

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD

now named "ATLEGLLEN" (18/12/36) now Melito (12/8/37)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having Raised Quarter Deck, Bridge and Forecastle.

Port of Survey Birkenhead

Date of Survey Oct 20<sup>th</sup> 1932 & Subsequently.

Name of Surveyor A.B. Murray

Particulars of Classification +100 A1.  
S.S. Bm No. 3-11.27

Ship's Name "MELITO" (Type of Superstructures.)

Nationality and Port of Registry BRITISH LIVERPOOL

Official Number 134457

Gross Tonnage 1070

Date of Build 1915-6

Moulded Dimensions: Length 212'0" Breadth 33'5" Depth 15'5"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 1979 tons

Coefficient of fineness for use with Tables 740

Depth for Freeboard (D)

Moulded depth ... 15'5"

Stringer plate ... 42

Sheathing on exposed deck 04

$T \left( \frac{L-S}{L} \right) =$  ✓

Depth for Freeboard (D) = 15'54

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = (15.54-14.13) 1.631 = 2.30

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 33'5"

Standard Round of Beam =  $\frac{B \times 12}{50} =$  8.04

Ship's Round of Beam = 8.75

Difference 37

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) =$   $\frac{33}{4} \times 2.354 = -2.2$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	✓					
" overhang ...						
R.Q.D. enclosed ...	<u>116'4"</u>	<u>116.33</u>	<u>4'0"</u>	-	<u>116.33</u>	
" overhang ...						
Bridge enclosed ...	<u>15'0"</u>	<u>15.00</u>	<u>7'8"</u>	-	<u>15.00</u>	
" overhang aft ...						
" overhang forward ...	<u>26.21</u>					
Forecastle enclosed ...	<u>35'4"</u>	<u>26.21</u>	<u>7'1 1/2"</u>	-	<u>26.21</u>	
" overhang ...	<u>9.12</u>	<u>4.56</u>			<u>4.56</u>	
Trunk aft ...						
" forward ...						
Tonnage opening aft ...						
" forward ...						
Total ...	<u>166.66</u>	<u>162.10</u>			<u>162.10</u>	

Standard Height of Superstructure 6.00

" " R.Q.D. 3.747

Deduction for complete superstructure 27.2

Percentage covered  $\frac{S}{L} =$  78.61

" "  $\frac{S_1}{L} =$  76.46

" "  $\frac{E}{L} =$  76.46

Percentage from Table, Line A. 70.94

(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 = -19.30

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>31.20</u>	1		<u>31.20</u>	<u>36.0</u>	<u>36.00</u>	1		<u>36.00</u>	
1/2 L from A.P. ...	<u>13.88</u>	4		<u>55.52</u>	<u>13.0</u>	<u>10.27</u>	4		<u>53.24</u>	
3/4 L " ...	<u>3.43</u>	2		<u>6.86</u>	<u>2.0</u>	<u>2.57</u>	2		<u>6.66</u>	
Amidships ...		4					4			
3/4 L from F.P. ...	<u>6.86</u>	2		<u>13.72</u>	<u>9.0</u>	<u>7.90</u>	2		<u>15.80</u>	
1/2 L " ...	<u>27.77</u>	4		<u>111.08</u>	<u>29.0</u>	<u>31.60</u>	4		<u>126.40</u>	
F.P. ...	<u>62.40</u>	1		<u>62.40</u>	<u>64.0</u>	<u>66.00</u>	1		<u>66.00</u>	
Total ...				<u>280.78</u>					<u>307.14</u>	

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 = 120

" " aft of " = 500

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) =$   $\frac{26.36}{18} \left( \frac{75-39.3}{2 \times 212} \right) = -0.52$

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 = 19.54

Summer freeboard = 4.73

Moulded draught (d) = 14.81

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 3.70

Addition for Winter North Atlantic Freeboard (if required) = 2

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  2287

Tons per inch immersion at summer load water line

T = 14.2

Deduction =  $\frac{\Delta}{40T}$  inches

= 4.03

4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{740+680}{1.36} = 1.42$

$\frac{740+680}{1.36} = 1.42$

Depth Correction ... 2.30

Deduction for superstructures ... 19.30

Sheer correction ... 52

Round of Beam correction ... 02

Correction for Thickness of Deck amidships ... 48.00

Other corrections, scantlings, etc. ... -

50.30 19.84 30.46

Summer Freeboard = 56.73

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

Tropical Fresh Water Line above Centre of Disc ...	<u>7 3/4</u>	Tropical Fresh Water Freeboard ...	<u>4 - 8 3/4</u>
Fresh Water Line " " ...	<u>4</u>	Fresh Water " " ...	<u>4 - 1</u>
Tropical Line " " ...	<u>3 3/4</u>	Tropical " " ...	<u>4 - 4 3/4</u>
Winter Line below " " ...	<u>3 3/4</u>	Winter " " ...	<u>4 - 5</u>
Winter North Atlantic Line " " ...	<u>5 3/4</u>	Winter North Atlantic " " ...	<u>5 - 2 1/2</u>

181 OCT 1932

MARKING FORM

18 DEC 1936

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18 NOV 1932

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway		No 1	No 2										
Dimensions of Hatchway		32'-0" x 15'-0"	33'-8" x 17'-6"										
COAMINGS	Height above Deck	3'-6"	3'-0"										
	Thickness	50	50										
	Sides	40	40										
	Ends	40	40										
COAMINGS	Stiffeners	7 x 3 x 3/8 BA	7 x 3 x 3/8 BA										
	Brackets, Stays												
HATCH BEAMS	Number	6	6										
	Spacing	4'-6"	4'-9"										
	Scantling and Sketch	2 at plate 40 3 at centre 3 at ends 4 at 40. 2 at centre, 18 at ends. 4 x 3 x 40	Same as No 1										
	Bearing Surface	3 1/2"	3 1/2"										
FORE AND AFTERS	Number												
	Spacing												
	Unsupported Lengths												
	Scantling* and Sketch												
HATCH COVERS	Material	WP	WP										
	Thickness	3"	3"										
	How fitted	F & A	F & A										
	Bearing Surface	3"	3"										
Spacing of Cleats		20"	24" - 30"										
Number of Tarpaulins		2	2										
*Are wood fore and afters steel shod at all bearing surfaces?													
Are battens and wedges efficient and in good condition?													
Are tarpaulins in good condition and in accordance with rule requirements?													
Are lashings provided in accordance with rule requirements?													

Particulars of fiddley, funnel and ventilator coamings:—

Fiddley, funnel and ventilator coamings in efficient condition.  
Fiddley gratings fitted with steel hinged covers.

Particulars of Flush Bunker Scuttles:—

One Port & One Starboard on top of Fiddley basing  
20" dia, cast covers with bayonet fittings, no chains.

Particulars of Companionways:—

✓

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

- 1- 12" dia coaming 14" high x 3/8 on Forecastle deck to Hoed.
- 2- 5 1/2" dia coamings 15" high x 1/4 on Forecastle deck to Accom.
- 1- 5" G.R. Vent 7" high on Forecastle deck to Accom.
- 3- 5" dia coamings 14" high x 1/4 on Bridge deck to Accom.
- 1- 5" dia coaming 4" high x 1/4 on Bridge deck to Accom.

Wood Plugs & Canvas covers for all Vent Coamings.

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

- 1- 2" dia 17" high on Forecastle deck to F.P. Tank.
- 1- 2" dia 17" high on Foreboard deck to DB Tank.
- 1- 2" dia 25" high on Foreboard deck to DB Tank.
- 1- 2" dia 40" high on Foreboard deck to DB Tank.
- 1- 2" dia 27" high on Foreboard deck to DB Tank.
- 2- 2" dia 32" high on R.D. Deck to DB Tank.
- 1- 2" dia 30" high on R.D. Deck to A.P. Tank.

Canvas covers for all air pipes.

Particulars of Gangway Cargo and Coaling Ports:—

✓



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Particulars of Scuppers and Sanitary Discharge Pipes:—

Stringer scuppers in Fore Well 5"x3 1/2" on R.D. Deck 6"x2 1/2".  
One open pipe scupper P+S in Fore Well 4" dia 18" below freeboard deck.  
Sanitary discharge pipes fitted with Storm Valves at the Ship's Side.

Particulars of Side Scuttles:—

All side scuttles fitted with hinged deadlights.

Particulars of Guard Rails:—

Around Forecastle deck. 3'1" high stanchions spaced 3'6" apart 3 rails.

Particulars of Gangways, Lifelines, etc.:—

Efficient arrangement of life lines fitted which can be used in any part of the ship which might have to be used by the crew in the regular working of the ship.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
ROD.	116'-4"	3'-3"	3'-0" x 2'-0"	4	24 sq	23 1/4 sq
Forward Well	45'-4"	3'-10"	2'-6" x 2'-2"	2	10.8 sq	11 sq

State position of each freeing port (F. and A. position and height above deck edge)  
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.

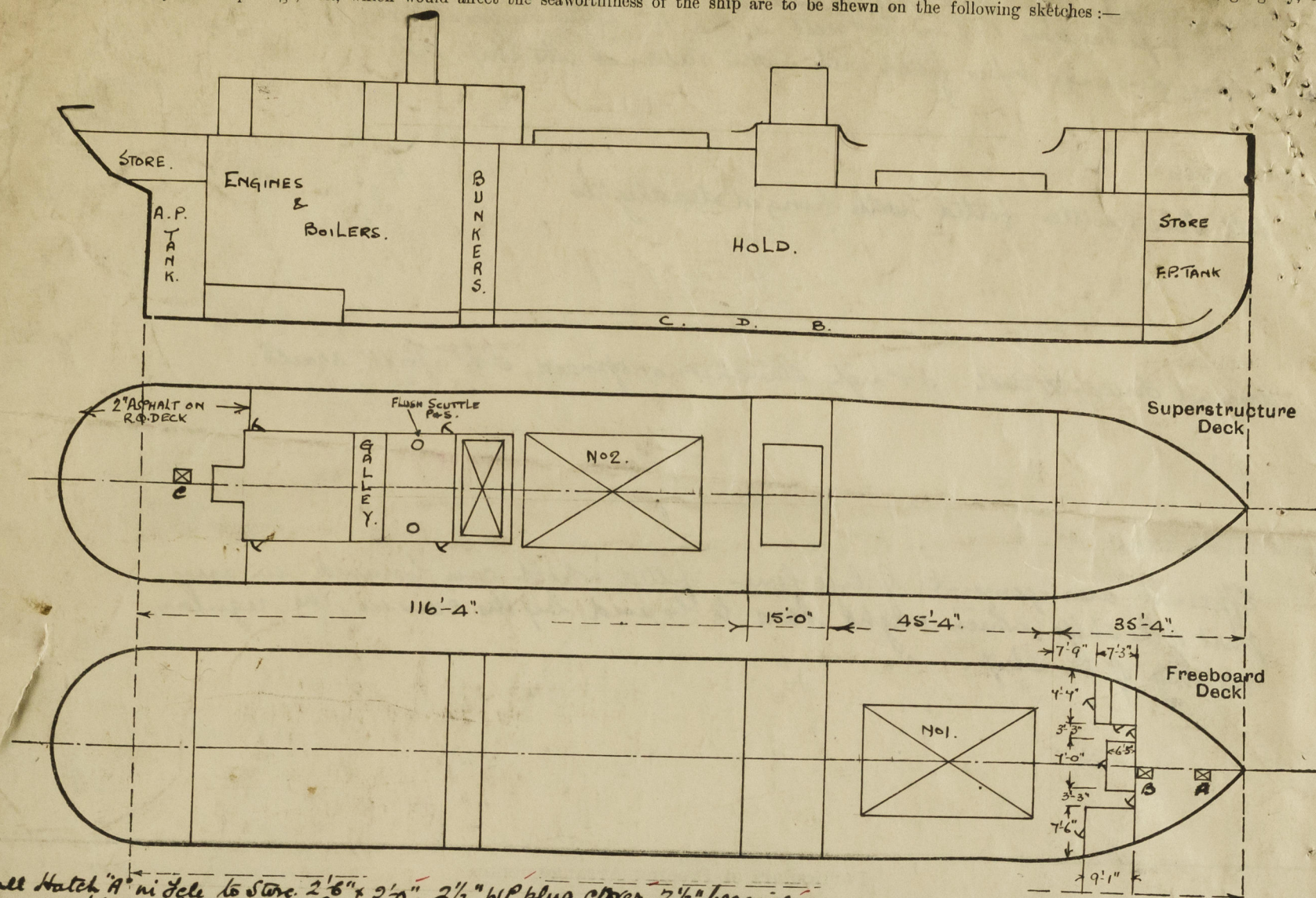
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓							
Raised Quarter Deck Bulkhead	✓	.25	Web as approx.		✓	✓	✓	4'-0"
Bridge, After Bulkhead	✓	.25	"			None	✓	3'-0" <sup>5/8"</sup>
Bridge, Forward Bulkhead	✓	.32	6 1/2 x 3 x 44	2'-6"	bracket at top	None	✓	7'-0" <sup>5/8"</sup>
Forecastle Bulkhead	✓	.25	2 1/2 x 2 1/2 x 1/4	2'-5"	None	5'-1" x 21 1/2"	14"	7'-1 1/2"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	.40	.25	3 x 3 x 3/8	2'-3"	bracket at top	2 at 4'-5" x 23"	20"	6'-9"
Exposed Machinery Casings on Superstructure Decks	✓					2 at 4'-5" x 24"	19"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓							
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	✓ } no openings.
Bridge, Forward Bulkhead	✓ } no openings.
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Wood hinged doors Manipulated from both sides.
Exposed Machinery Casings on Superstructure Decks	Steel hinged doors Manipulated from both sides.
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 shewn on the following sketches:—



Small Hatch "A" in Side to Store. 2'-6" x 2'-0". 2 1/2" WP plug cover 2 1/2" bearing.  
 Small Hatch "B" in Side to Chain Locker. 2'-3" x 2'-0". WP plug cover 2 1/2" thick bearing 2 1/2".  
 Small Hatch "C" on R.D. Deck to A. Peak store. 2'-6" x 2'-6". Coaming 5' x 3 1/2' x 3" BA. 3" WP cover bearing 1 1/2". Chats faced 19". 2 tarpaulins.  
 Bunker Hatch on Sidley Casings top. 7'-7 1/2" x 15'-8". Coaming 9 1/2' x 3 1/2' x 1 1/2" BA. 3" WP cover bearing 2 1/2". Seats 26". 1 tarpaulin.

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

Loose 29.42  
 - 7.58 x 1.83 = 13.88  
 - 3.25 x 18.17 = 59.10  
 - 7.0 x 2.67 = 18.69  
 97.67  
 28.58  
 3.21  
 26.21 Equiv.  
 35.33  
 9.12 OH.

2290  
 3  
 2287

Vessel in dry dock for Damage. Completion of Special Survey & Freeboard.

Builder's name and yard number. C.H. Hill & Sons. No 122. Bristol.

Names of sister ships. ✓

Owners. Coast Lines Ltd.

Fee £ 8 : 10 : 0

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