

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

CLASSIFICATION SOCIETY

THIR. R III 1909

RECOGNISED BY THE FRENCH GOVERNMENT DECREE OF THE 5TH SEPTEMBER, 1908.

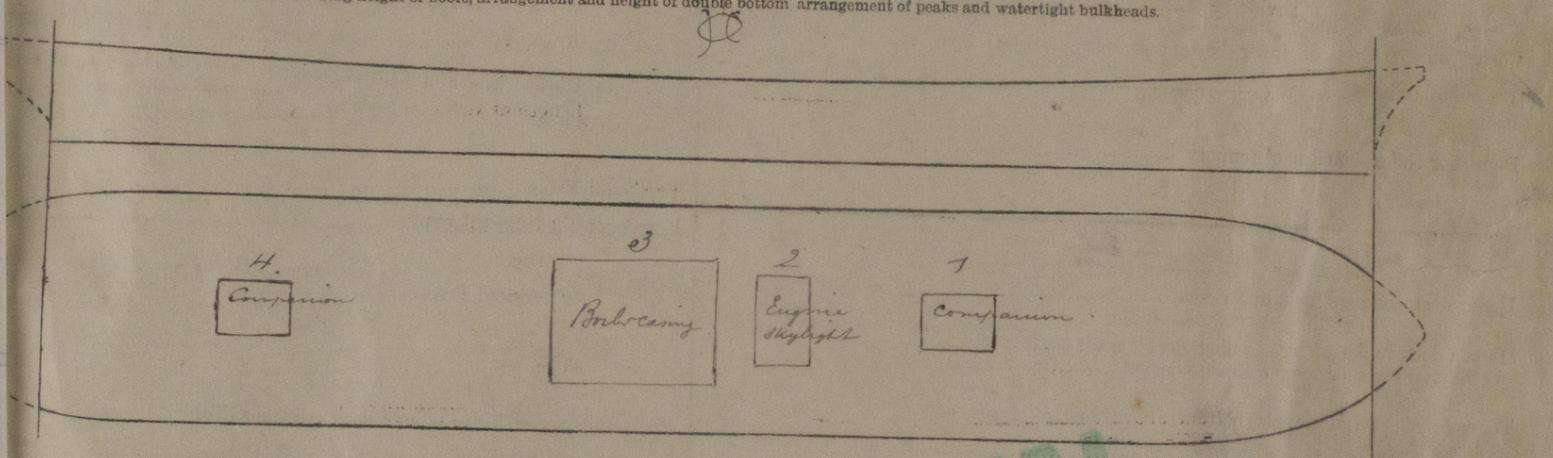
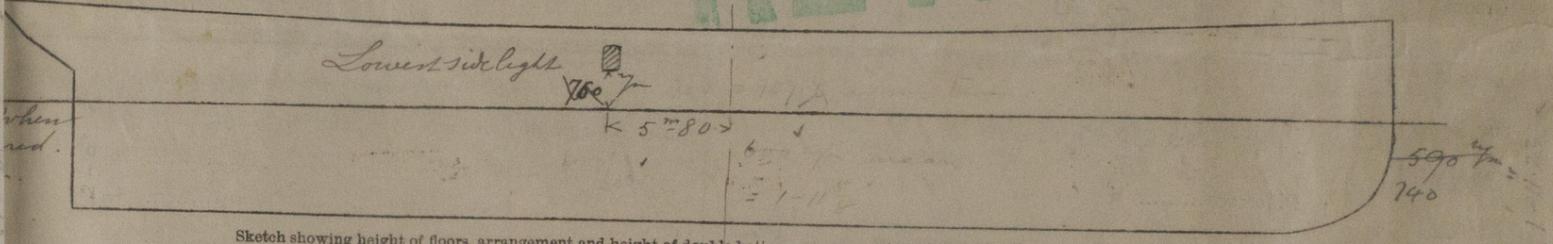
SURVEYS FOR FREEBOARD. FRENCH VESSELS.

(All measurements to be given in the Metric system.)

Ship's Name. <i>VANBRUGH</i> <i>now "BOIELDIEU"</i>	Port of Registry. <i>Rouen</i>	Date of Build. <i>1905. 5</i>	Particulars of Classification. <i>FA -</i> <i>For River purposes only</i>	Port of Survey <i>Havre</i>
Number in Register Book <i>41</i>		Where Built. <i>London</i>		Date of Survey <i>7th July 1909</i>
Name of Shipowner <i>Societe Rouennaise de Navigation</i>			Type of vessel <i>Steel hulled Steamer</i>	Name of Surveyor <i>W. J. Boyer</i>
Request for assignment <i>7 July 1909</i>			Number of freeboard certificate	
Time assigned to the freeboard. (In the case of unclassified vessels.)				

Length taken from Ship's Register. <i>39m 60</i> <i>129.9</i>	Breadth. <i>5m 65</i> <i>18.5</i>	Depth. <i>2m 07</i> <i>6.8</i>	Under Deck Tonnage, including Peaks <i>126 tons</i>
			Tonnage of 'tween decks if tonnage measured below second deck. <input checked="" type="checkbox"/>

PARTICULARS TAKEN ON BOARD.	
Ship on Loadline <i>38m 800</i>	<i>127.3</i>
Breadth to outside of planking or plating <i>5m 65</i>	<i>18.5</i>
Gunwale amidships <i>5m 60</i>	<i>18.37</i>
Depth to Upper deck <i>7ft 10 in</i>	<i>2m 10</i>
Depth to Main (Spar and Awning deck vessels)	<i>6m 10 1/2</i>
Distance from bottom at margin below level line at centre (if any)	
Distance from bottom at margin above	
Thickness of plating fitted on inner bottom	
Distance between decks in Spar and Awning deck vessels } from top of beam to top of beam at side	
Distance between beams	<i>60 mm</i>
Distance between beams	<i>2.36</i>
PARTICULARS TAKEN ON BOARD.	
Sheer of Upper or Spar deck. (Main deck in Awning deck vessels.)	
At Stem	<i>480 mm</i> <i>18.9</i>
" 1/8 length from Stem	<i>335</i> <i>13.19</i>
" 1/8 " " Sternpost	<i>145</i> <i>5.71</i>
" Sternpost	<i>290</i> <i>11.42</i>
" front of Bridge (Well deck vessels)	
Fall in sheer abaft amidship	<i>none</i>
Distance of lowest point of sheer abaft midship section	
Round of Upper deck beam	<i>135 mm</i> <i>5.3</i>
" Main " " (Awning deck vessels.)	
Thickness of sparring or side ceiling	



Dimensions of the Deck erections.	Forecastle	Length =	Height =
	Bridge	" =	" =
	Poop	" =	" =
	Raised Quarter Deck	" =	" =
	Partial Awning Deck	" =	" =

DETAILS OF CONSTRUCTION OF THE END BULKHEADS OF THE DECK ERECTIONS.					
	Forecastle.	Bridge, fore end.	Bridge, after end.	Poop.	Raised Quarter Deck.
Coaming	<input checked="" type="checkbox"/>				
Other Plates	<input checked="" type="checkbox"/>				
Scantlings	<input checked="" type="checkbox"/>				
Spacing	<input checked="" type="checkbox"/>				
of Vertical Brackets	<input checked="" type="checkbox"/>				
Scantlings	<input checked="" type="checkbox"/>				
Number	<input checked="" type="checkbox"/>				

Remarks: -
no 0189/7/09

CALCULATION OF

FREEBOARD.

PARTICULARS NECESSARY FOR USE WITH THE TABLES.

Moulded depth 2.10

Correction for iron uncovered deck if required.....

rise of floor if required

Moulded depth to be used with Tables c =

Breadth extreme to outside of planking or plating B = 5.65

In Ship.	Rule.
Thickness of planking	=
Depth of framing	=
Thickness of ceiling or sparring	=
Total.....	=
Difference.....	2d =

Breadth for the co-efficient of tonnage (B - 2d) =

Depth of Hold (Registered) c = 2.07

For Steamers add thickness of ceiling if necessary h =

c + h =

Gradual mean shear at ends } $t_m = \frac{t_1 + t_2}{1.1} = \frac{335 + 145}{1.1} = 436$

Standard mean shear } $t = 8.3L + 255 = 8.3 \times 38.8 + 255 = 577$

Difference $t_m - t = 141$

Divide by 3 = s = -0.47

Correction for drop of inner bottom at margin below level at middle line if necessary

Depth for the co-efficient of tonnage D = 2.023

Under deck tonnage including peaks T = 126

Tween deck tonnage (for Awning deck vessels and vessels having three or more complete decks) } $T_1 =$

Tonnage of partial double bottom above line of floors of rule depth $T_2 =$

Tonnage for the co-efficient of tonnage (T + T₁)

Co-efficient of Tonnage

$K = \frac{2.83(T + T_1)}{L \times (B - 2d) \times D} = \frac{2.83 \times 126}{38.8 \times 5.65 \times 2.023} = 50$

Correction for continuous double bottom if required

K =

Freeboard in the Table = 2.86

CORRECTIONS TO THE

(a) CORRECTION FOR LENGTH. (Art. 19.)

Length of Ship on Loadline L = 38.80

Length in Table L₁ = 25.20

Difference L - L₁ = 13.60

Correction for 1 metre c = 6.8

Total Correction a = (L - L₁)c = + 88

For Steamers having $\frac{1}{10}$ th the length or more covered by deck erections x .5

Net Correction a =

(b) CORRECTION FOR SHEER. (Art. 20.)

(For vessels other than Spar and Awning deck.)

Vessels without superstructures or with bridge closed both ends.

Mean Sheer of Vessel.

Gradual shear. $t_m = \frac{t_1 + t_2}{2} = \frac{770}{2} = 385$

Not gradual. $t_m = \frac{t_1 + t_2}{1.1} = 1.1$

Vessels having forecastle only.

Gradual shear. $t_m = \frac{t_1 + t_2}{2} = 2$

Not gradual. $t_m = \frac{t_1 + t_2}{2 + 1.1} = 2 + 1.1$

Vessels having Poop and forecastle with or without open bridge.

$t_m = \frac{t_1 + t_2}{2} = 2$

Standard mean shear $t = \begin{cases} 8.3L + 255 = 8.3 \times 38.8 + 255 = 577 \\ 5.81L + 175 = 5.81 \times 38.8 + 175 = 577 \\ 4.98L + 150 = 4.98 \times 38.8 + 150 = 577 \end{cases}$

Difference $\frac{1}{4} - \frac{t_m}{t} = \frac{577 - 385}{4 \times 577} = 192$

Correction $b = \frac{t_m - t}{4} = \frac{192}{4} = + 48$

If limited, " " $\frac{t}{2 \times 4} = 2 \times 4 =$

Fall in shear = x .5 =

Correction b =

(c) CORRECTION FOR DECK ERECTIONS. (Arts. 21 to 27.)

Allowed length of Forecastle (Appendix A.) =

" " " Bridge =

" " " Poop =

" " " Raised Quarter Deck =

Total allowed length of deck erections =

$p = \frac{\text{Total allowed length of deck erections}}{\text{Length of vessel on loadline}} =$

A	C	D
---	---	---

Freeboard Table.....

Correction for length if required ...

" " " shear " " ...

Corrected Freeboard ... A = C = D =

A - C =

Percentage according to type of deck erections (Table 1) =

Correction { Steamers ... c = (A - C)P =

Sailers ... c = D x P =

If Engine and Boiler openings not covered by Poop or Raised Quarter deck or strong iron or steel deckhouse (Arts. 24 & 25) } x .6

Correction c =

Correction for Raised Quarter deck if Engine and Boiler openings not covered by Bridge (Art. 26) } =

Correction c =

Correction for scantlings of deck erections if necessary =

Correction c =

(d) CORRECTION FOR IRON UNCOVERED DECK. (Art. 28.)

Allowed length of deck erections =

Length on loadline =

Rule thickness of wood deck..... T =

" " " stringer plate... t =

Correction $d = \begin{cases} T - t = \\ (4p - 1.80)(T - t) = \\ p(T - t) = \end{cases}$

TABULAR FREEBOARD.

(e) CORRECTION FOR ROUND OF BEAM. (Art. 29.)

Round of Beam B = 135

Normal round... B₁ = Breadth at gunwale amidships = 56

Difference B - B₁ = d = 18

Percentage p (deck erections)..... =

Correction $e = \frac{d}{2} \times \frac{100 - p}{100} = -9$

(f) CORRECTION FOR HEIGHT OF TWEEN DECK. (Art. 30.)

(For Spar deck vessels.)

Height of Tween decks h =

Rule (Ship B + C = L x B x C =

Numbers (With tween deck 2m.10 B + C = L x B x C =

Correction f =

(g) CORRECTION FOR AREA OF FREEING PORTS. (Art. 31.)

(For Well deck steamers and steamers of less than 4m.50 moulded depth having Poop, Bridge, and Forecastle.)

Total area on each side =

Area per rule =

Correction g = % moulded depth =

(h) CORRECTION FOR NON-FITTING OF GANGWAY FOR CREW. (Art. 32.)

(In Well deck steamers and steamers less than 4m.50 moulded depth having Poop, Bridge, and Forecastle.)

Correction h = % moulded depth =

(i) CORRECTION FOR SCANTLINGS. (Art. 33.)

(For steam vessels.)

Freeboard. Table A corrected A =

" " " B " B =

Spar Deck Steamers. K = B - A =

Correction i = K(B - A) =

Freeboard. Table C corrected C =

" " " B " B =

Awning Deck Steamers. Height of Tween decks h =

K = h + C - B =

Correction i = K(h + C - B) =

(j) CORRECTION FOR CLASS. (Art. 34.)

Class of the vessel =

Correction j =

(k) CORRECTION FOR SUMMER FREEBOARD. (Art. 35.)

Steamers without deck erections, Spar and Awning deck k =

Correction given in Table A a =

Steamers having deck erections. " " " C c =

Percentage p (deck erections) =

$k = a + p(c - a) =$

(l) CORRECTION FOR SUMMER FREEBOARD IN TROPICAL SEAS. (Art. 36.)

$l = 2k =$

(m) CORRECTION FOR WINTER NORTH ATLANTIC FREEBOARD. (Art. 35.)

Steamers less, or equal to, 100.50m. in length m = .050

All sailing vessels m = .075

Well deck steamers, percentage p (deck erections) =

m (Table No. 7) =

(n) CORRECTION FOR FRESH WATER. (Art. 35.)

Moulded depth c =

Freeboard f =

Correction n = .022(c - f) =

SUMMARY OF THE CALCULATION.

Winter Freeboard by the Tables A	2.86
Correction for length	a = 88
" " shear	b = 48
" " deck erections	c =
" " iron uncovered deck	d =
" " round of beam	e =
" " height of tween decks	f =
" " deficiency of freeing port area	g =
" " non-fitting of gangway for crew	h =
" " scantlings	i =
" " class	j =
Other corrections, if any	Side list
Total.....	+ 873 - 9
Net correction.....	+ 864

Winter Freeboard measured from the upper surface of the upper deck (wood or iron) = 1150 = 3.9.27

Correction for Summer Freeboard k =

Summer Freeboard (centre of disc)..... =

Correction for Summer Freeboard in Tropical Seas l = 2k =

Summer Freeboard Tropical Seas =

Correction for Winter North Atlantic Freeboard m =

Winter North Atlantic Freeboard..... =

Correction for Summer Freeboard in Fresh Water n =

Summer Freeboard in Fresh Water =

Limitation of the Freeboard on account of openings in the vessel's sides. (Art. 36.)

Top of wood deck at side

English Measure 3.9.27

For all seasons

1150 mm

H.A.N.

(This space for use in London Office only.)

It is submitted the above Freeboards merit approval.

9.7.09

Date of Committee's Minute 12th July, 1909

The Freeboard marks have been placed on the vessel's sides at Havre on the 21 July 1909

In G. Boyer Sawyer

Lloyd's Register Foundation

Well Deck Steamers and Steamers less than 4m.50 Moulded Depth having Poop, Bridge and Forecastle.

Length of Bulwarks in Well
 Number and Dimensions of Freeing Ports each side
 Total Area of Freeing Ports on each side
 Breadth and Type of Gangway for Crew over Well
 State if the Crew are Berthed in Bridge House or Forecastle

DETAILS OF CONSTRUCTION OF THE WEATHER DECK HATCHWAYS.

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Length and Breadth	2 ^m 20 x 1,30	1 ^m 60 x 2 ^m 55	4 ^m 900 x 3 ^m 300	2 ^m 200 x 1,300	
Height and Thickness of Coaming	450 ^m x 40 ^m wood	550 ^m x 5 ^m steel	1 ^m 300 x 3,5 ^m steel	450 ^m x 40 ^m wood	
Shifting Beams	Covered by a wood permanent structure		as per sketch	Covered by a wood permanent structure	
Fore and Afters					
Thickness of Hatches					

Remarks:—

* When the Fore and Afters are of wood the depth should be stated from the underside of the hatches.

Do all the Frames extend to the top height in the Poop? Raised Quarter Deck? Bridge House? Forecastle?
 To what height do the Reverse Frames extend? *to Deck*
 Has the Poop or Raised Quarter Deck an efficient Iron Bulkhead at the fore end?
 Give particulars of the means for closing the openings in Bulkhead
 Is the Poop or Raised Quarter Deck connected with the Bridge House? Has the Bridge House an efficient Bulkhead at the fore end?
 Give particulars of the means for closing the openings in Bulkhead
 Are bracket plates fitted at each end of the Stiffeners? Are hor'l. brackets fitted connecting Bridge Bulk'h'd. with Bulwarks?
 Has the Bridge House an efficient Iron Bulkhead at the after end?
 How are the openings closed?
 Is the Forecastle at least as high as the main or top-gallant rail? Has the Forecastle an efficient Iron or Wood Bulk'h'd. at after end?
 Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck, or enclosed by a Strong Iron or Steel Deckhouse? *yes on boiler Engines below Deck*
 If the openings are not so protected are the exposed parts of the Casings efficiently constructed?
 Give thickness of plating; scantlings and spacing of Stiffeners *3^m5 Stiffeners angle bars 50x50, 950^m apart*
 What is the height of the exposed Casings? *1^m300* Are suitable means provided for closing all openings in them in bad weather?
 State vertical distance from top of deck at side amidships or above base line at top of keel to lower edge of lowest side scuttle *light 490^m 640 See letter.*
 State if any cargo ports or scuppers through sides of vessel below Upper deck *none*
 State any special features in the construction of the Vessel

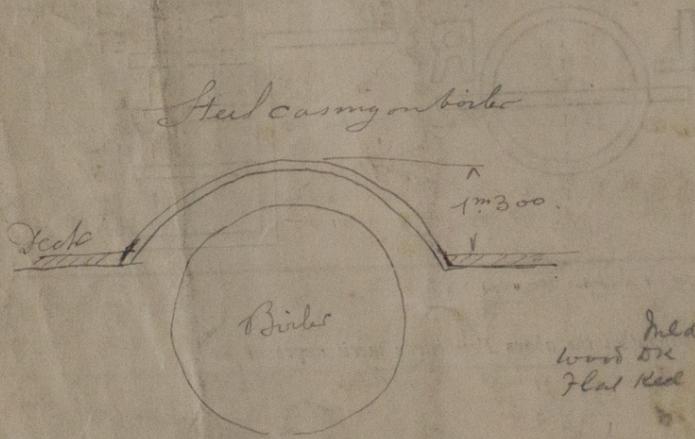
The draft in loaded conditions is to be reported by the Owners about 1^m00 = 3-3³/₈

*2.159 total depth
 1.000 draft required
 1.159 H'd
 L₁₁₅₀*

Approved plans show vessel designed for 2-9 draft

SKETCHES.

Show by sketch, if necessary, details of construction of the means for closing the openings in the end bulkheads of the deck erections, also details of hatchways, engine and boiler casings, side scuttles, cargo ports, freeing ports, scuppers, &c.



*head 2.100 as reported.
 wood 5x 051
 Flat Keel 008
 2.159 solid depth*

W. J. Soyars
 Surveyor to Lloyd's Register of British and Foreign Shipping.



Lloyd's Register Foundation

Fee £ 26 : 25

Received by