

Lloyd's Register of Shipping

SURVEYS FOR FREEBOARD - STEAMERS

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

26 JUN 1931

29723

New York Office Index No. 117

Port of Survey *New York*

Date of Survey *June 6th 1931*

Name of Surveyor *J. R. Richardson*

Ship's Name <i>Liebec</i>	Port of Registry and Nationality <i>New York U.S.A.</i>	Official Number <i>221073</i>	Gross Tonnage <i>7057</i>	Date of Build <i>1921-2</i>	Particulars of Classification <i>+100A1</i>
Number in Register Book <i>76811</i>	Builder <i>Huron Construction Co.</i>	Moulded dimensions <i>435.0' x 56.0' x 33.5'</i> (85% = <i>28.47'</i>)			Hull No. <i>12</i>
Moulded displacement at a moulded draught of 85 per cent. of moulded depth <i>162,400 x .995 = 161,600 Tons</i>					
Coefficient of fineness for use with tables <i>.815</i>					

DEPTH FOR FREEBOARD.	CORRECTION FOR DEPTH.	CAMBER
Depth <i>D</i> = <i>33.50</i>	(a) When <i>D</i> is greater than $\frac{L}{15}$ $(D - \frac{L}{15}) \times R = (33.55 - 29.00) \times 3 = +13.65$	Standard $\frac{56 \times 12}{50} = 13.44$
Superstructure plate <i>(.04)</i> = <i>.05</i>	(b) When <i>D</i> is less than $\frac{L}{15}$ (if allowed). $(\frac{L}{15} - D) \times R = \dots$	Ship <i>14.00</i>
Depth <i>D</i> = <i>33.55</i>	If restricted by height of superstructures	Difference <i>.56</i>
		Restricted to <i>.56</i>
		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = \frac{.56}{4} \times .557 = .08$

SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S _e (Uncorrected for Height)	Height	Correction for Height	Effective Length
Poop enclosed	106.00	106.00	7.75	✓	106.00
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	42.14	42.14	7.75	✓	42.14
" overhang aft	38.00	38.00			38.00
" overhang forward	1.00	.50			.50
F'cle enclosed	42.00	39.43	7.75	✓	39.43
" overhang					
Trunks forward					
" aft					
Tonnage opening					

Sheer Forward
 10.65' 3 31.95
 42.65' 3 127.95
 108.00' 1 108.00

 267.90

Standard Sheer Forward
 11.89' 3 35.67
 47.55' 3 142.65
 107.00' 1 107.00

 285.32

TOTAL = $\frac{197.50}{435}$ $\frac{192.41}{435}$ $\frac{192.41}{435}$
 Length of ship (L) = *435*
 % Covered... = *45.4%* *44.34%* *44.34%*
 Corresponding %, corrected for absence of forecastle if required } *A = Tanker* *B = 35.34%*
 Allowance ... = *42* $\times .3534$ = *-14.84*

SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	68.00	53.50	53.50	1	53.50
2	30.00	23.78	23.78	4	95.12
3	7.50	5.94	5.94	2	11.88
4				4	
5	10.656	11.8977	10.65	2	21.30
6	42.65	47.55	42.65	4	170.60
F.P. 7	108.00	107.00	108.00	1	108.00

If excess sheer forward and deficient sheer aft:-

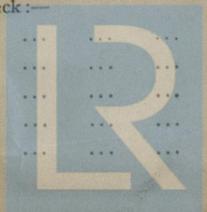
Actual sheer aft = ✓
 Standard sheer aft = ✓
 Actual sheer forward = $\frac{267.90}{285.32} = 93.88\%$
 Standard sheer forward = ✓
 Length of enclosed superstructure L = *94.00*
 do not allow excess sheer aft + allow 93.88% of span #4.

Mean effective sheer ... = $\frac{460.40}{18} = 25.58$
 Standard sheer .05 L + 5 = $\frac{26.75}{18}$
 Difference (Df) ... = 1.17
 Allowance = $Df \times (\frac{.75 - S}{2L}) = 1.17 \times (\frac{.75 - 227}{2 \times 435}) = +.61$
 If limited on account of amidship superstructure ... = ✓
 If limited on account of excess sheer (1 1/2 in. per 100 ft.) ... = ✓

DRAFTS.	F. W. ALLOWANCE	TABULAR FREEBOARD (corrected for flush deck if required)
Moulded Depth <i>D</i> = <i>33' 6"</i>	Displacement = <i>15400</i>	Corrected for Coefficient $\frac{.815 + .68}{1.36} = \frac{1.495}{1.36} = 1.099$
Superstructure Plate = <i>3/4"</i>	Tons per inch = <i>51.5</i>	Correction for Depth ...
Moulded draught = <i>27' 1 1/4"</i>	$\frac{15400}{40 \times 51.5} = 7.47$	" Superstructures ...
Allowance for keel below base line = <i>2 1/4"</i>		" Sheer ...
Moulded draught = <i>27' 3 1/2"</i>		" Camber ...
		" Thickness of deck ...
		" Scantlings, etc. ...
		Summer Freeboard = <i>77.60</i>

FREEBOARD recommended amidships from centre of Disc to top of Deck Line, Winter (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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 W991-0106

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) Hinged steel w. J. floor
 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 w. J. floor
 Has the bridge an efficient steel bulkhead at the after end? Yes
 Give particulars of the means of closing the openings in this bulkhead Storm boards to full height of openings in "steel"
 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
 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	.44, coaming .48	.44 Coaming .48	3/8"	
Scantlings of stiffeners	10 x 3 1/2 x 1/2 x 50	8 x 3 1/2 x 3 1/2 x 42 F	6 x 3 1/2 x 1/2 angle	
Spacing of stiffeners, and if bracketed	36" Yes	36" Yes	36" Yes	Open
Height of sills of openings above deck	18"	18"	24"	

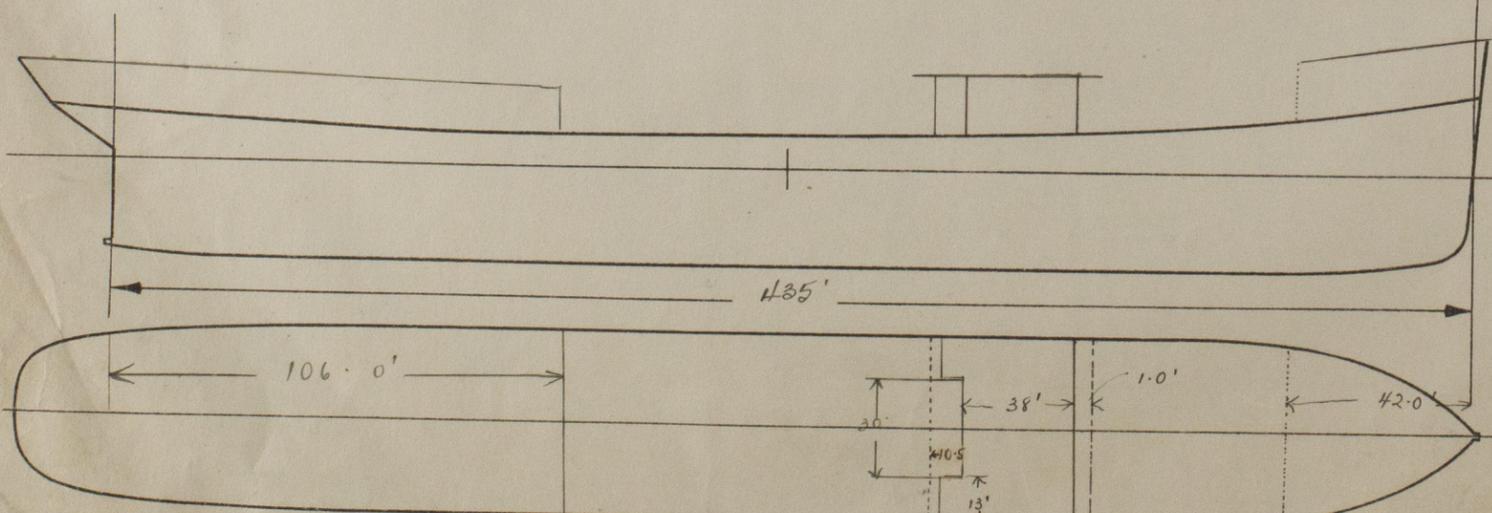
Particulars of weather deck hatchways. (In case of complete superstructure vessels having tonnage openings, give, in addition, particulars of 2nd deck hatchways, and also of those in bridge spaces closed by Class 2 appliances, or in open bridges).

Position and Size.	No. 1. 10'0" x 10'0"		28 O.J. Hatches 6' x 4'		8 O.J. Hatches 4' x 2'		2 O.J. Hatches 4' x 2'-6"		2 O.J. Hatches	
	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING										
Height above top of DECK	24		8 x 3 1/2 x 50		8 x 3 1/2 x 50		8 x 3 1/2 x 50		8 x 3 1/2 x 50	
Thickness	Sides	.44	angle		angle		angle		angle	
	Ends	.44								
SHIFTING BEAMS OR WEB PLATES.	Number	1								
	Section and Scantlings	11" 10 x 30 3 x 3 x 40		✓		✓		✓		✓
	Material	Steel								
* FORE AND AFTERS.	Number									
	Section and Scantlings	✓		✓		✓		✓		✓
	Material									
HATCHES	Thickness	1/2" Steel	.38		.38		.38		.38	
Remarks		Stiffened	Steel Stiffened		Steel Stiffened		Steel Stiffened		Steel Stiffened	

* 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 well } Open sq. ft.
 on each side of vessel { after well } _____ 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.
 In oil tankers, are the bulwarks open for at least half the length of the exposed portion of the weather deck? (Rule 100) Open rails for 50% weather
 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: \$100.00

Expenses (if any) ✓

Signed: [Signature]
 Surveyor to Lloyd's Register of Shipping.

