

WRECK SECTION No 587 29000

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. *No 41*

Port of Survey *Mobile*

Date of Survey *Dec 27th 1930*

Name of Surveyor *H. G. House & W. Bennett*

Ship's Name. <i>"Solitaire"</i>	Port of Registry and Nationality. <i>Wilmington Del. U.S.A.</i>	Official Number. <i>219845</i>	Gross Tonnage. <i>3350</i>	Date of Build. <i>1920-4</i>	Particulars of Classification. <i>+100 A1. Carrying Pet in bulk</i>
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Owner *The Texas Company* Builder *Texas S.S. Co.* Hull No. *14*
Moulded dimensions *315.0* X *43.5* X *27.92* (85% = *23.73*)
Moulded displacement at a moulded draught of 85 per cent. of moulded depth *7290* X *995* = *7164 Tons*
Coefficient of fineness for use with tables *771*

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
Moulded depth	<i>27.92</i>	(a) When <i>D</i> is greater than $\frac{L}{15}$	$(D - \frac{L}{15}) \times R = (27.92 - 2.90) \times 2.423 = 6.96$	Standard	$\frac{43.5 \times 12}{50} = 10.44$
Stringer plate	<i>(.52")</i>	(b) When <i>D</i> is less than $\frac{L}{15}$ (if allowed).	$(\frac{L}{15} - D) \times R = \dots$	Ship	<i>11.00</i>
Sheathing in wells	$T(\frac{L-S}{L}) = \dots$	If restricted by height of superstructures	<i>16.86</i>	Difference	<i>.56</i>
Depth <i>D</i> =	<i>27.96</i>			Restricted to	<i>.56</i>
				Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = \frac{.56 \times .615}{4} = .09$	

SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S _e (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed <i>Yes</i>	<i>77.00</i>	<i>77.00</i>	<i>7.75</i>	<i>✓</i>	<i>77.00</i>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed <i>Yes</i>	<i>25.00</i>	<i>25.00</i>	<i>7.75</i>	<i>✓</i>	<i>25.00</i>
" overhang aft					
" overhang forward					
F'cle enclosed <i>Open</i>	<i>30.00</i>	<i>19.43</i>	<i>7.75</i>		<i>19.43</i>
" overhang					
Trunks forward					
" aft					
Tonnage opening					

Sheer Forward

<i>4.62</i>	<i>3</i>	<i>13.86</i>
<i>24.00</i>	<i>3</i>	<i>72.00</i>
<i>57.50</i>	<i>1</i>	<i>57.50</i>
		<i>143.36</i>

Standard Sheer Forward

<i>9.2</i>	<i>3</i>	<i>27.6</i>
<i>36.9</i>	<i>3</i>	<i>110.7</i>
<i>83.0</i>	<i>1</i>	<i>83.0</i>
		<i>221.3</i>

TOTAL = $\frac{132.00}{315} = 41.90\%$ $\frac{121.43}{315} = 38.55\%$
Length of ship (L) = *315*
% Covered... = *41.90%* *38.55%*
Corresponding %, corrected for absence of forecastle if required *A = Tanker* *B = 29.55%*
Allowance ... = *36.33* X *.2955* = *-10.77*
Correction for Bridge less than 2 L if required *Tanker. Does not apply.*

SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	<i>23.0</i>	<i>41.5</i>	<i>23.0</i>	1	<i>23.00</i>
2	<i>4.0</i>	<i>18.45</i>	<i>4.0</i>	4	<i>16.00</i>
3	<i>-4.38</i>	<i>4.6</i>	<i>-4.38</i>	2	<i>-8.76</i>
4				4	
5	<i>4.62</i>	<i>9.2</i>	<i>4.62</i>	2	<i>9.24</i>
6	<i>24.0</i>	<i>36.9</i>	<i>24.0</i>	4	<i>96.00</i>
F.P. 7	<i>57.5</i>	<i>83.0</i>	<i>57.5</i>	1	<i>57.50</i>

If excess sheer forward and deficient sheer aft:—

Actual sheer aft = *✓*
Standard sheer aft = *✓*
Actual sheer forward = $\frac{143.36}{221.3} = 64.78\%$
Standard sheer forward = *221.3*

∴ allow 64.78% of open Fx.

Length of enclosed superstructure

L

Forward of amidships = *✓*

Aft of amidships = *✓*

Mean effective sheer ... = $\frac{192.98}{18} = 10.72$
Standard sheer .05 L + 5 = $\frac{20.75}{10.03} = 2.07$
Difference (Df) ... = $10.03 - 2.07 = 7.96$
Allowance = $Df \times (\frac{S}{2L}) = 7.96 \times (\frac{43.5}{2 \times 315}) = 5.43$
If limited on account of amidship superstructure *✓*
If limited on account of excess sheer (1 1/2 in. per 100 ft.) *✓*

DRAFTS.

Moulded Depth *D* = *27' 11"*
Stringer Plate = *1/2"*
Freeboard *17' 11 1/2"*
Moulded draught *4' 10 1/2"*
Addition for keel below base line *1 3/4"*
Extreme draught *23' 2 3/4"*

F. W. ALLOWANCE

Displacement = *6926*

Tons per inch = *27.75*

$\frac{6926}{40 \times 27.75} = 6.24$

TABULAR FREEBOARD (corrected for flush deck if required) =

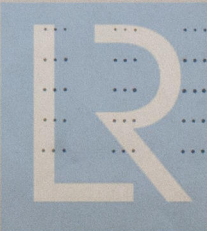
Corrected for Coefficient $\frac{.771 + .68}{1.36} = .851$

Correction for Depth ... *16.86*
" Superstructures ... *10.77*
" Sheer ... *5.43*
" Camber ... *.09*
" Thickness of deck ...
" Scantlings, etc. ...

Summer Freeboard = *58.48*

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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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? Yes
Give particulars of the means of closing the openings in this bulkhead. Hinged steel doors
Has the bridge an efficient steel bulkhead at the after end? Yes
Give particulars of the means of closing the openings in this bulkhead. Hinged steel doors
Has the forecastle an efficient steel bulkhead at the after end? 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 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	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	
Scantlings of stiffeners	$9 \times 3\frac{1}{2} \times \frac{1}{2}$ "Built angle"	$7 \times 3\frac{1}{2} \times \frac{1}{2}$ "Built"	$3\frac{1}{2} \times 3 \times \frac{7}{16}$ "	<u>Open</u>
Spacing of stiffeners, and if bracketed	$30"$ bracketed	$30"$ bracketed	$36"$ Bracketed	
Height of sills of openings above deck	<u>closed</u>	$21"$	$21"$	

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. $8'0" \times 14'0"$		13-OT Hatchways $5'9 \times 5'9"$		6-OT Hatchways $5'3 \times 5'9"$		10-J. Hatch Under Feb.			
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
Height above top of DECK	$13"$		$8 \times 3\frac{1}{2} \times \frac{5}{8}$ "		$24"$		$5 \times 3\frac{1}{2} \times \frac{1}{2}$ "			
COAMING										
Thickness										
Sides	$\frac{3}{8}$				$\frac{3}{8}$					
Ends	$\frac{3}{8}$				$\frac{3}{8}$					
SHIFTING BEAMS OR WEB PLATES										
Number										
Section and Scantlings										
Material										
* FORE AND AFTERS										
Number										
Section and Scantlings										
Material										
HATCHES Thickness										
Remarks	<u>All hinged steel covers efficiently 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? Hinged steel hatch covers with gaskets

Are hatchway coamings stiffened in accordance with Rule 9? Yes

Length of bulwarks in wells—forward: ✓ feet; aft: ✓ feet. Open rails

Area of freeing ports required by regulations (Rules 30 and 100) forward: ✓ sq. ft.; aft: ✓ sq. ft. ✓

No. Ft. \times Ft.

Particulars of freeing ports fitted { forward } ✓ = ✓ sq. ft. ✓
on each side of vessel { after } ✓ = ✓ sq. ft. ✓

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

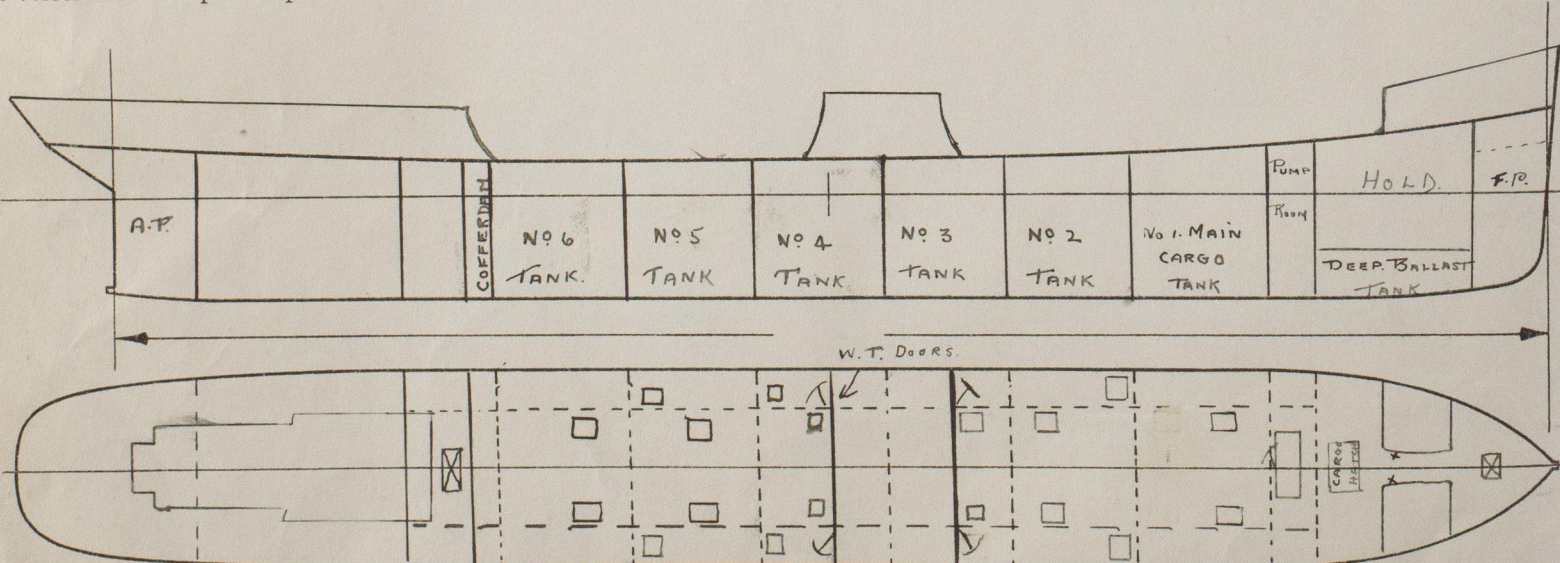
In oil tankers, what is the extent of the fore and aft gangway? all fore + aft Are the crew berthed in the forecastle? (Rule 96). No

Is the gangway strong and efficiently braced fore and aft? Yes State spacing of supports. 9 feet. braces

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: \$60.00

Expenses (if any) ✓

(Signed) H. G. Bruce
Surveyor to Lloyd's Register of Shipping.