

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

1874

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~

having POOP, BRIDGE AND FORECASTLE.

Port of Survey Nagasaki.

Date of Survey 26th Jany 1933 to 8th Februaty 1933.

(Type of Superstructures.)

Name of Surveyor H.D. Buchanan.

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>s.s. "THELMA"</u>	<u>Grimstad. Norwegian.</u>	<u>-</u>	<u>5578</u>	<u>1919-8mo</u>

Moulded Dimensions: Length 399.5 Breadth 52.0 Depth 31.0  
Moulded displacement at moulded draught = 85 per cent. of moulded depth \_\_\_\_\_ tons  
Coefficient of fineness for use with Tables \_\_\_\_\_

Particulars of Classification \*100AI

Carrying oil fuel in bulk F.P. above 150° F. S.S. 4th No 3-1-31.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ... ..	<u>31.</u>	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	<u>52.0</u>
Stringer plate ... ..	<u>.70</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>12.2</u>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	=
Depth for Freeboard (D) =				Difference	
				Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right)$	=

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<u>49.5</u>				
" overhang ... ..	<u>49.0'</u>		<u>7.25'</u>		
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed... ..	<u>121.0'</u>		<u>7.5'</u>		
" overhang aft ... ..					
" overhang forward	<u>38.66</u>				
File enclosed ... ..	<u>39.0'</u>		<u>6.5'</u>		
" overhang ... ..					
Trunk aft ... ..	<u>86.75'</u>		<u>7.5'</u>		
" forward ... ..	<u>103.75'</u>		<u>7.5'</u>		
Tonnage opening aft ... ..					
" forward					
Total ... ..	<u>399.5'</u>				

Standard Height of Superstructure \_\_\_\_\_  
" " R.Q.D. \_\_\_\_\_  
Deduction for complete superstructure \_\_\_\_\_  
Percentage covered  $\frac{S}{L} =$  \_\_\_\_\_  
" "  $\frac{S_1}{L} =$  \_\_\_\_\_  
" "  $\frac{E}{L} =$  \_\_\_\_\_  
Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B.  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than 2L (if required)  
Deduction = \_\_\_\_\_

### SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ... ..		1		<u>51.25"</u>		1	
$\frac{1}{8}L$ from A.P. ... ..		4		<u>9.375"</u>		4	
$\frac{3}{8}L$ " ... ..		2		<u>-875"</u>		2	
Amidships ... ..		4		<u>0</u>		4	
$\frac{3}{8}L$ from F.P. ... ..		2		<u>.5"</u>		2	
$\frac{1}{8}L$ " ... ..		4		<u>15"</u>		4	
F.P. ... ..		1		<u>88"</u>		1	
Total ... ..							

Mean actual sheer aft = \_\_\_\_\_  
Mean standard sheer aft = \_\_\_\_\_  
Mean actual sheer forward = \_\_\_\_\_  
Mean standard sheer forward = \_\_\_\_\_  
Length of enclosed superstructure forward of amidships = \_\_\_\_\_  
" " aft of " = \_\_\_\_\_

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

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = \_\_\_\_\_ Ft.  
Summer freeboard = \_\_\_\_\_  
Moulded draught (d) = \_\_\_\_\_

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = \_\_\_\_\_  
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 =  $\frac{\Delta}{40T}$  inches = \_\_\_\_\_

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... ..  
Deduction for superstructures ... ..  
Sheer correction ... ..  
Round of Beam correction ... ..  
Correction for Thickness of Deck amidships ... ..  
Other corrections, scantlings, etc. ... ..

	+	-
Depth Correction		
Deduction for superstructures		
Sheer correction		
Round of Beam correction		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		

Summer Freeboard = \_\_\_\_\_

### SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... ..	
Fresh Water Line " " ... ..	
Tropical Line " " ... ..	
Winter Line below " " ... ..	
Winter North Atlantic Line " " ... ..	

Tropical Fresh Water Freeboard ... ..	
Fresh Water " " ... ..	
Tropical " " ... ..	
Winter " " ... ..	
Winter North Atlantic " " ... ..	

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Lloyd's Register

Norwegian 1909 Rules

00972-009724-00891/2 Jobs. re-assigned.

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway	Forw'd Hold	After Hold	10 Cargo Oil Tks	Cross Tank	Coal Hatches on B.Dk. 4 off	Coal Hatches on B.Dk. 2 off	Coal Hatches on B.Dk. 1 off	Coal Hatch in Bridge	Escape to No. 1 Hold	Escape to No. 2 Hold	Poop Stores
Dimensions of Hatchway	23'10" x 18'0"	13'10" x 18'0"	4'10" x 3'10"	4'10" x 3'10"	8'10" x 4'10"	8'3" x 4'10"	8'10" x 4'10"	8'10" x 4'10"	8'10" x 4'10"	8'10" x 4'10"	10'36" x 4'2"
COAMINGS	Height above Deck 31"	31"	7x3 1/2 x 1/2	7x3 1/2 x 1/2	30"	30"	30"	9x3 1/2 x 7/16	18"	18"	18"
	Thickness .38	.38	Angle	Angle	.38	.38	.38	7x3 1/2 x 3/8 on Fore end only	.38	.38	.38
	Stiffeners 7x3x.38	7x3x.38									
	Brackets, Stays										
HATCH BEAMS	Number 4	2									
	Spacing										
	Scantling and Sketch	4x3x.40									
	Bearing Surface	3"	3"								
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling and Sketch	None	None	None	None	None	None	None	None	None	None
	Bearing Surface										
HATCH COVERS	Material Wood	Wood	Steel	Steel	Wood	Wood	Wood	Wood	Wood	Wood	Wood
	Thickness 2 1/2"	2 1/2"	.50"	.50"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2"	2"	2"
	How fitted Fore & Aft.		O.T.	O.T.	Athwartships	Athwartships	Fore & Aft.	Athwartships	Solid	Solid	Solid
	Bearing Surface 3 1/2"	3 1/2"	Efficient.	Efficient.	3"	3"	3"	3"	3"	3"	3"
Spacing of Cleats	20"	20"	Swivel Bolts	Swivel Bolts	20"	20"	20"	-	18"	18"	24"
Number of Tarpaulins	2	2	with wing nuts	with wing nuts	2	2	2	-	2	2	2

Particulars of fiddle, funnel and ventilator coamings:-

Stockhold gratings covered by strong steel hinged covers. Fidy and funnel ventilators in efficient condition. Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:-

None.

Particulars of Companionways:-

One on Forecastle deck steel, height 5'-9" breadth 4'-3" (opening in deck 50"x28 1/2"), thickness .38.  
One 1 1/2" thick wood door 50" x 24" sill 6" high x .38 thick, leading to Forecastle.  
One on Poop, height 6'-0" breadth 5'-5" (opening deck 61"x 64 1/2") thickness .38  
Two wood doors 1 1/2" thick 53"x 24" sill 6" high .38 thick, leading to Crews quarters.

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

Poop Deck:- 4 vents 12" dia to crew space and after hold coaming 33" high x 5/16 thick.  
3 " 9" " stores & tunnel coamings 33" high x 5/16 thick.  
4 mushroom vents 6" dia to crews toilet spaces.

Bridge Deck:- 1 vent 9" dia to bunker coaming 30" high x .30 thick.

Foc'le Deck:- 1 vent 12" dia to fore hold coaming 36" high x .30 thick, and 1 vent 9" dia to foc'le coaming 36" high x .30 thick.

All ventilators fitted with wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:-

- 1 @ 3 1/2" dia to F.P.tank 21" above Forecastle deck.
- 1 @ 2 1/2" dia to D.B.tank in No.1 hold 21" above Forecastle deck.
- 1 @ 4" dia to engine tank 12" above bridge deck.
- 3 @ 2 1/2" dia to engine & boiler tanks 21" above bridge deck.
- 1 @ 2 1/2" dia to D.B.tank in after hold 20" above poop deck
- 1 @ 3 1/2" dia to aft peak tank 20" above poop deck.

All air pipes fitted with wood plugs & canvas covers. Air pipes to cargo oil tanks 3" dia fitted with wire gauze at opening.

Particulars of Gangway Cargo and Coaling Ports:-

None fitted.

Particulars of Scuppers and Sanitary Discharge Pipes:-

2 pipes 4" dia from Crews toilet and 3 pipes 2 1/2" dia from crews wash places in Poop. above pipes pass through shell plating about 3'-0" below freeboard deck in after hold.  
3 pipes 2 1/2" dia from officers toilets and 3 pipes 2 1/2" dia from officers pantry & wash places fitted through bridge side plating above freeboard deck.  
All scupper pipes fitted with gunmetal storm valves on ship side & traps at toilets.

Particulars of Side Scuttles:-

No sidelights fitted below freeboard deck. Sidelights fitted in Poop & Forecastle spaces provided with hinged deadlights. All scuttles of substantial construction.

Particulars of Guard Rails:-

Guard rails on poop, bridge, trunk and harbour deck, 3'-3" high with 2 rails and stanchions spaced about 5'-0" apart.

Particulars of Gangways, Lifelines, etc.:-

Access to Poop and Forecastle from Bridge deck by means of trunk deck with Guard rails as above.

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			Open Rails fitted.			
Forward Well						

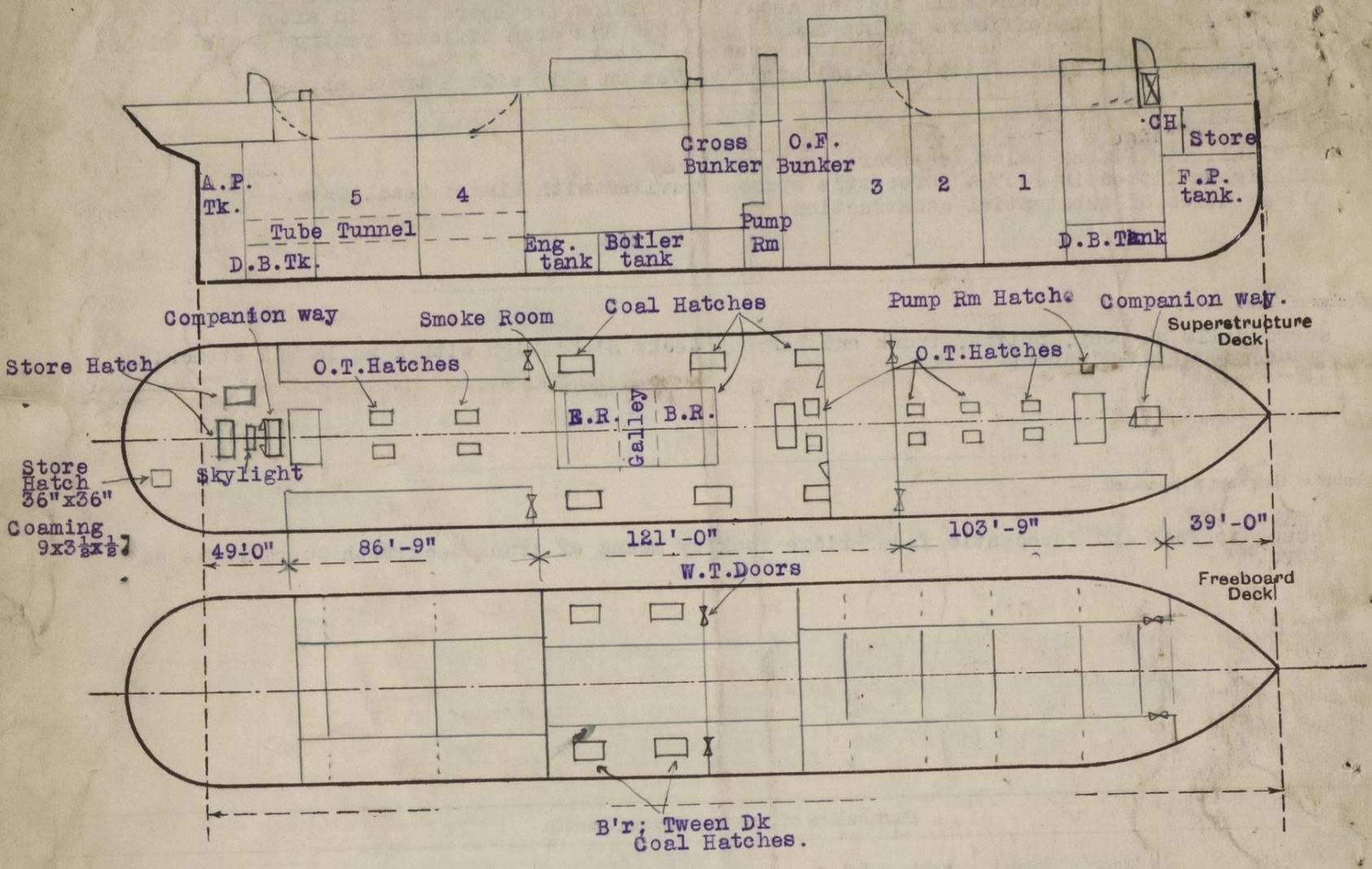
State position of each freeing port ... After Well:-  
(F. and A. position and height above deck edge) Forward Well:-  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:-  
Additional area where sheer is less than standard.

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	.40"	.30"	7x3 1/2 x 3/8" 4x4x3/8"	30" 72"	Bracketed	None fitted	-	7'-3"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	.40"	.30"	4 x 4 x 3/8"	44"	Bracketed	60" x 37"	18"	7'-6"
Bridge, Forward Bulkhead	.50"	.50"	8x3 1/2 x 7/16"	39"	"	60" x 39"	18"	7'-6"
Forecastle Bulkhead	.44"	.44"	3x3x38"	30"	Free	--	-	7'-3"
Trunk, Aft	5/8"	5/8"	9x3 1/2 x 7/16"	30"	Bracketed	--	-	7'-6"
Trunk, Forward	"	"	"	"	"	60" x 40"	18"	7'-6"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	.40"	.40"	3 1/2 x 3 1/2 x 3/8"	30"	Free	60" x 24"	18"	7'-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	.40"	.40"	7x3 1/2 x 7/16"	45"	Bracketed	None	-	7'-6"
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	No openings
Raised Quarter Deck Bulkhead	-
Bridge, After Bulkhead	Bolled steel plates W.T. Port & Starboard.
Bridge, Forward Bulkhead	" " " " " "
Forecastle Bulkhead	No openings
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	-
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors operated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	No openings
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:—



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

Tanker, One steel deck and web frames, Longitudinal framing.

Vessel surveyed in drydock, Bottom, rudder, stern frame & stem cleaned and examined. Decks, hatches, hatchways and supports, tarpaulins, ventilators, coamings and covers. Holds, Cargo oil & Bunker tanks, machinery space and equipment examined. Cables ranged and freeboard verified. For particulars of freeboard, see verification form herewith. All cargo oil and bunker tanks, and fresh water tank under boilers tested.

Builder's name and yard number Palmers Co. Ltd. Newcastle.

Names of sister ships /

Owners Tonnevolds Rederi A/S (Th.O. Tonnevold & Olaf Tonnevold, Mgrs).

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