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(For London Office only.)

H.M. Rpt. No. 22953.

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>ORÖFN.</b>	Official Number	Nationality and Port of Registry <b>Islandic.</b> <i>Not yet available</i>	Gross Tonnage <b>Estimated 720.</b> <b>681</b>	Date of Build <b>1950.</b>	Port of Survey <b>Aberdeen.</b>
Moulded Dimensions: Length <b>183.9</b> Breadth <b>30.0</b> Depth <b>16.02</b> (96% LWL length)					Date of Survey <b>While building.</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1218.</b> tons					Surveyor's Signature <b>J. S. Millar.</b>
Coefficient of fineness for use with Tables <b>.68 (actual less than .68)</b>					Particulars of Classification <b>100A-1.</b> <b>Steam Trawler.</b> <b>(class contemplated)</b>

DEPTH FOR FREEBOARD (D).	
Moulded depth	16.02
Stringer plate	.35
Sheathing on exposed deck	
$T \left( \frac{L-S}{L} \right) =$	3" R.N.E. 3/12 x 3064
Depth for Freeboard (D) =	16.13

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D-Table depth) R =	(16.13-12.26) 1.414 = +5.47
(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	3.87
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	1.80
Restricted to	
Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{1.80^2}{4} \times 3064 = -1.14$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	SEE SKETCH OVER	14.21	7.0	✓	14.21
" overhang					
R.Q.D. enclosed	97.7	83.53	VIRTUAL 1.17	3.559	27.46
" overhang			1.04	1.17	
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed	29.8	29.80	7.75	✓	29.80
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	127.54	127.54			71.47

Standard Height of Superstructure	6.00
" " R.Q.D.	3.559
Deduction for complete superstructure	24.39
Percentage covered $\frac{S}{L} =$	69.36
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	38.86
Percentage from Table, Line A.	22.53
(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 =	24.39 x 22.53 = 5.50

## SHEER CORRECTION.

Sheers measured from line parallel to L.W.L.  
Trim by stern 5'-6".

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	28.39	1		28.39	35	35.00	1		35.00
1/8 L from A.P.	12.635	4		50.54	8 3/4	8.75	4		35.00
2/8 L	3.12	2		6.24	-2 3/4	-2.75	2		-5.50
Amidships		4					4		
3/8 L from F.P.	6.245	2		12.49	11 3/8	10.365	2		20.71
4/8 L	25.27	4		101.08	45 3/8	41.39	4		165.56
F.P.	56.78	1		56.78	64 1/2	62.97	1		62.97
Total				255.52					313.74

Mean actual sheer aft = 7.005  
Mean standard sheer aft = 7.005Mean actual sheer forward = Excess.  
Mean standard sheer forward = Excess.

Length of enclosed superstructure forward of amidships = 0315 L

Sheer aft of " = .5L

28.39	1	28.39	35.00	1	35.00
12.635	3	37.905	8.75	3	26.25
3.12	3	9.36	-2.75	3	-8.25
		75.655			53.00
					75.655

$\frac{53.00}{75.655} = 70.05$

Correction = Difference between sums of products  $\left( \frac{S}{L} - \frac{S_1}{L} \right) = \frac{58.22}{18} - \frac{34.68}{18} = -1.30$

If limited on account of length of midship superstructure. Yes No Allowance. 4032 If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 17.30  
Summer freeboard = 2.85  
Moulded draught (d) = 14.45

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 3.61 = 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

 $\Delta = 1332$ 

Tons per inch immersion at summer load water line

 $T = 10.36$ Deduction =  $\frac{\Delta}{40 T}$  inches $= 3.21$  $= 3 1/4$ 

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.

20.42

20.42

5.47

5.50

-

1.14

14.04

-

19.51

5.64

+ 13.87

Summer Freeboard = 34.29

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

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

2'-10 1/4"

2'-3 1/2"

2'-7"

2'-6 3/4"

3'-1 3/4"

3'-3 3/4"



DROFN.

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.

Length on SKWL

Stern to AP =		= 11.65'
AP - 20 =	20 x 21	= 35.00'
20 - 38 =	18 x 20 1/2	= 30.75'
38 - 59 =	21 x 21	= 36.75'
59 - 65 =	6 x 20 1/2	= 10.25'
65 - 78 =	13 x 21	= 22.75'
78 - 108 =	30 x 17 1/2	= 43.75'
108 - Stem =		= 0.66'
		<u>191.56'</u>

To 1/2 of R.S. = 180.75' approx.

.96 x 191.56 = 183.90'  
179.91'  
 3.99'

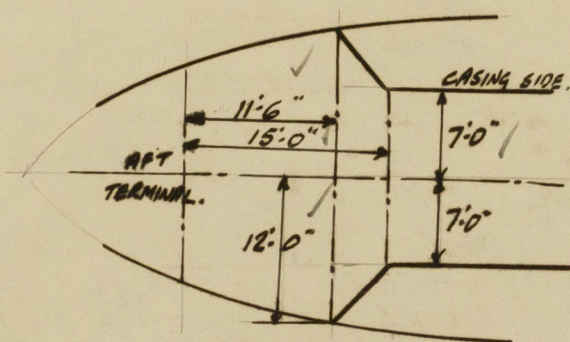
R.S.D. =	3.99	Proop incl. =	11.50'
AP - 20 =	35.00	(5 x 3.5) + (3.5 x 14.0)	= 2.71'
20 - 38 =	30.75	24.50	14.21' = Equiv. Proop
38 - 54 =	28.00		
	<u>97.74'</u>		
Less Proop	<u>14.21'</u>		
	<u>83.53'</u>		

Allowed Sheer forward.

Sheer aft 70.05% of Standard.

Act. Sheer.	64.50	45.375	11.375
Standard "	56.78	25.27	6.245
Diff.	7.72	20.105	5.130
Diff x .8020	6.19	16.12	4.11
Standard Sheer.	56.78	25.27	6.245
Effective "	62.97	41.39	10.355

$\frac{20.05}{25.00} = .8020$



SKETCH OF POOP FRONT.

Trade of ship Trawl Fishing.

Names of sister ships "HREFNA" "ANDVARI" Hall Russell's N° 824 - 825.

Builder's name and yard number Hall Russell, C° N° 826.

Owners Government of Iceland.

Fee £ 14 0 0.

The approved plans of Midship Section & Profile and Deck were forwarded for sister vessel N° 825 and are meantime in London Office.



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Foundation