

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

15112

| | | | | | | |
|--|--|---|---|------------------------------|--|--|
| Computation of Freeboard for Steamer, Sailing Ship, Tanker | | | | | Port of Survey <u>MIDDLESBROUGH.</u> | |
| Having <u>POOP, FORECASTLE & TRUNK</u> | | | | | Date of Survey <u>7-4-34</u> | |
| <u>CUMAREBO</u> (Type of Superstructures.) | | | | | Name of Surveyor <u>J. G. Brighton</u> | |
| Ship's Name <u>CRIOLLO FIELD</u> | | Nationality and Port of Registry <u>SOUTH AMERICAN</u> | Official Number <u>4085</u> | Gross Tonnage <u>4085</u> | Date of Build <u>PROBABLE 6-34.</u> | |
| FURNESS S.B. C ² N ² 237 | | | | | | |
| Moulded Dimensions: Length <u>350'0"</u> Breadth <u>60'0"</u> Depth <u>17'6"</u> | | | | | Particulars of Classification <u>+100 A1.</u> | |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>7521</u> tons | | | | | <u>CARRYING PETROLEUM IN BULK</u> | |
| Coefficient of fineness for use with Tables <u>84.83</u> | | | | | <u>(CONTEMPLATED)</u> | |
| Depth for Freeboard (D) | | | Depth correction | | Round of Beam correction | |
| Moulded depth <u>17'5"</u> | | | (a) Where D is greater than Table depth (D-Table depth) R = | | Moulded Breadth (B) <u>60.00</u> | |
| Stringer plate <u>.04</u> | | | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>(23.33-17.54) 2.692</u> | | Standard Round of Beam = $\frac{B \times 12}{50}$ = <u>14.40</u> | |
| Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ = <u>✓</u> | | | If restricted by superstructures | | Ship's Round of Beam = <u>12.00</u> | |
| Depth for Freeboard (D) = <u>17.54</u> | | | | | Difference <u>2.4 DEFICIENT</u> | |
| | | | | | Restricted to | |
| | | | | | Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$ = $\frac{2.4}{4} \times 32.68 = .191$ | |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) | |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|--|
| Poop enclosed ... | 72.66 | 72.66 | 8.0 | ✓ | 72.66 | Standard Height of Superstructure <u>7'0"</u> |
| " overhang ... | .30 | .15 | 8.0 | ✓ | .15 | " " R.Q.D. <u>✓</u> |
| R.Q.D. enclosed ... | | | | | | Deduction for complete superstructure <u>38.67</u> |
| " overhang ... | | | | | | Percentage covered $\frac{S}{L} = 32.65\%$ |
| Bridge enclosed... | | | | | | " $\frac{S_1}{L} = 67.42\%$ |
| " overhang aft ... | | | | | | " $\frac{E}{L} = 67.42\%$ |
| " overhang forward | | | | | | Percentage from Table, Line A. <u>TANKER 60.85</u> |
| P'cle enclosed ... | 37.33 | 37.33 | 8.0 | ✓ | 37.33 | (corrected for absence of forecastle (if required)) |
| " overhang ... | 4.00 | 2.00 | 8.0 | ✓ | 2.00 | Percentage from Table, Line B. |
| Trunk aft ... | | 125.49 | | | 125.49 | (corrected for absence of forecastle (if required)) |
| " forward ... | | 123.84 | 8.0 | ✓ | 123.84 | Interpolation for bridge less than 2L (if required) |
| Tonnage opening aft ... | | .63 | | | | Deduction = <u>38.67</u> x <u>.6085</u> = <u>23.52</u> |
| " " forward | | 237.57 | | | 237.57 | |
| Total ... | 114.29 | 335.98 | | | 335.98 | |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product | |
|---|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|--|
| A.P. ... | 45.00 | 1 | | 45.00 | 10.75 | 10.75 | 1 | | 10.75 | Mean actual sheer aft = |
| $\frac{1}{8}$ L from A.P. ... | 20.02 | 4 | | 80.08 | .06 | .06 | 4 | | .24 | Mean standard sheer aft = |
| $\frac{3}{8}$ L " ... | 4.95 | 2 | | 9.90 | .00 | .00 | 2 | | .00 | Mean actual sheer forward = |
| Amidships ... | 0.00 | 4 | | 0.00 | .00 | .00 | 4 | | .00 | Mean standard sheer forward = |
| $\frac{5}{8}$ L from F.P. ... | 9.91 | 2 | | 19.82 | .00 | .00 | 2 | | .00 | Length of enclosed superstructure forward of amidships = |
| $\frac{1}{8}$ L " ... | 40.04 | 4 | | 160.16 | .00 | .00 | 4 | | .00 | " " aft of " = |
| F.P. ... | 90.00 | 1 | | 90.00 | 15.00 | 15.00 | 1 | | 15.00 | |
| Total ... | | | | 404.96 | | | | | 25.99 | |
| Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{378.97}{18} \left(.75 - \frac{.1628}{2} \right) = + 12.36$ | | | | | | | | | | |
| 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.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 17.54 Ft.
Summer freeboard = 2.58
Moulded draught (d) = 14.96

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $3.74 = 3\frac{3}{4}$ Addition for Winter North Atlantic Freeboard (if required) = 32"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 7613$
Tons per inch immersion at summer load water lineT = 45.24Deduction = $\frac{\Delta}{40T}$ inches= 4.21= 44

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

84.83 + .68 = 85.51
1.36Depth Correction| Deduction for superstructures | 15.58 |
| Sheer correction | 23.52 |
| Round of Beam correction | 12.36 |
| Correction for Thickness of Deck amidships | 19.11 |
| Other corrections, scantlings, etc. | 39.05 |
| | 12.55 |
| | 38.82 |
| | 26.38 |
| | 50 |
| Summer Freeboard = | 31.48 |
| | 30.74 |
| | 95 |

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

Tropical Fresh Water Line above Centre of Disc| Fresh Water Line " " | 8 |
| Tropical Line " " | 44 |
| Winter Line below " " | 33 |
| Winter North Atlantic Line " " | 74 |
| Tropical Fresh-Water Freeboard | 1-11 |
| Fresh Water " " | 2-23 |
| Tropical " " | 2-34 |
| Winter " " | 2-10 |
| Winter North Atlantic " " | 3-24 |

11 MAY 1934

51,332.

00736-00742-0152

RECEIVED

MARKING FORM

RECEIVED

10 FEB 1937

MARKING FORM

RECEIVED

12 MAY 1934

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 ... | | | | | | | |
| | | Stiffeners ... | | | | | | | |
| | | Brackets, Stays ... | | | | | | | |
| HATCH BEAMS | { | Number | | | | | | | |
| | | Spacing | | | | | | | |
| | | Scantling and Sketch ... | | | | | | | |
| | | Bearing Surface | | | | | | | |
| FORE AND AFTERS | { | Number | | | | | | | |
| | | Spacing | | | | | | | |
| | | Unsupported Lengths ... | | | | | | | |
| | | Scantling* and Sketch ... | | | | | | | |
| | | Bearing Surface | | | | | | | |
| HATCH COVERS | { | Material | | | | | | | |
| | | Thickness | | | | | | | |
| | | How fitted | | | | | | | |
| | | Bearing Surface | | | | | | | |
| Spacing of Cleats | | | | | | | | | |
| Number of Tarpaulins | | | | | | | | | |
| <p>*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/></p> <p>Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/></p> <p>Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/></p> | | | | | | | | | |

Particulars of fiddley, funnel and ventilator coamings:—

STOKEHOLD GRATINGS COVERED BY STRONG STEEL
HINGED COVERS. ✓ FIDLEY & FUNNEL VENTILATORS
IN EFFICIENT CONDITION. ✓ ENGINE SKYLIGHT OF STEEL
STRONGLY CONSTRUCTED ✓

Particulars of Flush Bunker Scuttles:—

NONE ✓

Particulars of Companionways:—

NONE ✓

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

ONE VENT ON POOP DK. 12" DIA. CORN^{30°} 24" x .34 LED TO STEERING GEAR HOUSE
TWO VENTS ON FIDLE DK. 12" " " 36" x .34 LED TO PUMP ROOM.
ALL VENTS CONSTRUCTED IN ACCORDANCE WITH RULES ✓ & COAMINGS CLOSED
WITH WOOD PLUGS & CANVAS COVERS. ✓

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

1 C.I. AIR PIPE ON POOP DK. 18" HIGH x 4" DIA. FROM AFT PEAK.
1 " " " " FIDLE DK. 18" " x 3½" " " FORE PEAK.
2 " " PIPES ON POOP DK. 18" " x 2½" " " E.R. D.B. TANK.
2 " " " " TRUNK TOP 18" " x 2" " " COFFERDAM
ALL AIR PIPES ARE CLOSED WITH WOOD PLUGS & CANVAS COVERS ✓

Particulars of Gangway Cargo and Coaling Ports:—

NONE ✓



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Particulars of Scuppers and Sanitary Discharge Pipes :—

SCUPPERS FITTED WITH GUN METAL STORM VALVES AT SHIPS SIDE & SCREEN CAPS AT INNER END.
SANITARY DISCHARGE PIPEB FITTED WITH GUNMETAL STORM VALVE AT SHIPS SIDE & EFFICIENT TRAP AT INNER END.

Particulars of Side Scuttles :—

ALL SIDE SCUTTLES IN POOP DR. TO CREW SPACES FITTED WITH PORTABLE DEAD LIGHTS

NO SIDE SCUTTLES BELOW FREEBOARD OK.

SIDE SCUTTLES OF SUBSTANTIAL CONSTRUCTION. ✓

Particulars of Guard Rails :—

GUARD RAILS ON FREEBOARD DK. 3'-6" HIGH WITH TWO RODS STANCHIONS SPACED 4'-9" APART
STEEL BULWARK ON POOP DK. 3'-6" HIGH x .25 STANCHIONS 6' x .35 BULB PLATE 5'-6" APART
" " FICLE DK 3'-6" " x .25 " 6' x .35 " "
GUARD RAIL ON TRUNK DK 3'-6" HIGH WITH TWO RODS STANCHIONS SPACED 4'-9" APART

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 |
| er Well | | ✓ | | | | |
| ward Well | | ✓ | | | | |

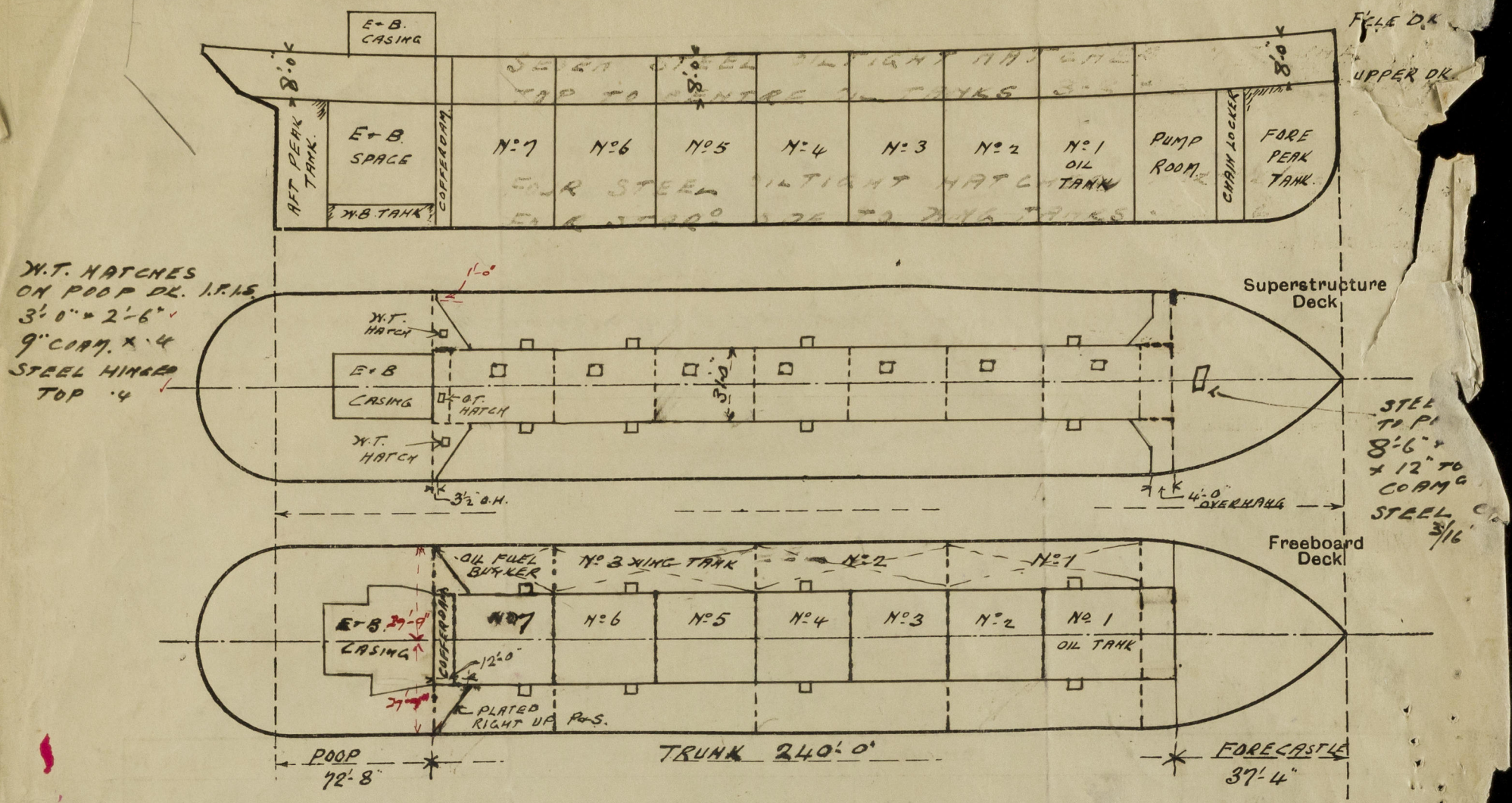
te position of each freeing port } After Well :—
 and A. position and height above deck edge) } Forward Well :—
 te whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
 Additional area where sheer is less than standard.

| Particulars of Superstructures, Trunks, Casings, Deckhouses. | | | | | | | | |
|--|-----------|---------|---------------|---------|-------------------------------|--|-----------------|-------------------|
| | Coaming | Plating | Stiffeners | Spacing | End Attachments of Stiffeners | Size of Openings | Height of Sills | Height of Casings |
| Top Bulkhead | NONE | .42 ✓ | 9x3½x.38 B.P. | 30" | BRACKETS TOP & BOTTOM | NONE | ✓ | 8'-0" |
| Exposed Quarter Deck Bulkhead ... | ✓ | | | | | | | |
| Edge, After Bulkhead | ✓ | | | | | | | |
| Edge, Forward Bulkhead | ✓ | | | | | | | |
| Castell Bulkhead | NONE | .3 ✓ | 4½" FLANGE | 32½" | NONE | N.T. DOORS 5'-3" x 2'-0" 1 P. I.S. | 16" ✓ | 8'-0" ✓ |
| Trunk, Aft | 27"x.5 ✓ | .62 ✓ | 6x3x.4 B.P. | 24" | BRACKETS AT TOP | N.T. DOORS TO PUMP ROOM 5'-3" x 2'-0" 1 P. I.S. | 16" ✓ | 8'-0" |
| Trunk, Forward | | | | | | | | |
| Exposed Machinery Casings on Freeboard or Raised Quarter Decks ... | ✓ | | | | | | | |
| Exposed Machinery Casings on Superstructure Decks | 15"x.34 ✓ | .3 ✓ | 3x3x.3 L | 30" | BRACKETS AT TOP | STEEL DOORS 5'-3" x 2'-0" 1 P. I.S. | 15" ✓ | 7'-11" ✓ |
| 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 | NO OPENINGS IN POOP BULKHEAD. ✓ |
| Raised Quarter Deck Bulkhead ... | ✓ |
| Bridge, After Bulkhead | ✓ HINGED |
| TRUNK | |
| Bridge, Forward Bulkhead | ✓ TWO STEEL N.T. DOORS TO PUMP ROOM I.P.I.S. MANIPULATED FROM BOTH SIDES. ✓ |
| Forecastle Bulkhead | TWO STEEL N.T. DOORS ✓ I.P.I.S. MANIPULATED FROM BOTH SIDES |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ... | ✓ HINGED |
| Exposed Machinery Casings on Superstructure Decks | TWO STEEL DOORS I.P.I.S. MANIPULATED FROM BOTH SIDES |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances | HINGED ✓ |
| | ✓ |
| Deckhouses on Flush Deck Ships ... | ✓ |

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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:—

STEEL TRUNKS TO WING TANKS
4 P. & 4.5 3'-11 1/4" x 3'-8 3/4" x .4 ✓
O.T. HATCHES ON TOP OF TRUNKS
TO WING TANKS 9 CORN. x .4 COVERS
O.T. HATCHES ON TOP OF TRUNK
TO CEN. TANKS 9 CORN. x .46 COVERS

Trunk $11.76 \times \frac{.85}{60.00} = 8.62.74$

$226 \times \frac{31}{60} = \frac{116.75}{125.37.49}$

Y.C.E.

See 17

Builder's name and yard number MESS^{RS} FURNESS S.B. CO^S N° 237

Names of sister ships ✓

Owners CIA. TRANSPORTADORA DE PETROLEUS S.A.

Fee £ ✓ : ✓ : ✓ Received by me ✓

58-911
57-6
31-0
88-6
44-