

# WRECK SECTION

## Lloyd's Register of Shipping

### SURVEYS FOR FREEBOARD - STEAMERS

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

New York Office Index No. 57  
 Port of Survey New York  
 Date of Survey Jan 30<sup>th</sup> 1931  
 Name of Surveyor W. Baylan

Ship's Name <u>S.S. Pennsylvania</u>	Port of Registry and Nationality <u>Wilmington N.S.A.</u>	Official Number <u>205286</u>	Gross Tonnage <u>6455</u>	Date of Build <u>1917-7</u>	Particulars of Classification <u>+100 A1</u>
Number in Register Book <u>81131</u>		Builder <u>Fox Conix S. B. Corp.</u>		Hull No. <u>253</u>	
Owner <u>The Texas Co.</u>					
Moulded dimensions <u>415.0</u> × <u>56.0</u> × <u>32.75</u> (85% = <u>27.84</u> )					
Moulded displacement at a moulded draught of 85 per cent. of moulded depth. <u>14900</u>					
Coefficient of fineness for use with tables. <u>.806</u>					

DEPTH FOR FREEBOARD.	CORRECTION FOR DEPTH.	CAMBER
Moulded depth ... .. <u>32.75</u>	(a) When <b>D</b> is greater than $\frac{L}{15}$	Standard $\frac{56 \times 12}{50} = \dots$ <u>.13.45</u>
Stringer plate ... .. <u>.66</u>	$(D - \frac{L}{15}) \times R = (32.80 - 27.67) \times 3.3 = \dots$ <u>+15.39</u>	Ship ... .. <u>.13.62</u>
Heating in wells } $T(\frac{L-S}{L}) = \dots$	(b) When <b>D</b> is less than $\frac{L}{15}$ (if allowed).	Difference ... .. <u>.17</u>
Depth <b>D</b> = ... .. <u>32.80</u>	$(\frac{L}{15} - D) \times R = \dots$ <u>✓</u>	Restricted to ... .. <u>✓</u>
	If restricted by height of superstructures ... .. <u>✓</u>	Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S_1}{L}) = \frac{.17 \times .623}{4} = \dots$ <u>-.03</u>

#### SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S <sub>e</sub> (Uncorrected for Height)	Height	Correction for Height	Effective Length
Poop enclosed ... ..	<u>107.00</u>	<u>107.00</u>	<u>8.0</u>	<u>✓</u>	<u>107.00</u>
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed <u>Open</u> ... ..	<u>34.50</u>	<u>17.25</u>	<u>8.0</u>	<u>✓</u>	<u>17.25</u>
" overhang aft ... ..					
" overhang forward ... ..					
Fore enclosed <u>Open</u> ... ..	<u>33.00</u>	<u>32.02</u>	<u>8.0</u>	<u>✓</u>	<u>32.02</u>
" overhang ... ..					
Trunks forward ... ..					
" aft ... ..					
Tonnage opening ... ..					

Shore Ford

11.15 3 33.45  
 44.65 3 133.95  
 99.0 1 99.00  
261.40

TOTAL = 174.50    156.276    156.276  
 Length of ship (L) = 415    415    415  
 % Covered ... = 42.04%    37.65%    37.65%  
 Corresponding %, corrected for absence of fore-castle if required } **A** = Tanker    **B** = 28.65%  
 Allowance ... = 42.0    × .2865    = -12.03    Correction for Bridge less than 2L if required } Tanker does not apply

#### SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	<u>51.0</u>	<u>51.5</u>	<u>51.0</u>	1	<u>51.00</u>
2	<u>19.35</u>	<u>22.42</u>	<u>19.35</u>	4	<u>77.40</u>
3	<u>4.8</u>	<u>5.67</u>	<u>4.8</u>	2	<u>9.60</u>
4	<u>-</u>	<u>-</u>	<u>-</u>	4	<u>-</u>
5	<u>11.15</u>	<u>11.34</u>	<u>11.15</u>	2	<u>22.30</u>
6	<u>44.65</u>	<u>45.84</u>	<u>44.65</u>	4	<u>178.60</u>
F.P. 7	<u>99.0</u>	<u>103.0</u>	<u>99.0</u>	1	<u>99.00</u>

If excess sheer forward and deficient sheer aft:—

Actual sheer aft =  
 Standard sheer aft =  
 Actual sheer forward = 266.40 = 97.0%  
 Standard sheer forward = 274.54  
 ∴ allow 97.0% of open F.

Mean effective sheer ... .. 18) 137.90 ✓  
 Standard sheer .05 L + 5 = 24.33 ✓  
 Difference (Df) ... .. = 25.75 ✓  
 Allowance = Df × ( $.75 - \frac{S}{2L}$ ) = 1.42 ( $.75 - .21$ ) = +1.78 ✓  
 If limited on account of amidship superstructure ... .. = ✓  
 If limited on account of excess sheer (1½ in. per 100 ft.) ... .. = ✓

Length of enclosed superstructure

L  
 Forward of amidships =  
 Aft of amidships =

#### DRAFTS.

Moulded Depth <b>D</b> =	<u>32' 9"</u>
Stringer Plate =	<u>3/4"</u>
Freeboard	<u>32' 9 3/4"</u>
Moulded draught	<u>6' 4 1/2"</u>
Addition for keel below base line	<u>2"</u>
Extreme draught	<u>26' 7 1/4"</u>

#### F. W. ALLOWANCE

Displacement = 14115  
 Tons per inch = 48  
 $\frac{14115}{40 \times 48} = \dots$  7.35

#### TABULAR FREEBOARD (corrected for flush deck if required) =

Corrected for Coefficient $\frac{.806 + .68}{1.36} = \dots$ <u>1486</u> / <u>736</u> =	<u>66.15</u>
Correction for Depth ... ..	<u>72.28</u>
" Superstructures ... ..	<u>15.39</u>
" Sheer ... ..	<u>-12.03</u>
" Camber ... ..	<u>-0.3</u>
" Thickness of deck ... ..	<u>-</u>
" Scantlings, etc. ... ..	<u>-</u>
<b>Summer Freeboard</b> =	<u>76.39</u>

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

Tropical Fresh Water Line above centre of Disc	...
Fresh Water Line	...
Tropical Line	...
Winter Line below	...
Winter North Atlantic Line	...



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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) No openings  
 Has the bridge an efficient steel bulkhead at the fore end? No, Open  
 Give particulars of the means of closing the openings in this bulkhead ✓  
 Has the bridge an efficient steel bulkhead at the after end? No open  
 Give particulars of the means of closing the openings in this bulkhead ✓  
 Has the forecastle an efficient steel bulkhead at the after end? No open  
 Give particulars of the means of closing the openings in this bulkhead ✓  
 Are the engine and boiler openings covered by a bridge, poop, raised quarter-deck, or enclosed by a strong steel deckhouse? covered by closed poop  
 If the openings are not so protected, are the exposed parts of the casing efficiently constructed? ✓  
 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:

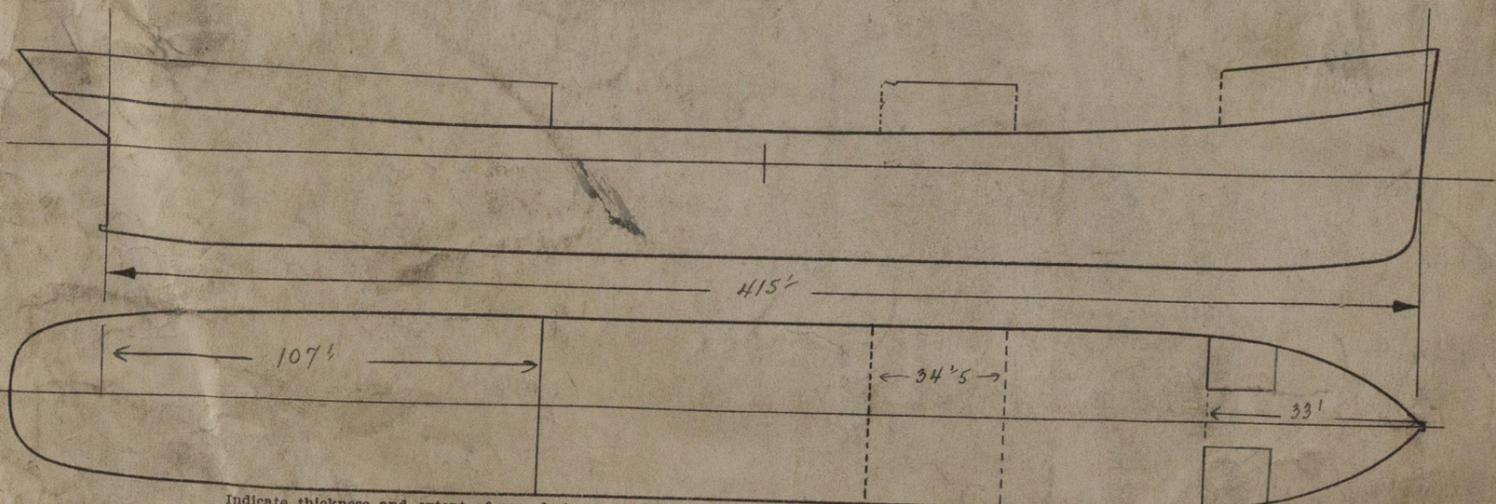
	Poop or Raised Quarter-Deck bulkhead	Bridge front bulkhead	Bridge after bulkhead	Forecastle bulkhead
Thickness of bulkhead plating	<u>7/16</u>			
Scantlings of stiffeners	<u>8x3 1/2 x 7/16 Bulk angle</u>			
Spacing of stiffeners, and if bracketed	<u>30" Yes</u>	<u>Open</u>	<u>Open</u>	<u>Open</u>
Height of sills of openings above deck	<u>No openings</u>			

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 9'0" x 15'0"		160 T. Hatchways 6'10" x 7'0"		160 T. Hatchways 4'30" x 7'0"		2 O.T. Hatchways 4'2" x 4'3"	
	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
Height above top of DECK	<u>24"</u>		<u>24"</u>		<u>24"</u>		<u>24"</u>	
COAMING Thickness	Sides.....	<u>.44</u>	<u>.44</u>		<u>.44</u>		<u>.44</u>	
	Ends.....	<u>.44</u>	<u>.44</u>		<u>.44</u>		<u>.44</u>	
Remarks	<u>Steel</u>		<u>Steel</u>		<u>Steel</u>		<u>Steel</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. bulwarks = \_\_\_\_\_ sq. ft.  
 Particulars of freeing ports fitted } forward } \_\_\_\_\_ sq. ft.  
 on each side of vessel } well }  
 } after } \_\_\_\_\_ sq. ft.  
 } well }  
 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? all fore + aft 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 9 feet. 0"  
 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: "New York" "Virginia" "Texas"  
 Fee: \$90.00

Expenses (if any) ✓

Signed W. Baylton  
 Surveyor to Lloyd's Register of Shipping



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