

Report on Refrigerating Machinery and Appliances.

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Date of writing Report 25th MAY 1947 When handed in at Local Office 9.6. 1947 Port of GLASGOW
 No. in 365854 Reg. Book. Survey held at GLASGOW Date: First Survey 10.1.47 Last Survey 4.6. 1947
 (Number of Visits 22)
 on the Refrigerating Machinery and Appliances of the M.V. LA HAGUE Tons Gross 4029 Net 2224
 Vessel built at GLASGOW By whom built HARLAND & WOLFF Yard No. 13439 When built 1947
 Owners LE MINISTRE DES TRAVAUX PUBLICS DU GOUVERNEMENT DE LA REPUBLIQUE FRANCAISE Port belonging to NANTES Voyage NORTH AFRICA TO FRANCE
 Refrigerating Machinery made by J. E. HALL LO Machine Nos. 12786 12787 12788 When made 1946
 Insulation fitted by CORK INSULATION AND ASBESTOS CO. LD. When fitted WHILST BUILDING System of Refrigeration AMMONIA
 Method of cooling Cargo Chambers BRINE & AIR Insulating Material used SLAB & GRANULATED CORK
 Number of Cargo Chambers insulated 5 Total refrigerated cargo capacity 59,990 cubic feet

DESCRIPTION OF REFRIGERATING MACHINERY. Where placed.

Refrigerating Units, No. of No. of machines Is each machine independent
 Total refrigeration or ice-melting capacity in tons per 24 hours Are all the units connected to all the refrigerated chambers
 Compressors, driven direct or through single } reduction gearing. Compressors, single or double acting If multiple effect compression
double }
 Are relief valves or safety discs fitted No. of cylinders to each unit Diameter of cylinders
 Diameter of piston rod Length of stroke No. of revolutions per minute
 Motive Power supplied from (State number of boilers, oil engines or electric generators supplying the motive power.)
 Steam Engines, high pressure, compound, or triple expansion, surface condensing. No. of cylinders Diameter
 Length of stroke Working pressure Diameter of crank shaft journals and pins
 Breadth and thickness of crank webs No. of sections in crank shaft Revolutions of engines per minute
 Oil Engines, type 2 or 4 stroke cycle Single or double acting B.H.P.
 No. of cylinders Diameter Length of stroke Span of bearings as per Rule
 Maximum pressure in cylinders Diameter of crank shaft journals and pins
 Breadth and thickness of crank webs No. of sections in crank shaft Revolutions of engine per minute
 Air Receivers:—Have they been made under survey State No. of Report or Certificate
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule
 Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver
 No. of Receivers Cubic capacity of each Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
 Electric Motors, type No. of Rated Kilowatts Volts
 at revolutions per minute. Diameter of motor shafts at bearings
 Reduction Gearing Pitch circle diameter, pinion Main wheel Width of face
 Distance between centres of pinion and wheel faces and the centre of the adjacent bearings, pinion Main wheel
 Pinion shafts, diameter at bearings Main wheel shaft, diameter at bearings
 Gas Condensers, No. of Cast iron or steel casings Cylindrical or rectangular Are safety valves fitted
 to casings No. of coils in each Material of coils Can each coil be readily shut off or disconnected
 Water Circulating Pumps, No. and size of pumps available how worked Gas Separators, No. of
 Gas Evaporators, No. of Cast iron or steel casings Pressure or gravity type If pressure type, are safety
 valves fitted No. of coils in each casing Material of coils Can each coil be readily shut off or disconnected
 Direct Expansion or Brine Cooled Batteries, No. of Are there two separate systems, so that one may be in use while the other is being
 cleared of snow No. of coils in each battery Material of coils Can each coil be readily shut off or
 disconnected Total cooling surface of battery coils Is a watertight tray fitted under each battery
 Air Circulating Fans, Total No. of each of cubic feet capacity, at revolutions per minute
 Steam or electrically driven Where spare fans are supplied are these fitted in position ready for coupling up
 Brine Circulating Pumps, No. and size of, including the additional pump how worked
 Brine Cooling System, closed or open Are the pipes and tanks galvanised on the inside
 No. of brine sections in each chamber
 Can each section be readily shut off or disconnected Are the control valves situated in an easily accessible position

NOTE.—THE WORDS WHICH DO NOT APPLY SHOULD BE DELETED.

Are thermometers fitted to the outflow and to each return brine pipe... *Yes* Where the tanks are closed are they ventilated as per Rule... *Yes*
Where the tanks are not closed is the compartment in which they are situated efficiently ventilated...
Are the number and capacity of the machines and the number of pumps and sea connections in accordance with Section 2, Clause 1 of the Rules...
Yes
Is the exhaust steam led to the main and auxiliary condensers...

HYDRAULIC AND OTHER TESTS.

DESCRIPTION.	Date of Test.	Working Pressure.	Hydraulic Test Pressure	Air Test Pressure.	Stamped.	REMARKS.
Engine Cylinders (if tested)						
Gas Compressors						
„ Separators						
„ Multiple Effect Receivers						
„ Condenser Coils						
„ Evaporator Coils						
„ Condenser Headers and Connections						
„ Condenser Casings						
„ Evaporator Casings						
NH ₃ Condenser, Evaporator and Air Cooler Coils after erection in place						
Brine Piping after erection in place...	1-4-47	20 lb/sq	90 lb/sq			

Have important steel castings and forgings been tested in accordance with the Rules... *Yes*
Cooling Test. Has the refrigerating machinery been examined under full working conditions, and found satisfactory... *Yes*
Dates of test. *28-5-47* Density of Brine *48* by *Swadlow* hydrometer
Temperatures (when the cargo chambers are cooled down to the required test temperatures) of delivery and return air at direct expansion or brine cooled batteries... *16.5°C* & *-12°C*, outflow and return brine *-24°C* & *-20.5°C*
atmosphere *14°C* cooling water inlet and discharge *15°C* & *14°C* gas in condensers *21.5°C* and evaporators *-27°C*
the average temperature of the refrigerated chambers... *N°6 HOLD & TWEEN DECKS -16°C (3°F)* and the rise of temperature in these chambers upon the expiration of *12* hours
ALL OTHER CHAMBERS -7.3°C (19°F)
time after the machinery and cooling appliances have been shut off *N°6 CHAM³ 8.2°C or 15°F OTHER CHAM³ -4°C or 7°F*

SPARE GEAR.

Are the working parts of the machines, pumps and motors respectively, interchangeable...
Has the spare gear required by the Rules been supplied... *Yes*
Additional Spare Gear Supplied: *See London Report N°1670*
All spare gear as stated on above report now placed on board the vessel.

The foregoing is a correct description of the Refrigerating Machinery.
Manufacturer.

DESCRIPTION OF INSULATION.

IN LOWER HOLD CHAMBERS.					IN 'TWEEN DECK CHAMBERS.					
	Air Space.	Outer Lining.	Non-conducting Material.	Thickness of ditto.	Inner Lining.	Air Space.	Outer Lining.	Non-conducting Material.	Thickness of ditto.	Inner Lining.
Frame No. (Fore Peak)	A									
Frame No.	T									
Frame No.	A									
Frame No.	T									
Frame No.	A									
Frame No.	T									
BULKHEADS. { N°3 HOLD & TWEEN DECKS Frame No. 98 (Hatch Room)	A									
	A									
	T									
	A									
	T									
Frame No. 82 (Engine Room)	A									
Frame No. 16	T									
Frame No. 11-13	A									
	T									
Frame No. 4-0	A									
	T									
Frame No. 2-0 AFT OF 0 (After Peak)	T									
Sides ...										
Overheading ...										
Floors of Chambers ...										
* ADJACENT TO SHIPS SIDES AND BULKHEADS ONLY IN N°3 HOLD & LOWER T.D.S.										
Trunk Hatchways										
Thrust Recess, Sides and Top										
Tunnel Sides and Top										
Tunnel Recess, Front and Top										

Frames or Reverse Frames, Face... *IN ABOVE INSULATION*
Bulkhead Stiffeners, Top... *IN ABOVE INSULATION* Bottom... *IN ABOVE INSULATION* and Face... *IN ABOVE INSULATION*
Ribband on Top of Decks... *2" THICK D.P. AT SHIPS SIDES & ADJACENT TO BMS 82 & 98 ON 2ND & 3RD DECKS.*
Side Stringers, Top... *AS FOR SIDES* Bottom... *AS FOR SIDES* and Face... *AS FOR SIDES*
Web Frames, Sides... and Face...
Brackets, Top... *IN ABOVE INSULATION* Bottom... *IN ABOVE INSULATION* and Face... *IN ABOVE INSULATION*
Insulated Hatches, Main... *6" GRAN CORK & 1/2" T.G. BOARDS TOP & BOTTOM* Bilge... *4" GRAN CORK & 2 LAYERS 5/8" T.G. BOARDS TOP & BOTTOM* Manhole... *4" GRAN CORK & 2 LAYERS 5/8" T.G. BOARDS TOP & BOTTOM*
Hatchway Coamings, Main... *PITCH PLATE & TAPERED TO 3" WITH 3/16" GALV. FACE PLATE* Bilge... *9/16" x 1/8" TAPERED TO 3/8" SOLID PINE*
Hold Pillars... *INSULATED WITH CORKDAGE*
Ventilators... *4" SLAB CORK & 1/2" HARDSETTING CEMENT*
Are insulated plugs fitted to provide easy access to bilge suction roses... *YES* tank, air, and sounding pipes... *YES* heels of pillars... *WELDED.*
and manhole doors of tanks... *YES* Are insulated plugs fitted to ventilators... *YES* cargo ports... *YES* and side lights...
Is the insulation of the lower hold floor and tunnel top in way of the hatchways protected... *YES* if so, how... *1/2" ELN SUBSTITUTED FOR TOP LAYER OF T.G. BOARDS*
Oil Storage Tanks, where adjacent to the insulated chambers, state what provision has been made for ventilating the air space between the insulation and the bulkhead plating...
and for draining the tank top... *NO AIR SPACE*
Fireproof Insulation. Is the insulation and woodwork fireproof in way of bunkers or any surfaces exposed to excessive heat... *—* Where...
Cooling Pipes pass through watertight bulkheads or deck plating, are the fittings and packing of the stuffing boxes both watertight and fireproof... *YES*
Cargo Battens, Dimensions and spacing, sides... *2" x 2" SPACED 12"* floors... *WOOD GRANTINGS ON BARE STEEL DECKS*
fixed or portable... *FIXED* Are screens fitted over the brine grids at chamber sides... *YES* hinged or permanently fixed... *FIXED*
Thermometer Tubes, No. and position in each chamber... *1 P.S. IN EACH CHAMBER*
diameter... *2 1/2"* are they fitted in accordance with Section 3, Clause... *YES*
Protection of Pipes. Are all pipes, including air and sounding pipes, which pass through or into insulated chambers, well insulated... *YES*
Draining Arrangements. What provision is made for draining the inside of the chambers... *2 1/2" SCUPPER P.S. IN EACH CHAMBER*
Where sluices, scupper pipes, and drain pipes are fitted are means provided for blanking them off... *YES*
What provision is made for draining the refrigerating machinery room... *DRAINS TO BILGE*
brine return room... *YES* fan room... *YES* water circulating pump room...
Are all air spaces behind insulation arranged to drain to the bilges, bilge wells, or gutterways of the respective chambers...

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0238 2/2

Sounding Pipes, No. and position in each chamber situated below the load water line. 1 (P.5) TO N°3 HOLD Bilge
Diameter 2 1/2" Are all sounding pipes in way of insulated chambers fitted in accordance with Section 3, Clause 11. YES
Are all wood linings tongued and grooved. YES. Are cement facings reinforced with expanded steel lattice. YES.
How is the expanded metal secured in place. BY HAIRPIN STAPLES TO WOOD GROUNDS.
How are the cork slabs secured to the steel structure of the vessel. BEDDED IN BITUMEN & NAILED TO GROUNDS
Air Trunkways in Chambers. Are the arrangements satisfactory and in accordance with the approved plans. YES
Are they permanently fixed or collapsible, or portable. PERMANENTLY FIXED

Where air trunkways pass through watertight bulkheads, are they fitted with watertight doors. Are the door frames efficiently insulated.
Are insulated plugs supplied for the doorways. YES Where are the doors worked from. SHIPS SIDE DOORS FROM INSIDE
Cooling Pipes in Chambers, diameter 1 3/32" Minimum thickness 1/4". Are they galvanised externally. YES
How are they arranged in the chambers. ON FACE OF INSULATION IN N°6 CHAMBERS

Thawing Off, what provision is made for removing the snow from the cooling pipes in the chambers. HOT GAS BY REVERSE
CIRCULATION OR REFRIGERANT FOR N°3 AIR COOLED SPACES. HOT BRINE FOR N°6 COOL COOLED SPACES
The foregoing is a correct description of the Insulation and Appliances. For HARLAND AND WOLFE, LIMITED.
Ryssel Cowan Secretary Builders.

Plans. Are approved Plans or Specifications forwarded herewith for the Refrigerating Machinery. No and Insulation. YES (Plans)
(If not, state date of approval)
Is the Refrigerating Machinery and Appliances duplicate of a previous case. No If so, state name of vessel.
If the survey is not complete, state what arrangements have been made for its completion and what remains to be done. Complete

General Remarks (State quality of workmanship, opinions as to class, &c.) See also London Report N°1670

The Refrigerating machinery and appliances have been satisfactorily installed on board under Special Survey.
The materials and workmanship are good
The machinery has been tested under full working conditions and found in good order
Cooling tests were satisfactorily carried out and the installation is eligible in our opinion for classification with Record of LLOYD'S R.M.C 6.47
N°6 Main and lower tween decks for temperatures -9.5°C (15°F) and all other chambers for temperatures 0°C (32°F).

It is submitted that this vessel is eligible for THE RECORD. + Lloyd's RMC 6.47
No. 6 main & lower tween decks for temp. 15°F
all other chambers for 32°F

CERTIFICATE WRITTEN. L. J. 12/6/47

PARTICULARS TO BE ENTERED IN REGISTER BOOK.

REFRIGERATING MACHINES.					System of (1) Refrigerating (2) Insulating the Chambers.	Ice melting capacity per 24 hours.	Is Refrigerating Machinery Electrically Driven?	INSULATED CARGO CHAMBERS.	
No. of Units.	No. of Compressors.	System.	Makers.	Date of Construction.				No.	Capacity. Cubic ft.
3	6	Ammonia	J.L. Hall & Co. Darford	1947	(1) Brine & Air (2) Slab & Gran. cork	51 Tons.	Yes	5	59,990

Fee 5.15 1/2 17.68 £ 26 : 0 : 0 (Fee applied for, 1.0 JUN 1947)
Travelling Expenses £ : : (Received by me, 19

A. Dickenson & W. Russell
Surveyors to Lloyd's Register.

Committee's Minute
Assigned - Lloyd's RMC 6.47
No. 6 main & lower tween decks
for temp. 15°F. All other chambers
for 32°F.

FRI. 2 APR 1948
Amendment to 2021
+ Lloyd's RMC for Mediterranean
Temp. 32°F in No. 3 space
and 15°F in No. 6 space
while Paris
Lloyd's 6.47