

DISCLOSED SECTION

25 APR 1935

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(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

now "Chang Lung" of Chefoo. ON 1712. Gross 6519 2025.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Hikoshima.</u>
having <u>Complete Superstructure.</u> (Shelter deck).					Date of Survey <u>12 & 22-3- '35.</u>
<u>SYORYU MARU</u>					Name of Surveyor <u>H.D. Buchanan.</u>
(Type of Superstructures.)					Particulars of Classification <u>*100AI</u>
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	
<u>CHANG LUNG</u>	<u>British.</u>	<u>142765</u>	<u>6519</u>	<u>1919-1</u>	
<u>"MILTONIA"</u>	<u>Shanghai.</u>		<u>6413</u>		
<u>ex "Glenshane"</u>	<u>411-5 JAPANESE</u>				
Moulded Dimensions: Length	Breadth	Depth			
<u>412.5</u>	<u>55.5</u>	<u>38.04</u>			
Moulded displacement at moulded draught = 85 per cent. of moulded depth					tons
<u>16590</u>					
Coefficient of fineness for use with Tables					
<u>As approved.</u>					

Depth for Freeboard (D) <u>38.04</u>		Depth correction		Round of Beam correction	
Moulded depth ...	<u>33.8</u>	(a) Where D is greater than Table depth		Moulded Breadth (B)	<u>55.5</u>
Stringer plate ...	<u>As approved</u>	(D-Table depth) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>13.31</u>
Sheathing on exposed deck	<u>None</u>	(38.04 - 27.43) $\times 3 =$	<u>+31.98</u>	Ship's Round of Beam	<u>None</u>
T $\left(\frac{L-S}{L}\right) =$		(b) Where D is less than Table depth (if allowed)		Difference	<u>13.31</u>
		(Table depth-D) R =	<u>✓</u>	Restricted to	
Depth for Freeboard (D) =	<u>38.09</u>	If restricted by superstructures		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right)$	<u>= $\frac{13.31}{4} = +3.33$</u>

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 Same as approved

" " 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 =

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>51.15</u>	1		<u>51.15</u>	<u>87.2</u>	<u>82.00</u>	1		<u>82</u>
$\frac{1}{8}$ L from A.P. ...	<u>22.76</u>	4		<u>91.04</u>	<u>22.8</u>	<u>20.00</u>	4		<u>80</u>
$\frac{3}{8}$ L " ...	<u>5.62</u>	2		<u>11.24</u>	<u>0</u>	<u>-</u>	2		<u>-</u>
Amidships ...	<u>-</u>	4		<u>-</u>	<u>0</u>	<u>-</u>	4		<u>-</u>
$\frac{5}{8}$ L from F.P. ...	<u>11.25</u>	2		<u>22.50</u>	<u>8</u>	<u>-</u>	2		<u>-</u>
$\frac{7}{8}$ L " ...	<u>45.53</u>	4		<u>182.12</u>	<u>19.2</u>	<u>19.00</u>	4		<u>76</u>
F.P. ...	<u>102.30</u>	1		<u>102.30</u>	<u>91</u>	<u>96.00</u>	1		<u>96</u>
Total ...				<u>460.35</u>					<u>334</u>

Mean actual sheer aft = Deficient

Mean standard sheer aft =

Mean actual sheer forward = Deficient

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L}\right) = \frac{126.35}{18} \times 75 = +5.26$

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	81.25
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	87.59
Depth to Freeboard Deck = <u>38.09</u>	$\Delta = 14290$	Depth Correction ...	31.98
Summer freeboard = <u>10.04</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ...	-
Moulded draught (d) = <u>28.05</u>	T = <u>46</u>	Sheer correction ...	5.26
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction ...	3.33
Winter freeboard = $\frac{d}{4}$ inches =	= <u>7.78 = 7$\frac{3}{4}$</u>	Correction for Thickness of Deck amidships ...	-
Addition for Winter North Atlantic Freeboard (if required) =		Other corrections, scantlings, etc. ...	-
		40.57	+ 40.57
		Summer Freeboard = <u>128.16 = 10' 8$\frac{1}{4}$</u>	

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

Existing freeboard as measured being more favourable than those computed under the Convention regulations	Tropical Fresh Water Line above Centre of Disc ...	14.34	14.34	Tropical Fresh Water Freeboard ...	10'-0 $\frac{1}{2}$ "	10'-0 $\frac{1}{2}$ "
	Fresh Water Line	7.34	7.34	Fresh Water	8'-9 $\frac{3}{4}$ "	8'-9 $\frac{3}{4}$ "
	Tropical Line	7"	7"	Tropical	9'-5 $\frac{1}{4}$ "	9'-4 $\frac{3}{4}$ "
	Winter Line below	7"	7"	Winter	9'-5 $\frac{1}{2}$ "	9'-5 $\frac{1}{2}$ "
	Winter North Atlantic Line	7"	7"	Winter North Atlantic	10'-7 $\frac{1}{2}$ "	10'-7 $\frac{1}{2}$ "

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
		No. 1	No. 2	No. 3	No. 4	Deep Tk Hatch	Coal Bunker	Hatches.	Fore Store		
Description of Hatchway		No. 1 Hold.	No. 2 Hold.	No. 3 Hold.	No. 4 Hold.	Side B Cross	Side B Cross	Side B Cross	Side B Cross	Side B Cross	Side B Cross
Dimensions of Hatchway		29' 2" x 19' 9 1/2"	do	do	do	14' 7" x 19' 9 1/2"	18' 18" x 19' 9 1/2"	19' 12" x 4' 10 1/2"	19' 12" x 5' 3"	19' 12" x 5' 3"	36" x 34"
COAMINGS	Height above Deck	32"	32"	32"	32"	32"	32"	32"	32"	32"	12 1/2"
	Thickness	.56	.56	.56	.56	.56	.56	.56	.56	.56	.40
	Stiffeners	9" Bulb	angle	forming	continuous	girder	-	B.A. girder	-	-	-
	Brackets, Stays	2	3	3	2	-	-	-	-	-	-
HATCH BEAMS	Number	5	5	5	5	1	-	2	-	-	-
	Spacing	Equidistant in all hatches.									
	Scantling and Sketch	3 1/2" x 3 1/2" x 8"	1" plate	do	do	do	do	-	1 1/2" x 1 1/2"	-	-
	Bearing Surface	3	3	3	3	3	-	3	-	-	-
FORE AND AFTERS	Number	---									
	Spacing	---									
	Unsupported Lengths	---									
	Scantling* and Sketch	NONE									
	Bearing Surface	---									
HATCH COVERS	Material	Wood	do	do	do	do	do	do	Wood	Wood	Wood
	Thickness	2 1/2"	"	"	"	"	"	"	3"	3"	2 1/2"
	How fitted	Fore & Aft.	"	"	"	"	"	"	do	do	do
	Bearing Surface	3"	do	"	"	"	"	"	3 1/2"	3 1/2"	2"
Spacing of Cleats		18"- 24" at all hatches.									
Number of Tarpaulins		2 off to all hatches.									

*Are wood fore and afters steel shod at all bearing surfaces? --

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 fiddley, funnel and ventilator coamings :—

Steel covers permanently attached to grating covered openings
Funnel and ventilator coamings of efficient construction.

Particulars of Flush Bunker Scuttles:—

2 off amidships - good and efficient. (IPR 45)

Particulars of Companionways :—

Companion, steel construction to crews quarters aft enclosed in 8'-0" x 19'-9 $\frac{1}{2}$ "

Deck house- with 2 steel doors 63" x 24" openings - height of sill 14"
Good and efficient.

One 22 $\frac{1}{2}$ " x 21" steel hatch with hinged steel cover for access to Steering engine room
Height 36" above deck.

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

To Fore peak store 1 off 9" dia: height above dk 38" } Riveted to deck and fitted with wood
 " No.1 Hold " 3 off 18" " " " " 36" } plugs and canvas covers.
 " No.2 Hold " 2 off 18" " " " " 36" }
 " No.3&4 " " 4 off 18" " " " " 36" }
 " Crew space and steering engine room 5 off 12" dia. Good and efficient.

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

Goose necks of efficient construction fitted, 26" x 36" high, to all double bottom tanks and 36" high to peak tank.

Fore, aft, peak tanks 1 off to each tank, 4" dia.

Nos. 1, 2, 3 & 5 double bottom tanks, 1P & 1S to each tank 2 1/2" dia.

Nos. 6 & 7 " " " 2P & 2S " " " "

No. 4 tank dry tank, 1 off, 4" dia. Deep tank 1P & 1S, 4 1/2" dia.

Particulars of Gangway Cargo and Coaling Ports :—

None fitted.

Particulars of Scuppers and Sanitary Discharge Pipes :—

and Sanitary Discharge Pipes -

2	Storm valves	4"	dia	1P & 1S	from crews toilet aft,	disch:	above	2nd deck
2	"	2 1/2"	"	"	"	"	below	"
2	"	4"	"	"	"	"	amidship disch:	above 2nd Deck.
2	"	3"	"	"	"	"	"	2ndDeck.
2 1/2	discharge from	pantry and gally		2P & 2S,	amidship disch:	above	2nd	deck.
2	"	alley way		1P & 1S	"	"	"	"

Particulars of Side Scuttles:—

10 Port and 10 Starb. aft, 9 $\frac{1}{2}$ " dia. good and efficient,
and fitted with steel covers. ✓

Particulars of Guard Rails :—

Bulwarks fitted from stem to fore end No.1 hatch and amidships elsewhere open pails, Height above deck 44".

Particulars of Gangways, Lifelines, etc. :—

~~None fitted.~~

Two rows of caulkions. (11 x 15) in riveted contact with steel were screws fitted from Engineer's Deck House to Crews Complanon fast. Keelp line fitted between Kender and Engineer's Deck House.

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	--	--	--	--	--	--
Forward Well	--	--	--	--	--	--

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

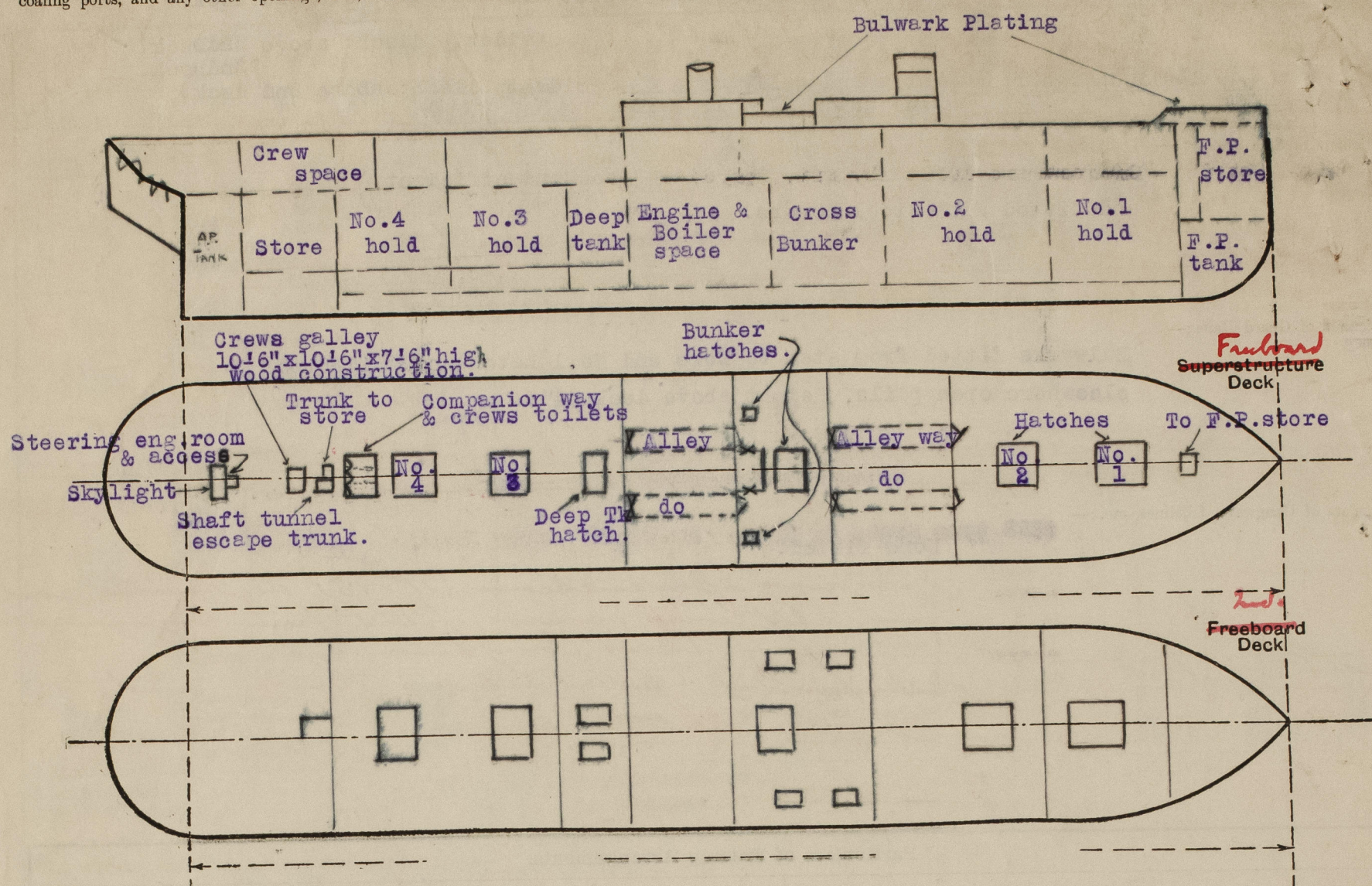
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—

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								
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 ...								
Exposed Machinery Casings on Super-structure 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	Storm boards, in channels good & efficient, openings 65"x51" Height of sill 15"
Bridge, Forward Bulkhead	Steel doors, operated from both sides good & efficient openings 62"x30" Height of sill 15"
Forecastle Bulkhead	---
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	---
Exposed Machinery Casings on Super-structure Decks	Hinged steel doors P & S at forward end of passage way operated from both sides opening 63"x30". Storm boards in channels at aft end of passage way opening 75"x32" sills Sills 15" high.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	---
Deckhouses on Flush Deck Ships ...	Hinged steel door 44"x22" operated from both sides in tunnel escape trunk & sill height 14½"

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:—

Vessel constructed with straight frames, bevelled bilge and flat cruiser stern.
2 decks steel and 2 tier beams.
Complete Special survey No.1 carried out whilst vessel lay in dry dock.
Wood battens fitted in lower holds only.

A. Buchanan

Builder's name and yard number Messrs. Harland & Wolff Ltd. Belfast.

Names of sister ships /

Owners F. M. Jonas.

Fee £ 100:00

Received by me _____



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