

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Amended Reinforcement fitted.

Index No. (For London Office only.)

Ship's Name AKKO. <i>(Athens)</i>	Official Number	Nationality and Port of Registry ISRAEL. <i>HAIFA.</i> <i>(ungr)</i>	Gross Tonnage 7161	Date of Build 1944.	Port of Survey
Moulded Dimensions: Length 417.35 Breadth 56.90 Depth 28.58 <i>TO. UPPER DECK.</i> <i>CL. RUDDER, STOCK.</i>					Date of Survey 26.3.53
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 16.600 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .771					Particulars of Classification + 100 A1.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 37.33	(a) Where D is greater than Table depth (D-Table depth) R = (37.39-27.82) .3 = + 28.71	Moulded Breadth (B) 56.9'
Stringer plate06	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ = 13.66"
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 14.00"
Depth for Freeboard (D) = 37.39		Difference 34"
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right)$ = .34 = - .09"

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure
" overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed						" " $\frac{S_1}{L} =$ } NIL.
" overhang aft						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A.
F'cle enclosed						(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction = NIL.
" " forward						
Total						

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	51.73	1	51.73	55.00	55.00	1	55.00
$\frac{1}{2}$ L from A.P.	23.02	4	92.08	23.25	23.25	4	93.00
$\frac{3}{8}$ L "	5.69	2	11.38	6.50	6.50	2	13.00
Amidships	-	4	-	-	-	4	
$\frac{3}{8}$ L from F.P.	11.38	2	22.76	11.63	11.63	2	23.26
$\frac{1}{2}$ L "	46.04	4	184.16	46.75	46.75	4	187.00
F.P.	103.47	1	103.47	105.00	105.00	1	105.00
Total			465.58				476.26

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{10.68 \times .75}{18} = - .45$

If limited on account of midship superstructure. **No FLUSH. DECK.**

Mean actual sheer aft
Mean standard sheer aft = } **EXCESS.**

Mean actual sheer forward
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } **NIL.**

" " aft of " = }

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

Ft.
Depth to Freeboard Deck = **37.39**
Summer freeboard = **9.79**
Moulded draught (d) = **27.60**
Keel allowance = **✓**

Extreme draught =
Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.90 = 7"**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 14205$
Tons per inch immersion at summer load water line
 $T = 48.20$
Deduction = $\frac{\Delta}{40 T}$ inches
= **7 1/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required).

Correction for coefficient $\frac{.771 \times .68}{1.36} = 1.451$

Depth Correction **28.71**
Deduction for superstructures
Sheer correction **.45**
Round of Beam correction **.09**
Correction for Thickness of Deck amidships
Other corrections, scantlings, etc. **.55**
Sum of corrections **27.60**

	+	-
Depth Correction	28.71	
Deduction for superstructures		
Sheer correction		.45
Round of Beam correction		.09
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		.55
Sum of corrections	27.60	.54

Summer Freeboard = **117.50**

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

Tropical Fresh Water Line above Centre of Disc **362 1/4"**
Fresh Water Line " **184 7/8"**
Tropical Line " **178 7/8"**
Winter Line below " **178 7/8"**
Winter North Atlantic Line " "

Tropical Fresh Water Freeboard **8' 9 1/2"**
Fresh Water " **8' 7 1/4"**
Tropical " **9' 2 1/4"**
Winter " **9' 2 1/2"**
Winter North Atlantic " **10' 4 1/2"**

2984 mm
2622
2800
2806
3162