

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## CLASSIFICATION SOCIETY

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.)

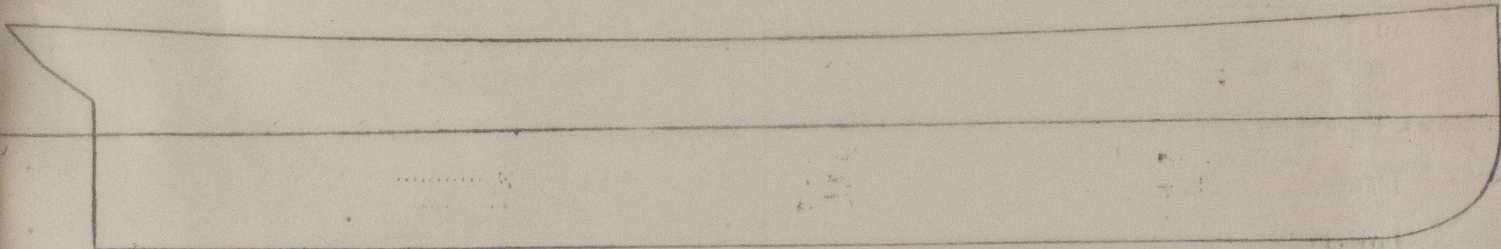
Ship's Name. <i>le D'Arras</i>	Port of Registry. <i>Havre</i>	Date of Build. <i>1917</i>	Particulars of Classification. <i>+ 100 FI</i>	Port of Survey <i>Londonderry</i>
Register Book		Where Built. <i>Londonderry</i>	<i>Contemplated</i>	Date of Survey <i>26 Sept. 1917</i>
				Name of Surveyor <i>S. O. Kendall</i>
			Type of vessel <i>Poop Bridge &amp; Forecastle</i>	
			Number of freeboard certificate	

of time assigned to the freeboard. (In the case of unclassified vessels.)

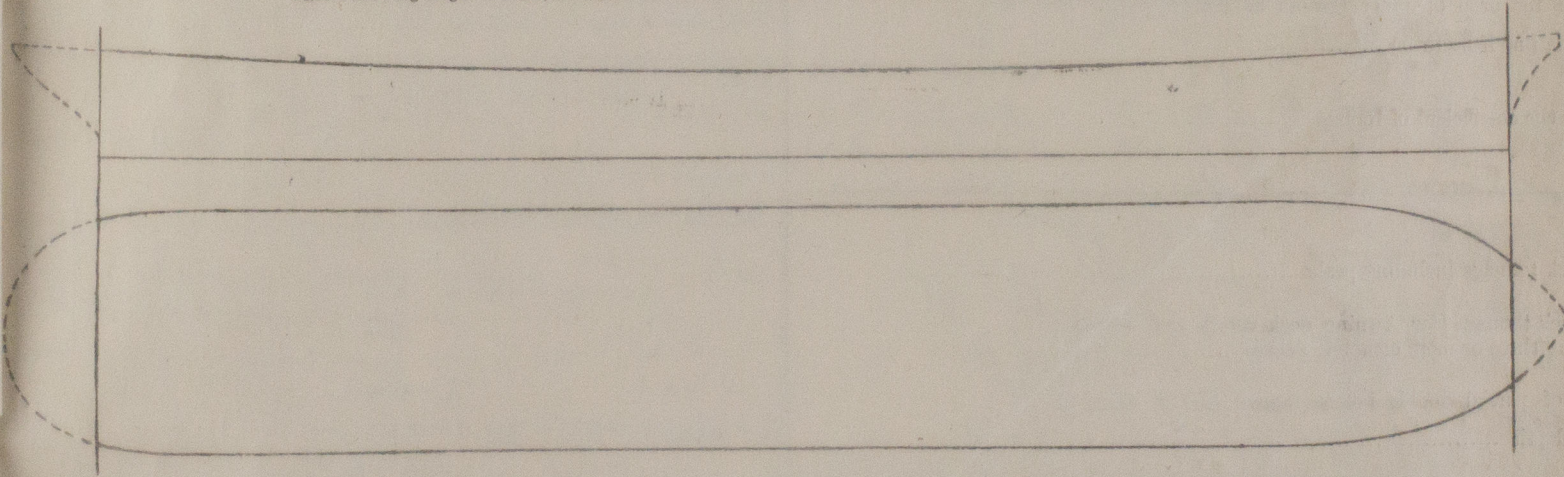
LENGTH.	BREADTH.	DEPTH.	Under Deck Tonnage, including Peaks .....
taken from Ship's Register.			Tonnage of 'tween decks if tonnage measured below second deck. ....

#### PARTICULARS TAKEN ON BOARD.

Ship on Loadline	Sheer of Upper or Spar deck. (Main deck in Awning deck vessels.)
Breadth	At Stem $t_1$
Breadth to outside of planking or plating	" $\frac{1}{8}$ length from Stem $t_2$
at Gunwale amidships	" $\frac{1}{8}$ " " Sternpost $t_3$
Depth to Upper deck	" Sternpost $t_4$
" Main " (Spar and Awning deck vessels)	" front of Bridge (Well deck-vessels) $t_5$
oor (Iron or Steel sailing ships only)	Fall in sheer abaft amidship $t_6$
anner bottom at margin below level line at centre (if any)	Distance of lowest point of sheer abaft midship section
" " " above " " "	
ceiling fitted on inner bottom	Round of Upper deck beam
"Tween decks in Spar and Awning deck vessels }	" Main " " (Awning deck vessels.)
red from top of beam to top of beam at side }	
Frame	Thickness of sparring or side ceiling



Sketch showing height of floors, arrangement and height of double bottom arrangement of peaks and watertight bulkheads.



Sketch showing the arrangement of the deck erections and position of end and intermediate bulkheads in relation to the deck and sides of the superstructures, dimensions of hatchways, engine and boiler openings, tonnage openings in Shelter deck, deckhouses and continuous trunks and turrets. The sketch must also indicate the extent of wood sheathing on iron or steel deck.

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.
Thickness {	Coaming .....				
	Other Plates .....				
Vertical Stiffeners {	Scantlings .....				
	Spacing .....				
Spacing of Vertical Brackets ...					
Horizontal Stiffeners {	Scantlings .....				
	Number .....				

Remarks:—



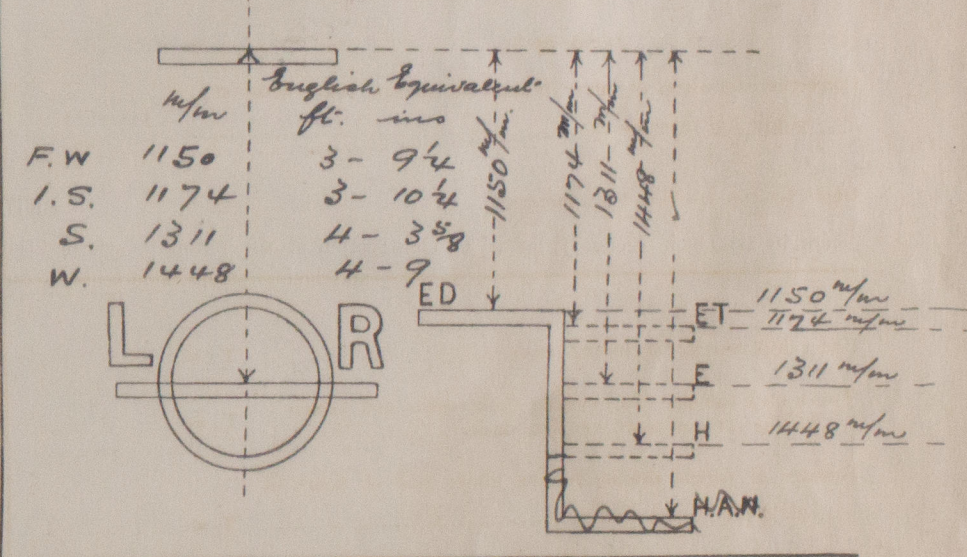
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# CALCULATION OF FREEBOARD.

PARTICULARS NECESSARY FOR USE WITH THE TABLES.	CORRECTIONS TO THE TABULAR FREEBOARD.		SUMMARY OF THE CALCULATION.
Moulded depth .....	(a) CORRECTION FOR LENGTH. (Art. 19.)	(e) CORRECTION FOR ROUND OF BEAM. (Art. 29.)	Winter Freeboard by the Tables <b>2115</b>
Correction for iron uncovered deck if required .....	Length of Ship on Loadline $L =$	Round of Beam $B =$	Correction for length $a =$ <b>19</b>
" " rise of floor if required .....	Length in Table $L_1 =$	Normal round... $B_1 =$ Breadth at gunwale amidships $= 48 =$	" " sheer $b =$ <b>114</b>
Moulded depth to be used with Tables $c =$	Difference $L - L_1 =$	Difference $B - B_1 = d =$	" " deck erections $c =$ <b>483</b>
	Correction for 1 metre... $e =$	Percentage $p$ (deck erections) $=$	" " iron uncovered deck $d =$ <b>89</b>
	Total Correction $a = (L - L_1) e =$	Correction $e = \frac{d}{2} \times \frac{100 - p}{100} =$	" " round of beam $e =$
	For Steamers having $\frac{1}{10}$ this length or more covered by deck erections $\times .5$	(f) CORRECTION FOR HEIGHT OF 'TWEEN DECK. (Art. 30.)	" " height of 'tween decks $f =$
	Net Correction $a =$ <b>+ 19</b>	Height of 'tween decks $h =$	" " deficiency of freeing port area $g =$
		Rule (Ship $B + C =$ L $\times B \times C =$	" " non-fitting of gangway for crew $h =$
Breadth extreme to outside of planking or plating $B =$	(b) CORRECTION FOR SHEER. (Art. 20.)	Numbers (With 'tween deck 2m.13 $B + C =$ L $\times B \times C =$	" " scantlings $i =$
Thickness of planking $=$	(For vessels other than Spar and Awning deck.)	Correction $f =$	" " class $j =$
Depth of framing $=$	Mean	(g) CORRECTION FOR AREA OF FREEING PORTS. (Art. 31.)	Other corrections, if any $=$
Thickness of ceiling or sparring $=$	Vessels without superstructures or with bridge closed both ends.	(For Well deck steamers and steamers of less than 4m.50 moulded depth having Poop, Bridge, and Forecastle.)	Total $= +$ <b>19 - 686</b>
Total $=$	Gradual shear. $t_m = \frac{t_1 + t_2}{2} =$ <b>2 =</b>	Total area on each side $=$	Net correction $= -$ <b>667</b>
Difference $d =$ <b>2 d =</b>	Not gradual. $t_m = \frac{t_2 + t_3}{2} =$ <b>1.1 =</b>	Area per rule $=$	
Breadth for the co-efficient of tonnage $(B - 2 d) =$	Sheer of Vessel.	Correction $g =$ % moulded depth $=$	
	Vessels having fore-castle only.	(h) CORRECTION FOR NON-FITTING OF GANGWAY FOR CREW. (Art. 32.)	Winter Freeboard measured from the upper surface of the <i>shel</i> deck (wood or iron) $=$ <b>1448</b>
	Gradual shear. $t_m = \frac{t_2 + t_3}{2} =$ <b>2 =</b>	(In Well deck steamers and steamers less than 4m.50 moulded depth having Poop, Bridge, and Forecastle.)	Correction for Summer Freeboard $k =$ <b>137</b>
	Not gradual. $t_m = \frac{t_2 + t_3}{2} + 1.1 =$ <b>2 + 1.1 =</b>	Correction $h =$ % moulded depth $=$	Summer Freeboard (centre of disc) $=$ <b>1311</b>
	Vessels having Poop and fore-castle with or without open bridge.	(i) CORRECTION FOR SCANTLINGS. (Art. 33.)	Correction for Summer Freeboard in Tropical Seas $l = 2k =$ <b>274</b>
	Standard mean shear $t =$ $\begin{cases} 8.3 L + 255 = 8.3 \times + 255 = \\ 5.81 L + 175 = 5.81 \times + 175 = \\ 4.98 L + 150 = 4.98 \times + 150 = \end{cases}$	Freeboard. Table A corrected $A =$	Summer Freeboard Tropical Seas $=$ <b>1174</b>
	Difference $t_m - t =$	" " " B " $B =$	Correction for Winter North Atlantic Freeboard $m =$
	Correction $b = \frac{t_m - t}{4} =$ <b>4 =</b>	Spar Deck Steamers. $K =$ $B - A =$	Winter North Atlantic Freeboard $=$ <b>✓</b>
	If limited, $" = \frac{t}{2 \times 4} = 2 \times 4 =$	Correction $i = K (B - A) =$	Correction for Summer Freeboard in Fresh Water $n =$ <b>161</b>
	Fall in shear $= \times .5 =$	Freeboard. Table C corrected $C =$	Summer Freeboard in Fresh Water $=$ <b>1150</b>
	Correction $b =$ <b>- 114</b>	" " " B " $B =$	
		Awning Deck Steamers. $K =$ $h + C - B =$	Limitation of the Freeboard on account of openings in the vessel's sides. (Art. 36.)
	(c) CORRECTION FOR DECK ERECTIONS. (Arts. 21 to 27.)	Correction $i = K (h + C - B) =$	
	Allowed length of Fore-castle (Appendix A.) $=$	(j) CORRECTION FOR CLASS. (Art. 34.)	
	" " " Bridge $=$	Class of the vessel $=$	
	" " " Poop $=$	Correction $j =$	
	" " " Raised Quarter Deck $=$	(k) CORRECTION FOR SUMMER FREEBOARD. (Art. 35.)	
	Total allowed length of deck erections $=$	Steamers without deck erections, Spar and Awning deck $k =$	
	$p =$ Total allowed length of deck erections $=$	Correction given in Table A $a =$ <b>102</b>	
	Length of vessel on loadline $=$	Steamers having deck erections. $c =$ <b>148</b>	
	Freeboard Table $A$ $C$ $D$	Percentage $p$ (deck erections) $=$ <b>77.2</b>	
	Correction for length if required $=$	$k = a + p (c - a) =$ <b>102 + 35 =</b> <b>- 137</b>	
	" " shear $=$	(l) CORRECTION FOR SUMMER FREEBOARD IN TROPICAL SEAS. (Art. 36.)	
	Corrected Freeboard $A =$ $C =$ $D =$	$l = 2k =$	
	Percentage according to type of deck erections (Table 1) $=$	(m) CORRECTION FOR WINTER NORTH ATLANTIC FREEBOARD. (Art. 35.)	
	Correction { Steamers $c = (A - C) P =$ $=$	Steamers less, or equal to, 100m.50 in length $m =$ <b>.050</b>	
	{ Sailing $c = D \times P =$ $=$	All sailing vessels $m =$ <b>.075</b>	
	If Engine and Boiler openings not covered by Poop or Raised Quarter deck or strong iron or steel deckhouse (Arts. 24 & 25) $\times .6$	Well deck steamers, percentage $p$ (deck erections) $=$	
	Correction $c =$	$m$ (Table No. 7) $=$	
	Correction for Raised Quarter deck if Engine and Boiler openings not covered by Bridge (Art. 26) $=$	(n) CORRECTION FOR FRESH WATER. (Art. 35.)	
	Correction $c =$	Moulded depth $c =$ <b>8637</b>	
	Correction for scantlings of deck erections if necessary $=$	Freeboard $f =$ <b>1311</b>	
	Correction $c =$ <b>- 483</b>	$c - f =$ <b>7326</b>	
	(d) CORRECTION FOR IRON UNCOVERED DECK. (Art. 28.)	Correction $n = .022 (c - f) =$ <b>161</b>	
	$p =$ Allowed length of deck erections $=$		
	Length on loadline $=$		
	Rule thickness of wood deck $T =$		
	" " " stringer plate $t =$		
	Correction $d =$ $\begin{cases} T - t = \\ (4 p - 1.80) (T - t) = \\ p (T - t) = \end{cases}$		
	Freeboard in the Table $=$		
	$K =$ <b>78</b>		



(This space for use in London Office only.)

It is submitted the above Freeboards merit approval.

28.9.17

See later form

28.9.17

at London on the 30 April 1918

attestation signed 7 May 1918

S. O. Kendall

2020

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 .....					
Height and Thickness of Coaming...					
Shifting { Number and Material..					
Beams { Scantlings .....					
Fore and { Number and Material..					
Afters* { Scantlings .....					
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 ?
- 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 ?
- 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
- What is the height of the exposed Casings ?
- 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
- State if any cargo ports or scuppers through sides of vessel below Upper deck
- State any special features in the construction of the Vessel

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.



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