

T.R.V. 6.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|---|----------------------|--|--|------------------------------|--|
| Ship's Name "T.R.V. 7" | Official Number ✓ | Nationality and Port of Registry <i>British</i> | Gross Tonnage <i>196</i> <i>193.</i> | Date of Build <i>1945</i> | Port of Survey <i>HULL</i> |
| Moulded Dimensions: Length <i>97.25</i> Breadth <i>20.83</i> Depth <i>9.062</i> <i>To centre of truss block.</i> | | | | | Date of Survey <i>During construction</i> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>322</i> tons | | | | | Surveyor's Signature <i>F. D. Palmer</i> |
| Coefficient of fineness for use with Tables <i>.722</i> | | | | | Particulars of Classification 100A.1 <i>for Government Service</i> <i>(Contemplated)</i> |

| DEPTH FOR FREEBOARD (D). | DEPTH CORRECTION. | ROUND OF BEAM CORRECTION. |
|---|---|---|
| Moulded depth <i>9.062</i> | (a) Where D is greater than Table depth (D-Table depth) R = $(9.09 - 6.49) \times \frac{97.25}{130} = 1.94$ | Moulded Breadth (B) <i>20.83</i> |
| Stringer plate <i>.025</i> | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓ | Standard Round of Beam = $\frac{B \times 12}{50} = 5.00$ |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ | If restricted by superstructures ✓ | Ship's Round of Beam = <i>5.00</i> |
| Depth for Freeboard (D) = <i>9.057</i> | | Difference = <i>N/L</i> |
| | | Restricted to ✓ |
| | | Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{N/L}$ |

DEDUCTION FOR SUPERSTRUCTURES.

| Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|---|--|------------|-------------------|----------------------|
| <i>To cr. of block</i> Poop enclosed <i>43.67</i> | <i>43.67</i> | <i>7.0</i> | ✓ | <i>43.67</i> |
| „ overhang ✓ | | | | |
| R.Q.D. enclosed | | | | |
| „ overhang | | | | |
| Bridge enclosed | | | | |
| „ overhang aft | | | | |
| „ overhang forward | | | | |
| F'cle enclosed <i>15.75</i> | <i>15.75</i> | <i>6.5</i> | ✓ | <i>15.75</i> |
| „ overhang ... <i>1.75</i> | <i>.88</i> | | | <i>.88</i> |
| Trunk aft | | | | |
| „ forward | | | | |
| Tonnage opening aft | | | | |
| „ „ forward | | | | |
| Total | <i>60.30</i> | | | <i>60.30</i> |

Standard Height of Superstructure *6.0*
R.Q.D. ✓
Deduction for complete superstructure *15.73*
Percentage covered $\frac{S}{L} = 62.90$
Percentage from Table, Line A. *49.40*
(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 = $15.73 \times .494 = -7.77$

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|----------------------------------|-------------------|---|---|---------------|-----------------|--------------------|---|---|--------------|
| A.P. | <i>19.50</i> | 1 | | <i>19.50</i> | 5.00 | 5.00 | 1 | | 5.00 |
| $\frac{1}{8}$ L from A.P. | <i>8.68</i> | 4 | | <i>34.72</i> | .25 | .25 | 4 | | 1.00 |
| $\frac{2}{8}$ L „ | <i>2.75</i> | 2 | | <i>5.50</i> | -.75 | -.75 | 2 | | -1.50 |
| Amidships | | 4 | | | NIL. | - | 4 | | - |
| $\frac{3}{8}$ L from F.P. | <i>4.30</i> | 2 | | <i>8.60</i> | 4.00 | 4.00 | 2 | | 8.00 |
| $\frac{4}{8}$ L „ | <i>17.36</i> | 4 | | <i>69.44</i> | 13.00 | 13.00 | 4 | | 52.00 |
| F.P. | <i>39.00</i> | 1 | | <i>39.00</i> | 26.00 | 26.00 | 1 | | 26.00 |
| Total | <i>177.54</i> | | | <i>175.56</i> | | | | | <i>90.50</i> |

Mean actual sheer aft =
Mean standard sheer aft = } *Deficient*
Mean actual sheer forward =
Mean standard sheer forward = }
Length of enclosed superstructure forward of amidships = } *Deficient*
„ „ aft of „ = } *Sheer.*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{8.704}{18} \left(.75 - \frac{31.45}{43.50} \right) = +2.11$
If limited on account of midship superstructure. ✓
If limited to maximum allowance of 1½ ins. per 100 ft. ✓

| | | | |
|---|--|---|--------------|
| Deduction for Tropical Freeboard. | Deduction for Fresh Water. | TABULAR FREEBOARD corrected for Flash Deck (if required) | <i>9.50</i> |
| Addition for Winter and Winter North Atlantic Freeboard. | Displacement in salt water at summer load water line | Correction for coefficient $\frac{7217.68}{136} \times \frac{1.409}{136}$ | <i>10.02</i> |
| Depth to Freeboard Deck = <i>9.09</i> | $\Delta = 366$ | Depth Correction | <i>1.94</i> |
| Summer freeboard = <i>8.52</i> | Tons per inch immersion at summer load water line | Deduction for superstructures | <i>7.77</i> |
| Moulded draught (d) = <i>8.57</i> | T = <i>4.28</i> | Sheer correction | <i>2.11</i> |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>2.14 = 2 1/4</i> | Deduction = $\frac{\Delta}{40 T}$ inches = <i>2.14 = 2 1/4</i> | Round of beam correction | <i>-</i> |
| Addition for Winter North Atlantic Freeboard (if required) = ✓ | | Correction for Thickness of Deck amidships | <i>-</i> |
| | | Other corrections, scantlings, etc. | <i>-</i> |
| | | Summer Freeboard = <i>6.30</i> | |

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

| | | | |
|---|---------------------|---------------------------------------|------------------|
| Tropical Fresh Water Line above Centre of Disc | ✓ | Tropical Fresh Water Freeboard | <i>0'-6 1/4"</i> |
| Fresh Water Line „ „ „ .. | <i>2 1/4"</i> | Fresh Water „ „ „ .. | <i>0'-4"</i> |
| Tropical Line „ „ „ .. | <i>NOT ASSIGNED</i> | Tropical „ „ „ .. | <i>0'-8 1/2"</i> |
| Winter Line below „ „ „ .. | <i>2 1/4"</i> | Winter „ „ „ .. | <i>0'-8 1/2"</i> |
| Winter North Atlantic Line „ „ „ .. | <i>NOT ASSIGNED</i> | Winter North Atlantic „ „ „ .. | <i>0'-8 1/2"</i> |



