

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tug~~
having Forecastle, Bridge and Raised quarter deck

Port of Survey Vancouver B.C.

Date of Survey Aug 5.6.8.20.28 1935

Name of Surveyor Alcott

Particulars of Classification +100A1 E.W.

Ship's Name CEDROS Ex SHEAN

Nationality and Port of Registry Mexican Ensenada

Official Number 143649

Gross Tonnage 420

Date of Build 1920

Moulded Dimensions: Length 150'0" Breadth 23'75" Depth 11'5"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 9'9 1/4" = 716.5 tons

Coefficient of fineness for use with Tables 68 .72

Depth for Freeboard (D)

Moulded depth 11'5"

Stringer plate03'

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 11'53"

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = (11.53 - 10.0) x 1.154 = +1.77'

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

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 23'75"

Standard Round of Beam = $\frac{B \times 12}{50} =$ 5.7'

Ship's Round of Beam = 6.0'

Difference .3'

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.3}{4} \times \frac{149}{150} = -.01'$

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 ...	<u>88.25</u>	<u>88.25</u>	<u>4.0</u>		<u>88.25</u>	Standard Height of Superstructure <u>6.0</u>
" overhang ...						" " R.Q.D. <u>3.333</u>
Bridge enclosed ...	<u>9.0</u>	<u>9.00</u>	<u>7.0</u>		<u>9.0</u>	Deduction for complete superstructure <u>21</u>
" overhang aft ...						Percentage covered $\frac{S}{L} =$ <u>82.10</u>
" overhang forward ...						" " $\frac{S_1}{L} =$ <u>81.04</u>
F'cle enclosed <u>equivalent</u> ...	<u>22.73</u>	<u>22.73</u>	<u>7.0</u>		<u>22.73</u>	" " $\frac{E}{L} =$ <u>81.04</u>
" overhang ...	<u>3.17</u>	<u>1.58</u>			<u>1.58</u>	Percentage from Table, Line A. <u>76.59</u>
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Percentage from Table, Line B. <u>✓</u>
Tonnage opening aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required) <u>✓</u>
Total ...	<u>123.15</u>	<u>121.56</u>			<u>121.56</u>	Deduction = <u>21 x 76.59 = -16.08</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>25.0</u>	1		<u>25.0</u>	<u>27.0</u>	<u>25.0</u>	1		<u>25.0</u>	Mean actual sheer aft = <u>Excess.</u>
1/4 L from A.P. ...	<u>11.125</u>	4		<u>44.5</u>	<u>12.0</u>	<u>11.125</u>	4		<u>44.5</u>	Mean actual sheer forward = <u>deficient.</u>
1/2 L " ...	<u>2.75</u>	2		<u>5.5</u>	<u>3.3</u>	<u>2.75</u>	2		<u>5.5</u>	Length of enclosed superstructure forward of amidships = <u>> .1L</u>
Amidships ...	<u>0</u>	4		<u>0</u>	<u>0</u>	<u>0</u>	4		<u>0</u>	" " aft of " = <u>> .1L</u>
3/4 L from F.P. ...	<u>5.5</u>	2		<u>11.0</u>	<u>3.5</u>	<u>3.5</u>	2		<u>7.0</u>	
1/4 L " ...	<u>22.25</u>	4		<u>89.0</u>	<u>20.0</u>	<u>20.0</u>	4		<u>80.0</u>	
F.P. ...	<u>50.0</u>	1		<u>50.0</u>	<u>51.5</u>	<u>51.5</u>	1		<u>51.5</u>	
Total ...				<u>225.0</u>					<u>213.5</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{11.5}{78} \left(\frac{75 - 4105}{2L} \right) = +.22'$

If limited on account of midship superstructure. ✓If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15.53

Summer freeboard = 4.17

Moulded draught (d) = 11.36

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 2.84 = 2 3/4

Addition for Winter North Atlantic Freeboard (required) = 4 3/4

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 = $\frac{\Delta}{40T}$ inches

$\frac{4}{4} = 2 3/4$

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient 72 + 68 = 140
1.36 1.36

Depth Correction 1.77

Deduction for superstructures 16.08

Sheer correction22

Round of Beam correction Right R.Q.D.01

Correction for Right R.Q.D. of Deck amidships 1.48

Other corrections, scantlings, etc.

Summer Freeboard = 49.4 .86

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, W.A. Steel Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<u>2 3/4</u>	Tropical Fresh Water Freeboard ...	<u>3 - 11 1/4</u>
Fresh Water Line " " ...	<u>2 3/4</u>	Fresh Water " " ...	<u>3 - 11 1/4</u>
Tropical Line " " ...	<u>nil</u>	Tropical " " ...	<u>4 - 2</u> <u>limited</u>
Winter Line below " " ...	<u>2 3/4</u>	Winter " " ...	<u>4 - 2 1/4</u>
Winter North Atlantic Line " " ...	<u>4 3/4</u>	Winter North Atlantic " " ...	<u>4 - 6 3/4</u>

-4 OCT 1935



30 SEP 1935

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	No 1	No 2		Hatch to F.P. flat inside forecabin			
Dimensions of Hatchway	...	...	23'4"x13'	28'3"x13'		2'6"x3'0"			
COAMINGS	Height above Deck	...	3'0"	3'0"		22"			
	Thickness	...	.44	.44					
	Stiffeners	...	7x3x1/2 BA	7x3x1/2 BA					
	Brackets, Stays	...	one 3/8 plate	none					
HATCH BEAMS	Number	...	2	2					
	Spacing	...	7-9	9-5					
	Scantling and Sketch	...	3" half round 7/16 plate 3" half round	Same as No 1					
	Bearing Surface	...	3"	3"					
FORE AND AFTERS	Number	...	3	3					
	Spacing	...	3-3	3-3					
	Unsupported Lengths	...	7-9	9-5					
	Scantling* and Sketch	...	Center 5 1/2 x 7 1/2 Side 6 1/2 x 6 1/2	Center Same as No 1 Side 7 x 7 1/2					
	Bearing Surface	...	3	3					
HATCH COVERS	Material	...	wood	Same		wood			
	Thickness	...	2 1/2	20		2 1/2			
	How fitted	...	thwart	No 1		one piece			
	Bearing Surface	...	3"			2"			
Spacing of Cleats	...	...	18"	18"		20"			
Number of Tarpaulins	...	...	2	2		2			
*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes.</i> Are battens and wedges efficient and in good condition? <i>Yes.</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes.</i> Are lashings provided in accordance with rule requirements? <i>Yes.</i>									

Particulars of fiddle, funnel and ventilator coamings:— *Steel casing. Funnel riveted to casing top. 2 vents 14" dia - 3/16" coaming 1/4" plate on top of fiddle. Steel skylight, hinged steel covers. heavy glass.*

Particulars of Flush Bunker Scuttles:— *None.*

Particulars of Companionways:— *None.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *One on forecabin 10" dia. Coaming 3/16" plate. One on forecabin 6" dia. Coaming 3/16" plate. P & S. One " " p & side to backroom 5" dia. 3/16" Coaming plate 3/16. One " " to No 1 hold - 12" dia. 3/16" Coaming 1/4" plate. One R.Q.D. Sta Side 12" dia. 3/16" Coaming 1/4" plate. One on Bridge Sta Side 6" dia. 3/16" Coaming 3/16" plate. All vents fitted with plugs and canvas covers.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— *Two air pipes to F.P. and forward tank 1 3/4" and 2 1/2" dia - 16" high. These are under the low chock and as high as possible. Fitted with plugs.*

Particulars of Gangway Cargo and Coaling Ports:— *No openings.*

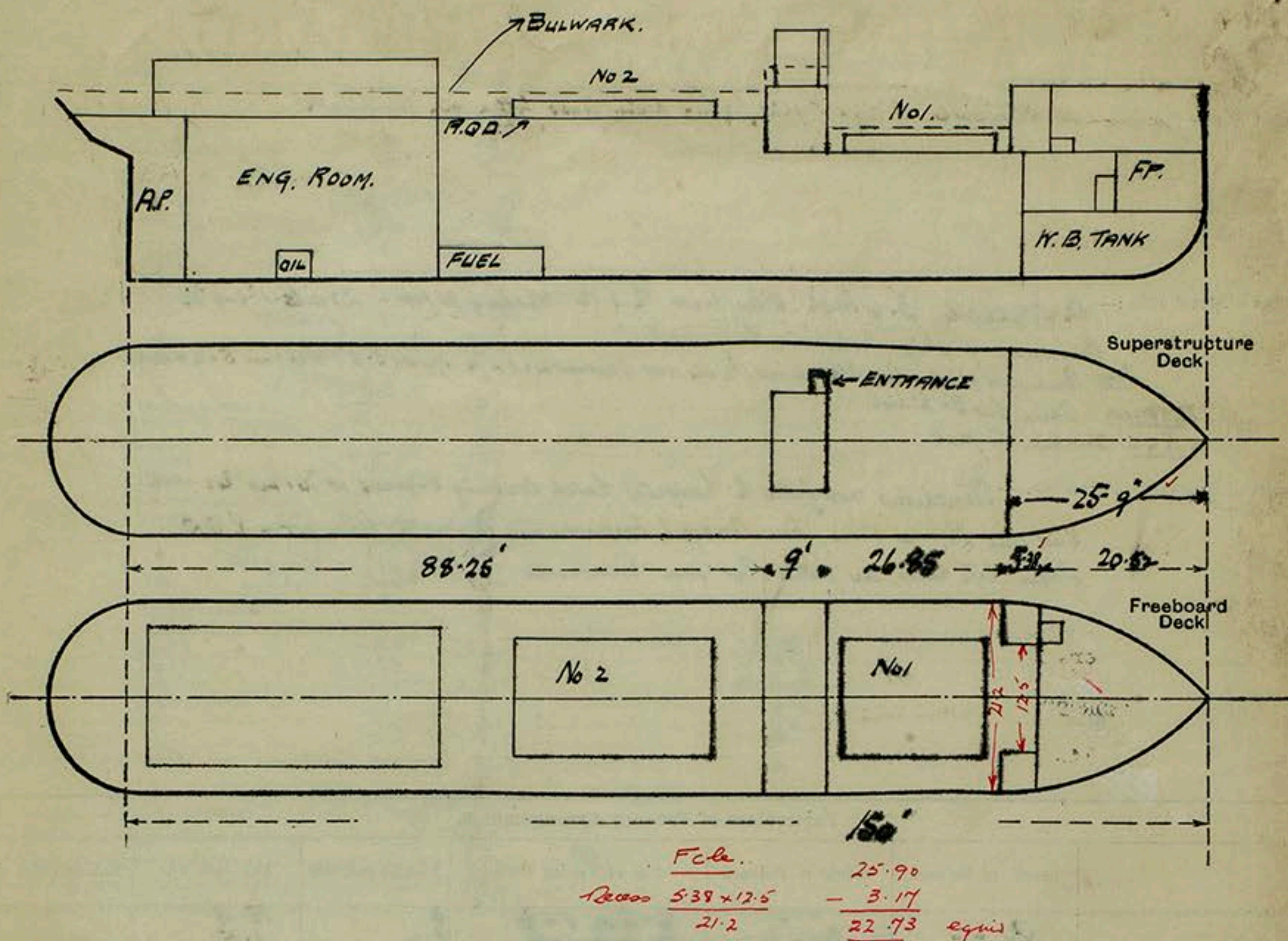
Particulars of Gangways, Lifelines, etc.:—Stanchions now fitted to horizontal hatch coaming stiffeners, at No 1 and No 2, with
Steel wire through same, from Bridge to Forecastle, and Bridge to Horn aft on R.O.S.
These life lines are fitted Port and Starboard.

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	88.25	3.0	2.6 x 1.6 2 x 1.6	2 2 moving pipes	15.9 1.5 17.4	17.65 $\frac{1}{2}$
Forward Well	26.85	4.4	2.6 x 1.6	2	11.25	9.18 $\frac{1}{2}$
<p>State position of each freeing port { After Well:— <i>Evenly spaced heights above deck 4'</i></p> <p>(F. and A. position and height above deck edge) { Forward Well:—</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Removable steel hinged shutters, $\frac{1}{4}$ plate R.O.D open, 2 slots for main.</i></p> <p>Additional area where sheer is less than standard.</p>						

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	$\frac{1}{4}$	$\frac{1}{4}$	$4 \times 3 \times \frac{3}{8} L$	26	Bkt T & B	No doors.		3'-0"
Bridge, Forward Bulkhead	$\frac{1}{4}$	$\frac{1}{4}$	$5 \times 2 \frac{1}{2} \times \frac{3}{8} BA$	30	do	do		7-0
Forecastle Bulkhead	$\frac{1}{4}$	$\frac{1}{4}$	$4 \times 3 \times \frac{5}{16}$	28	do	5'-4" x 2'-0"	12'	7-0
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	$\frac{5}{16}$	$\frac{1}{4}$	$3 \frac{1}{2} \times 2 \frac{1}{2} \times \frac{5}{16}$	30	do b & m	4'-6" x 2'-0"	18	7'-0"
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	No openings ✓
Bridge, Forward Bulkhead	do ✓
Forecastle Bulkhead	iron door 1½ thick - opening from both sides ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel door p + S. ¾ plate. 4'-6" x 2'-0". Hinged - latched. secured by dogs - opens both sides.
Deckhouses on Flush Deck Ships ...	

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, carp 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:— *Keel Examined on dry dock and afloat, and Special Survey now carried out entirely. Additional freeing ports now fitted on Ramina Quarta deck. Life lines now fitted from Stern to foremast and to bow on R.Q.D. Hatches, Coaming & methods of closing Examined and found Satisfactory. Port F.A. renewed when required and Slat Chod. Ventilator and air pipe Examined. The means of access to Crews Quarters are Satisfactory.*

Builder's name and yard number *Cammell Laird & Co. Ltd. Yard No 882*

Names of sister ships

Owners *O.L. Rodriguez. Ensenada. Lower California Mexico.*

Fee £ *30.00*
Whitton 15.00

Received by me.