

Rpt. CH11  
2932

ALL COPY WRITTEN.

14 SEP 1936

28343

Index. No.  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, <del>Sailing Ship, Tanker</del>					Port of Survey <u>SYDNEY N.S.W.</u>	
having <u>ONE DECK (STEEL)</u>					Date of Survey <u>30.7.36 and 5.8.36</u>	
(Type of Superstructures.)					Name of Surveyor <u>J. Bellitchell (Acting)</u>	
Ship's Name <b>"ST. HILARY"</b>		Nationality and Port of Registry <b>BRITISH NEWCASTLE, N.S.W.</b>	Official Number <b>143778</b>	Gross Tonnage <b>390</b>	Date of Build <b>1919-11</b>	
Moulded Dimensions: Length <u>134.83</u> Breadth <u>29'</u> Depth <u>16'2"</u>					Particulars of Classification <u>For towing purposes</u>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth					<u>S.S. Gen. No. 3. 5.26</u>	
Coefficient of fineness for use with Tables <u>less than 68</u>					<u>S.S. Syd. No. 2 - 34.</u>	

<b>Depth for Freeboard (D)</b>		<b>Depth correction</b>	<b>Round of Beam correction</b>
Moulded depth ... ..	<u>16.166</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(16.19 - 8.99) 1.037 = + 7.47</u>	Moulded Breadth (B) <u>29'0"</u>
Stringer plate ... ..	<u>3"</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>7.20</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{6.96}{50} = 6.96$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$			Ship's Round of Beam = <u>7"</u>
Depth for Freeboard (D) =	<u>16.191</u>	If restricted by superstructures <input checked="" type="checkbox"/>	Difference = <u>.04"</u>
			Restricted to
			Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.04}{4} \times 1 = -.01"$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..						Standard Height of Superstructure
" overhang ... ..						" " R.Q.D.
R.Q.D. enclosed ... ..						Deduction for complete superstructure
" overhang ... ..						Percentage covered $\frac{S}{L} =$
Bridge enclosed ... ..						" " $\frac{S_1}{L} =$
" overhang aft ... ..						" " $\frac{E}{L} =$
" overhang forward ... ..						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed ... ..						Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ... ..						Interpolation for bridge less than .2L (if required)
Trunk aft ... ..						Deduction =
" forward ... ..						
Tonnage opening aft ... ..						
" forward ... ..						
Total ... ..	<u>NIL</u>					

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..	<u>23.48</u>	1		<u>23.48</u>	<u>28.0</u>	<u>28.00</u>	1		<u>28.00</u>	Mean actual sheer aft = <u>Excess</u>
1/4 L from A.P. ... ..	<u>10.45</u>	4		<u>41.80</u>	<u>11.0</u>	<u>11.00</u>	4		<u>44.00</u>	Mean actual sheer forward = <u>Excess</u>
3/4 L " ... ..	<u>2.58</u>	2		<u>5.16</u>	<u>2.5</u>	<u>2.50</u>	2		<u>5.00</u>	Mean standard sheer forward
Amidships ... ..	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships =
3/4 L from F.P. ... ..	<u>5.17</u>	2		<u>10.34</u>	<u>7.5</u>	<u>7.50</u>	2		<u>15.00</u>	" " aft of " =
1/4 L " ... ..	<u>20.90</u>	4		<u>83.60</u>	<u>30.0</u>	<u>30.00</u>	4		<u>120.00</u>	
F.P. ... ..	<u>46.96</u>	1		<u>46.96</u>	<u>64.0</u>	<u>64.00</u>	1		<u>64.00</u>	
Total ... ..				<u>211.34</u>					<u>276.00</u>	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{64.66}{18} (.75) = -2.69"$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft. 2.02

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 896$ Tons per inch immersion at summer load water line $T = 7.05$ Deduction = $\frac{\Delta}{40T}$ inches $= 3.18$ $= 3 1/4"$	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <u>Nil</u> Depth Correction ... .. Deduction for superstructures ... .. Sheer correction ... .. Round of Beam correction ... .. Correction for Thickness of Deck amidships ... .. Other corrections, scantlings, etc. ... .. Summer Freeboard = <u>24.00</u>
Depth to Freeboard Deck = <u>16.19</u>		
Summer freeboard = <u>2.00</u>		
Moulded draught (d) = <u>14.19</u>		
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>3.54</u> = <u>3 1/2"</u>		
Addition for Winter North Atlantic Freeboard (if required) = <u>5/2"</u>		

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

Tropical Fresh Water Line above Centre of Disc ... ..	<u>6 3/4"</u>	Tropical Fresh Water Freeboard ... ..	<u>1' 5 1/4"</u>
Fresh Water Line " " ... ..	<u>3 1/4"</u>	Fresh Water " " ... ..	<u>1' 8 3/4"</u>
Tropical Line " " ... ..	<u>3 1/2"</u>	Tropical " " ... ..	<u>1' 8 1/2"</u>
Winter Line below " " ... ..	<u>3 1/2"</u>	Winter " " ... ..	<u>2' 3 1/2"</u>
Winter North Atlantic Line " " ... ..	<u>5 1/2"</u>	Winter North Atlantic " " ... ..	<u>2' 5 1/2"</u>

22 SEP 1936

005325-005336-0041

RECEIVED

RECEIVED



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
FREEBOARD DECK					SUPERSTRUCTURE DECK				
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	10"	36"	12"	10'6" x 8'2"	2'6" x 1'6"	...	...
	Thickness	...	26"	32"	38"	34"	34"	...	...
	Sides	...	26"	32"	38"	34"	34"	...	...
	Ends	...	26"	32"	38"	34"	34"	...	...
	Stiffeners	...	...	6"x3"x38"	...	...	...	...	...
HATCH BEAMS	Brackets, Stays	...	...	Bolt angle After end	...	...	...	...	...
	Number	...	...	...	...	4'-1"	...	...	...
	Spacing	...	...	...	...	9 1/2" x 5"	2 1/2" x 2 1/2" x 38"	...	...
	Scantling and Sketch	...	NONE	NONE	NONE	Plate	Angles	...	...
	Bearing Surface	...	...	...	...	2 1/2"	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	NONE	NONE	NONE	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	WOOD	WOOD	STEEL	WOOD	...	...	...
	Thickness	...	2"	2 1/2"	3/8"	2 1/2"	...	...	...
	How fitted	...	SOLID	F and A.	SOLID	Fore & Aft.	...	...	...
	Bearing Surface	...	1 1/2"	2"	2" Jointed	2 1/2"	...	...	...
Spacing of Cleats	...	...	16"	24"	Screw	24"	...	...	...
Number of Tarpaulins	...	...	2	2	fastenings.	2	...	...	...
*Are wood fore and afters steel shod at all bearing surfaces? <span style="float:right">NONE FITTED.</span> Are battens and wedges efficient and in good condition? <span style="float:right">YES.</span> Are tarpaulins in good condition and in accordance with rule requirements? <span style="float:right">YES.</span> Are lashings provided in accordance with rule requirements? <span style="float:right">✓</span>									

Particulars of fiddle, funnel and ventilator coamings:— *On engine and boiler casings.*  
*Engine room fitted with an efficient steel skylight.*  
*Fiddle gratings fitted with hinged steel covers, permanently attached.*  
*Boiler room ventilators well supported and passing inside of casing.*

Particulars of Flush Bunker Scuttles:— *Four each side, opening 20 inches diameter. Heavy cast iron frames and covers with bayonet joints.*

Particulars of Companionways:— *Companionways within deck houses.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
*To Engine Room:— 2-12" diameter, with 30" coamings. Wood plugs and canvas covers supplied.*  
*To Store Room and Bunkers:— 4 each side, swan neck type, cast iron, protected by bulwarks.*  
*All 4" diameter, height to opening 10". Canvas covers supplied.*  
*To Accommodation forward:— 1 port, 2 starboard, mushroom type, 6" diameter 12" coamings, cast iron, screw down type with rubber joints.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
*Swan neck type, cast iron.*  
*To fore peak tank 1-4" diameter. Height to opening 10".*  
*To after peak tank, one each side 4" diameter. Height to opening 22".*  
*To engine room tank, one each side 4" diameter. Height to opening 22".*  
*Canvas covers supplied as temporary closing appliances.*

Particulars of Gangway Cargo and Coaling Ports:— *None.*

Particulars of Scuppers and Sanitary Discharge Pipes:—

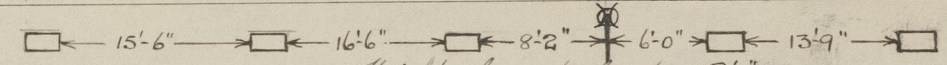
*All sanitary discharge pipes fitted with one automatic gun metal storm valve.*  
*No discharges overboard from spaces below the freeboard deck.*

Particulars of Side Scuttles:

*4 each side, 9" diameter, fitted with hinged deadlights, in accommodation forward and aft.*  
*Lowest side scuttle 45'-0" abaft amidships. Height of sill below top of steel deck at side amidships = 12"*

Particulars of Guard Rails:— *Efficient bulwarks 3'-5" in height fore and aft.*

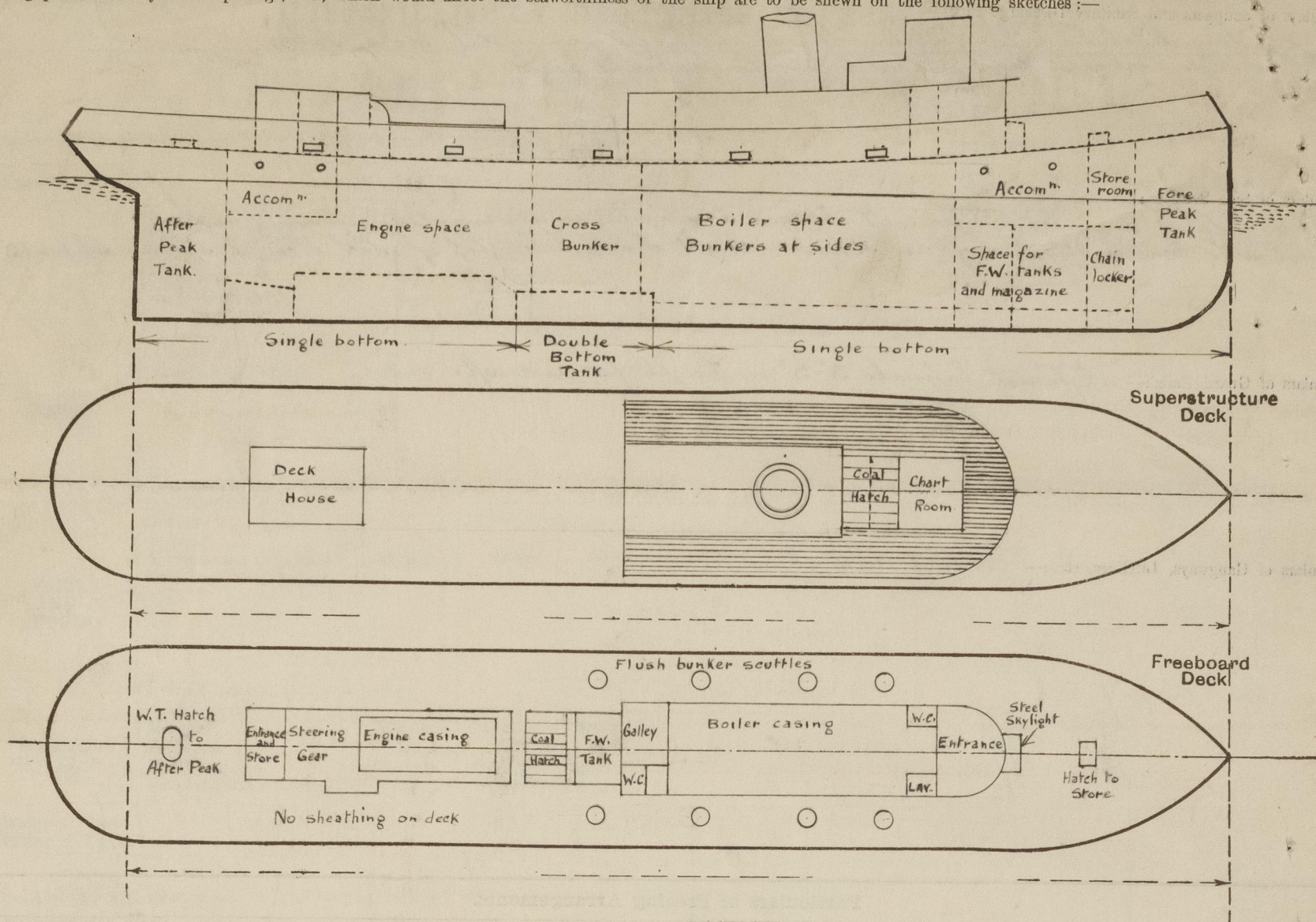
Particulars of Gangways, Lifelines, etc.:— *Flush deck ship.*

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	135'-0"	3'-5"	2'-5" x 1'-0"	5	12.5 #	
FORE AND AFT						
Forward Well						
State position of each freeing port ... <i>After Well:—</i>  <i>Forward Well:—</i> State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Height above deck edge 8 1/2"</i> <i>Fitted with shutters hinged 2" from top.</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	...	...	...	...	...	...	...	...
Raised Quarter Deck Bulkhead	...	...	...	...	...	...	...	...
Bridge, After Bulkhead	...	...	...	...	...	...	...	...
Bridge, Forward Bulkhead	...	...	...	...	...	...	...	...
Forecastle Bulkhead	...	...	...	...	...	...	...	...
Trunk, Aft	...	...	...	...	...	...	...	...
Trunk, Forward	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Freeboard	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Superstructure Decks	...	...	...	...	...	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...	...	...	...	...	...
Deckhouses on Flush Deck Ships	...	...	...	...	...	...	...	...
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 Freeboard	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Superstructure Decks	...	...	...	...	...	...	...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	...	...	...	...	...	...
Deckhouses on Flush Deck Ships	...	...	...	...	...	...	...	...



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:— *Screw tug usually engaged in local towing at Sydney and Newcastle N.S.W. and occasionally making interstate and ocean voyages. Now surveyed afloat without including any portion of a Special Survey. The vessel was originally built with a forecastle which was removed about 1928.*

Displacements as supplied by Builders:—

Draught	Displacement	Tons per inch.
14'-6"	880 tons	7.05
14'-3"	860 "	7.0
13'-4½"	787 "	6.9
11'-8"	646 "	6.6

Builder's name and yard number *Sydney S.B. & C. Co. Ltd. Sydney. Yard No. 577.*

Names of sister ships *Aeros. Lindfield. St. Aristoll. St. Giles. Uco. ("Rescue" tugs altered)*

Owners *Waratah Tug and Salvage Co. Ltd.*

Fee £ *6 : 0 : 0*

Received by me



© 2020

Lloyd's Register  
Foundation