

BJARNI OLAFSSON
39000

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name EGILL RAUDI.	Official Number	Nationality and Port of Registry ICELANDIC NESKAUPSTADUR.	Gross Tonnage 618.00 600	Date of Build 1947	Port of Survey Ahusen
Moulded Dimensions: Length 172.9 172.6 Breadth 30.0 Depth 16.0 16 centre of rudder stock on L.W.L.					Date of Survey While building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1172 tons					Surveyor's Signature J.O. Olafsson
Coefficient of fineness for use with Tables .68 (.582 actual).					Particulars of Classification 100A.1. Steam Trawler.

DEPTH FOR FREEBOARD (D).

Moulded depth **16.0**
 Stringer plate **.03**
 Sheathing on exposed deck **3" O.PINE.**
 $T \left(\frac{L-S}{L} \right) = \frac{3}{12} \times \frac{49.2}{172.9} = .07$
 Depth for Freeboard (D) = **16.10**

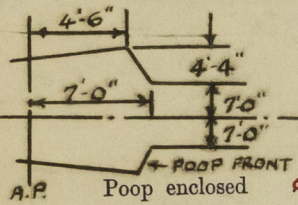
DEPTH CORRECTION.

(a) Where D is greater than Table depth
 (D-Table depth) R =
 $(16.10 - 11.52) \times 1.33 = +6.09$
 (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) **30.0**
 Standard Round of Beam = $\frac{B \times 12}{50} = 7.2$
 Ship's Round of Beam = **9**
 Difference **1.8**
 Restricted to
 Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.8^2}{4} \times \frac{2846}{50} = 1.13$

DEDUCTION FOR SUPERSTRUCTURES.



	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
A.P. Poop enclosed <i>equiv.</i>	6.53	6.53	7.25	✓	6.53
" overhang	86.47	86.47	1.0	1.18/3.486	29.27
R.Q.D. enclosed	93.0	86.47	+3"-.07"		
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	30.7	30.70	7.33	✓	30.70
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	123.70	123.70			66.50

Standard Height of Superstructure **6.00'**
 " " R.Q.D. **3.486'**
 Deduction for complete superstructure **23.29'**
 Percentage covered $\frac{S}{L} = \frac{66.50}{93.0} = 71.54$
 $\frac{S_1}{L} = \frac{86.47}{93.0} = 93.0$
 $\frac{E}{L} = \frac{38.46}{93.0} = 41.35$
 Percentage from Table, Line A. **22.19**
 (corrected for absence of fore-castle (if required))
 Percentage from Table, Line B. ✓
 (corrected for absence of fore-castle (if required))
 Interpolation for bridge less than .2L (if required) ✓
 Deduction = **23.29 × 22.19 = -5.17"**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	27.29	1	27.29	59.75	59.75	1	59.75
$\frac{1}{8}L$ from A.P. ...	12.145	4	48.58	26.87	26.87	4	107.48
$\frac{2}{8}L$ " ...	3.00	2	6.00	6.5	6.50	2	13.00
Amidships ...	-	4	-	✓	-	4	-
$\frac{3}{8}L$ from F.P. ...	6.005	2	12.01	9.12	9.12	2	18.24
$\frac{4}{8}L$ " ...	24.29	4	97.16	32.5	32.50	4	130.00
F.P. ...	54.58	1	54.58	63.0	63.00	1	63.00
Total ...			245.62				391.47

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{145.85}{18} \left(.75 - \frac{3577}{3923} \right) = -3.18"$
 If limited on account of midship superstructure. **YES. NIL.**

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 = **Nil.**
 " " aft of " = **Nil.**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to **Rg deck.** **17.28**
 Summer freeboard = **2.81**
 Moulded draught (d) = **14.47**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **3.62 = 3 1/2"**

Addition for Winter North Atlantic Freeboard (if required) = **5 1/2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 1291 \text{ Tons.}$
 Tons per inch immersion at summer load water line
 $T = 9.80$

Deduction = $\frac{\Delta}{40 T}$ inches
 $= \frac{1291}{40 \times 9.80} = 3.29$
 $= 3 1/4"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **Nil.**

Depth Correction **6.09**
 Deduction for superstructures **- 5.17**
 Sheer correction **-**
 Round of Beam correction **.13**
 Correction for Thickness of Deck amidships ... **14.16**
 Other corrections, scantlings, etc. **-**

	+	-
Depth Correction	6.09	
Deduction for superstructures		5.17
Sheer correction		
Round of Beam correction		.13
Correction for Thickness of Deck amidships	14.16	
Other corrections, scantlings, etc.		
Summer Freeboard	20.28	5.30
		+ 14.95"
		33.69"

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :- **2' 9 3/4"**

Tropical Fresh Water Line above Centre of Disc	...	6 3/4"	Tropical Fresh Water Freeboard	...	2' - 3"
Fresh Water Line	"	3 1/4"	Fresh Water	"	2' - 6 1/2"
Tropical Line	"	3 1/2"	Tropical	"	2' - 6 1/4"
Winter Line below	"	3 1/2"	Winter	"	2' - 1 1/4"
Winter North Atlantic Line	"	5 1/2"	Winter North Atlantic	"	3' - 3 1/4"

Egill Raudi.

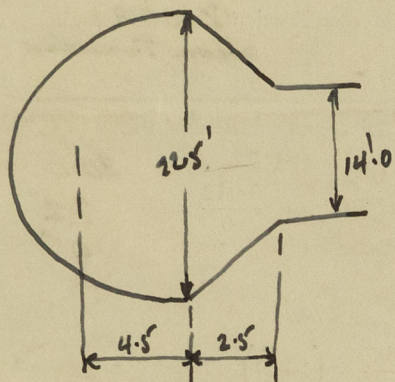
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Rake of stem = $8'-1"$ in $21'-3"$

$$14.47 - 13.67 = 0.8'$$

$$\therefore \frac{8.08}{21.25} \times 0.8 = .304'$$

$$\therefore \text{length on L.W.L.} = 172.9'$$



Roop:-

$$\text{Equiv. bhd} = \frac{45.62}{22.5} = 2.03$$

$$\text{Equiv. encl. length} = \frac{4.5}{4.5} = 6.53$$

$$\text{Real. } 2.5 \times 22.5 = 56.25$$

$$\Delta 5 \quad \underline{10.63}$$

$$\therefore \text{Area of Trapezium} = 45.62$$

Trade of ship Trawl Fishing.

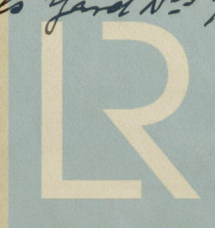
Names of sister ships BIARNI OLAFSSON.

Builder's name and yard number Messrs A. Hall & Co. No 716.

Owners Government of Iceland.

Fee £ 8 : 0 : 0.

MLD The approved plans of Midship Section and Profile and Decks are forwarded for reference purposes.
The freeboard request form for this vessel & sister vessels yard No 717-8-9-20 is attached.



Lloyd's Register
Foundation