

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. 54
Port of Survey. New York
Date of Survey. June 19-1931
Name of Surveyor. J. D. Kent

Ship's Name. <i>S. "Illinois"</i>	Port of Registry and Nationality. <i>Wilmington Del.</i>	Official Number. <i>221400</i>	Gross Tonnage. <i>6448</i>	Date of Build. <i>1921-7</i>	Particulars of Classification. <i>+100 A1.</i>
Number in Register Book. <i>73849</i>	Builder. <i>Texas S.S. Co.</i>	Hull No. <i>31</i>			
Moulded dimensions <i>415.0 x 56.0 x 32.83</i> (85% = <i>27.9'</i>)					
Moulded displacement at a moulded draught of 85 per cent. of moulded depth. <i>14900 x .995 = 14830 Tons</i>					
Coefficient of fineness for use with tables. <i>.800</i>					

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
Moulded depth	32.83	(a) When D is greater than $\frac{L}{15}$	✓	Standard $\frac{56 \times 12}{50} =$	13.45
Stringer plate	.66"	$(D - \frac{L}{15}) \times R = (32.83 - 27.67) \times 3 =$	+15.63	Ship	14.00
Sheathing in wells	✓	(b) When D is less than $\frac{L}{15}$ (if allowed).		Difference	.55
$T(\frac{L-S}{L}) =$		$(\frac{L}{15} - D) \times R =$	✓	Restricted to	
Depth D =	32.88	If restricted by height of superstructures	✓	Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) =$	$\frac{.55 \times .585}{4} = .08$

SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S ₁ (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed	107.00	107.00	8.0	✓	107.00
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	28.50	28.50	8.0	✓	28.50
" overhang aft	6.00	4.50			4.50
" overhang forward					
Fore enclosed	33.00	32.30	8.0	✓	32.30
" overhang					
Trunks forward					
" aft					
Tonnage opening					

Sheer Forward

13.7	3	41.1
43.2	3	129.6
98.0	1	98.0
<hr/> 268.7		

Standard Sheer Forward

11.34	3	34.02
45.84	3	137.52
103.00	1	103.00
<hr/> 274.54		

TOTAL = $\frac{174.50}{415} = 42.05\%$
Length of ship (L) = 415
% Covered... = 42.05%
Corresponding %, corrected for absence of fore-castle if required } A = Tanker
Allowance ... = 42.05%
Correction for Bridge less than .2 L if required } B = 32.51%
= -13.685

SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	50.0	51.5	50.0	1	50.00
2	17.0	22.92	17.0	4	68.00
3	1.3	5.67	1.3	2	2.60
4				4	27.40
5	13.7	11.34	13.7	2	172.80
6	43.2	45.84	43.2	4	98.00
F.P. 7	98.0	103.0	98.0	1	98.00

If excess sheer forward and deficient sheer aft:-

Actual sheer aft = deficient
Standard sheer aft =
Actual sheer forward = $\frac{268.7}{274.54} = 97.86\%$
Standard sheer forward =

allow 97.86% of open forward
Length of enclosed superstructure L

Forward of amidships =
Aft of amidships =

Mean effective sheer ... = $\frac{418.80}{18} = 23.27$
Standard sheer .05 L + 5 = 28.75
Difference (Df) ... = 2.48
Allowance = $Df \times (.75 - \frac{S}{2L}) = 2.48 (.75 - .21) = 1.34$
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 = $32' 10"$
Stringer Plate = $3/4"$
Freeboard = $32' 10 3/4"$
Moulded draught = $26' 7 1/2"$
Addition for keel below base line = $2 1/2"$
Extreme draught = $26' 9 3/4"$

F. W. ALLOWANCE

Displacement = 14260
Tons per inch = 48.5
 $\frac{14260}{40 \times 48.5} = 7.35$

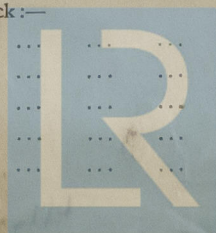
TABULAR FREEBOARD

(corrected for flush deck if required) = 66.15
Corrected for Coefficient $\frac{.800 + .68}{1.36} = \frac{1.48}{1.36} = 1.09$
Correction for Depth ... = 15.63
Superstructures ... = 13.65
Sheer ... = 1.34
Camber ... = .08
Thickness of deck ... =
Scantlings, etc. ... =

Summer Freeboard = $+75.28$

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

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



Lloyd's Register Foundation

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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? Yes
Give particulars of the means of closing the openings in this bulkhead Two hinged steel water tight 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 Two steel plates secured by hook bolts 12" apart
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	<u>7/16"</u>	<u>7/16"</u>	<u>5/16"</u>	<u>✓</u>
Scantlings of stiffeners	<u>Two horizontal 9" x 3 1/2"</u>	<u>9 x 3 1/2 x 7/16" built angles</u>	<u>3 1/2 x 3" x 3/8"</u>	<u>Open</u>
Spacing of stiffeners, and if bracketed	<u>x 27/64" built angle</u>	<u>2' 6" bracketed</u>	<u>No brackets</u>	
Height of sills of openings above deck	<u>Three Vertical 3 1/2 x 3 1/2 x 7/16"</u>	<u>24"</u>	<u>12"</u>	
	<u>bracketed</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.	<u>Height Hold 15' x 9'</u>		<u>Cargo Tanks 7'0" x 6'10" + 8'4" x 6'10"</u>		<u>Summer Tanks 4'0" x 7'6"</u>			
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING								
Height above top of DECK	<u>21"</u>		<u>24"</u>				<u>24"</u>	
Thickness	<u>7/16"</u>		<u>7/16"</u>				<u>7/16"</u>	
SHIFTING BEAMS OR WEB PLATES.								
Number.....		<u>✓</u>						
Section and Scantlings.....		<u>✓</u>						
Material.....		<u>✓</u>						
* FORE AND AFTERS.								
Number.....		<u>✓</u>						
Section and Scantlings.....		<u>✓</u>						
Material.....		<u>✓</u>						
HATCHES Thickness	<u>7/16" Steel Plate for all hatches</u>							
Remarks.....								

* 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: None feet; aft: None feet.

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

No. Ft. × Ft.

Particulars of freeing ports fitted { forward } None = sq. ft.
on each side of vessel { after } None = sq. ft.
well { well }

Are Rules 23 and 24 complied with as far as practicable? Yes

Are air pipes to tanks in accordance with Rule 25? No

Are all scuppers and sanitary discharge pipes in accordance with Rule 27? Yes

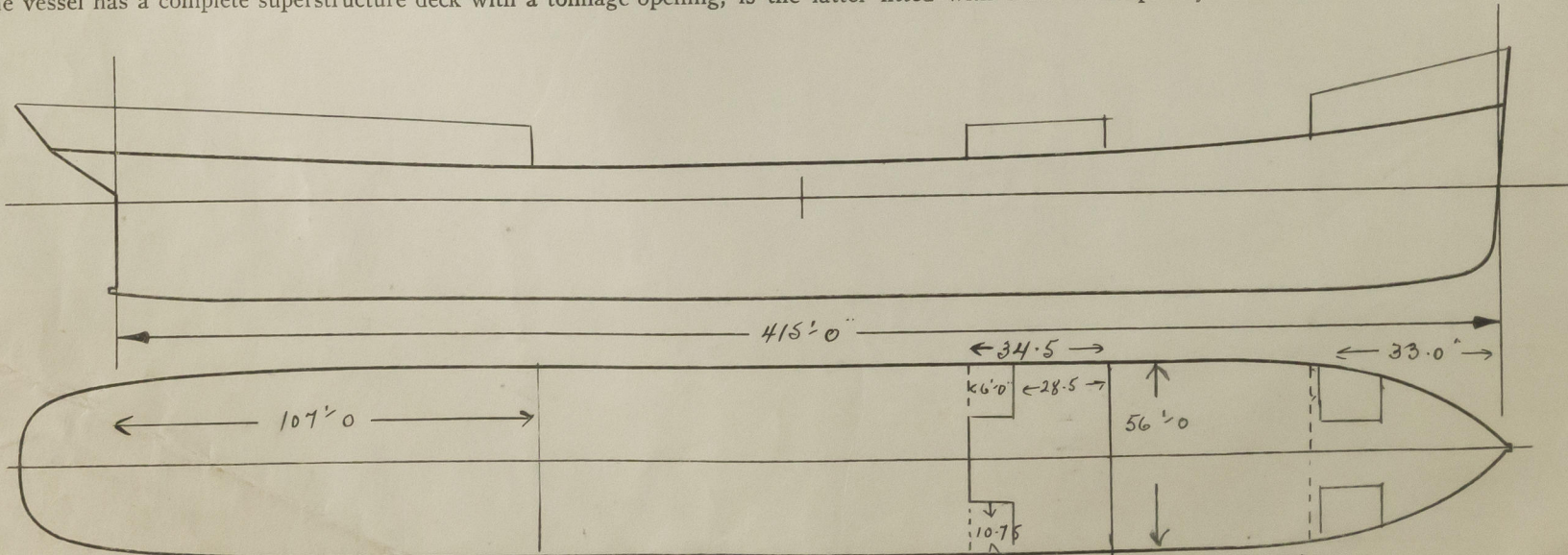
In oil tankers, what is the extent of the fore and aft gangway? Between Poop + midship bridge Are the crew berthed in the forecastle? (Rule 96) No

Is the gangway strong and efficiently braced fore and aft? Yes State spacing of supports 9 feet. 6"

In oil tankers, are the bulwarks open for at least half the length of the exposed portion of the weather deck? (Rule 100) No bulwarks

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: Harvester Occidental Konoski Reaper Argon etc.

Fee: \$90.00

Expenses (if any)

(Signed) James M. Leat

Surveyor to Lloyd's Register of Shipping.