

20 AUG 1934

Rpt. C.11.

Index. No. **32171**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

(Flush deck)

Port of Survey

Bangkok
Siam.

Date of Survey

10th July 1934

Name of Surveyor

Thomas A. Ballard

Particulars of Classification

400 A1.
S.S. Regd No. 1.30
*For Towing Services.**Steel Suez Steam Tug.*

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

CHANGNAM*Siamese*
*Bangkok.**-**124.**1926-10*

Moulded Dimensions: Length

90.0

Breadth

21.5

Depth

*10.0**(9 1/2 tons)*

Moulded displacement at moulded draught = 85 per cent. of moulded depth

310

tons

Coefficient of fineness for use with Tables

.66.0

Depth for Freeboard (D)

Depth correction

Round of Beam correction

Moulded depth *10.00*Stringer plate *.02*

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) = .17 \times 1 = .17$ Depth for Freeboard (D) = *10.19*

(a) Where D is greater than Table depth

(D-Table depth) R = $(10.19 - 6.00) \cdot 692$ $= + 2.90$

(b) Where D is less than Table depth (if allowed)

(Table depth-D) R = \checkmark If restricted by superstructures \checkmark Moulded Breadth (B) *21.50*Standard Round of Beam = $\frac{B \times 12}{50} = 5.16$ Ship's Round of Beam *5.5* = *5.50*Difference *.34 excess*

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.34}{4} \times 1 = -.08$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	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 *6.00*" " R.Q.D. \checkmark Deduction for complete superstructure *15.00*Percentage covered $\frac{S}{L} =$ " " $\frac{S_1}{L} =$ } *Flush Deck.*" " $\frac{E}{L} =$ Percentage from Table, Line A. \checkmark

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. \checkmark

(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. ...	<i>19.00</i>	<i>1</i>	<i>19.00</i>	<i>14.75</i>	<i>14.75</i>	<i>1</i>	<i>14.75</i>
$\frac{1}{2}$ L from A.P. ...	<i>8.45</i>	<i>4</i>	<i>33.80</i>	<i>9.</i>	<i>7.11</i>	<i>4</i>	<i>28.44</i>
$\frac{3}{4}$ L " ...	<i>2.09</i>	<i>2</i>	<i>4.18</i>	<i>3.</i>	<i>1.78</i>	<i>2</i>	<i>3.56</i>
Amidships ...	\checkmark	<i>4</i>	\checkmark	\checkmark	\checkmark	<i>4</i>	\checkmark
$\frac{3}{4}$ L from F.P. ...	<i>4.15</i>	<i>2</i>	<i>8.36</i>	<i>3.</i>	<i>5.13</i>	<i>2</i>	<i>10.26</i>
$\frac{1}{2}$ L " ...	<i>16.91</i>	<i>4</i>	<i>67.64</i>	<i>21.</i>	<i>20.54</i>	<i>4</i>	<i>82.16</i>
F.P. ...	<i>38.00</i>	<i>1</i>	<i>38.00</i>	<i>48.</i>	<i>48.00</i>	<i>1</i>	<i>48.00</i>
Total ...	<i>171</i>		<i>170.98</i>				<i>187.17</i>

Mean actual sheer aft = *Deficient* $> 75\%$

Mean standard sheer aft

Mean actual sheer forward = *Excess*

Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

" " aft of " = } *Flush deck.*Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{16.19}{18} (.75) = -.67$ If limited on account of midship superstructure. \checkmark If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. \checkmark

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *10.19*Summer freeboard = *1.50*Moulded draught (d) = *8.69*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.17 = 2 1/4*

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches $\frac{d}{4} = 2 1/4$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

*Nil*Depth Correction *2.90*Deduction for superstructures *-*Sheer correction *.67*Round of Beam correction *.08*

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. *at corner of lowest side scuttle**5.50**8.40**+7.65*Summer Freeboard = *18.00*

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

Tropical Fresh Water Line above Centre of Disc ...	<i>2 1/4</i>
Fresh Water Line " " ...	<i>2 1/4</i>
Tropical Line " " ...	<i>Nil</i>
Winter Line below " " ...	<i>Nil</i>
Winter North Atlantic Line " " ...	<i>Nil</i>

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

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	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
FORE AND AFTERS	Bearing Surface	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...
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 openings covered by strong hinged covers. Sturdy Engine Room Skylights of steel, strongly constructed. 2. 18" Ventilators to Stokhold. 2. 12" Ventilators to Engine Room. Strongly constructed & in 1st class condition

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

1. Stair Companionway, on Deck Forward leading to Forecastle. H. 5'6" B. 2'6" Stair Door 4'6" x 2'0" hinged & capable of being opened from both sides. Height of sill 12" 1. Stair Companionway, on Deck Aft leading to Crew's quarters. Height 2'0". Double Stair Doors, capable of being opened from both sides. Track 1'6"

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

2. 9" Ventilators on Deck Aft, Coaming 26" x 16", led to Quarters. 4. 6" Bridge Deck Coaming 12" x 14" led to Quarters to Captain's Room, Bathroom & W.C. all constructed to Rule Requirements & coamings closed with wood plugs & canvas covers

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

1. Air pipe to F.P. Tank = 1'00" height x 2 1/2" dia. 1. Filling pipe " " = 1'18" " x 2 1/2" dia. 2. Air pipes (pressure) to No. 2nd Tank. 12" x 2 1/2" dia. 1. Filling pipe (S.P. & L.S.) " " 12" x 2 1/2" 2. Air & Filling pipes (vac side) to A.P. Tank 18" x 2 1/2" all pipes closed by screw caps or Wood Plugs attached by Chains!

Particulars of Gangway Cargo and Coaling Ports:—

Changnam

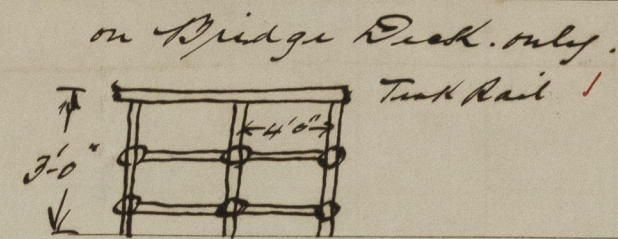
Particulars of Scuppers and Sanitary Discharge Pipes —

4. Scuppers each side of Foreboard Deck, draining directly overboard from Waterway, through Bulwark Plating. Outside - on 2" Pipe from Galley. on 4" Pipe from W.C. (Fitted with non return valves) Stair Side - on 2" Pipe from Bathroom (Fitted with non return valves) on 4" Pipe from W.C.

Particulars of Side Scuttles:—

3. 10" Side lights each side in Forecastle, and are fitted with efficient hinged deadlights

Particulars of Guard Rails:—



Particulars of Gangways, Lifelines, etc.:—

Lifelines can be fitted to permanent fittings. No gangways.

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	<i>63.00</i>	<i>at Stem 42" midships 30" Stem 30"</i>	<i>24" x 12"</i>	<i>4</i>	<i>8 0"</i>	<i>12.60</i>
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) <i>After Well: 34 feet (from Fore) 50 feet 60 feet 76.6" 6" above deck</i>						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Fitted with shutters (swing)</i>						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

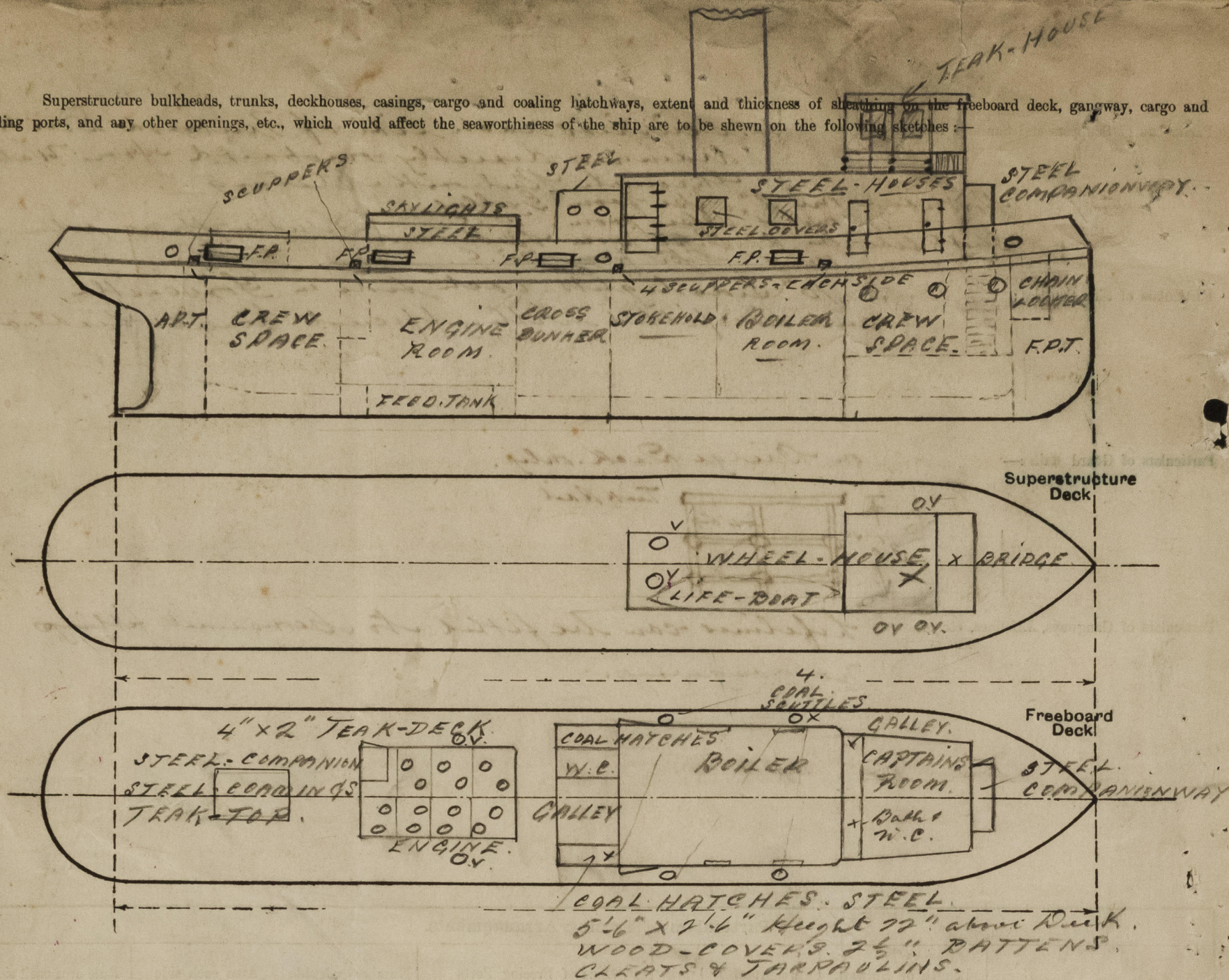
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead
Raised Quarter Deck Bulkhead
Bridge, After Bulkhead
Bridge, Forward Bulkhead
Forecastle Bulkhead
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	<i>16"</i>	<i>5/16"</i>	<i>3" x 2 1/2" x 1/4"</i>	<i>1'0"</i>	<i>Plackets</i>	<i>5'6" x 2'0"</i>	<i>16"</i>	<i>4'9" Captn 3'2" Quarters</i>
Exposed Machinery Casings on Superstructure Decks
Machinery Casings within Superstructures not fitted with Class I Closing Appliances
Deckhouses on Flush Deck Ships	<i>16"</i>	<i>5/16"</i>	<i>3" x 2 1/2" x 1/4"</i>	<i>2'0"</i>	<i>Plackets</i>	<i>5'0" x 2'0"</i>	<i>16"</i>	<i>7'0"</i>

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 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	...	...	...	...	...

Stair Doors, capable of being manipulated from both sides. Boilers & Stokhold Casings. Stair Doors, capable of being manipulated from both sides. Captain's Cabin & Bathroom, strong timbered doors

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:—

Previous Certificate dated 23/12/1926
No. 92270
27028.

Builder's name and yard number *The Hong Kong & Whampoa Dock Co. Ltd. Ship No. 630.*
Hong Kong.

Names of sister ships

Owners *Muenam River Towing & Lighter Co. Ltd. Bangkok.*

Fee £ *6. 6. 0*

Received by me. *Thomas. H. Pollard*

Expenses *1. 10.*



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Foundation