

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. 6.5

Port of Survey New York

Date of Survey Feb 19 1931

Name of Surveyor W. Bennett & W. Bayle

Ship's Name <i>S.S. "M. Langie"</i>	Port of Registry and Nationality <i>Los Angeles Baltimore</i>	Official Number <i>314311</i>	Gross Tonnage <i>6093</i>	Date of Build <i>1918</i>	Particulars of Classification <i>Carrying Petroleum in bulk</i>
Number in Register Book <i>74437</i>	U.S.A.				
Owner <i>Ammerican P. & T. Co.</i>	Builder <i>W. Cramp & Sons</i>				
Moulded dimensions <i>450.0' x 58.0' x 33.33'</i> (85% = <i>28.33'</i>)			Hull No. <i>428</i>		
Moulded displacement at a moulded draught of 85 per cent. of moulded depth. <i>16,560 Tons</i>					
Coefficient of fineness for use with tables. <i>82</i>					

DEPTH FOR FREEBOARD.	CORRECTION FOR DEPTH.	CAMBER
Moulded <i>33.33</i>	(a) When D is greater than $\frac{L}{15}$	Standard $\frac{58 \times 12}{50} = \dots$ <i>13.92</i>
Stringer plate <i>(.64)</i> ... <i>.05</i>	$(\frac{D-L}{15}) \times R = (\frac{33.33-28.67}{15}) \times 3 = \dots$ <i>+14.13</i>	Ship <i>14.50</i>
Sheathing in wells $T(\frac{L-S}{L}) = \dots$	(b) When D is less than $\frac{L}{15}$ (if allowed).	Difference <i>.58</i>
	$(\frac{L}{15}-D) \times R = \dots$	Restricted to <i>✓</i>
Depth D = ... <i>33.33'</i>	If restricted by height of superstructures	Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = \frac{.58 \times .451}{4} = \dots$ <i>.07</i>

SUPERSTRUCTURES.

	Mean Covered Length S.	Effective Length S _e (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed	<i>103.25</i>	<i>103.25</i>	<i>8.0</i>	<i>✓</i>	<i>103.25</i>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed <i>Open</i>	<i>36.00</i>	<i>18.00</i>	<i>8.0</i>	<i>✓</i>	<i>18.00</i>
" overhang aft					
" overhang forward					
F'cle enclosed <i>Open</i>	<i>43.00</i>	<i>37.45</i>	<i>8.0</i>	<i>✓</i>	<i>37.45</i>
" overhang <i>83</i>	<i>6.25</i>	<i>3.12</i>			<i>3.12</i>
Trunks forward <i>74 x 28 x 9 = 28.84</i>	<i>28.07</i>	<i>28.34</i>	<i>3.0</i>	$\times \frac{3.0}{7.5} =$	<i>11.34</i>
" aft <i>153 x 44 x 25 = 52.24</i>	<i>54.61</i>	<i>49.16</i>	<i>3.0</i>	$\times \frac{3.0}{7.5} =$	<i>40.11</i>
Tonnage opening		<i>52.24</i>			<i>19.66</i>
					<i>20.90</i>
TOTAL = <i>188.50</i>	<i>271.18</i>	<i>236.25</i>	<i>242.40</i>		<i>191.59</i>
Length of ship (L) = <i>430</i>		<i>430</i>	<i>56.36</i>		<i>430</i>
% Covered = <i>63.84%</i>		<i>54.93%</i>	<i>36.12%</i>		<i>45.12%</i>
Corresponding %, corrected for absence of forecastle if required	<i>A = Tanker</i>	<i>B = 35.55%</i>			<i>Correction for Bridge less than 2 L if required { Tanker ✓</i>
Allowance = <i>42</i>		<i>35.55</i>	<i>36.12</i>		<i>= -44.93</i>

SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	<i>32.75</i>	<i>53.00</i>	<i>32.75</i>	1	<i>32.75</i>
2	<i>9.75</i>	<i>23.55</i>	<i>9.75</i>	4	<i>39.00</i>
3	<i>-0.60</i>	<i>5.89</i>	<i>-0.60</i>	2	<i>-1.20</i>
4				4	
5	<i>12.80</i>	<i>11.78</i>	<i>12.80</i>	2	<i>25.60</i>
6	<i>39.60</i>	<i>47.10</i>	<i>39.60</i>	4	<i>158.40</i>
F.P. 7	<i>89.00</i>	<i>106.00</i>	<i>89.00</i>	1	<i>89.00</i>

If excess sheer forward and deficient sheer aft:—

$$\frac{\text{Actual sheer aft}}{\text{Standard sheer aft}} = \dots$$

$$\frac{\text{Actual sheer forward}}{\text{Standard sheer forward}} = \frac{246.2}{282.64} = 87.1\%$$

∴ allow 87.1% of $\frac{1}{5}$ open Fx.

Length of enclosed superstructure

Forward of amidships = ✓

Aft of amidships = ✓

Mean effective sheer = *18* *343.55*

Standard sheer .05 L + 5 = *19.08*

Difference (Df) = *26.50*

Allowance = $Df \times (\frac{.75 - S}{2L}) = 7.42 \times (\frac{.75 - .315}{2}) = 7.42 \times .217 = 1.62$

If limited on account of amidship superstructure = ✓

If limited on account of excess sheer (1½ in. per 100 ft.) = ✓

DRAFTS.

Moulded Depth D =	F. W. ALLOWANCE	TABULAR FREEBOARD (corrected for flush deck if required) =
<i>33' 4"</i>	Displacement =	<i>69.90</i>
Stringer Plate = (or Wood Deck)	Tons per inch =	<i>77.10</i>
<i>33' 4 3/4"</i>		
Freeboard <i>6' 7 1/2"</i>		
Moulded draught <i>26' 9 1/4"</i>		
Addition for keel below base line <i>1 3/4"</i>		
Extreme draught <i>26' 10 1/2"</i>		

Summer Freeboard = *79.94* *79.46*

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	

6' 7 1/2"
13 1/2"
6 3/4"
6 3/4"
6 3/4"
11"

Lloyd's Register Foundation

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.)

Rpt. 1

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. f. doors
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 p.
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:

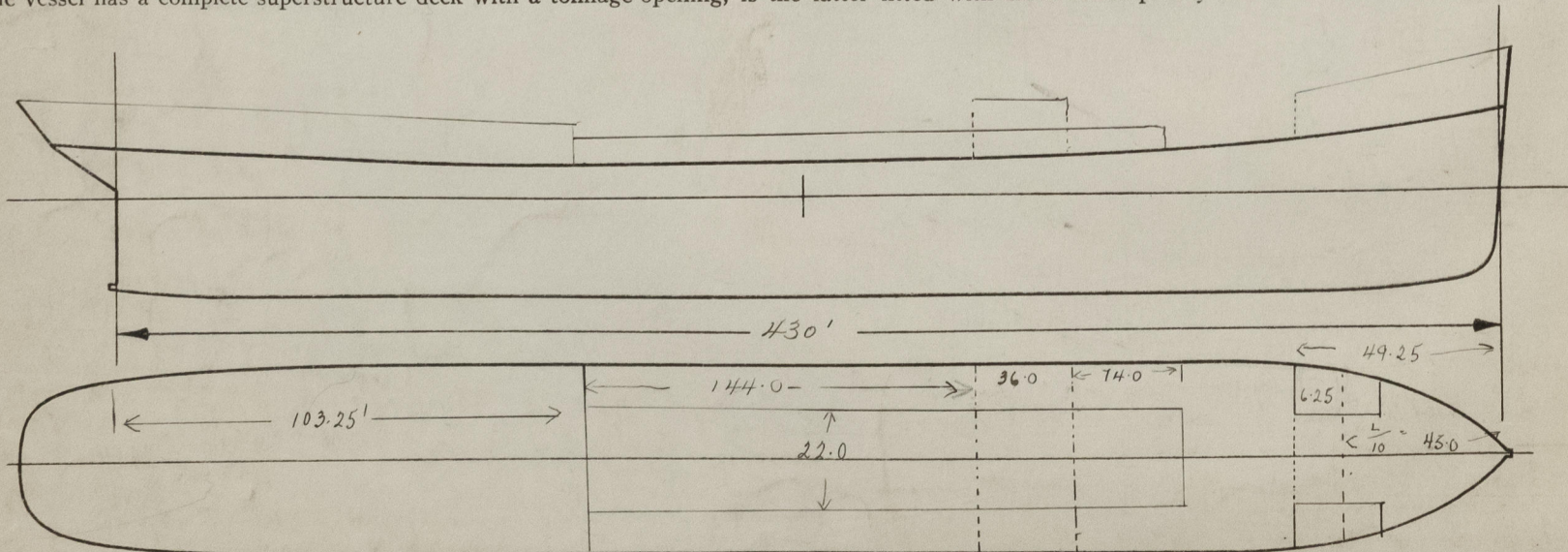
	Poop or Raised Quarter-Deck bulkhead	Bridge front bulkhead	Bridge after bulkhead	Forecastle bulkhead
Thickness of bulkhead plating	7/16"			
Scantlings of stiffeners	8 x 3 1/2 x 3 1/2 x 7/8 channels	Open	Open	Open
Spacing of stiffeners, and if bracketed	30" Brackets 7 x 12			
Height of sills of openings above deck	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. 8'-0" x 15'-6"		20 O.T. Hatchways 5'-0" x 6'-0"		10 O.T. Hatchways 6'-0" x 4'-0"					
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING. Height above top of DECK	24"		6 x 3 1/2 x 40		24"					
	44		Angles		38					
	44				38					
SHIFTING BEAMS OR WEB PLATES.	Number.....	None								
	Section and Scantlings.....		✓		✓					
	Material.....									
* FORE AND AFTERS.	Number.....	None								
	Section and Scantlings.....		✓		✓					
	Material.....									
HATCHES Thickness	5/8"		.44		.44					
Remarks.....	Steel		Steel		Steel					

* 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. Open Rails
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 } _____ sq. ft.
on each side of vessel { well } No Bulwarks
{ after } _____ sq. ft.
{ 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? 7 ft to Poop 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. 7 feet.
In oil tankers, are the bulwarks open for at least half the length of the exposed portion of the weather deck? (Rule 100). Yes Open Rails
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: "Harold Walker" "William Green"

Fee: \$40.00 Expenses (if any) ✓

M. Bennett + M. Baylan
Surveyor to Lloyd's Register of Shipping.
Foundation