

22/9/48.

# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER: *8/5* ALPHA LIMPOPO. E. HADLEY. ~~WITH~~ <sup>WITHOUT</sup> TIMBER DECK CARGO  
Nationality SOUTH AFRICAN (BRITISH). Builders' Name and No. of Ship KAISER CO. INC. PORTLAND.  
Port of Registry DURBAN. ORE. NO 10.  
Official Number 172573. Owners ALPHA SOUTH AFRICAN S.S. CO DURBAN.  
Gross Tonnage 10682. MGRS. MOLLER LINES S.A. (PTY) LTD. "  
Date of Build 5/1943. Port and Date of survey  
Name of Surveyor

Particulars of Classification BS. (TANKER).  
OILS F.P. Below 150°F. Names of Sister Ships T.2. TANKERS.

Type of Superstructures POOP BRIDGE 2 FOLE.

Trade of Ship

Service Endorsement if any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)

TROPICAL FRESH WATER LINE	above centre of disc	15 3/4"	Corresponding Freeboard
FRESH WATER LINE	" " "	8 1/4"	" "
TROPICAL LINE	" " "	7 1/2"	" "
WINTER LINE	below " "	7 1/2"	" "
WINTER NORTH ATLANTIC LINE	" " "	12 1/2"	" "

9'-2 3/4"
7'-11"
8'-6 1/2"
8'-7 1/4"
9'-10 1/4"
10'-3 1/4"

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

TROPICAL FRESH WATER	Timber line above L.S.	Corresponding Freeboard
FRESH WATER	" " " "	" "
TROPICAL	" " " "	" "
WINTER	" " below "	" "
WINTER NORTH ATLANTIC	" " " "	" "

Number of years recommended for load line certificate

Date of issue 22-9-48  
expiry 14-3-53.

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the 6th Oct 1948



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# COPY OF AMERICAN BUREAU. COMPUTATION OF FREEBOARD

Length on summer load line 502'-0 Moulded Breadth 68'-0 Moulded Depth 39'-3" Depth of Keel 3'-4"  
Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 24416. Tons  
Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times .85} =$  .748.  
Displacement and tons per inch immersion in salt water at summer load line  
Moulded depth 39.25. Deduction for Fresh Water  $\frac{\Delta}{40 T} =$  inches  
Stringer Plate .08. Round of Beam Correction  
Sheathing on exposed deck T  $\left(\frac{L-S}{L}\right)$  - Ships Round of Beam 19.50. inches  
Rise of floor (in sailers) - Standard Round of Beam  $\frac{B \times 12}{50}$  16.32.  
Depth for Freeboard (D) 39.33. Difference 2.18.  
Table Depth 7/5. 33.55. Restricted to  
Depth Correction 3 - 5.78 = 17.34 in. Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = \frac{2.18}{4} \times .6 = .33$   
If restricted by superstructures

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	
Poop	107.57.	2.63.	8'-0" 8'-9"	107.57.		110.20	Standard Height of Superstructure <u>7'-6"</u>
Raised Quarter Deck							" " R.Q.D.
Bridge	35.75.	2.87.		35.75.		38.62.	Percentage covered S/L = <u>39.02%</u>
Forecastle	52.63.	.75.	4'-6" 13'-7 1/2"	52.63.		53.01.	" " E/L = <u>40.1%</u>
Trunk Aft							" from Table line A, B, (corrected for absence of forecastle if required)
" Forward							Percentage from Table by interpolation for Bridge less than .2L if required =
Tonnage Opening Aft							Deduction = <u>.311.</u>
" " Forward							Percentage from Table for Tankers (or Timber ships) =
Totals				195.95		201.83.	Deduction = <u>427 - 311 = 13.06.</u>

STANDARD.	Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
			AFT.			
	60.2. A.P.	16.0.	15.5.	31.50.	1	31.50.
	26.79. 1/2 L from A.P.	2.25.	.75.	3.00	4	12.00.
	6.62. 1/2 L from A.P.	-			2	
	- Amidships	-			4	
	13.24. 1/2 L from F.P.	-			2	
	53.58. 1/2 L " "	5.44		5.44.	4	21.76.
	120.4 F.P.	18.00.		18.00.	1	18.00.
					18	83.26.

Mean Actual sheer aft = LESS THAN 1  
" Standard " "

Mean Actual sheer forward = LESS THAN 1  
" Standard " "

Length of enclosed superstructure forward of amidships =  
Length of Ship

Length of enclosed superstructure aft of amidships =  
Length of Ship

Sheer Correction = Difference  $\times \left(.75 - \frac{S}{2L}\right) = 25.52 \times \left(.75 - \frac{39.02}{2}\right) = 14.18$  ON

Effective Mean Sheer = 4.625.  
Standard " " .05L + 5 = 30.15.  
Difference 25.52.

If limited on account of midship superstructure = -  
" to maximum allowance of 1 1/2 ins. per 100 ft. = -

TABULAR FREEBOARD corrected for flush deck if required = 88.19.

Correction for co-efficient = 88.19  $\times \frac{74.8 \times .63}{1.26} =$  92.52. DRAUGHTS AND SEASONAL CORRECTIONS

	+	-
Depth correction	17.34.	
Deduction for superstructures		13.06.
Sheer correction	14.18.	
Round of Beam correction		.33.
Correction for thickness of deck amidships		
Other corrections, scantlings, etc.		
	31.52	13.39.

Summer Freeboard in inches = 110.65.  
Additional allowance for superstructures on  
Timber carrying ships =  
Summer Timber Freeboard in inches =

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet	39'-4"	
Summer Freeboard in feet	9'-2 3/4.	
Moulded Draught (d)	30'-1 1/4	(d1)
Addition for Keel	3/4.	
Extreme draught	30'-2"	

Deduction for Tropical and addition for Winter freeboard  $d/4 = 7 1/2$  ins.  
Addition for Winter North Atlantic (if required) = 12 1/2 ins.  
Deduction for Tropical Timber Freeboard  $d/4$  = ins.  
Addition for Winter " "  $\frac{d1}{3}$  = ins.  
" " N.A. Timber Freeboard (if required) = ins.



# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD CONDITIONS OF ASSIGNMENT

SHIP'S NAME

OFFICIAL NUMBER

Nationality and Port of Registry

## PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead		44.	9x4x7/16.	28"	WELDED ENDS		18"	8'-0"
R.Q.D. " <i>AFT PUMPROOM.</i>							18"	8'-0"
Bridge Aft Bulkhead		29	4x3x5/16.	30"	"		18"	8'-2"
" Forward "		44.	9x4x7/16	30"	"		18"	8'-2"
Forecastle Bulkhead		29.	4x3x5/16.	30"	TOPS BUTD. 6TTS. FREE.		17 1/2"	9'-11"
Trunk, Aft								
" Forward								
Exposed Machinery Casings on } Freeboard or R.Q. Decks }								
Exposed Machinery Casings on } superstructure decks }								
Machinery Casings within Super- } structures not fitted with Cl. 1 }								
Deckhouses on flush deck ships								

## PARTICULARS OF CLOSING APPLIANCES (state if capable of being manipulated from both sides)

Poop Bulkhead	HINGED STEEL DOORS
R.Q.D. "	
Bridge Aft Bulkhead	HINGED STEEL DOORS
" Forward "	HINGED STEEL DOORS
Forecastle Bulkhead	HINGED STEEL DOORS
Exposed Machinery Casings on } Freeboard or R.Q. Decks }	
Exposed Machinery Casings on } superstructure decks }	Steel covers and gratings No Doors 4 P. 25.
Machinery Casings within Super- } structures not fitted with Cl. 1 }	
Deck houses on flush deck ships	

## PARTICULARS OF FREEING ARRANGEMENTS

	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well					
Forward Well			open Rails.		

State fore and aft position and height above } After Well  
deck to bottom of port, for each port }  
Forward Well

State whether freeing ports are fitted with shutters, bars or rails, and give particulars

Give particulars of freeing port area, etc., on superstructure decks



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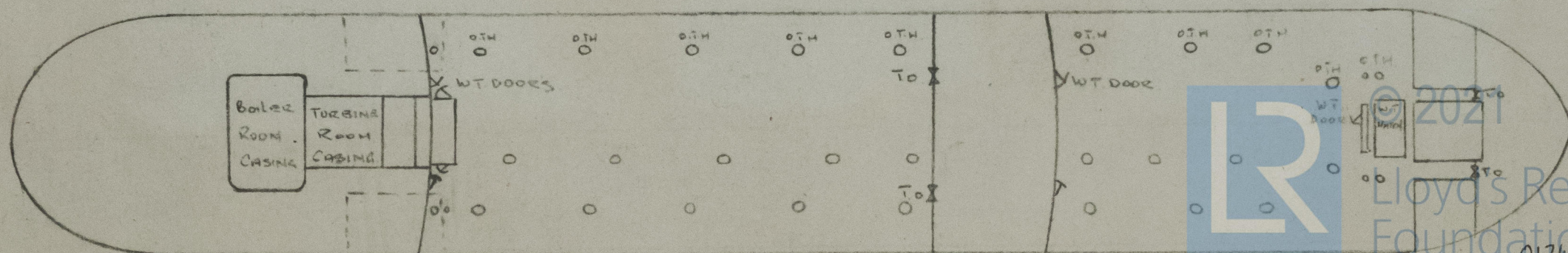
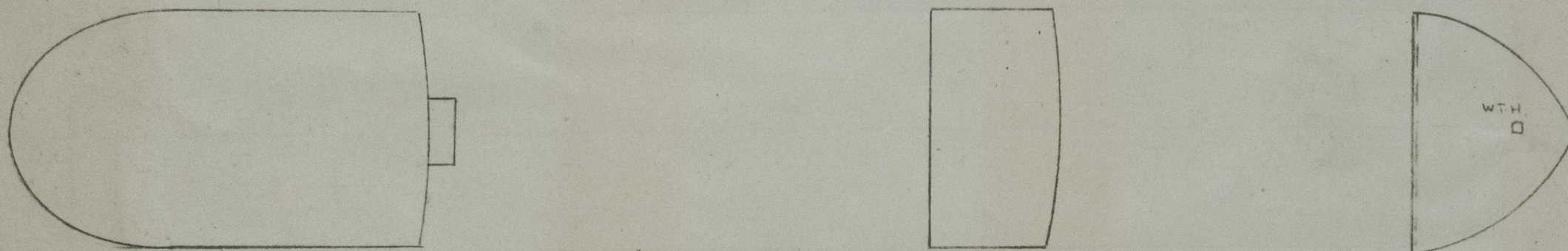
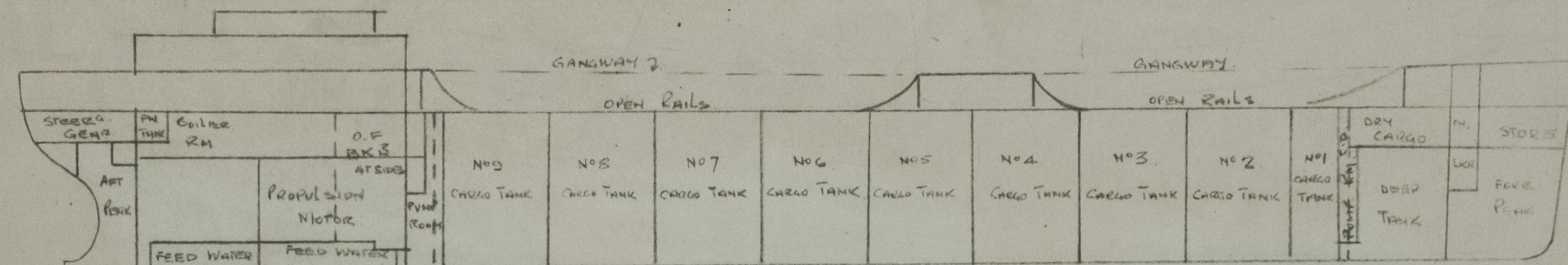
open Rails.

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Position and dimensions of superstructure decks, position of superstructure bulkheads and openings, extent and thickness of wood sheathing in wells, position of cargo and coaling hatchways, gangway, cargo and coaling ports, freeing ports, ventilators to spaces below freeboard deck and fully enclosed superstructures, companionways, etc., which affect the freeboard of the ship.





# PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward		DRY CARGO HATCH	RESERVE OIL FORD. BUNKERS (IP&IS)	COFFERDAMS (IP&IS)	26 CARGO OIL HATCHES	MAIN OIL BUNKERS (IP&IS)	UPPER DECK IN FORE 1 GL	AFTER COFFERDAM (IP&IS)
Dimensions of Hatchway		11'-3" X 15'-0"	27" DIA	24" DIA	4'-0" DIA	30" DIA	3'-0" X 3'-0"	24" DIA
COAMINGS	Height above steel { deck	30"	24"	24"	30"	30"	30"	24"
	Thickness { sides ends	7/16"	7/16"	7/16"	9/16"	7/16"	7/16"	7/16"
	Stiffeners	3 1/2" X 3/8 FB.						
	Brackets or Stays	FD. PL.						
HATCH BEAMS	Number							
	Spacing							
	Scantling and Sketch							
	Bearing Surface and thickness of carriers or sockets							
FORE AND AFTERS	Number							
	Spacing							
	Unsupported lengths							
	Scantling and Sketch							
HATCH COVERS	Bearing Surface and thickness of carriers or sockets							
	Material	W.T. STEEL	O.T. STEEL	W.T. STEEL	O.T. STEEL	O.T. STEEL	W.T. STEEL	W.T. STEEL
	Thickness							
	How Fitted	HINGED	HINGED	HINGED	HINGED	HINGED	HINGED	HINGED
Bearing Surface					STRONGBACK & WING NUTS	STRONGBACK & WING NUTS	WING NUTS	WINGS
Spacing of Cleats		WING NUTS	WING NUTS	WING NUTS				
Number of Tarpaulins								

Are tarpaulins in good condition and in accordance with rule requirements?

Are lashings provided in accordance with rule requirements?

Are wood fore and afters steel shod at all bearing surfaces?

Are battens and wedges efficient and in good condition?



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OPENING 1P&1S 6'-0" x 2'-0" - 6" CMA - (HINGED) STEEL COVER  
" " " 2'-0" x 2'-0" 6" " " "

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

2075

FORWARD & AFT PUMP ROOMS - STEEL STIFFENED WITH W.T. STEEL HINGED DOORS  
MANIPULATED BOTH SIDES - 18" SILLS

FORECASTLE DECK	1-12" CV 6"	COAMING WELDED TO DECK - WT HINGED STEEL COVER
"	1-12" MV 3'	" " " - SCREW DOWN TYPE
UPPER	1-12" CV	" " FORECASTLE BHD. - W.T. HINGED STEEL COVER
	1-15" CV 10'	" " DECK " " " "
	2-15" CV 10'	" " " AT PUMPROOM W.T. " " "
	1-8" CV 10'	" " " " " " " "
	2-24" CV 27'-6"	" AND STAYED ON KINGPOSTS TO AFT PUMP ROOM
BRIDGE	4-12" CV 3'	" TO DECK - WT HINGED STEEL COVER
POOP	1-10" GNV 3'	" " " " " " "
	1-18" GNV 3'	" " " " " " "
	1-9" x 14" GNV 3'	" " " " " " "

UPPER DECK 4-6" AIR PIPES FROM MAIN AND RESERVE D.F. BUNKER 9'-0" WITH PATENT SAFETY FITTING  
 " " 4-2 1/2" " " CORRODAMS 3'-6" " " " "  
 " " 4" " " ALL CARGO TANKS LED UP MASTS - WITH AUTOMATIC PRESSURE AND VACUUM VALVES AT GANGWAY LEVEL

FORECASTLE " 1-4" " " 4' HIGH WITH PATENT SAFETY FITTING  
POOP " 1-4" " " 3'-6" " " " " " "

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Scuppers and Sanitary Discharge Pipes (state material, type and number of valves)

4-4", 5-2" & 6-1 1/2" FITTED IN ENGINE ROOM WITH NON RETURN BRASS CLACK VALVES AT SHIPSIDE AND SHUT OFF GATE VALVES

Side Scuttles to spaces below freeboard and superstructure decks (state type or pattern, and if permanent or portable deadlights are supplied  
15" DIA. SIDE SCUTTLES WITH HINGED DEADLIGHT PERMANENTLY FITTED TO POOP ACCOMMODATION

Vertical distance of sill of lowest side scuttle below top of freeboard deck at side amidships

NONE BELOW FREEBOARD DECK

Guard Rails on freeboard and superstructure decks (state type and where fitted)

2 PIPE RAILS WITH FLAT BAR STANCHIONS FITTED ON UPPER, FORECASTLE AND POOP DECKS

BRIDGE DECK FITTED WITH 5/16" STEEL BOLWARK

Gangways and Lifelines

FORE & AFT GANGWAY (PERMANENT) FITTED BETWEEN POOP, BRIDGE AND FORECASTLE

Gangway, Cargo and Coaling Ports in sides of ship



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SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructures and Machinery Casings comply with rules?

Is provision made for protection of steering gear?

Is emergency steering gear provided?

Are efficient sockets and eyes for lashings provided and properly spaced?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Particulars of any Special Features in the construction of the Ship

Endorsement at first survey and at surveys for Renewal of Certificate:—

The fittings and appliances are in accordance with the particulars shown in the form and are in good condition



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