

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

2pt. 23923.

| | | | | | |
|---|----------------------------------|---|---|---|-----------------------------------|
| Ship's Name BONAVISTA | Official Number 199.46 | Nationality and Port of Registry CANADIAN ST JOHNS (NFLD) | Gross Tonnage APPROX 200 1174 | Date of Build 1956 | Port of Survey ABERDEEN |
| Moulded Dimensions: Length 199' 5 1/2 Breadth 35'-0" Depth 19'-6" TO E OF RIDGE STOCK. | | | | Date of Survey WHILST BUILDING. | |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 16.575 2156 tons | | | | Surveyor's Signature S MacLachlan | |
| Coefficient of fineness for use with Tables .68 [.652 ACTUAL] | | | | Particulars of Classification +100A1 | |

| | | | | | |
|---|-------|---|--|--|---|
| DEPTH FOR FREEBOARD (D). | | DEPTH CORRECTION. | | ROUND OF BEAM CORRECTION. | |
| Moulded depth ... | 19.50 | (a) Where D is greater than Table depth (D-Table depth) R = (19.70 - 13.30) 1.534 = +9.82" | | Moulded Breadth (B) | 35.00' |
| Stringer plate 31' 38" WOOD | .03 | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = | | Standard Round of Beam = $\frac{B \times 12}{50}$ | 8.40" |
| 2 1/2 Sheathing on exposed deck | | | | Ship's Round of Beam 3 1/2" | 8.50" |
| $T \left(\frac{L-S}{L} \right) = .21 \left(\frac{1-.1939}{1} \right)$ | .17 | If restricted by superstructures | | Difference | + .10" |
| Depth for Freeboard (D) = | 19.70 | | | Restricted to | |
| | | | | Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$ | $\frac{.10}{4} \times (1-.1939) = -.02$ |

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 ... | 38.68 | 38.68 | 7.17 | - | 38.68 |

| | |
|---|-----------------------|
| Standard Height of Superstructure | 6.00' |
| " " R.Q.D. | - |
| Deduction for complete superstructure | 25.95" |
| Percentage covered $\frac{S}{L} =$ | 19.39 |
| " " $\frac{S_1}{L} =$ | |
| " " $\frac{E}{L} =$ | |
| Percentage from Table, Line A. | 9.70 |
| (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 = | 25.95 x .0970 = 2.52" |

SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|---------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|
| A.P. ... | 29.95 | 1 | 29.95 | 35 1/4 | 35.25 | 1 | 29.95 |
| 1/2 L from A.P. ... | 13.33 | 4 | 53.32 | 15 7/8 | 15.88 | 4 | 53.32 |
| 3/4 L " ... | 3.29 | 2 | 6.58 | 3 1/2 | 3.50 | 2 | 6.58 |
| Amidships ... | 0 | 4 | - | 0 | 0 | 4 | - |
| 3/4 L from F.P. ... | 6.59 | 2 | 13.18 | 6 7/8 | 6.88 | 2 | 13.76 |
| 1/2 L " ... | 26.65 | 4 | 106.60 | 26 3/8 | 26.38 | 4 | 105.52 |
| F.P. ... | 59.89 | 1 | 59.89 | 59 3/4 | 59.75 | 1 | 59.75 |
| Total ... | | | 269.52 | | | | 268.88 |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{0.64}{18} \left(.75 - .0969 \right) = +.02"$

If limited on account of midship superstructure.

TION.

SHEERS FORD.

STANDARD.

ACTUAL.

Mean actual sheer aft
 Mean standard sheer aft =

EXCESS ✓

| | | | | | |
|-------|---|--------------|-------|---|--------------|
| 6.59 | 3 | 19.77 ✓ | 6.88 | 3 | 20.64 |
| 26.65 | 3 | 79.95 | 26.38 | 3 | 79.14 |
| 59.89 | 1 | <u>59.89</u> | 59.75 | 1 | <u>59.75</u> |
| | | 159.61 | | | 159.53 |

Mean actual sheer forward
 Mean standard sheer forward =

DEFICIENT. ✓

Length of enclosed superstructure forward of amidships =

L

aft of

} NIL.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

| | | |
|-------|--|---------------------|
| 19.53 | Ft. | |
| .21 | Depth to Freeboard Deck = | 19.74 |
| 19.74 | Summer freeboard = | 2.56 |
| | Moulded draught (d) = | 17.18 |
| | Deduction for Tropical Freeboard and addition for | |
| | Winter freeboard = $\frac{d}{4}$ inches = | 4.30 = 4 1/4" |
| | Addition for Winter North Atlantic Freeboard (if required) = | 4 1/4 + 2" = 6 1/4" |

Deduction for Fresh Water.

| | |
|--|-----------------|
| Displacement in salt water at summer load water line | $\Delta = 2260$ |
| Tons per inch immersion at summer load water line | T = 13.77 |
| Deduction = $\frac{\Delta}{40 T}$ inches | = 4.10 |
| | = 4" |

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.

| + | - |
|-------|------|
| 9.82 | - |
| - | 2.52 |
| .02 | - |
| - | .02 |
| .46 | - |
| - | - |
| 10.30 | 2.54 |

Summer Freeboard = 30.77

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

| | |
|--|--------|
| Tropical Fresh Water Line above Centre of Disc | 8 1/4" |
| Fresh Water Line | 4 1/4" |
| Tropical Line | 4 1/4" |
| Winter Line below | 4 1/4" |
| Winter North Atlantic Line | 6 1/4" |

| | |
|--------------------------------|--------------|
| Tropical Fresh Water Freeboard | 2' - 6 3/4" |
| Fresh Water | 1' - 10 1/2" |
| Tropical | 2' - 2 3/4" |
| Winter | 2' - 2 1/2" |
| Winter North Atlantic | 3' - 1" |

CONAVISTA

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

| MLD DRAUGHT | Δ MLD | Δ EXT. | T. P. I. |
|-------------|-------|--------|----------|
| 16'-0" | 2063 | 2073 | 13.52 |
| 17'-0" | 2227 | 2237 | 13.75 |
| 18'-0" | 2393 | 2403 | 13.92 |

ps. 108
82
26
13
39'-0"
0.11 1/2
39'-1 1/2"

Length of precastle.

Length at side = 39.96' ✓

$$- \left[\frac{45.00}{(18.00 \times 2.50)} - \left(\frac{\pi \cdot 9^2}{6} - 35.10 \right) \right] = - 1.28' \checkmark$$

29.50

Squint length = 38.68' ✓

Length 0-72 = 144'-0"
72-108 = 54'-0"
108-198 = 198'-0"
108-198 = 1'-0"
LBP = 199'-0"

Trade of ship PASSENGER/CARGO. COASTING SERVICE IN NEWFOUNDLAND.

Names of sister ships ✓

Builder's name and yard number HALL RUSSELL & CO YARD NO 852

Owners CANADIAN NATIONAL RAILWAYS.

Fee £ TO BE CHARGED WITH F.E.



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Foundation