

Esso - Aruba ex

34034

New York Office Index No. 124

Port of Survey New York

Date of Survey July 22, 1931

Name of Surveyor W. Benoit

# Lloyd's Register of Shipping

## SURVEYS FOR FREEBOARD - STEAMERS

(Under the Provisions of the U. S. A. Load Line Act of March 2, 1929)

|  |  |                                 |  |                               |  |
|--|--|---------------------------------|--|-------------------------------|--|
| Ship's Name.<br><i>S.S. "Pan Bolivar"</i>  | Port of Registry and Nationality.<br><i>San Pedro de Macoris, D.R.</i> | Official Number.<br><i>1546</i> | Gross Tonnage.<br><i>9231</i><br><i>8773</i> | Date of Build.<br><i>1931</i> | Particulars of Classification.<br><i>+10091 Long. Framing</i><br><i>Carrying Pet. in Bulk.</i> |
| Number in Register Book <i>30795</i>   | <i>USA</i>   |                                 |  |                               |  |
| Owner <i>Pan. Amer. Pet. &amp; Transp. Co.</i>   | Builder <i>Swan, Blunt &amp; Wigham, Richmond, Va.</i>                 |                                 |  |                               | Hull No. <i>1465</i>   |
| Moulded dimensions <i>483</i> × <i>65.25</i> × <i>36.75</i>                                    |  |                                 | (85% = <i>31.24</i> )                        |                               |  |
| Moulded displacement at a moulded draught of 85 per cent. of moulded depth. <i>22,420 tons</i> |  |                                 |  |                               |  |
| Coefficient of fineness for use with tables. <i>797</i>  |  |                                 |  |                               |  |

| DEPTH FOR FREEBOARD. |                  | CORRECTION FOR DEPTH.  |  | CAMBER   |                                      |
|----------------------|------------------|--|--|--|--------------------------------------|
| Moulded depth        | 36.75            | (a) When D is greater than $\frac{L}{15}$                        |  | Standard   | $\frac{65.25 \times 12}{50} = 15.66$ |
| Stringer plate       | $(\frac{3}{4})"$ | $(D - \frac{L}{15}) \times R = (36.81 - 32.20) \times 3 = 13.83$ |  | Ship   | 16.00                                |
| Sheathing in wells   | ✓                | (b) When D is less than $\frac{L}{15}$ (if allowed).             |  | Difference   | .34                                  |
| $T(\frac{L-S}{L}) =$ |                  | $(\frac{L}{15} - D) \times R =$                                  |  | Restricted to  |                                      |
| Depth D =            | 36.81            | If restricted by height of superstructures                       |  | Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S_1}{L}) = \frac{.34}{4} \times 1.57 = .05$ |                                      |

### SUPERSTRUCTURES.

|                    | Mean Covered Length S | Effective Length S <sub>1</sub> (Uncorrected for Height) | Height. | Correction for Height. | Effective Length. |
|--------------------|-----------------------|--|---------|------------------------|-------------------|
| Poop enclosed      | 117.00                | 117.00   | 8.0     | ✓                      | 117.00            |
| " overhang         |                       |  |         |                        |                   |
| R.Q.D. enclosed    |                       |  |         |                        |                   |
| " overhang         |                       |  |         |                        |                   |
| Bridge enclosed    | 41.50                 | 39.89  | 8.0     | ✓                      | 39.89             |
| " overhang aft     |                       |  |         |                        |                   |
| " overhang forward |                       |  |         |                        |                   |
| Fore enclosed      | 49.75                 | 49.75  | 8.0     | ✓                      | 49.75             |
| " overhang         |                       |  |         |                        |                   |
| Trunks forward     |                       |  |         |                        |                   |
| " aft              |                       |  |         |                        |                   |
| Tonnage opening    |                       |  |         |                        |                   |

TOTAL =  $\frac{208.25}{483}$   $\frac{206.64}{483}$   $\frac{206.64}{483}$

Length of ship (L) = 483

% Covered... = 43.11% ✓ 42.78% ✓

Correction for Bridge less than 2 L if required } Tanker

Corresponding %, corrected for absence of forecastle if required } A = Tanker B = 33.78%

Allowance ... = 42 ✓ × .3378 ✓ = - 14.19 ✓

### SHEER.

| Station. | Actual Sheer. | Standard Sheer. | Allowed Sheer. | S. M. | Products. |
|----------|---------------|-----------------|----------------|-------|-----------|
| A.P. 1   | 57.31         | 58.30           | 57.31          | 1     | 57.31     |
| 2        | 6.06          | 25.62           | 6.06           | 4     | 24.24     |
| 3        | -             | 6.41            | -              | 2     | -         |
| 4        | -             | -               | -              | 4     | -         |
| 5        | -             | 12.82           | -              | 2     | -         |
| 6        | 11.50         | 51.24           | 11.50          | 4     | 46.00     |
| F.P. 7   | 95.19         | 116.60          | 95.19          | 1     | 95.19     |

Mean effective sheer ... =  $\frac{216.74}{18} = 12.04$

Standard sheer .05 L + 5 = 29.15

Difference (Df) = 17.11

Allowance =  $Df \times (\frac{S}{2L}) = 17.11 \times (\frac{75 - 21}{2 \times 483}) = 9.24$

If limited on account of amidship superstructure ... =

If limited on account of excess sheer (1½ in. per 100 ft.) ... =

If excess sheer forward and deficient sheer aft:-

Actual sheer aft = Deficient

Standard sheer aft

Actual sheer forward = Deficient

Standard sheer forward

Length of enclosed superstructure L

Forward of amidships = ✓

Aft of amidships = ✓

| DRAFTS.                           |                | F. W. ALLOWANCE                        | TABULAR FREEBOARD (corrected for flush deck if required)    |
|-----------------------------------|----------------|--|---|
| Moulded Depth D =                 | 36' - 9"       | Displacement = 20303                   | Corrected for Coefficient $\frac{.797 + .68}{1.36} = 1.477$ |
| Stringer Plate =                  | $\frac{3}{4}"$ | Tons per inch = 64.31                  |   |
| Freeboard                         | 8' - 3½"       |  |   |
| Moulded draught                   | 28' - 6¼"      |  |   |
| Addition for keel below base line | 2              | $\frac{20303}{40 \times 64.31} = 7.89$ |   |
| Extreme draught                   | 28' - 8¼"      |  |   |

|                      |       |       |
|----------------------|-------|-------|
| Correction for Depth | 13.83 |       |
| " Superstructures    | 9.24  |       |
| " Sheer              | -     |       |
| " Camber             | .05   |       |
| " Thickness of deck  | -     |       |
| " Scantlings, etc.   | -     |       |
|                      | 23.07 | 14.24 |
| Summer Freeboard =   | 99.42 | 83.42 |

FREEBOARD recommended amidships from centre of Disc to top of Deck Line, Wood (Steel) Deck:-

36.81

8.12

28.69

7.17

99.42

7.17

92.26 = 7.8¼

106.59 = 8-10½

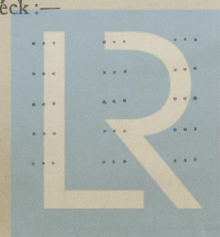
Tropical Fresh Water Line above centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line



© 2020

Lloyd's Register Foundation



Note:—The Rules referred to below are the Load Line Regulations of the United States Department of Commerce.  
(These should be consulted when completing the report.)

Is the poop or ~~raised quarter~~ deck connected with the bridge? No  
Has the poop or ~~raised quarter~~ deck an efficient steel bulkhead at the fore end? Yes  
Give particulars of the means of closing the openings in this bulkhead (Rules 43 and 44). Class 2 closing appliances  
Has the bridge an efficient steel bulkhead at the fore end? Yes  
Give particulars of the means of closing the openings in this bulkhead. Class 1 closing appliances  
Has the bridge an efficient steel bulkhead at the after end? Yes  
Give particulars of the means of closing the openings in this bulkhead. Class 2 closing appliances  
Has the forecastle an efficient steel bulkhead at the after end? Yes  
Give particulars of the means of closing the openings in this bulkhead. Class 2 closing appliances  
Are the engine and boiler openings covered by a ~~bridge~~, poop, ~~raised quarter deck~~, or enclosed by a strong steel deckhouse? Yes  
If the openings are not so protected, are the exposed parts of the casing efficiently constructed? Yes  
Give thickness of plating, scantlings and spacing of stiffeners.  
Are Rules Nos. 19, 20, 21 and 22 complied with (where applicable)? Yes

Particulars of bulkheads of erections:

|   | Poop or <del>Raised Quarter Deck</del> bulkhead | Bridge front bulkhead       | Bridge after bulkhead     | Forecastle bulkhead       |
|---|---|-----------------------------|---------------------------|---------------------------|
| Thickness of bulkhead plating           | .44   | .44                         | .32 <u>coaming</u> .38    | .32 <u>coaming</u> .38    |
| Scantlings of stiffeners                | 10x3 1/2 x .44 <u>BL</u>                        | 10x3 1/2 x .44 <u>BL</u>    | 4x3x.38 <u>angle</u>      | 4x3x.38 <u>angle</u>      |
| Spacing of stiffeners, and if bracketed | sf 30" <u>BL top</u><br>18" <u>Long bottom</u>  | sf 29" <u>Lugged</u><br>18" | sf 30" <u>none</u><br>16" | sf 29" <u>none</u><br>18" |
| Height of sills of openings above deck  |   |                             |                           |                           |

Particulars of weather deck hatchways. (In case of complete superstructure vessels having tonnage openings, give, in addition, particulars of 2nd deck hatchways, and also of those in bridge spaces closed by Class 2 appliances, or in open bridges).

| Position and Size.                | No. 1 Hatch                 |               | Q. T. Hatch         |       |       |       |       |       |       |       |
|-----------------------------------|-----------------------------|---------------|---------------------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Ship.                       | Rule.         | Ship.               | Rule. | Ship. | Rule. | Ship. | Rule. | Ship. | Rule. |
| COAMING. Height above top of DECK | 30"                         | 30"           |                     |       |       |       |       |       |       |       |
| Thickness                         | Sides.....                  | .44           | .40                 | ✓     |       |       |       |       |       |       |
|                                   | Ends.....                   | .44           | .40                 |       |       |       |       |       |       |       |
| SHIFTING BEAMS OR WEB PLATES.     | Number.....                 |               |                     |       |       |       |       |       |       |       |
|                                   | Section and Scantlings..... | <u>none</u> ✓ | ✓                   | ✓     |       |       |       |       |       |       |
|                                   | Material.....               |               |                     |       |       |       |       |       |       |       |
| * FORE AND AFTERS.                | Number.....                 |               |                     |       |       |       |       |       |       |       |
|                                   | Section and Scantlings..... | <u>none</u> ✓ | ✓                   | ✓     |       |       |       |       |       |       |
|                                   | Material.....               |               |                     |       |       |       |       |       |       |       |
| HATCHES Thickness                 | <u>Steel covers</u>         | ✓             | <u>Steel covers</u> | ✓     |       |       |       |       |       |       |
| Remarks.....                      | <u>stiffened</u>            |               | <u>stiffened</u>    |       |       |       |       |       |       |       |

\* The depth of Fore and Afters should be stated from the underside of the hatches in all cases.

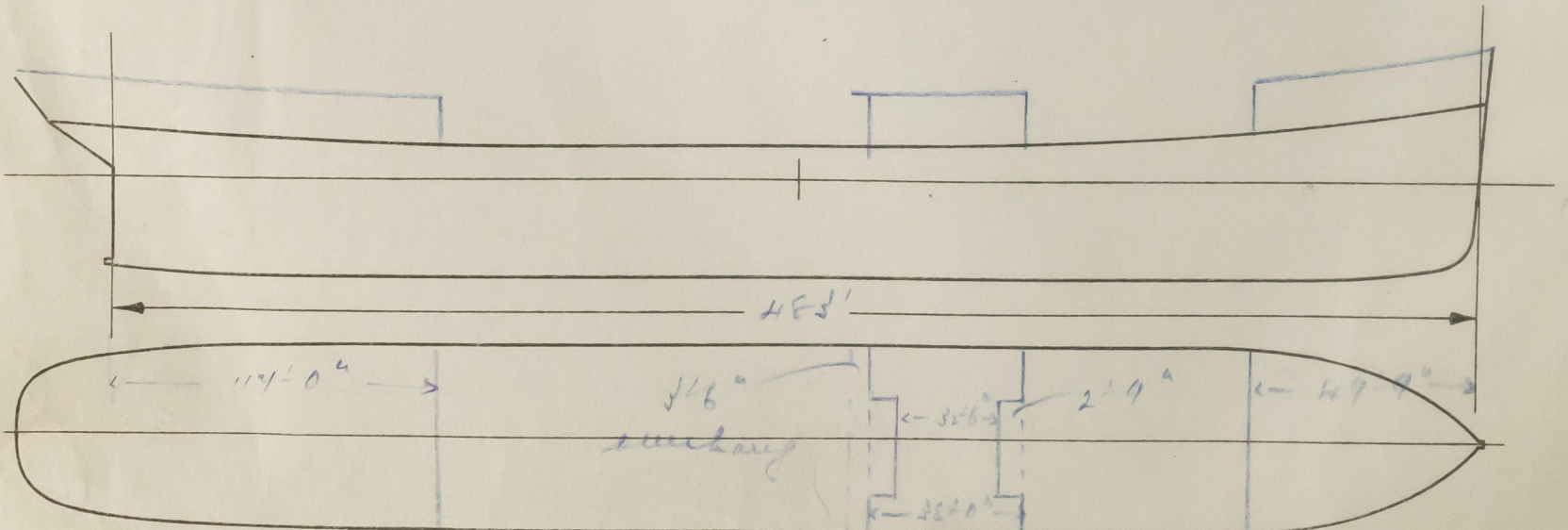
Are Rules 12, 13, 14, 15, 16, 17, 18 complied with as far as practicable? Yes  
Are hatchway coamings stiffened in accordance with Rule 9? Yes  
Length of bulwarks in wells—forward: \_\_\_\_\_ feet; aft: \_\_\_\_\_ feet.

Area of freeing ports required by regulations (Rules 30 and 100) forward: \_\_\_\_\_ sq. ft.; aft: \_\_\_\_\_ sq. ft.  
No. Ft. X Ft.  
Particulars of freeing ports fitted { forward } \_\_\_\_\_ sq. ft.  
on each side of vessel { after } \_\_\_\_\_ sq. ft.  
open rails for over 50'-0" of wells

Are Rules 23 and 24 complied with as far as practicable? Yes  
Are air pipes to tanks in accordance with Rule 25? Yes  
Are all scuppers and sanitary discharge pipes in accordance with Rule 27? Yes

In oil tankers, what is the extent of the fore and aft gangway? after well Are the crew berthed in the forecastle? (Rule 96). No  
Is the gangway strong and efficiently braced fore and aft? Yes State spacing of supports 7 feet.  
In oil tankers, are the bulwarks open for at least half the length of the exposed portion of the weather deck? (Rule 100). Yes  
Are Rules Nos. 95, 97, 98 and 99 complied with as far as practicable? Yes

If the vessel has a complete superstructure deck with a tonnage opening, is the latter fitted with efficient temporary covers? \_\_\_\_\_



Indicate thickness and extent of any deck covering, and extent of erections, with dimensions, showing overhang (if any).  
Indicate position of scuppers from tonnage-exempted spaces above freeboard deck.

Sister vessels: ✓  
Fee: \$ 110.00 Expenses (if any) ✓