

003487-003494-0152

12/4/32 + 10/6/32  
B.T. COPY

Newcastle-on-Tyne No. 88330

-4 APR 1932  
Index. No. 29093  
(For London Office only.)

Rpt. C.11.

# Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

|   |  |   |                               |                           |  |  |
|---|--|---|-------------------------------|---------------------------|--|--|
| Computation of Freeboard for Steamer, Sailing Ship, Tanker                                |  |   |                               |                           | Port of Survey <u>Newcastle-on-Tyne</u>    |  |
| having <u>Shelter deck</u>  |  |   |                               |                           | Date of Survey <u>2nd April 1932</u>       |  |
| <u>NICOLAOU ELEN1</u>   |  |   |                               |                           | Name of Surveyor <u>J. Macdonald</u>       |  |
| (Type of Superstructures.)  |  |   |                               |                           | Particulars of Classification <u>100A1</u> |  |
| Ship's Name <u>ELEN1 NICOLAOU</u>   |  | Nationality and Port of Registry <u>Greek</u> | Official Number <u>144922</u> | Gross Tonnage <u>4528</u> | Date of Build <u>1920-9</u>                |  |
| (ex "DIADEM")   |  | <u>British</u>                                | <u>Pireus</u>                 | <u>Newcastle</u>          |  |  |
| Moulded Dimensions: Length <u>389.52</u> Breadth <u>53.7</u> Depth <u>27.0</u>            |  |   |                               |                           |  |  |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>10728</u> tons |  |   |                               |                           |  |  |
| Coefficient of fineness for use with Tables <u>.782</u>                                   |  |   |                               |                           |  |  |

|                                  |              |   |  |  |              |
|----------------------------------|--------------|---|--|--|--------------|
| Depth for Freeboard (D)          |              | Depth correction                                  |  | Round of Beam correction   |              |
| Moulded depth ... ..             | <u>27.0</u>  | (a) Where D is greater than Table depth           |  | Moulded Breadth (B)  | <u>53.7</u>  |
| Stringer plate ... ..            | <u>.04</u>   | (D-Table depth) R = $(27.04 - 25.97) 2.996$       |  | Standard Round of Beam = $\frac{B \times 12}{50}$                          | <u>12.88</u> |
| Sheathing on exposed deck        |              | = <u>+3.21</u>                                    |  | Ship's Round of Beam   | <u>13.2</u>  |
| T $\left(\frac{L-S}{L}\right) =$ |              | (b) Where D is less than Table depth (if allowed) |  | Difference   | <u>0.62</u>  |
|                                  |              | (Table depth-D) R =                               |  | Restricted to  |              |
| Depth for Freeboard (D) =        | <u>27.04</u> | If restricted by superstructures                  |  | Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$ | <u>NIL</u>   |

## DEDUCTION FOR SUPERSTRUCTURES.

|                            | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height     | Height Correction | Effective Length (E) |
|----------------------------|-------------------------|--|------------|-------------------|----------------------|
| Poop enclosed ... ..       | <u>33.37</u>            | <u>33.37</u>                                 | <u>8.0</u> |                   | <u>33.37</u>         |
| " overhang ... ..          |                         |  |            |                   |                      |
| R.Q.D. enclosed ... ..     |                         |  |            |                   |                      |
| " overhang ... ..          |                         |  |            |                   |                      |
| Bridge enclosed ... ..     |                         |  |            |                   |                      |
| " overhang aft ... ..      |                         |  |            |                   |                      |
| " overhang forward ... ..  | <u>351.90</u>           | <u>351.90</u>                                | <u>8.0</u> |                   | <u>351.90</u>        |
| Fore enclosed ... ..       |                         |  |            |                   |                      |
| " overhang ... ..          |                         |  |            |                   |                      |
| Trunk aft ... ..           |                         |  |            |                   |                      |
| " forward ... ..           |                         |  |            |                   |                      |
| Tonnage opening aft ... .. | <u>4.25</u>             | <u>2.12</u>                                  | <u>8.0</u> |                   | <u>2.12</u>          |
| " " forward ... ..         |                         |  |            |                   |                      |
| Total ... ..               | <u>389.52</u>           | <u>387.39</u>                                |            |                   | <u>387.39</u>        |

|  |                               |
|--|-------------------------------|
| Standard Height of Superstructure  | <u>7.395</u>                  |
| " " R.Q.D.   |                               |
| Deduction for complete superstructure  | <u>41.30</u>                  |
| Percentage covered $\frac{S}{L} =$   | <u>100.00</u>                 |
| " " $\frac{S_1}{L} =$  | <u>99.46</u>                  |
| " " $\frac{E}{L} =$  | <u>99.46</u>                  |
| Percentage from Table, Line A. (corrected for absence of forecastle (if required)) | <u>99.33</u>                  |
| Percentage from Table, Line B. (corrected for absence of forecastle (if required)) |                               |
| Interpolation for bridge less than 2L (if required)                                |                               |
| Deduction =  | <u>41.30 x 99.33 = -41.02</u> |

## SHEER CORRECTION.

| Station                          | Standard Ordinate | S        | M | Product       | Actual Ordinate | Effective Ordinate | S        | M | Product       |
|----------------------------------|-------------------|----------|---|---------------|-----------------|--------------------|----------|---|---------------|
| A.P. ... ..                      | <u>48.95</u>      | <u>1</u> |   | <u>48.95</u>  | <u>61.5</u>     | <u>61.56876</u>    | <u>1</u> |   | <u>68.76</u>  |
| $\frac{1}{4}$ L from A.P. ... .. | <u>21.78</u>      | <u>4</u> |   | <u>87.12</u>  | <u>24.88</u>    | <u>24.883060</u>   | <u>4</u> |   | <u>122.40</u> |
| $\frac{2}{4}$ L " ... ..         | <u>5.38</u>       | <u>2</u> |   | <u>10.76</u>  | <u>6.2</u>      | <u>6.22756</u>     | <u>2</u> |   | <u>15.12</u>  |
| Amidships ... ..                 |                   | <u>4</u> |   |               |                 |                    | <u>4</u> |   |               |
| $\frac{3}{4}$ L from F.P. ... .. | <u>10.76</u>      | <u>2</u> |   | <u>21.52</u>  | <u>12.61</u>    | <u>12.641400</u>   | <u>2</u> |   | <u>28.00</u>  |
| $\frac{1}{4}$ L " ... ..         | <u>43.56</u>      | <u>4</u> |   | <u>174.24</u> | <u>50.56</u>    | <u>50.565664</u>   | <u>4</u> |   | <u>226.56</u> |
| F.P. ... ..                      | <u>97.90</u>      | <u>1</u> |   | <u>97.90</u>  | <u>120.0</u>    | <u>120.017726</u>  | <u>1</u> |   | <u>127.26</u> |
| Total ... ..                     |                   |          |   | <u>440.49</u> |                 | <u>47.26</u>       |          |   | <u>588.10</u> |

|  |                    |
|--|--------------------|
| Mean actual sheer aft =                                  | <u>Excess</u>      |
| Mean standard sheer aft =                                |                    |
| Mean actual sheer forward =                              | <u>Excess</u>      |
| Mean standard sheer forward =                            |                    |
| Length of enclosed superstructure forward of amidships = |                    |
| " " aft of " =   | <u>C.S.S.</u>      |
| Actual T.D. $\frac{H}{L} =$                              | <u>8.00</u>        |
| Standard " " $\frac{H}{L} =$                             | <u>7.395</u>       |
|  | <u>.605 = 7.26</u> |

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{147.61}{18} \left( \frac{75-50}{2} \right) = -2.05$

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.                                       | 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 $\frac{.782 + .68}{1.36} = \frac{1.462}{1.36}$ |
| Depth to Freeboard Deck = <u>27.04</u>                                  | $\Delta =$ <u>11410</u>                              | Depth Correction ... .. <u>3.21</u>                                       |
| Summer freeboard = <u>2.79</u>  | Tons per inch immersion at summer load water line    | Deduction for superstructures ... .. <u>41.02</u>                         |
| Moulded draught (d) = <u>24.25</u>                                      | T = <u>42</u>  | Sheer correction ... .. <u>2.05</u>                                       |
| Deduction for Tropical freeboard and addition for                       | Deduction = $\frac{\Delta}{40 T}$ inches             | Round of Beam correction ... ..   |
| Winter freeboard = $\frac{d}{4}$ inches = <u>6.06</u>                   | = <u>6.78</u>  | Correction for Thickness of Deck amidships ... ..                         |
| Addition for Winter North Atlantic Freeboard (if required) = <u>NIL</u> | = <u>6 3/4</u>                                       | Other corrections, scantlings, etc. ... ..                                |
|   |  | Summer Freeboard  |

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

|  |             |               |                                    |             |             |
|--|-------------|---------------|------------------------------------|-------------|-------------|
| Tropical Fresh Water Line above Centre of Disc ... | <u>32.4</u> | <u>12 3/4</u> | Tropical Fresh Water Freeboard ... | <u>52.7</u> | <u>1 20</u> |
| Fresh Water Line " " ...                           | <u>17.2</u> | <u>6 3/4</u>  | Fresh Water " " ...                | <u>6.7</u>  | <u>2</u>    |
| Tropical Line " " ...                              | <u>15.2</u> | <u>6</u>      | Tropical " " ...                   | <u>6.98</u> | <u>2</u>    |
| Winter Line below " " ...                          | <u>15.2</u> | <u>6</u>      | Winter " " ...                     | <u>6.98</u> | <u>2</u>    |
| Winter North Atlantic Line " " ...                 | <u>15.2</u> | <u>6</u>      | Winter North Atlantic " " ...      | <u>6.98</u> | <u>2</u>    |

5 APR 1932

Lloyd's Register  
Foundation



## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Particulars of fiddle, funnel and ventilator coamings:— Stokchold gratings covered by strong steel hinged covers.  
Fiddle & funnel ventilators in efficient condition. Engine skylight of steel strongly constructed.

Particulars of Companionways :—

Particulars of Companionways:—

2 Companionways to crew spaces 4'-0" x 3'-0" x 7'-3" high of steel with strong wood doors, sill 1'-6" high.

and 1 Tunnel escape 2'-1" x 2'-3" x 4'-4" high of steel with steel door, sill 9" high. (capable of being closed from both sides)

2 steel skylights to crew spaces 4'-0" x 2'-6" x 1'-6" coverings with strong wood hinged covers.

AIR PIPES

Particulars of ~~Ventilators~~ <sup>AIR PIPES</sup> in exposed positions on freeboard and superstructure decks :—

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

|     |   |                                |                  |
|-----|---|--------------------------------|------------------|
| One | goose-neck iron air pipe on shelter deck, | 9" high x 6" dia <sup>rs</sup> | led to aft peak. |
| One | " " " " " "                               | 9" " x 6" " "                  | " fore peak.     |
| Two | " " " " " "                               | 11" " x 7" " "                 | " Stbd hold.     |

No means are provided for closing the air pipes.

particulars of VENTILATORS

particulars of VENTILATORS in exposed positions on freeboard, raised quarter, & superstructure decks :—

ventilation on shelter deck 24" dia. Coaming 3'-6" high x .40 led to hold spaces.  
" " " 7" " " 1'-6" x .25 " " crew spaces.  
" " " 6" " " 1'-6" x .25 " "  
wick posts on shelter deck acting as vents to bunkers.  
" on shelter deck 12" dia. Coaming 3'-6" high x .30 led to forward stor-  
" " " 7" " " 3'-0" x .30 " between dry bulk

Gangway Cargo and Coaling Ports :-

all ventilators are in  
accordance with the Rules  
and openings closed  
with wood plugs and  
canvas covers.

each side { Particulars of Scupper and Sanitary Discharge Pipes → 10 @ 4" scuppers from Shelter Deck open iron pipe discharging just below deck  
7 @ 4" Scupper pipes from shelter tween decks with malleable cast iron storm valves ✓ " " " 2<sup>nd</sup> Deck  
2 @ 2½ " " " " " " " " " " "  
5 @ 4" sanitary " " officers & crew spaces ✓ " " " " " " " " "  
3 @ 2½ " " " " " " " " " " "

Particulars of Side Scuttles: To crew spaces, fitted with hinged deadlights and of substantial construction.

Particulars of Guard Rails:— On shelter deck 3' 9" high with four rods and stanchions 4' 10" apart.

Particulars of Gangways, Lifelines, etc. :—

| 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<br>rails.  |                   | 2'-0" x 1'-6" ✓       | One ✓            |                |                     |
| Forward Well ... ..  |                   |                   |                       |                  |                |                     |
| State position of each freeing port ... .. After Well :— In way tonnage opening —<br>(P. and A. position and height above deck edge) 12' Forward Well :—<br>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— Shutters — |                   |                   |                       |                  |                |                     |
| Additional area where sheer is less than standard.   |                   |                   |                       |                  |                |                     |

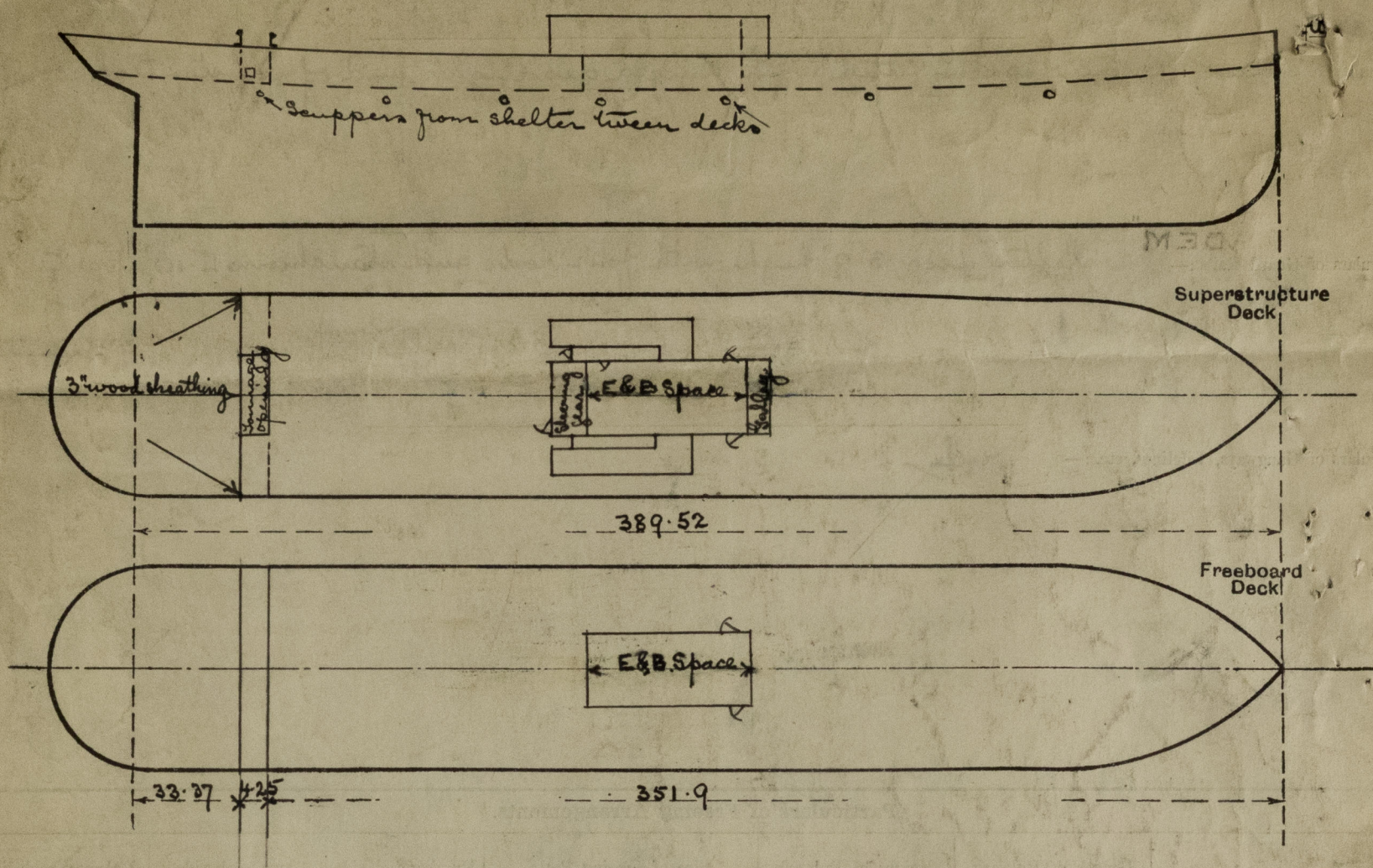
| Particulars of Superstructures, Trunks, Casings, Deckhouses.                               |         |         |               |         |                               |                  |                 |                   |
|--|---------|---------|---------------|---------|-------------------------------|------------------|-----------------|-------------------|
|  | Coaming | Plating | Stiffeners    | Spacing | End Attachments of Stiffeners | Size of Openings | Height of Sills | Height of Casings |
| Poop Bulkhead ... ..   | -       | 30 ✓    | 4 × 3 × 30 ✓  | 33" ✓   | -                             | nil ✓            | -               | 8'-0" ✓           |
| <del>Raised Quarter Deck Bulkhead</del> ... ..   | -       | 30 ✓    | 4 × 3 × 30 ✓  | 33" ✓   | -                             | nil ✓            | -               | 8'-0" ✓           |
| Bridge, After Bulkhead ... ..  | -       | 30 ✓    | 3½ × 3 × 30 ✓ | 27" ✓   | - 2@                          | 5'-6" × 3'-1" ✓  | 18" ✓           | 8'-0" ✓           |
| Bridge, Forward Bulkhead ... ..  |         |         |               |         |                               |                  |                 |                   |
| Forecastle Bulkhead ... ..   |         |         |               |         |                               |                  |                 |                   |
| Trunk, Aft ... ..  |         |         |               |         |                               |                  |                 |                   |
| Trunk, Forward ... ..  |         |         |               |         |                               |                  |                 |                   |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ... ..                     |         |         |               |         |                               |                  |                 |                   |
| Exposed Machinery Casings on Super-structure Decks ... ..                                  | 38 ✓    | 25 ✓    | 3½ × 3 × 40   | 57"     | -                             | 4'-6" × 2'-0" ✓  | 20" ✓           | 7'-6" ✓           |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... .. | 42 ✓    | 36 ✓    | 3½ × 3 × 40 ✓ | 57" ✓   | -                             | 2'-0" × 2'-0" ✓  | 45½" ✓          | 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  | ... | ... | 3" shifting boards in permanent channels - full height. ✓ |
| Bridge, Forward Bulkhead  | ... | ... |   |
| Forecastle Bulkhead   | ... | ... |   |
| Exposed Machinery Casings on Freeboard or Raised Quarter Decks                      | ... | ... |   |
| Exposed Machinery Casings on Superstructure Decks                                   | ... | ... | 3 hinged steel doors operated from both sides. ✓          |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances | ... | ... | 2 steel doors operated from inside casing only. ✓         |
| 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:—



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

Displacement in salt water and tons per inch obtained from scale on board the ship:—

| Draught | Extreme Displ <sup>t</sup> | Tons per inch |
|---------|----------------------------|---------------|
| 23'-0"  | = 10725 tons               | 41.7          |
| 24'-0"  | = 11200 "                  | 41.9          |
| 25'-0"  | = 11750 "                  | 42.1          |

Builder's name and yard number Sunderland S. B. Co. Ltd

Names of sister ships

Owners

Hall Bros S. S. Co. Ltd

Fee £ 12 : 15 : 0

Received by me

Applied for -2 APR 1932



© 2020

Lloyd's Register  
Foundation