

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. Teat

30071

Ship's Name <u>S. "Illinois"</u>	Port of Registry and Nationality <u>Wilmington Del.</u>	Official Number <u>221400</u>	Gross Tonnage <u>6448</u>	Date of Build <u>1931-7</u>	Particulars of Classification <u>+100 A1</u>
Number in Register Book <u>73849</u>					<u>Carrying Pet in bulk</u>

Owner The Texas Company Builder Texas S.S. Co. Hull No. 31
 Moulded dimensions 415.0 x 56.0 x 32.83 (85% = 27.9')
 Moulded displacement at a moulded draught of 85 per cent. of moulded depth 14900 x .995 = 14830 Tons
 Coefficient of fineness for use with tables .800

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"	$(D - \frac{L}{15}) \times R = (32.83 - 27.67) \times 3.7 = 19.21$	+15.63	Ship	14.00
Sheathing in wells		(b) When D is less than $\frac{L}{15}$ (if allowed).		Difference	.55
$T \left(\frac{L-S}{L} \right) =$		$(\frac{L}{15} - D) \times R =$		Restricted to	
Depth D =	32.88	If restricted by height of superstructures		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S_1}{L}) = \frac{.55 \times .585}{4} = .08$	

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 <u>house</u>	6.00	4.50			4.50
" overhang forward					
Fore enclosed <u>Open</u>	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
268.7

Standard Sheer Forward
 11.34 3 34.02
 45.84 3 137.52
 103.00 1 103.00
274.54

TOTAL = $\frac{174.50}{172.30}$ $\frac{172.30}{172.30} = 40.46\%$
 Length of ship (L) = $\frac{415}{415}$
 % Covered... = $\frac{42.05\%}{41.5\%}$
 Corresponding %, corrected for absence of fore-castle if required } A = Tanker B = 32.51%
 Allowance ... = $42 \times .3251 = 13.665$

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	-
5	13.7	11.34	13.7	2	27.40
6	43.2	45.84	43.2	4	172.80
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 fore-castle

Length of enclosed superstructure L

Forward of amidships = Tanker

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

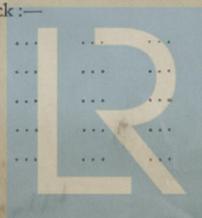
(corrected for flush deck if required) = 66.15
 Corrected for Coefficient $\frac{.800 + .68}{1.36} = \frac{1.48}{1.36} = 71.98$

	+	-
Correction for Depth	15.63	-
" Superstructures	-	13.665
" Sheer	1.34	-
" Camber	-	.08
" Thickness of deck	-	-
" Scantlings, etc.	-	-
	16.97	13.743

 Summer Freeboard = $+75.242$

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 " " " ...



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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? Enclosed 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:

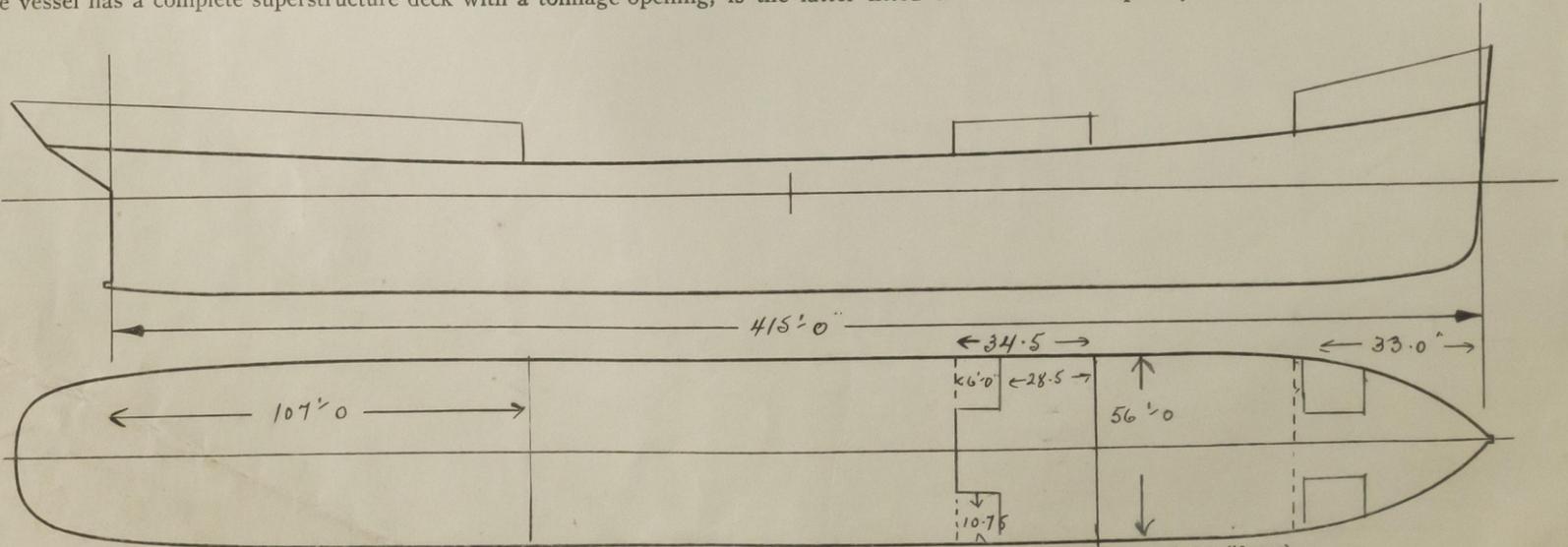
	Poop or Raised Quarter-Deck bulkhead	Bridge front bulkhead	Bridge after bulkhead	Forecastle bulkhead
Thickness of bulkhead plating	7/16"	7/16"	5/16"	
Scantlings of stiffeners	Two horizontal 9" x 3 1/2" x 27/64" built angle	9 x 3 1/2 x 7/16" built angles	3 1/2 x 3" x 3/8"	
Spacing of stiffeners, and if bracketed	Three vertical 3 1/2 x 3 1/2 x 7/16" bracketed	2' 6" bracketed	No brackets	
Height of sills of openings above deck		24"	12"	

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.	Troughs 15' x 9"		Cargo Tanks 7'0" x 6'10" + 8'4" x 6'10"		Summer Tanks 4'0" x 7'6"		Ship.	Rule.	
	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.			
COAMING									
Height above top of DECK	21"		24"			24"			
Thickness	Sides.....		7/16"			7/16"			
	Ends.....		7/16"			7/16"			
SHIFTING BEAMS OR WEB PLATES.	Number.....	✓							
	Section and Scantlings.....	✓							
	Material.....	✓							
* FORE AND AFTERS.	Number.....	✓							
	Section and Scantlings.....	✓							
	Material.....	✓							
HATCHES Thickness	7/16" Steel Plates for all hatches								
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.
 Particulars of freeing ports fitted on each side of vessel
 forward well } None = _____ sq. ft.
 after well } None = _____ sq. ft.
 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" "Kansaki" "Reaper" "Argon" etc.
 Fee: \$ 90.00 Expenses (if any) _____
 (Signed) James D. Leat
 Surveyor to Lloyd's Register of Shipping
 Foundation