

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. 63

Port of Survey *New York*

Date of Survey *Feb 19 1931*

Name of Surveyor *W. Bennett & W. Bayl*

R.P. SMITH

NO 405

Ship's Name: *S.S. "M. Langgie"*
 Port of Registry and Nationality: *Los Angeles Baltimore U.S.A.*
 Official Number: *214311*
 Gross Tonnage: *6093*
 Date of Build: *1918 8*
 Particulars of Classification: *Carrying Petroleum or Coal*
 Number in Register Book: *74437*
 Owner: *Am. Mercantile P. & T. Co.*
 Builder: *W. Cramp & Sons*
 Moulded dimensions: *450.0 x 58.0 x 33.33 (85% = 28.33)*
 Moulded displacement at a moulded draught of 85 per cent. of moulded depth: *16,560 Tons*
 Coefficient of fineness for use with tables: *.82*
 Hull No.: *428*

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
Moulded	33.33	(a) When D is greater than $\frac{L}{15}$		Standard	$\frac{58 \times 12}{50} = 13.92$
Stringer plate	.05	$(D - \frac{L}{15}) \times R = (33.33 - 28.67) \times 3 = 14.13$		Ship	14.50
Sheathing in wells		(b) When D is less than $\frac{L}{15}$ (if allowed)		Difference	.58
$T \left(\frac{L-S}{L} \right) =$		$(\frac{L}{15} - D) \times R =$		Restricted to	
Depth D =	33.33	If restricted by height of superstructures		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = \frac{.58 \times .45}{4} = .07$	

SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S _e (Uncorrected for Height)	Height	Correction for Height	Effective Length
Poop enclosed	103.25	103.25	8.0	✓	103.25
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	36.00	18.00	8.0	✓	18.00
" overhang aft					
" overhang forward					
F'cle enclosed	43.00	37.45	8.0	✓	37.45
" overhang	6.25	3.12			3.12
Trunks forward	28.07	25.27	3.0	$\times \frac{3.0}{7.5} =$	11.34
" aft	54.61	49.16	3.0	$\times \frac{3.0}{7.5} =$	20.90
Tonnage opening		52.24			

Sheer Forward

12.8	3	38.4
39.6	3	118.8
89.0	1	89.0
		246.2

Standard Sheer Forward

11.78	3	35.34
47.10	3	141.30
106.00	1	106.00
		282.64

TOTAL = $188.50 + 271.18 = 236.25$ 242.40 $191.59 + 194.06 = 430$ 430

Length of ship (L) = 430 430 56.36

% Covered... = $\frac{23.84}{63.06} = 37.8\%$ 54.93% 36.12% 45.12 44.55%

Corresponding %, corrected for absence of forecastle if required } A = Tanker B = 35.55%
 Allowance ... = 42% $\times 3555 = 3612 = -44.93 = 15.17$

SHEER.

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

If excess sheer forward and deficient sheer aft:-

Actual sheer aft / Standard sheer aft = ✓ deficient

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

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

Mean effective sheer ... = $\frac{343.55}{18} = 19.08$

Standard sheer .05 L + 5 = $19.08 + 5 = 26.50$

Difference (Df) ... = 7.42

Allowance = $Df \times (.75 - \frac{S}{2L}) = 7.42 \times (.75 - \frac{315}{2 \times 430}) = 3.23$

If limited on account of amidship superstructure ... = ✓

If limited on account of excess sheer (1 1/2 in. per 100 ft.) ... = ✓

Length of enclosed superstructure L

Forward of amidships = ✓

Aft of amidships = ✓

DRAFTS.

Moulded Depth D =	33' 4"
Stringer Plate = (or Wood Deck)	3/4"
Freeboard	33' 4 3/4"
Moulded draught	26' 7 1/2"
Addition for keel below base line	1 3/4"
Extreme draught	26' 10 1/2"

F. W. ALLOWANCE

Displacement =

Tons per inch =

40 x = 26.90

TABULAR FREEBOARD (corrected for flush deck if required) =

Corrected for Coefficient	$\frac{.82 + .68}{1.36} = \frac{1.50}{1.36}$	69.90
Correction for Depth	14.13	77.10
" Superstructures	15.17	
" Sheer	44.93	
" Camber	3.94	
" Thickness of deck	.06	
" Scantlings, etc.		
Summer Freeboard =	$79.94 - 2.36 = 79.46$	

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 " " " ...



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33.38
6.66
26.72
6.68
79.94
86.62

Triop
79.94
6.68
79.26

84
13.3.31

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:

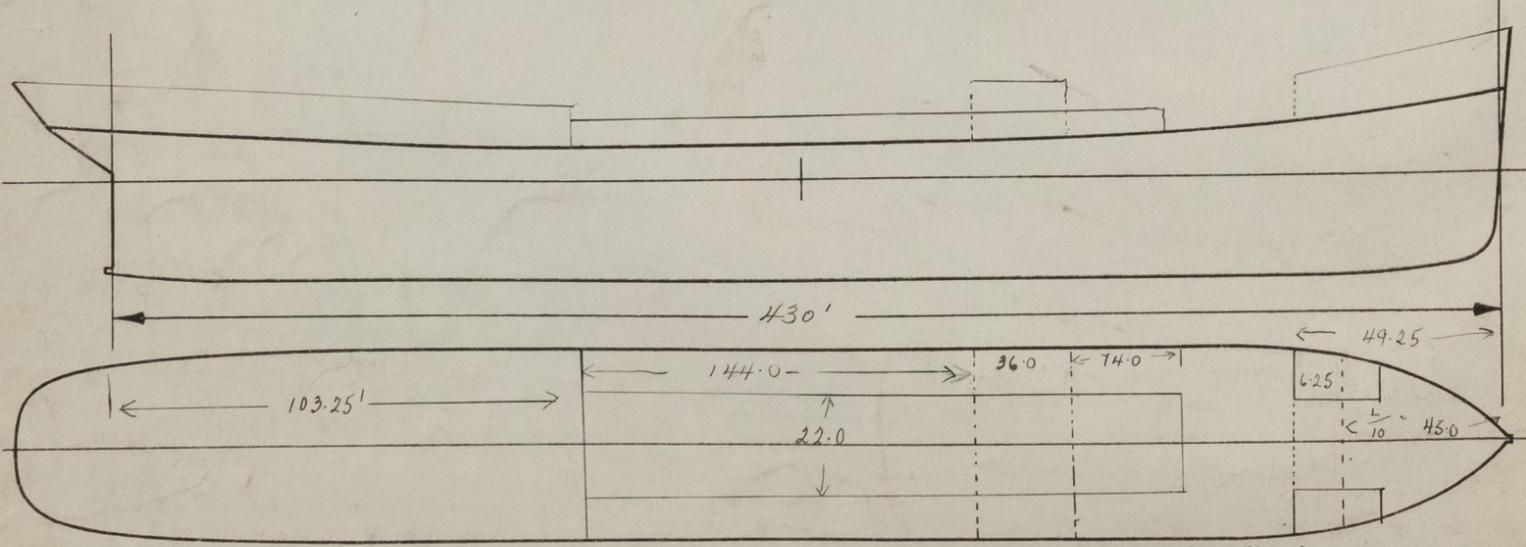
	Poop or Raised Quarter-Deck bulkhead	Bridge front bulkhead	Bridge after bulkhead	Forecastle bulkhead
Thickness of bulkhead plating	7/16"			
Scantlings of stiffeners	8 x 3 1/2 x 3 1/2 x 7/16 channels	Open	Open	Open
Spacing of stiffeners, and if bracketed	30" Brackets 7 x 12			
Height of sills of openings 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"		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"					
Thickness	Sides.....		Angles		.38					
	Ends.....				.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 { after } No Bulwarks = _____ 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? Fore 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) ✓

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