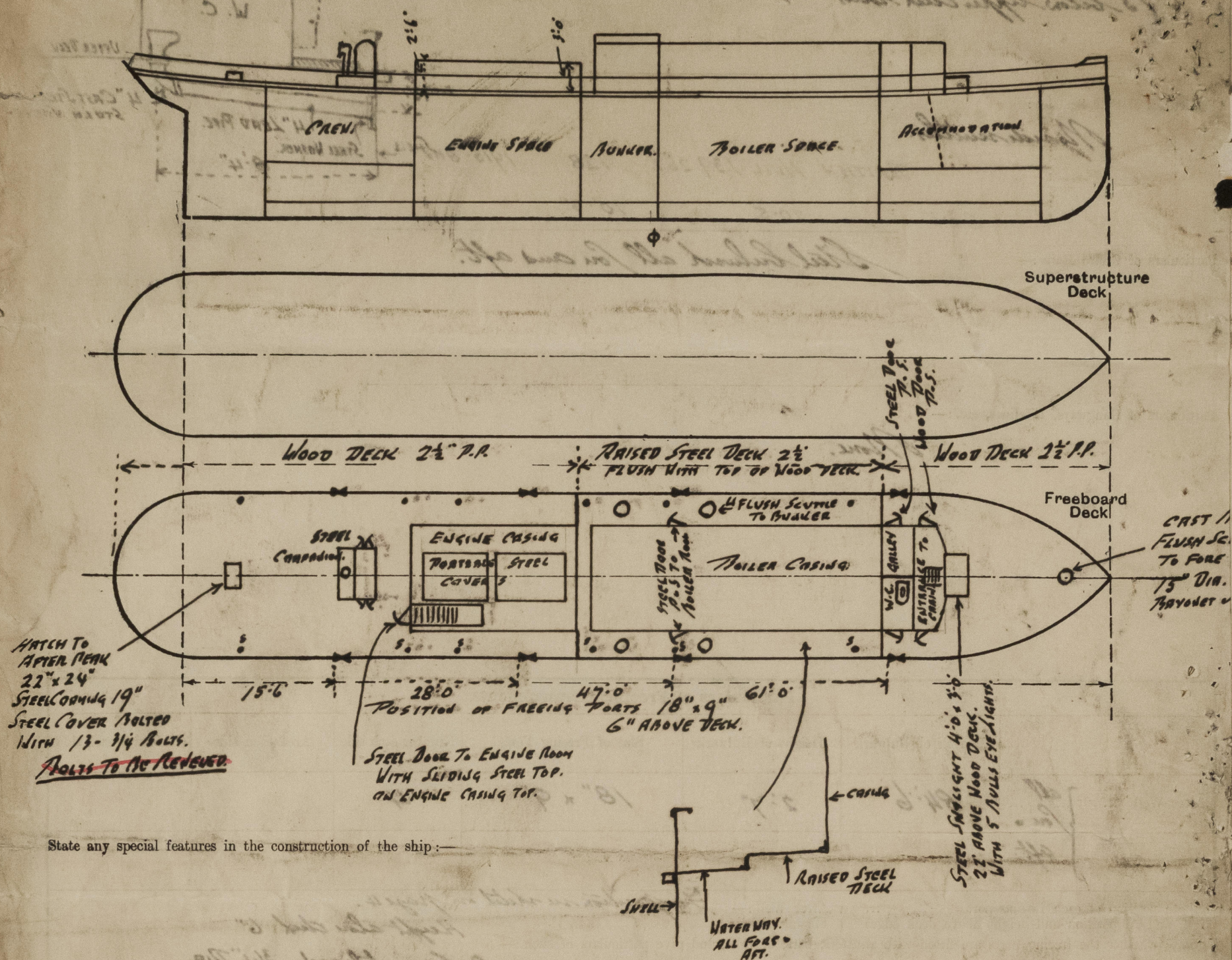
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	✓							
Bridge, Forward Bulkhead ...	✓							
Forecastle Bulkhead ...	✓							
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓ 35	✓ 30	✓ 3, 3, 32	✓ 26"	✓ Knees at Top	✓ 3 Steel Doors To Boiler 4'6" x 1'8" 1 Steel Door To Engine Room 2'6" x 2'6"	✓ 17"	✓ 6'3"
Exposed Machinery Casings on Super-structure Decks ...	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓							
Deckhouses on Flush Deck Ships ...	✓ 35	✓ 30	✓ 3, 3, 32	✓ 26"	✓ None	✓ 2 Wood Doors To Cabin Entrance 4'4" x 1'8" 1 Steel Door To Galley W.C.	✓ 14"	✓ 6'3"

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

Poop Bulkhead ...	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	✓
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓ 2 Steel Doors To Boiler casing LEVER FASTENERS BOTH SIDES. 1 ENGINE LOCK and handle to left.
Exposed Machinery Casings on Super-structure Decks ...	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓ 2 Wood Doors To Cabin Accommodation SPRING LOCKS HANDLES BOTH SIDES. 2 Steel Doors To Galley W.C.

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:—



DRY DOCK  
This vessel surveyed while in dry dock and afloat at Hull.

Builder's name and yard number

COCHRANE & SONS LTD SELBY

Names of sister ships

Owners

UNITED TOWING CO LTD HULL.

Fee

3 8 -

Received by me



© 2021

Lloyd's Register Foundation