

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker.

Having Shelterdeck with tonnage opening Port of Survey Rotterdam

(Type of Superstructures.)

Ship's Name FARMSUM Nationality and Port of Official Number 5251 Date of Build 4-1929

Moulded Dimensions: Length 420'-0" Breadth 56'-0" Depth 29'-0"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 12320 M³ tons

Coefficient of fineness for use with Tables 751 12480 Ans.

Name of Surveyor J. H. H. H. H.

Particulars of Classification +100 A1

Shelterdeck with freeboard.

Depth for Freeboard (D)		Depth correction	Round of Beam correction
Moulded depth ...	29.0	(a) Where D is greater than Table depth D - Table depth) R = (29.04 - 28.00) / 3 = 3.12	Moulded Breadth (B) <u>56'-0"</u>
Stringer plate04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.44$
Sheathing on exposed deck T $\left(\frac{L-S}{L} \right) =$		If restricted by superstructures	Ship's Round of Beam = <u>13.2</u>
Depth for Freeboard (D) =	29.04		Difference = <u>0.6</u>
			Restricted to
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{0.6}{4} \times .01 = \text{nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	25.0	25.00	8'-0"		25.00	Standard Height of Superstructure <u>7.5</u>
" overhang ...	2.2				1.10	" " R.Q.D.
R.Q.D. enclosed ...	2.2					Deduction for complete superstructure <u>42.0</u>
" overhang ...	383.96					Percentage covered $\frac{S}{L} = 100$
Bridge enclosed ...	383.96	383.96	8'-0"		383.96	" " $\frac{S_1}{L} = 99$
" overhang aft ...	2.2				1.66	" " $\frac{E}{L} = 99$
" overhang forward ...	2.2					Percentage from Table, Line A. <u>98.77</u>
F'cle enclosed ...						(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...	6.62	4.14	8'-0"		4.14	Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	6.72					Deduction = <u>42 x 98.77 = 41.49</u>
" forward ...						
Total ...	420.0	415.86			415.86	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	52.00	1		52.00	55.46	61.00	1		61.50	Mean actual sheer aft =
1/4 L from A.P. ...	23.14	4		92.56	22.56	27.14	4		108.56	Mean standard sheer aft =
1/2 L " ...	5.72	2		11.44	5.71	6.71	2		13.42	Mean actual sheer forward =
Amidships ...		4					4			Mean standard sheer forward =
3/4 L from F.P. ...	11.44	2		22.88	12.28	13.92	2		27.84	Length of enclosed superstructure forward of amidships =
1/4 L " ...	46.28	4		185.12	50.78	56.30	4		225.20	" " aft of " =
F.P. ...	104.00	1		104.00	120.5	126.50	1		126.50	
Total ...				468.00					562.52	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{94.52}{18} (.28) = -1.31$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <u>751+68</u> <u>136</u>
Depth to Freeboard Deck = <u>29.04</u>	$\Delta = 13/25$	Depth Correction ... <u>3.12</u>
Summer freeboard = <u>3.52</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>41.49</u>
Moulded draught (d) = <u>25.52</u>	T = <u>47.74</u>	Sheer correction ... <u>1.31</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.38</u> 16cm	Deduction = $\frac{\Delta}{40 T}$ inches = <u>6.87</u> 17cm	Round of Beam correction ...
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>42.18</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel, Deck:— 42.18 = 107cm

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Tropical Fresh Water Line above Centre of Disc ...	33..
Fresh Water Line " " ...	17..
Tropical Line " " ...	16..
Winter Line below " " ...	16..

Tropical Fresh Water Freeboard ...	74
Fresh Water " " ...	90
Tropical " " ...	90
Winter " " ...	123

MARKING FORM
RECEIVED 13 MAY 1937

MARKING FORM
RECEIVED 20 JUL 1932

W396-0168 1/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N.1	N.2	N.3	N.4	N.5	N.1	N.2	N.3	N.4	N.5
Dimensions of Hatchway	35'4" x 24'0"	all hatchways				35'4" x 24'0"	all hatchways			
COAMINGS	Height above Deck 36"	for all hatchways				36"	for all hatchways			
Thickness	44"					44"				
Sides	2					2				
Stiffeners	7' x 3' x 40'	for all hatchways				7' x 3' x 40'	for all hatchways			
Brackets, Stays	3					3				
HATCH BEAMS	Number 7					7				
Spacing	7'5"					7'5"				
Scantling and Sketch	18' x 34'					18' x 34'				
Bearing Surface	1 1/2"	for all hatchways				1 1/2"	for all hatchways			
FORE AND AFTERS	Number 7					7				
Spacing	7'5"					7'5"				
Unsupported Lengths	130' x 90' x 11'	for all hatchways				130' x 90' x 11'	for all hatchways			
Scantling and Sketch	1 1/2"	for all hatchways				1 1/2"	for all hatchways			
Bearing Surface	1 1/2"	for all hatchways				1 1/2"	for all hatchways			
HATCH COVERS	Material 2"	all hatchways				2"	all hatchways			
Thickness	2"					2"				
How fitted	3' x 5'					3' x 5'				
Bearing Surface	24"					24"				
Spacing of Cleats	24"					24"				
Number of Tarpaulins	2	for all hatchways				2	for all hatchways			

Particulars of fiddle, funnel and ventilator coamings:—
 Fiddle funnel ventilators in efficient condition.
 Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:— none fitted.

Particulars of Companionways:—
 Companion way in poop (deckhouse) entrance to crew space side 16" strong wood door 1 1/2" thick on hinges.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
 2 ventilators 18" 3'0" x .44
 4 " " 18" 10'0" x .50
 2 " " 18" 35'0" x .50
 all closed by wood plugs and canvas covers pitched riveting L 4 d.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
 17 grommets on shelterdeck along bulwark all in for length and center 36" to 28" height.
 all closed by wood plugs and canvas covers.

Particulars of Gangway Cargo and Couling Ports:— none fitted.

Particulars of Scuppers and Sanitary Discharge Pipes:— 4 scuppers on each side of metal with non return valves.
 3 sanitary discharge pipes with non return valves as per sketch.

Particulars of Side Scuttles:—
 On shelterdeck 8 scuppers on each side cut in string angle side scuttles in poop space (crew space) with strong deadlights on hinges.

Particulars of Guard Rails:—
 complete bulwark height 3'6"
 10 fixing posts 30" x 18" one row 7/8 on each side. 37.5 against 42

Particulars of Gangways, Lifelines, etc.:— none fitted.

RETAIN

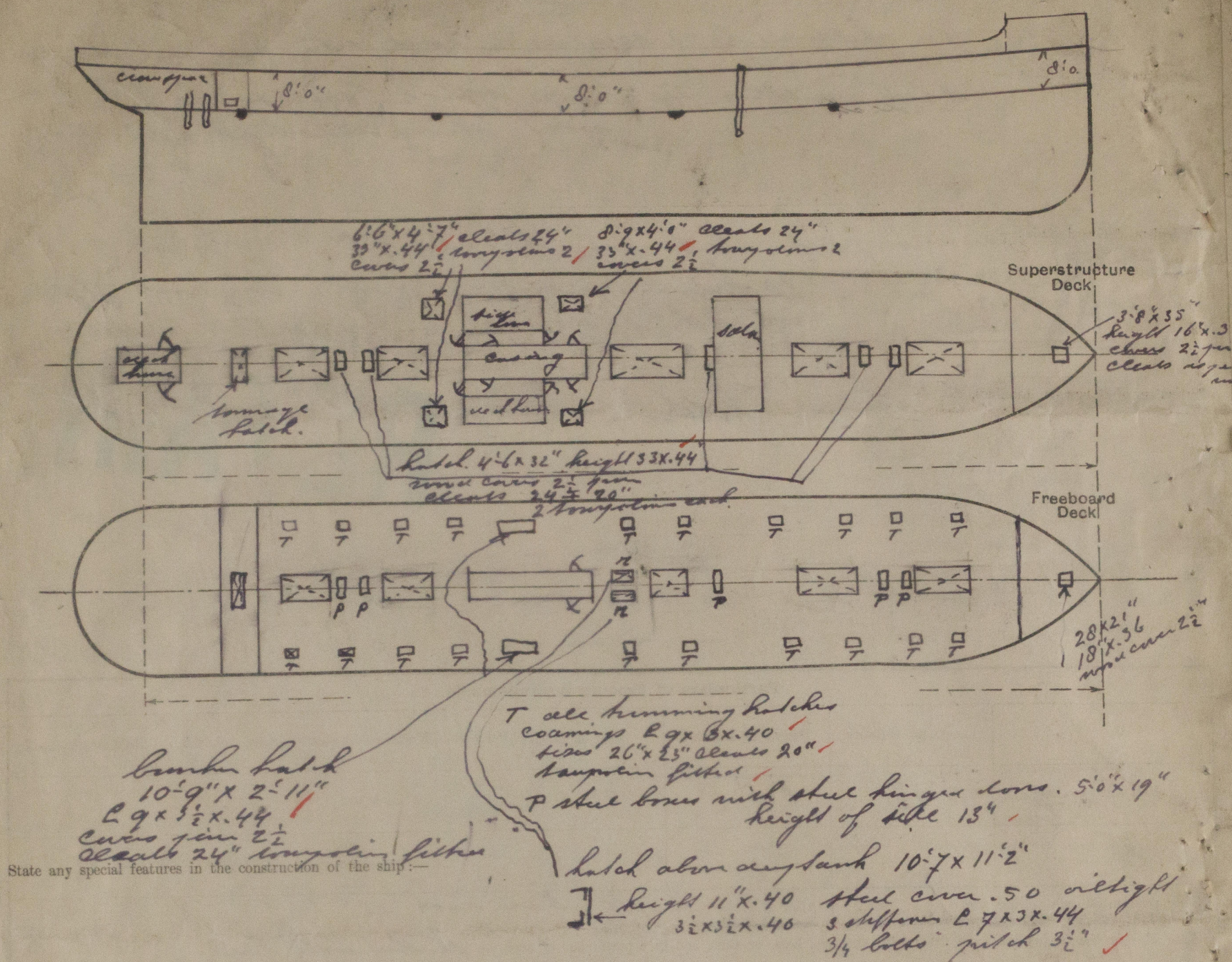
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	11'0 1/2"	8'0"	22" x 14"	one		
Forward Well						

State position of each freeing port (E. and A. position and height above deck edge) After Well:— height above deck 12"
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— shutter with bar.
 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	26	26	75 x 65 x 7 1/2	30"				8'0"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	26	26	75 x 65 x 7 1/2	30"		4'0" x 3'0"	18"	8'0"
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	.32	.25	75 x 65 x 7 1/2	30"	none	4'8" x 2'0"	13	8'0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	.32	.25	75 x 65 x 7 1/2	30"	"	4'8" x 2'0"	17	8'0"
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).									
Poop Bulkhead									
Raised Quarter Deck Bulkhead									
Bridge, After Bulkhead									
Bridge, Forward Bulkhead									
Forecastle Bulkhead									
Exposed Machinery Casings on Freeboard or Raised Quarter Decks									
Exposed Machinery Casings on Superstructure Decks									
Machinery Casings within Superstructures not fitted with Class I Closing Appliances									
Deckhouses on Flush Deck Ships									

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:—



The vessel has been examined afloat.

Displacement on present displacement scale on summer draught 12900 tons. in salt water.

Tons per inch in way of summer draught 47.60

The Owners shall be pleased to have the marking done before the vessel sails. Wednesday next.

Builder's name and yard number A. Nijh & Zoon Copelle & Zoon Jan N. 585

Names of sister ships Sister vessel Sulsum except hatchways

Owners Hoornaert Maatschappij Postree Amsterdam

Fee £ : : Received by me J. A. M. M. M. M.



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