

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

| | | | | |
|---|---|-----------------|---------------|--|
| Computation of Freeboard for Steamer, Sailing Ship, Tanker, | | | | Port of Survey |
| having <u>FLUSH DECK.</u> | | | | Date of Survey <u>12-5-31</u> |
| (Type of Superstructures.) | | | | Name of Surveyor |
| Ship's Name <u>ADEN MARU.</u> | Nationality and Port of Registry <u>Y.Y.</u> | Official Number | Gross Tonnage | Date of Build <u>1919.</u> |
| Moulded Dimensions: Length <u>384.6</u> Breadth <u>51.0</u> Depth <u>36.0</u> | | | | Particulars of Classification <u>+100A.1</u> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>HOT YET RECEIVED.</u> tons | | | | <u>AWNING DK. WITH FREEBOARD.</u> |
| Coefficient of fineness for use with Tables | | | | |

| Depth for Freeboard (D) | Depth correction | Round of Beam correction |
|--|---|--|
| Moulded depth <u>36.00</u> | (a) Where D is greater than Table depth (D-Table depth) R = <u>(36.04 - 25.64) × 2.959 = +30.77</u> | Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} = \frac{51 \times 12}{50} = 12.24$ Ship's Round of Beam = <u>12.75</u> Difference = <u>.51</u> |
| Stringer plate <u>.04</u> | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = | Difference |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u> | If restricted by superstructures | Restricted to |
| Depth for Freeboard (D) = <u>36.04</u> | | Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.51}{4} \times 1 = -.13$ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|----------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed | | | | | |
| „ overhang | | | | | |
| R.Q.D. enclosed | | | | | |
| „ overhang | | | | | |
| Bridge enclosed | | | | | |
| „ overhang aft | | | | | |
| „ overhang forward | | | | | |
| F'cle enclosed | | | | | |
| „ overhang | | | | | |
| Trunk aft | | | | | |
| „ forward | | | | | |
| Tonnage opening aft | | | | | |
| „ „ forward | | | | | |
| Total | | | | | |

FLUSH.

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) Flush.
 Deduction = NIL

SHEER CORRECTION.

| Station | Standard Ordinate | S | Product | Actual Ordinate | Effective Ordinate | S | Product |
|----------------------------------|-------------------|---|---------------|-----------------|--------------------|---|---------------|
| A.P. | <u>48.46</u> | 1 | <u>48.46</u> | <u>50.00</u> | <u>50.00</u> | 1 | <u>50.00</u> |
| $\frac{1}{4}$ L from A.P. | <u>21.57</u> | 4 | <u>86.28</u> | <u>21.33</u> | <u>21.33</u> | 4 | <u>85.32</u> |
| $\frac{2}{4}$ L „ | <u>5.33</u> | 2 | <u>10.66</u> | <u>5.33</u> | <u>5.33</u> | 2 | <u>10.66</u> |
| Amidships | <u>-</u> | 4 | <u>-</u> | <u>-</u> | <u>-</u> | 4 | <u>-</u> |
| $\frac{2}{4}$ L from F.P. | <u>10.66</u> | 2 | <u>21.32</u> | <u>12.05</u> | <u>12.05</u> | 2 | <u>24.10</u> |
| $\frac{1}{4}$ L „ | <u>43.10</u> | 4 | <u>172.40</u> | <u>48.19</u> | <u>48.19</u> | 4 | <u>192.76</u> |
| F.P. | <u>96.92</u> | 1 | <u>96.92</u> | <u>110.00</u> | <u>110.00</u> | 1 | <u>110.00</u> |
| Total | | | <u>436.04</u> | | | | <u>472.84</u> |

Mean actual sheer aft = excess
 Mean standard sheer aft = _____
 Mean actual sheer forward = excess
 Mean standard sheer forward = _____
 Length of enclosed superstructure forward of amidships = _____
 „ „ aft of „ = Flush.

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{36.80}{18} \times .75 = -1.53$$

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 |
| Depth to Freeboard Deck = _____ Ft. | $\Delta =$ | Depth Correction <u>30.77</u> - |
| Summer freeboard = _____ | Tons per inch immersion at summer load water line | Deduction for superstructures - |
| Moulded draught (d) = _____ | T = _____ | Sheer correction - <u>1.53</u> |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ | Deduction = $\frac{\Delta}{40T}$ inches = _____ | Round of Beam correction - <u>.13</u> |
| Addition for Winter North Atlantic Freeboard (if required) = _____ | | Correction for Thickness of Deck amidships - |
| | | Other corrections, scantlings, etc. <u>Scantlings.</u> |
| | | Summer Freeboard = <u>72.55</u> |

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 | „ |