

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"ARMILLA"</b> <i>ex HELIX</i>	Official Number <b>3011-18</b> <del>3007</del>	Nationality and Port of Registry <i>Dutch</i> <i>S. J. van der Grinten</i> <i>Curacao</i>	Gross Tonnage <b>5,868</b>	Date of Build <b>1931/4</b>	Port of Survey
Moulded Dimensions: Length <b>92,960</b> Breadth <b>15,240</b> Depth <b>5,868</b>					Date of Survey <b>7/11/38</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>5590</b> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <b>.784</b>					Particulars of Classification <b>100 A.I.</b> <i>Carrying Petroleum in Bulk.</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <b>5,868</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>12</b>	Moulded Breadth (B) <b>15,240</b>
Tringer plate ... <b>12</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>8,33(6,197-5,868)2,347 = -62</b>	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{305}$
Heating on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <b>62 x 4676 = -52</b> <b>1,996</b>	Ship's Round of Beam = <b>305</b>
Depth for Freeboard (D) = <b>5,880</b>		Difference <b>✓</b>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \mathbf{NIL}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	26,262	26,262	1,676		26,262	Standard Height of Superstructure
" overhang ...						" " R.Q.D. 1,443 ✓
R.Q.D. enclosed ...						Deduction for complete superstructure 906 <sup>in</sup> ✓
" overhang ...						Percentage covered $\frac{S}{L} = 43.88$ ✓
Bridge enclosed ...						" " $\frac{S_1}{L} = 80.73$
" overhang aft ...						" " $\frac{E}{L} = 74.83$ ✓
" overhang forward ...						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed <i>Sym.</i>	14,532	14,532	2,286		14,532	Percentage from Table, Line B. <i>Tanker</i> 68.94 ✓
" overhang ...		34,268	1,676	$\frac{1,676}{1,996}$	28,772	(corrected for absence of forecastle (if required))
Trunk aft ...						Interpolation for bridge less than 2L (if required)
" forward ...						Deduction = 906 x 68.94 = -625 ✓
Tonnage opening aft ...						
" forward ...						
Total ...	40,794	75,062			69,566	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft =	Mean standard sheer aft =
A.P. ...	1029	1	1029	965	965	1	965	1	965	Deficient	Deficient
L from A.P. ...	458	4	1832	351	351	4	1404	4	1404		
L " ...	113	2	226	88	88	2	176	2	176	Length of enclosed superstructure forward of amidships =	
Amidships ...	-	4	-	-	-	4	-	4	-	" " aft of " =	
L from F.P. ...	226	2	452	163	163	2	326	2	326		
L " ...	916	4	3664	652	652	4	2608	4	2608		
F.P. ...	2058	1	2058	1523	1523	1	1523	1	1523		
Total ...			9261				7002		7002		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{2259(75-2194)}{18 \times 5306} = \mathbf{+66}$

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.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **5,880**  
Summer freeboard = **540**  
Moulded draught (d) = **5,340**

Deduction for Tropical freeboard and addition for Winter freeboard = **d** inches = **114**

Addition for Winter North Atlantic Freeboard (if required) = **114 + 77 = 190**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = \mathbf{6100}$

Tons per inch immersion at summer load water line

$T = \mathbf{31,85}$

Deduction =  $\frac{\Delta}{40T}$  inches = **121**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.784 + .68}{1.76} = \mathbf{.464}$

Depth Correction ... **52**

Deduction for superstructures ... **625**

Sheer correction ... **66**

Round of Beam correction ... **-**

Correction for Thickness of Deck amidships ... **-**

Other corrections, scantlings, etc. ... **66**

Summer Freeboard = **540**

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

Tropical Fresh Water Line above Centre of Disc ... **23 Cms.**  
Fresh Water Line " " ... **12**  
Tropical Line " " ... **11**  
Winter Line below " " ... **11**  
Winter North Atlantic Line " " ... **19**

54 Cms.  
31 "  
42 "  
43 "  
65 "  
73 "

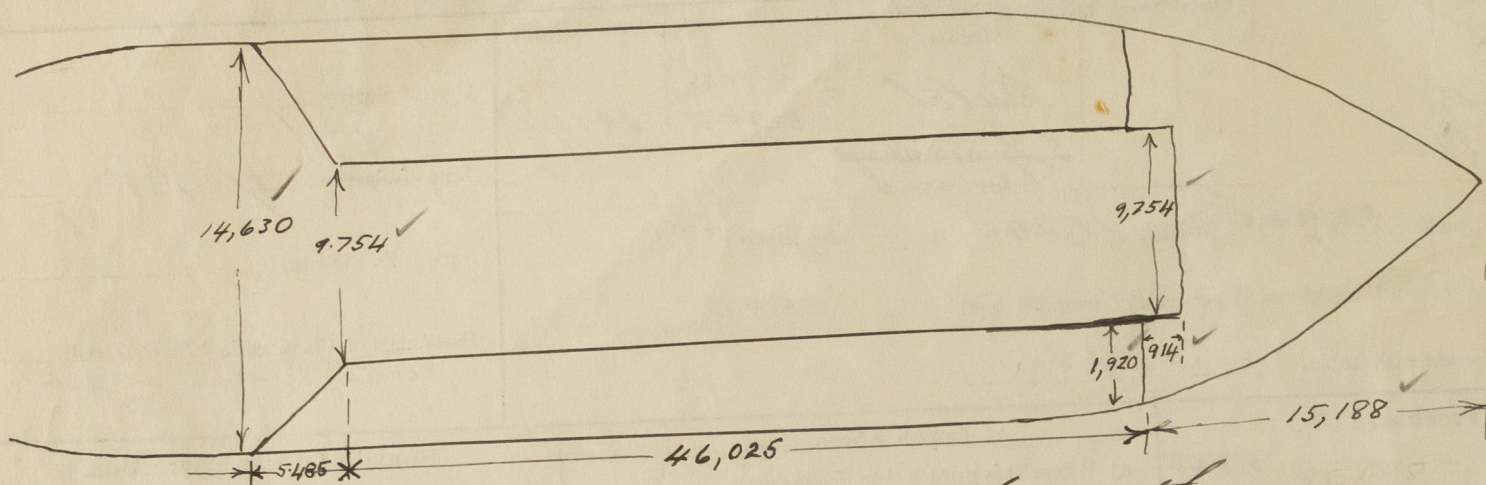
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MARKING FOR  
RECEIVED



# ARMILA

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.



Trunk

$$\begin{array}{r} \text{Parallel portion } 46,025 \\ \quad \quad \quad 656 \\ \hline 46,681 \times \frac{9,754}{15,240} \\ \hline = 29,880 \end{array}$$

Forecastle

$$\begin{array}{r} \text{Sidehouses } \frac{1,920 \times 914}{6,797} = \frac{258}{656} \\ \hline 15,188 \\ \hline 14,532 \end{array}$$

After Portion

$$\begin{array}{r} \frac{14,630 + 9,754}{2} \times 5,485 \\ \hline = 4,388 \\ \hline 29,880 \\ \hline 34,268 \end{array}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £

M.V. "HARPA"

Hawthorne Leslie & Co. Ltd.

N.V. Nederlandsch-Indische Tank Stoomboot Maatschappij.



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