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No: 17641

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.

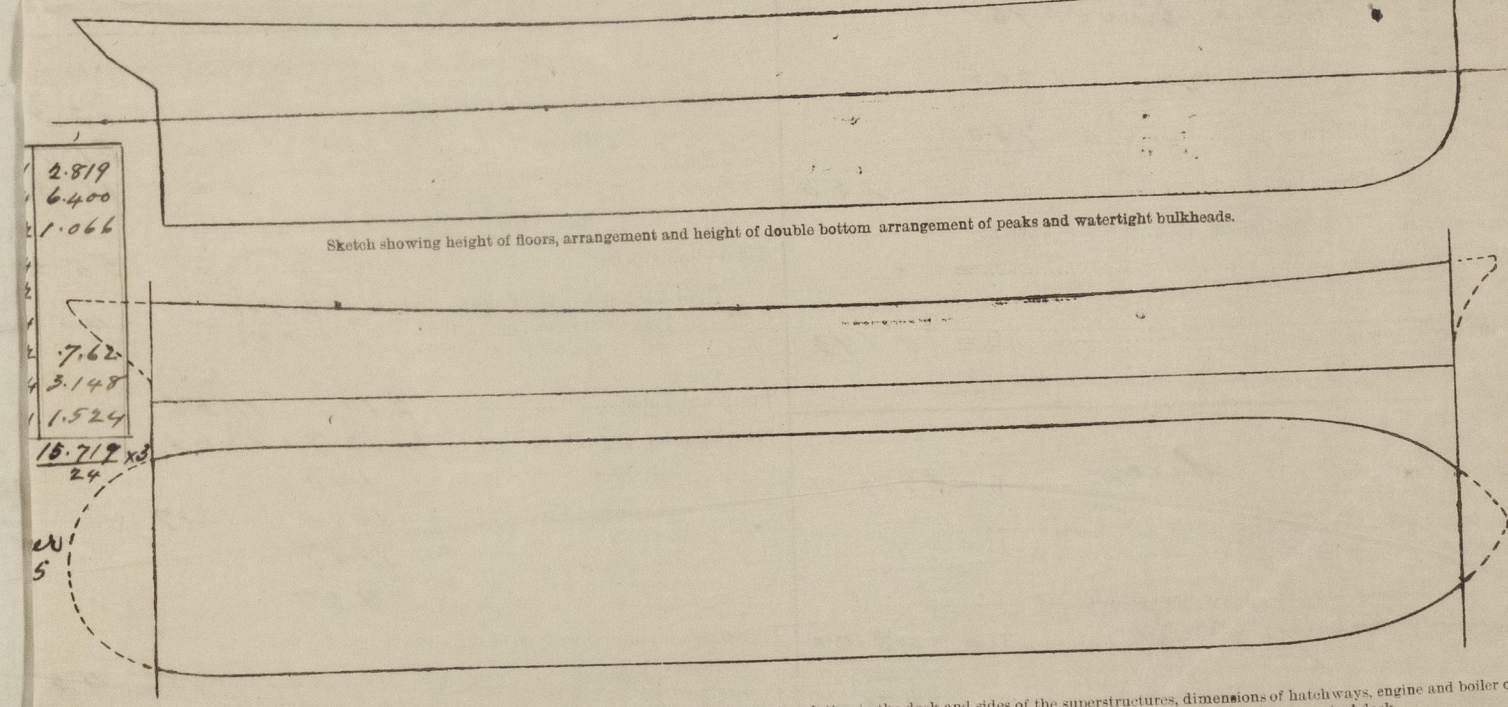
Officially "Bol" No 399 (All measurements to be given in the Metric system.)

Ship's Name. "Mont Agel"	Port of Registry. Marseille	Date of Build. 1920	Particulars of Classification. 100 A. 1	Port of Survey Greenock
in Register Book		Where Built. Greenock	Contemplated	Date of Survey While building
				Name of Surveyor J. S. Mards

Owners Societe Generale de Transports Maritimes à Vapeur	Type of vessel
request for assignment	Number of freeboard certificate

on of time assigned to the freeboard. (In the case of unclassified vessels.)	Under Deck Tonnage, including Peaks Suez 3974.01
Stowage taken from Ship's Register. 114.908 377.0	Tonnage of 'tween decks if tonnage measured below second deck. 15.910 52.2 7.940 26.05

PARTICULARS TAKEN ON BOARD.			
Length of Ship on Loadline 375.6	Breadth 114.482	Depth 7.940	Under Deck Tonnage, including Peaks Suez 3974.01
Plating 114.908	Plating 15.910	Plating 7.940	Tonnage of 'tween decks if tonnage measured below second deck. 15.910
Depth to Upper deck 28.50	Depth to Upper deck 8.687	Depth to Upper deck 8.687	Depth to Upper deck 8.687
Main (Spar and Awning deck vessels) ✓	Main (Spar and Awning deck vessels) ✓	Main (Spar and Awning deck vessels) ✓	Main (Spar and Awning deck vessels) ✓
Floor (Iron or Steel sailing ships only) ✓	Floor (Iron or Steel sailing ships only) ✓	Floor (Iron or Steel sailing ships only) ✓	Floor (Iron or Steel sailing ships only) ✓
Inner bottom at margin below level line at centre (if any) ✓	Inner bottom at margin below level line at centre (if any) ✓	Inner bottom at margin below level line at centre (if any) ✓	Inner bottom at margin below level line at centre (if any) ✓
" " " above " " " 4" 101	" " " above " " " 4" 101	" " " above " " " 4" 101	" " " above " " " 4" 101
of ceiling fitted on inner bottom throughout holds	of ceiling fitted on inner bottom throughout holds	of ceiling fitted on inner bottom throughout holds	of ceiling fitted on inner bottom throughout holds
of 'Tween decks in Spar and Awning deck vessels ✓	of 'Tween decks in Spar and Awning deck vessels ✓	of 'Tween decks in Spar and Awning deck vessels ✓	of 'Tween decks in Spar and Awning deck vessels ✓
measured from top of beam to top of beam at side 10" 254	measured from top of beam to top of beam at side 10" 254	measured from top of beam to top of beam at side 10" 254	measured from top of beam to top of beam at side 10" 254
of Frame before 3569" 229	of Frame before 3569" 229	of Frame before 3569" 229	of Frame before 3569" 229



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.	Forecastle Length = 12.526 41.1 Height = 2.286	Bridge " = 105 32.00 4(31.087 closed) " = 2.286	Poop " = 11.201 86.75 " = 2.286	Raised Quarter Deck " = ✓ " = ✓	Partial Awning Deck " = ✓ " = ✓
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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.....	Coaming..... Other Plates.....	Coaming..... Other Plates.....	Coaming..... Other Plates.....	Coaming..... Other Plates.....
Vertical Stiffeners	Scantlings..... Spacing.....	Scantlings..... Spacing.....	Scantlings..... Spacing.....	Scantlings..... Spacing.....	Scantlings..... Spacing.....
acing of Vertical Brackets	Scantlings..... Number.....	Scantlings..... Number.....	Scantlings..... Number.....	Scantlings..... Number.....	Scantlings..... Number.....

Remarks:—

CALCULATION OF

FREEBOARD.

PARTICULARS NECESSARY FOR USE WITH THE TABLES.

Moulded depth *m* 8.687
 Correction for iron uncovered deck if required ✓
 " " rise of floor if required ✓
 Moulded depth to be used with Tables *c* = 8.687
addition for keel below base line 2 1/4"

Breadth extreme to outside of planking or plating *B* = 15.910

	In Ship.	Rule.
Thickness of planking <i>t</i>	0.017	0.017
Depth of framing <i>d</i>	0.254	0.152
Thickness of ceiling or sparring <i>s</i>	0.051	0.051
Total.....	0.322	0.220
		0.220
Difference..... <i>d</i>	0.102	2 <i>d</i> = 0.204

Breadth for the co-efficient of tonnage (*B* - 2 *d*) = 15.706

Depth of Hold (Registered) *c* = 7.940

For Steamers add thickness of ceiling if necessary *h* = ✓

Gradual mean shear at ends. $t_m = \frac{t_1 + t_2}{1.1} = \frac{0.017 + 0.017}{1.1} = 0.031$
Effective mean shear = 1.965

Standard mean shear. $t = 8.3 L + 255 = 8.3 \times 114.482 + 255 = 1.205$
 Difference..... $t_m - t = 0.760$

Divide by 3 $s = 0.253$

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

Depth for the co-efficient of tonnage *D* = 8.193

Under deck tonnage including peaks *T* = 3974.01

"Tween deck tonnage (for Awning deck vessels and vessels having three or more complete decks) *T*₀ =

Tonnage of partial double bottom above line of floors of rule depth *T*₁ = - 3.00

Tonnage for the co-efficient of tonnage (*T* + *T*₁) = 3971.01

Co-efficient of Tonnage

$$K = \frac{2.83 (T + T_1)}{L \times (B - 2d) \times D} = \frac{2.83 \times 3971.01}{114.482 \times 15.706 \times 8.193} = 0.76$$

Correction for continuous double bottom if required ✓

Tank rises 4" at margin
K = 0.76

Freeboard in the Table = 2107

CORRECTIONS TO THE

TABULAR FREEBOARD.

SUMMARY OF THE CALCULATION.

(a) CORRECTION FOR LENGTH. (Art. 19.)
 Length of Ship on Loadline *L* = 114.482
 Length in Table *L*₁ = 104.240
 Difference *L* - *L*₁ = 10.242
 Correction for 1 metre..... *c* = 1241
 Total Correction *a* = (*L* - *L*₁) *c* = 127
 For Steamers having 1/10ths length or more covered by deck erections $\times 0.5$
 Net Correction *a* = 127

(b) CORRECTION FOR SHEER. (Art. 20.)
 (For vessels other than Spar and Awning deck.)

	Gradual shear. $t_m = \frac{t_1 + t_2}{2}$	Not gradual. $t_m = \frac{t_2 + t_7}{1.1}$
Vessels without superstructures or with bridge closed both ends.	$t_m = \frac{0.017 + 0.017}{2} = 0.017$	$t_m = \frac{0.017 + 0.017}{1.1} = 0.031$
Mean		
Sheer of Vessel.	$t_m = \frac{t_2 + t_3}{2} = 0.017$	$t_m = \frac{t_2 + t_7}{2 + 1.1} = 0.031$
Standard mean shear $t = \frac{8.3 L + 255}{114.482} = 1.205$		
Difference..... $t_m - t = 0.760$		
Correction..... $b = \frac{t_m - t}{4} = 0.190$		
If limited, " $" = 2 \times 4 = 2 \times 4 = 8$		
Fall in shear = $\times 0.5$		
Correction..... $b = 0.190$		

(c) CORRECTION FOR DECK ERECTIONS. (Arts. 21 to 27.)
 Allowed length of Forecastle (Appendix A.) = 12.526
 " " Bridge = 31.774
 " " Poop = 11.201
 " " Raised Quarter Deck = 55.501
 Total allowed length of deck erections = 114.482
 Total allowed length of deck erections = 55.501
 Length of vessel on loadline = 114.482
 Difference..... = 4.85

	A	C	D
Freeboard Table.....	2107	1156	
Correction for length if required ... + 127		61	
" " shear " - 190			
Corrected Freeboard ... <i>A</i> = 2044 <i>C</i> = 1217 <i>D</i> =			
		827	

Percentage according to type of deck erections (Table 1) =
 Correction { Steamers ... $c = (A - C) P = 827 \times 30.95 = 256$
 Sailers ... $c = D \times P =$
 If Engine and Boiler openings not covered by Poop or Raised Quarter deck or strong iron or steel deckhouse (Arts. 24 & 25) $\times 0.6$

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 = 55.501
 Length on loadline = 114.482
 Rule thickness of wood deck..... *T* = 102
 " " " stringer plate... *t* = 11
 Difference..... $T - t = 91$
 Correction $d = \left\{ \begin{array}{l} (4p - 1.80)(T - t) = \\ p(T - t) = 4.85 \times 91 = 44 \end{array} \right.$

(e) CORRECTION FOR ROUND OF BEAM. (Art. 29.)
 Round of Beam *B* = 15.849
 Normal round... *B*₁ = 48
 Difference *B* - *B*₁ = *d* = 15.849 - 48 = -32.151
 Percentage *p* (deck erections).....
 Correction $e = \frac{d}{2} \times \frac{100}{100} =$

(f) CORRECTION FOR HEIGHT OF "TWEEN DECK. (Art. 30.)
 (For Spar deck vessels.)
 Height of "Tween decks *h* =
 Rule { Ship $B + C = L \times B \times C =$
 Numbers { With "tween deck 2m.13 $B + C = L \times B \times C =$
 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 of 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* =
 Spar Deck " " B " *B* =
 Steamers. $K = B - A =$
 Correction..... $i = K(B - A) =$
 Freeboard. Table C corrected *C* =
 " " B " *B* =
 Height of "Tween decks *h* =
 Steamers. $K = h + C - B =$
 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* =
 Steamers having deck erections. { Correction given in Table A..... *a* = 101
 " " " C..... *c* = 152
 Percentage *p* (deck erections) $c - a = 51$
 $k = a + p(c - a) = 101 + 4.85 \times 51 = 126$

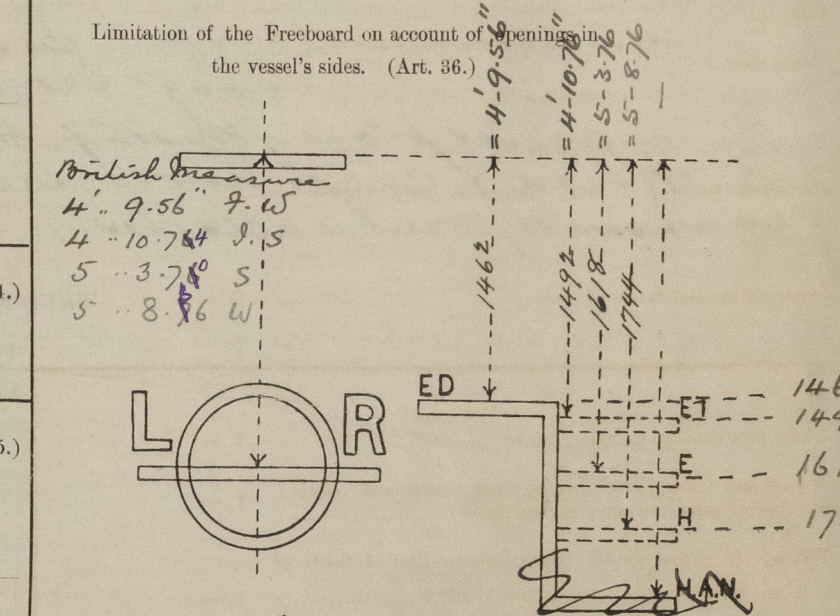
(l) CORRECTION FOR SUMMER FREEBOARD IN TROPICAL SEAS. (Art. 36.)
 $l = 2k = 252$

(m) CORRECTION FOR WINTER NORTH ATLANTIC FREEBOARD. (Art. 35.)
 Steamers less, or equal to, 100m.50 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* = 8.687
 Freeboard *f* = 1.618
 Correction $c - f = 7.069$
 Correction $n = 0.22(c - f) = 0.22 \times 7.069 = 1.56$

Winter Freeboard by the Tables 2107
 Millimetres.
 Correction for length *a* = 127
 " " shear *b* = 190
 " " deck erections *c* = 256
 " " iron uncovered deck *d* = 44
 " " 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 =
 Total..... = + 127 - 490
 Net correction..... = 363

Winter Freeboard measured from the upper surface of the upper deck (wood or iron) = 1744
 Correction for Summer Freeboard *k* = 126
 Summer Freeboard (centre of disc)..... = 1618
 Correction for Summer Freeboard in Tropical Seas $l = 2k = 252$
 Summer Freeboard Tropical Seas = 1492
 Correction for Winter North Atlantic Freeboard *m* =
 Winter North Atlantic Freeboard..... =
 Correction for Summer Freeboard in Fresh Water *n* = 156
 Summer Freeboard in Fresh Water = 1462



(This space for use in London Office only.)
 It is submitted the above Freeboards merit approval.

Date of Committee's Minute 11.5.20
 The Freeboard marks have been placed on the vessel's sides at Greenock on the 24th May 1920
 See verification of marking form.

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. For ^o	No. 2. For ^o	No. 3. For ^o	No. 4. For ^o	No. 5. For ^o
Length and Breadth		30' 0" x 18' 0"	33' 0" x 18' 0"	12' 0" x 18' 0"	33' 0" x 18' 0"	30' 0" x 18' 0"
Height and Thickness of Coaming...		36" x .44	36" x .44			
Shifting { Number and Material..		6 [17x5 1/2 x 5 1/2	6 [17x5 1/2 x 5 1/2	2 [17x5 1/2 x 5 1/2	6 same as	6 same as
Beams { Scantlings		Steel [.625 web .6875 fl	Steel [.66 web .6875 fl	Steel [.625 web .6875 fl	No 2	No 1
Fore and { Number and Material..						
Afters* { Scantlings		None	None	None	None	None
Thickness of Hatches		3"	3"	3"	3"	3"
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? *yes* Raised Quarter Deck? *✓* Bridge House? *yes* Forecastle? *yes*
To what height do the Reverse Frames extend? *Bulkhead framing, rec frames on reinforced frames to top*
Has the Poop ~~or Raised Quarter Deck~~ an efficient Iron Bulkhead at the fore end? *yes*
Give particulars of the means for closing the openings in Bulkhead *Hinged Steel Doors*
Is the Poop ~~or Raised Quarter Deck~~ connected with the Bridge House? *No* Has the Bridge House an efficient Bulkhead at the fore end? *yes*
Give particulars of the means for closing the openings in Bulkhead *No openings*
Are bracket plates fitted at each end of the Stiffeners? *See plan* Are hor'l. brackets fitted connecting Bridge Bulk'h'd. with Bulwarks? *yes*
Has the Bridge House an efficient Iron Bulkhead at the after end? *yes*
How are the openings closed? *Sliding boards full height in riveted channels*
Is the Forecastle at least as high as the main or top-bulwark rail? *yes* Has the Forecastle an efficient Iron ~~or Wood~~ Bulk'h'd. at after end? *yes*
Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck, or enclosed by a Strong Iron or Steel Deckhouse? *Covered by Bridge*
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 *yes see approved plan*
State any special features in the construction of the Vessel *Long framing in STB & at STCs.*
The approved plans of the ship Section, Profile & DH plans. Bridge, Bulkhead & Cargo doors are forwarded for reference.
A request form is attached.
P.M.

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 hatchway and boiler casings, side scuttles, cargo ports, freeing ports, scuppers, &c.