

# Lloyd's Register

## SURVEYS FOR FREEBOARD

(Under the Provisions of the U. S. A. Load Line Act of March 2, 1907)

S.S. M.S.	Ship's Name <i>Stanley Hills</i>	Port of Registry and Nationality <i>San Francisco</i>	Official Number <i>210617</i>	Gross Tonnage <i>4747</i>	Date of Build <i>1912</i>	Particulars of Classification <i>No 392</i>
Number in Register Book.....		Builder..... <i>Howe Bros. S.B.C.</i>		Hull No.....		
Owner..... <i>Wullione, S.B. Co.</i>		Moulded dimensions <i>37'0" x 52'1" x 30'</i> (85% = <i>25.5</i> )		Moulded displacement at a moulded draught of 85 per cent. of moulded depth... <i>112.30</i> $\times$ <i>995</i> = <i>111.73</i>		Unmoulded displacement
Coefficient of fineness for use with tables..... <i>797</i>						

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
Moulded depth	30.00	(a) When <b>D</b> is greater than $\frac{L}{15}$		Standard	$\frac{52 \times 12}{50} = 12.48$
Stringer plate	6.0"	$(D - \frac{L}{15}) \times R = (30.05 - 24.667) \times \frac{370}{120} = 15.32$		Ship	13" Pitch ... 9.75
Sheathing in wells		(b) When <b>D</b> is less than $\frac{L}{15}$ (if allowed).		Difference	2.73
$T(\frac{L-S}{L}) =$		$(\frac{L}{15} - D) \times R =$		Restricted to	5.2
Depth <b>D</b> =	30.05	If restricted by height of superstructures		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) =$	$\frac{2.73}{4} \times \frac{4}{4.266} = +.29$

### SUPERSTRUCTURES.

	Mean Covered Length S.	Effective Length S <sub>e</sub> (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed	97.50	97.50	7'-9"	✓	97.50
" overhang	50	25			25
R.Q.D. enclosed					
" overhang		25.50			25.50
Bridge enclosed	25.50	22.95	7'-9"	✓	22.95
" overhang aft	25	19			19
" overhang forward	25	13			13
Fore enclosed	30.00	15.00	7'-9"	✓	15.00
" overhang					
Trunks forward	74.38	28.66	6	$\frac{30.00}{32.5} = 86.4$	9.93
" aft	116.88	44.95	2'-8 1/2"		16.92
Tonnage opening					15.61
TOTAL =	154.00	204.57			163.76

Width of Trunk 20'  
 $74.38 \times \frac{20}{52} = 28.6$   
 $116.88 - 28.6 = 88.28$

Height of Trunk  
 2'-6" at ch  
 2'-11" at wing  
 $2 \times 5'5" = 10'10"$   
 $2'8 1/2" \times 32 1/2" = 86.4"$   
 Standard Height 86.4"

116.88 - 28.6 = 88.28

Length of ship (**L**) = 370  
 % Covered... = 41.62 ✓  
 Corresponding %, corrected for absence of forecastle if required } **A** = Tanker  
 Allowance ... = 40" ✓  
 Correction for Bridge less than 2 **L** if required } Tanker not reqd.  
 = -14.14 ✓

### SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	31.00	47.00	31.00	1	31.00
2	5.00	20.91	5.00	4	20.00
3		5.77		2	
4				4	
5		10.34		2	
6	5.50	41.83	5.50	4	22.00
F.P. 7	54.50	94.00	54.50	1	54.50

If excess sheer forward and deficient sheer aft:—

Actual sheer aft  
 Standard sheer aft =  $\frac{54.5 \times 1.54.5}{94 \times 1} = 94$   
 Actual sheer forward  
 Standard sheer forward =  $\frac{5 \times 5 \times 3 - 16.5}{41.83 \times 3} = 125$   
 $10.34 \times 2 = 20.68$   
 $54.5 \times 1 = 54.5$   
 $94 \times 1 = 94$   
 $125 \times 3 = 375$

Length of enclosed superstructure **L** = 71  
 Forward of amidships =  $\frac{71}{250} = 28\%$   
 Aft of amidships = allow 50% of open forecastle.

Mean effective sheer ... = 127.50  
 Standard sheer .05 **L** + 5 = 7.08  
 Difference (**Df**) = 23.50  
 Allowance = **Df**  $\times$  ( $.75 - \frac{S}{2L}$ ) = 16.42 ( $.75 - \frac{20.68}{250}$ )  
 If limited on account of amidship superstructure ... = 54.19  
 If limited on account of excess sheer (1 1/2 in. per 100 ft.) ... = +8.9" ✓

### DRAFTS.

Moulded Depth **D** = 30'-0"  
 Stringer Plate = 5/8"  
 Board = 30'-0 5/8"  
 Moulded draught = 5'-11"  
 Allowance for keel below base line = 15/8"  
 Summer draught = 24'-3 3/4"  
 23 = 6 ✓

### F. W. ALLOWANCE

Displacement = 10577  
 Tons per inch = 40  
 $\frac{10577}{40 \times 40} = 6.6$   
 6 1/2 ✓

### TABULAR FREEBOARD

(corrected for flush deck if required) = 55.70 ✓  
 Corrected for Coefficient  $\frac{.797 + .68}{1.36} = \frac{1.477}{1.36}$  = 60.48 ✓  

	+	-
Correction for Depth	15.32	14.14
Superstructures	8.90	
Sheer		2.9
Camber		
Thickness of deck		
Scantlings, etc.		
	24.51	14.18

 Summer Freeboard = 70.89 ✓

### SUMMER FREEBOARD

amidships from Centre of Disc to top of Deck Line, Wood, Steel,			Deck:—
Tropical Fresh Water Line (above center of Disc)	12 1/2" ✓		Tropical Fresh Water Freeboard ... 5'-11" ✓
Fresh Water Line	6 1/2" ✓		Fresh Water ... 5'-4 1/2" ✓
Tropical Line	6" ✓		Tropical ... 6'-5" ✓
Winter Line (below ...)	6" ✓		Winter ... 6'-8 3/4" ✓
Winter North Atlantic Line	9 3/4" ✓		Winter North Atlantic ...



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Number in Register Book.....		Builder..... <i>Howe Bros. S.B.C.</i>		Hull No.....		
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Coefficient of fineness for use with tables..... <i>.797</i>						

DEPTH FOR FREEBOARD.		CORRECTION FOR DEPTH.		CAMBER	
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Stringer plate	6.0"	$(D - \frac{L}{15}) \times R = (30.05 - 24.667) \times \frac{370}{120} = 15.32$		Ship	13" Pitch ... 9.75
Sheathing in wells		(b) When <b>D</b> is less than $\frac{L}{15}$ (if allowed).		Difference	2.73
$T(\frac{L-S}{L}) =$		$(\frac{L}{15} - D) \times R =$		Restricted to	
Depth <b>D</b> =	30.05	If restricted by height of superstructures		Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) =$	$\frac{2.73}{4} \times \frac{4}{4266} = +.29$

SUPERSTRUCTURES.					
	Mean Covered Length S.	Effective Length S <sub>e</sub> (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
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" overhang		25.50			25.50
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" overhang aft	25	19			19
" overhang forward	25	13			13
Fore enclosed	30.00	15.00	7'-9"		15.00
" overhang					
Trunks forward	74.38	28.66	6	$\frac{30.00}{32.5} = 86.4$	9.93
" aft	116.88	44.95	2'-8 1/2"		16.92
Tonnage opening					15.61
TOTAL =	154.00	204.57			163.76
Length of ship ( <b>L</b> ) =	370	370			370
% Covered... =	41.62	56.6			44.24
Corresponding %, corrected for absence of forecastle if required } <b>A</b> = <i>Tanker</i>		57.34			36
Allowance ... =	40"	$\times .3524$			
Correction for Bridge less than 2 <b>L</b> if required } <i>Tanker not reqd.</i>					
= -14.14					

Width of Trunk 20'  
 $74.38 \times \frac{20}{52} = 28.6$   
Standard Height 86.4"

SHEER.					
Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	31.00	47.00	31.00	1	31.00
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F.P. 7	54.50	94.00	54.50	1	54.50
Mean effective sheer ...				18	127.50
Standard sheer .05 <b>L</b> + 5 =					7.08
Difference ( <b>Df</b> )					23.50
Allowance = <b>Df</b> $\times (\frac{S}{2L}) =$					16.42
If limited on account of amidship superstructure					+ 8.9"
If limited on account of excess sheer (1 1/2 in. per 100 ft.)					

If excess sheer forward and deficient sheer aft:—

Actual sheer aft / Standard sheer aft = *Ship*  $\frac{54.5 \times 1.545}{5 \times 5 \times 3 - 16.5} = 94 \times 1 = 94$

Actual sheer forward / Standard sheer forward = *Rule*  $\frac{54.5 \times 1.545}{5 \times 5 \times 3 - 16.5} = 41.83 \times 3 = 125$

Length of enclosed superstructure **L** = 71

Forward of amidships =  $\frac{71}{250} = 28\%$

Aft of amidships = allow 50% of open forecastle.

DRAFTS.		F. W. ALLOWANCE		TABULAR FREEBOARD (corrected for flush deck if required)	
Moulded Depth <b>D</b> =	30'-0"	Displacement =	10577	Corrected for Coefficient	$\frac{.797 + .68}{1.36} = 1.477$
Stringer Plate = (Wood Deck)	5/8"	Tons per inch =	40	Correction for Depth	15.32
Board	30'-0 5/8"			" Superstructures	14.18
Moulded draught	5'-11"			" Sheer	8.90
Allowance for keel below base line	24'-15 1/8"			" Camber	.29
Extreme draught	24'-3 3/4"			" Thickness of deck	
				" Scantlings, etc.	
				Summer Freeboard =	70.89

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—			
Tropical Fresh Water Line (above center of Disc)	12 1/2"	Tropical Fresh Water Freeboard	5'-11"
Fresh Water Line	6 1/2"	Fresh Water	4'-10 1/2"
Tropical Line	6"	Tropical	5'-4 1/2"
Winter Line (below)	6"	Winter	6'-5"
Winter North Atlantic Line	9 3/4"	Winter North Atlantic	6'-8 3/4"



Has the bridge 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). Manholes only with hinged steel  
Has the bridge an efficient steel bulkhead at the after end? Yes  
Give particulars of the means of closing the openings in this bulkhead. Hinged steel w. T. doors  
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? By the 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" x 3/8"	1/2" x 3/8"	7/16" x 3/8"	
Scantlings of stiffeners	9 x 3 1/2 x 3 1/2 x 1/2"	7" x 3 1/2 x 3 1/2 x 1/2" L	6 x 3 1/2 x 3 1/2 x 3/8" L	
Spacing of stiffeners, and if bracketed	30" No brackets Rugs	30" No Rugs Litter	30" No Rugs Litter	
Height of sills of openings above deck	5'-0"	18"	18"	

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.	Main Deck 8'3"x5'0"		Summer Deck 8'3"x6'0"		Hatch to F.P. "B" to store		C x Bunker D to 177			
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING. Height above top of DECK	5" trunk		22"		25"	25"	30"	30"		
Thickness { Sides.....	1/2"		1/2"		1/2"	1/2"	1/2"	1/2"		
{ Ends.....										
SHIFTING BEAMS OR WEB PLATES. Number.....										
{ Section and Scantlings.....	None		None		None	None	None	None		
{ Material.....										
* FORE AND AFTERS. Number.....										
{ Section and Scantlings.....	None		None		None	None	None	None		
{ Material.....										
HATCHES Thickness .....	Steel 1/2"		Steel 1/2"		2" Wood	Steel 1/2"	Steel	2"		
Remarks.....	O.T. LIDS		O.T. LIDS		2 TARP CREATS	W.T. LID	O.T. LID	2 TARP CREATS.		

\* 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? ✓

Length of bulwarks in wells—forward: 85 feet; aft: 131 feet.

Area of freeing ports required by regulations (Rules 30 and 100) forward: 43.5 sq. ft.; aft: 65.5 sq. ft.

No. Ft. X Ft.

Particulars of freeing ports fitted { forward } \_\_\_\_\_ = \_\_\_\_\_ sq. ft.  
on each side of vessel { after } 50% open = \_\_\_\_\_ 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

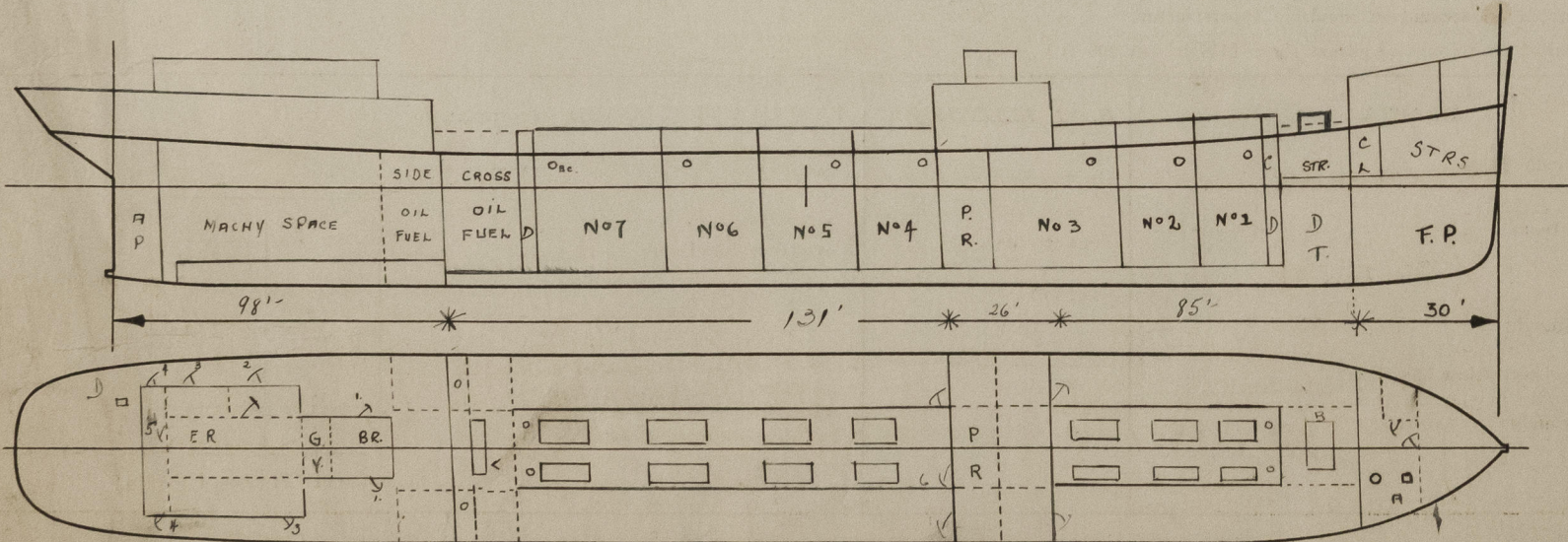
In oil tankers, what is the extent of the fore and aft gangway? Poort to Bridge Are the crew berthed in the forecastle? (Rule 96). u

Is the gangway strong and efficiently braced fore and aft? Yes State spacing of supports 6 to 8' 6" feet. Yes

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.

vessels:

Expenses (if any)

Surveyor to Lloyd's Register