

WRECK SECTION No. 545

Lloyd's Register of Shipping

SURVEYS FOR FREEBOARD - STEAMERS

New York Office Index No. **28083**
 Port of Survey **New York**
 Date of Survey **Nov 12 1930**
 Name of Surveyor **W. Bennett**

Ship's Name **"Alan Emery"** Port of Registry **Los Angeles** Nationality **USA** Gross Tonnage **2197.2** Date of Build **1919-11** Particulars of Classification **+100 Carrying Petroleum in bulk**
 Number in Register Book **115A** Builder **J. B. Co.** Hull No. **18**
 Owner **Pan American T. Co.**
 Moulded dimensions **430-0" x 59-0" x 33-25"** (85% = 28-26")
 Moulded displacement at a moulded draught of 85 per cent. of moulded depth **16,750 x 995 = 16,670 tons**
 Coefficient of fineness for use with tables **.814**

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
Moulded depth	33-25	(a) When D is greater than $\frac{L}{15}$		Standard	$\frac{59 \times 12}{50} = 14.16$
Stringer plate	69"	$(D - \frac{L}{15}) \times R = (33.31 - 28.67) \times 3 = +13.92$		Ship	14.75
Sheathing in wells		(b) When D is less than $\frac{L}{15}$ (if allowed).		Difference	.59
$T(\frac{L-S}{L}) =$		$(\frac{L}{15} - D) \times R =$		Restricted to	
Depth D =	33-31	If restricted by height of superstructures		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = \frac{.59 \times .552}{4} = -.08$	

SUPERSTRUCTURES.

	Mean Covered Length S	Effective Length S _e (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed	133-00	133-00	8-0	✓	133-00
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	36-46	36-46	8-0	✓	36-46
" overhang aft					
" overhang forward					
Forecastle enclosed	40-38	23-28	8-0	✓	23-28
" overhang					
Trunks forward					
" aft					
Tonnage opening					

Sheer forward

33-0 4 132-00
 112-37 1 112-37
 244-37

Standard Sheer forward

6-62 4 26-48
 26-5 2 53-00
 59-6 4 238-40
 106-0 1 106-00
 433-88

TOTAL = **209-84** **192-74** **192-74**
 Length of ship (L) = **430** **430** **430**
 % Covered... = **48.8%** **44.82%** **44.82%**
 Corresponding %, corrected for absence of forecastle if required **A =** **Tanker 35.82%** **Correction for Bridge less than 2 L if required** **Tanker does not apply**
 Allowance ... = **42.0** **x .3582** **= -15.04**

SHEER.

no Sheer for 172' amidships.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	56-25	53-0	56-25	1 1	5 6 2 5
2	16-00	29-8	16-00	4 1	6 4 0 0
3	25	13-25	25	2 4	5 0
4		3-31		4 2	
5				2 4	
6		6-62		4 2	
7		26-5		2 4	
8	33-00	59-6	33-00	4 1	1 3 2 0 0
F.P. 9	112-37	106-0	112-37	1 1	1 1 2 3 7

If excess sheer forward and deficient sheer aft:-

Actual sheer aft =
 Standard sheer aft =
 Actual sheer forward = **244-37** ~ 57.65%
 Standard sheer forward = **423-88**
 ∴ allow 57.65% of open forecastle

Mean effective sheer ... = **24-48** **365-12**
 Standard sheer .05 L + 5 = **15-21**
 Difference (Df) = **26-50**
 Allowance = $Df \times (\frac{.75 - S}{2L}) = 11.29 \times (\frac{.75 - 244}{2 \times 430}) = + 5.71$
 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

Forward of amidships =
 Aft of amidships =

DRAFTS.	F. W. ALLOWANCE	TABULAR FREEBOARD (corrected for flush deck if required)
Moulded Depth D = 33' - 3"	Displacement = 15625	Corrected for Coefficient $\frac{.814 + .68}{1.36} = \frac{1.494}{1.36} = 1.099$
Stringer Plate = (or Wood Deck) 3/4"	Tons per inch = 52.7	Correction for Depth ...
Freeboard 33' - 3 3/4"		" Superstructures ...
Moulded draught 6' - 9 1/4"		" Sheer ...
Addition for keel below base line 2 1/2"	$\frac{15625}{40 \times 52.7} = 7.41$	" Camber ...
Extreme draught 26' - 9"		" Thickness of deck ...
		" Scantlings, etc. ...
		Summer Freeboard = 81-30

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 " " "

Tanker.

6' - 9 1/4"
 13 3/4"
 7 1/4"
 6 1/2"
 6 3/4"
 11"
 Lloyd's Register
 Foundation
 1999-0205/2
 29.11.30

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) Steel plates secured by bolts 12" apart this plate + bulkhead
Has the bridge an efficient steel bulkhead at the fore end? Yes
Give particulars of the means of closing the openings in this bulkhead Linged steel M.T. door on P. side only
Has the bridge an efficient steel bulkhead at the after end? Yes
Give particulars of the means of closing the openings in this bulkhead Steel plates as in Poop
Has the fore-castle 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 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	Fore-castle bulkhead
Thickness of bulkhead plating	.46; coaming .50	.46; coaming .50	.31	
Scantlings of stiffeners	13 X 4 X 4 X 31.8 Ls	13 X 4 X 4 X 31.8 Ls	4" X 3 1/2 X 44 0.2	open
Spacing of stiffeners, and if bracketed	42" lugged	40" lugged	42" bracketed at top	
Height of sills of openings above deck	18"	22"	19"	

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).

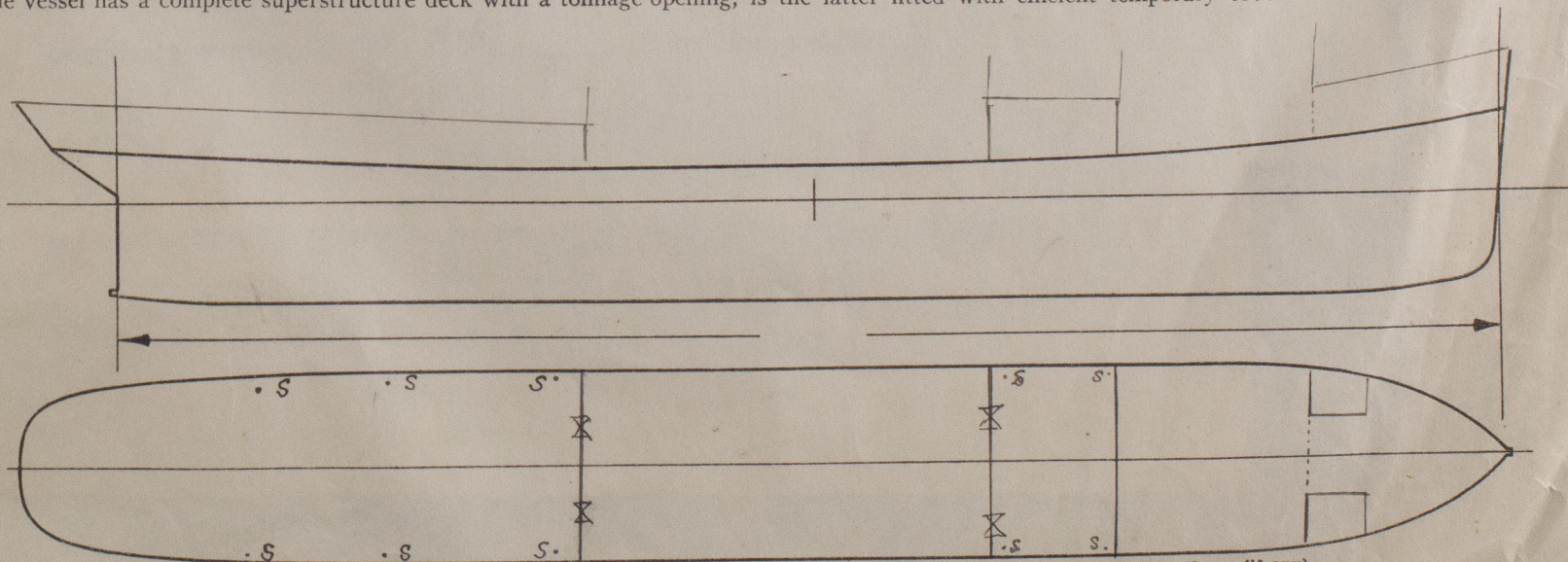
Position and Size.	No. 8' 0" x 15' 3"		18 O.T. Hatchways 4' 0" x 4' 0"		10 O.T. Hatchways 6' 0" x 4' 0"		Hatchways on Poop			
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
Height above top of DECK	30"		18"		30"		30"			
Thickness	Sides.....	.44	.375		.375		.44			
	Ends.....	.44					.44			
SHIFTING BEAMS OR WEB PLATES.	Number.....						2			
	Section and Scantlings.....	Nil					16 X .35			
	Material.....						4 X 3 1/4 X .44 Steel			
* FORE AND AFTERS.	Number.....	3								
	Section and Scantlings.....	11 9 X .50					Nil			
	Material.....	11 2 1/2 X 2 1/2 X .50								
HATCHES Thickness	1/2" Steel		.38 Steel		.38 Steel		3"			
Remarks.....	cover		Sheffield		Sheffield					

* 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? Not applicable
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 } ✓ = ✓ sq. ft. ✓
on each side of vessel { after } ✓ = ✓ 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 and aft Are the crew berthed in the fore-castle? (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). Yes
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: "Sunbeam" "Altair"

Fee: \$ 90.00 Expenses (if any) ✓

Signed W. Bennett
Surveyor to Lloyd's Register of Shipping.