

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
 having *Poop, Bridge, & Forecastle*.
Port of Survey **NANTES**

(Type of Superstructures.)

Date of Survey *12<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup> March 1934*
 Ship's Name **"CASSARD"** Nationality and Port of Registry *French Nantes* Official Number *-* Gross Tonnage *1599* Date of Build *1920-2*
Name of Surveyor *R. G. Easthope*
 Moulded Dimensions: Length *253.75'* Breadth *37.5'* Depth *20'-6"*  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *3565* tons  
 Coefficient of fineness for use with Tables *.753*
Particulars of Classification *+100.A.1.*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... <i>20'-6"</i>	(a) Where D is greater than Table depth (D-Table depth) R = $(20.54 - 16.91) 1.952$ = <i>+7.09"</i>		Moulded Breadth (B)	<i>37.5'</i>
Stringer plate	... <i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>✓</i>		Standard Round of Beam = $\frac{B \times 12}{50}$	= <i>9.0</i>
Sheathing on exposed deck	<i>none</i>			Ship's Round of Beam	= <i>9 1/2"</i>
$T \left( \frac{L-S}{L} \right) =$	<i>✓</i>			Difference	= <i>.50" ex. corr.</i>
Depth for Freeboard (D) =	<i>20.54</i>	If restricted by superstructures <i>✓</i>		Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right)$	= <i>.50"</i>

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>23.50</i>	<i>23.50</i>	<i>7'-0"</i>	<i>✓</i>	<i>23.50</i>
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed...	<i>63.50</i>	<i>63.50</i>	<i>7'-0"</i>	<i>✓</i>	<i>63.50</i>
„ overhang aft ...					
„ overhang forward					
„ Enclosed ...	<i>26.00</i>	<i>26.00</i>	<i>7'-0"</i>	<i>✓</i>	<i>26.00</i>
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total ...	<i>113.00</i>	<i>113.00</i>			<i>113.00</i>

 Standard Height of Superstructure *6.84*  
 „ „ R.Q.D. *✓*  
 Deduction for complete superstructure *31.375*  
 Percentage covered  $\frac{S}{L} = 44.54\%$   
 „ „  $\frac{S_1}{L} = 44.54\%$   
 „ „  $\frac{E}{L} = 44.54\%$   
 Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required))  
 Percentage from Table, Line B. *31.36%*  
 (corrected for absence of forecastle (if required))  
 Interpolation for bridge less than 2L (if required)  
 Deduction =  $31.375 \times .3136 = -9.84$ 

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	35.375	1	35.375	46.00	46.00	1	46.00
$\frac{1}{4}$ L from A.P. ...	15.74	4	62.96	18.17	18.17	4	72.68
$\frac{3}{4}$ L „ ...	3.89	2	7.78	4.54	4.54	2	9.08
Amidships ...	✓	4	✓	✓	✓	4	✓
$\frac{3}{4}$ L from F.P. ...	7.78	2	15.56	8.98	8.98	2	17.96
$\frac{1}{4}$ L „ ...	31.48	4	125.92	35.94	35.94	4	143.76
F.P. ...	70.76	1	70.75	82.50	82.50	1	82.50
Total ...			318.35				371.98

 Mean actual sheer aft = *Excess*  
 Mean standard sheer aft = *Excess*  
 Mean actual sheer forward = *Excess*  
 Mean standard sheer forward = *Excess*

 Length of enclosed superstructure forward of amidships = *>.16*  
 „ „ aft of „ = *>.16*

 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{33.63}{18} (.75 - .2227) = -1.57$ 
If limited on account of midship superstructure. *✓*If limited to maximum allowance of 1 1/2 ins. per 100 ft. *✓*

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

 Depth to Freeboard Deck = *20.54*  
 Summer freeboard = *2.54*  
 Moulded draught (d) = *18.00*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *4.50*

## Addition for Winter North Atlantic Freeboard (if required =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 

Tons per inch immersion at summer load water line

 $T =$ Deduction =  $\frac{\Delta}{40T}$  inchesF.W. =  $.022 (6248 - 775)$   
= *120*

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{.753 + .68}{1.36} = \frac{1.433}{1.36}$ 
 Depth Correction ... *7.09*  
 Deduction for superstructures ... *9.84*  
 Sheer correction ... *1.57*  
 Round of Beam correction ... *.09*  
 Correction for Thickness of Deck amidships ...  
 Other corrections, scantlings, etc. ...
*33.09**34.98*

+	-
<i>7.09</i>	<i>-</i>
<i>-</i>	<i>9.84</i>
<i>+</i>	<i>1.57</i>
<i>-</i>	<i>.09</i>
<i>-</i>	<i>-</i>
<i>-</i>	<i>-</i>
<i>7.09</i>	<i>11.48</i>
<i>- 4.39</i>	
Summer Freeboard = <i>30.59</i>	

## 20 MAR 1934 SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Existing freeboard as measured being more than the three computed under the Convention

 Tropical Fresh Water Line above Centre of Disc ... *197*  
 Fresh Water Line „ „ ... *120*  
 Tropical Line „ „ ... *77*  
 Winter Line below „ „ ... *76*  
 Winter North Atlantic Line „ „ ... *127*

 Tropical Fresh Water Freeboard ... *578*  
 Fresh Water „ „ ... *655*  
 Tropical „ „ ... *698*  
 Winter „ „ ... *851*  
 Winter North Atlantic „ „ ... *902*



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	No 1	No 2	No 3	Hatchways	Bridge Space	Poop Deck			
Dimensions of Hatchway	5'0" x 2'0" - 18"	2'7" x 2'0" - 20"	2'7" x 2'0" - 20"	5'8" x 2'10"	5'6" x 2'6" (port & starboard)	2'6" x 2'0"			
COAMINGS	Height above Deck	4'8"		2'6"	1'0"	8' above wood deck			
	Thickness Sides	5'0"		4'4"	4'0"	4'4"			
	Stiffeners	4'4"		4'4"	4'0"	4'4"			
	Brackets, Stays	3 days above, sides ends				none			
HATCH BEAMS	Number	9	4	4					
	Spacing	5'0"	5'6"	5'6"					
	Scantling and Sketch	18" x 12" x 3/8"	18" x 12" x 3/8"	18" x 12" x 3/8"					
	Bearing Surface	3"							
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
HATCH COVERS	Material	wood							
	Thickness	2 3/4"			2 1/4"	2 1/4"			
	How fitted	fore & aft			athwartships				
	Bearing Surface	2 1/2"			2 1/4"	2"			
Spacing of Cleats		24"			Sides 27" ends 16"	12"			
Number of Tarpaulins		2			1	2			

\*Are wood fore and afters steel shod at all bearing surfaces? —  
 Are battens and wedges efficient and in good condition? *yes.*  
 Are tarpaulins in good condition and in accordance with rule requirements? *yes.*  
 Are lashings provided in accordance with rule requirements? *yes.*

Particulars of fiddle, funnel and ventilator coamings: *2 hinged steel covers strongly constructed fitted on fiddle top & boiler casing. 2 ventilators on engine room casing (p. 95) 12" dia 7/8" thick, coaming 3'11" high. Funnel coaming above casing at the lower edge from casing to coaming top 2'8".*

*The fiddle & casings strongly constructed. 2 steel hinged doors fitted to the fiddle entrance on the port & starboard sides.*

Particulars of Flush Bunker Scuttles: —

*none.*

Particulars of Companionways: —

*1 on poop, steel of substantial construction wood door strongly constructed - height of sill from deck 16".*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: —

*On fore-castle deck (port) for forward hold 1 off 14" dia. 40" thick height of coaming 29". On fore deck starboard aft 1 off 14" dia. 40" thick height of coaming 8'-0". This ventilator is supported by the winch platform. On bridge deck 2 ventilators 9" dia. 40" thick coaming 19" high. On winch deck (starboard) 1 ventilator 14" dia. 40" thick coaming 3'-0" high. This coaming is supported by the winch platform. Port aft 1 off 14" dia. coaming 34" high. 40" thick. Poop deck 1 off 9" dia. coaming 24" high, 40" thick strong wood plugs & canvas covers for closing.*

Particulars of Air Pipes in exposed positions on freeboard, ~~main~~ superstructure decks: —

*Fore deck, 2 off (p. 95) 37" high above deck. After deck, forward end 2 off (p. 95) 37" high wood plugs aboard for closing in case of necessity.*

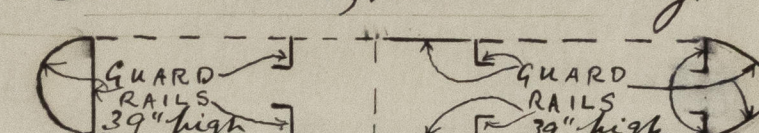
Particulars of Gangway Cargo and Coaling Ports: —

*none.*

*Cassard. 2 galvanized iron scupper pipes (p. 95) from the bridge deck, passing through the bridge space & discharging through the shell plating above the freeboard deck. 2 galvanized iron sanitary discharge pipes (starboard side) fitted, passing through the shell plating above the freeboard deck. These pipes & valves are strongly cased in, the valves being of the storm valve type.*

Particulars of Side Scuttles: *Strong side scuttles fitted with properly constructed deadlights in the poop & fore-castle, no scuttles fitted in the bridge space, or below the freeboard deck.*

Particulars of Guard Rails: *Strong guard rails fitted on the poop, bridge, & fore-castle decks, securely riveted to the deck.*



Particulars of Gangways, Lifelines, etc.: *To enable the crew to pass from the bridge deck to the poop, strong boards 24" wide are permanently fitted between nos 2 & 3 latches, between no 3 hatch & the poop ladder & between no 2 hatch & the after bridge ladder.*

*Suitable provision made for rigging lifelines in any part of the ship which might be used by the crew in the regular working thereof.*

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	70.00	4'-0"	3'-0" x 1'-6"			
Forward Well	71.00					

State position of each freeing port ... After Well: —  
 (F. and A. position and height above deck edge) Forward Well: —  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: —  
 Additional area where sheer is less than standard.

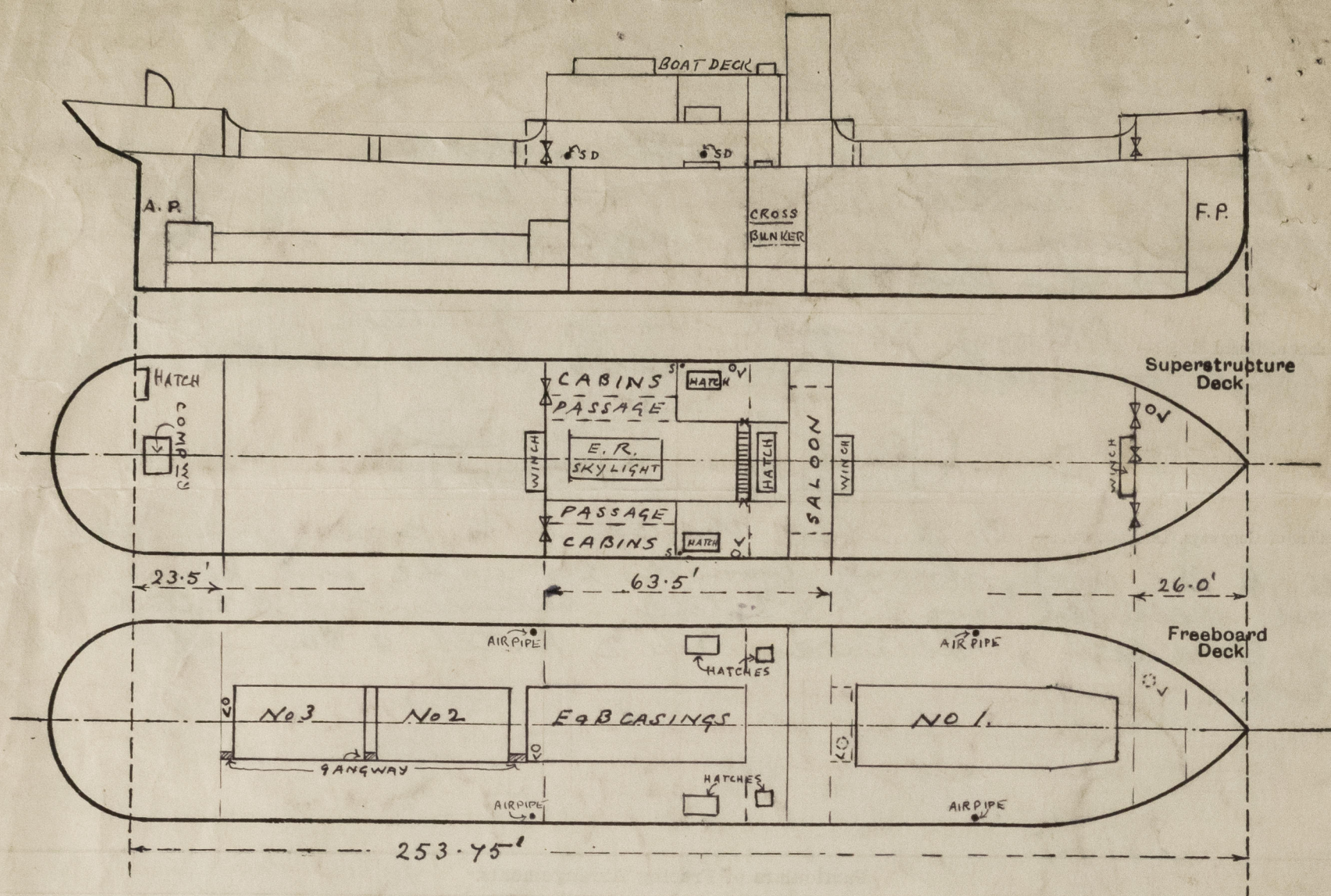
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead						none		
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead						2-4'-0" x 3'-0"	18"	
Bridge, Forward Bulkhead						none		
Fore-castle Bulkhead						2-4'-6" x 2'-0"	19"	
Trunk, Aft						1-4'-6" x 2'-8"		
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Deck				none				
Exposed Machinery Casings on Superstructure Decks						2-4'-8" x 2'-1"	18"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances						none		
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides). <i>Yes.</i>	
Poop Bulkhead	<i>no openings</i>
Raised Quarter Deck Bulkhead	
ge, After Bulkhead	<i>2 openings (p. 95) with riveted channels &amp; shifting boards, full height</i>
ge, Forward Bulkhead	<i>no openings</i>
castle Bulkhead	<i>3 strong steel hinged doors, fastened with locks &amp; handles</i>
eed Machinery Casings on Freeboard or Raised Quarter Deck	<i>none</i>
eed Machinery Casings on Superstructure Decks	<i>2 strong steel hinged doors, fastened with locks &amp; handles</i>
achinery Casings within Superstructures not fitted with Class I Closing Appliances	<i>no openings</i>
houses on Flush Deck Ships	



*Cassard.*

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:—

*Note:— This vessel is being surveyed in accordance with the requirements given in the Society's Rules for Special Survey No 3.*

Builder's name and yard number ✓

Names of sister ships

*S/S "Brancas"*

Owners

*Soc. Anon. Chargeurs de L'Ouest.*

Fee *£ 520.*

Received by me



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