

22 MAR 1950

Received at London Office

on the Refrigerating Machinery and Appliances of the RUNIC Tons ^{Gross} {
Net {
Vessel built at Belfast By whom built Harland & Wolff Yard No. 1414 When built 1949
Owners _____ Port belonging to _____ Voyage _____
Refrigerating Machinery made by J & E Hall & Co Ltd Machine Nos. 13940/1/2 When made 1949
Insulation fitted by _____ When fitted _____ System of Refrigeration CO₂
Method of cooling Cargo Chambers _____ Insulating Material used _____
Number of Cargo Chambers insulated _____ Total refrigerated cargo capacity 527500 cubic feet

003409-00346703

1m, 11, 42. (MADE AND PRINTED IN ENGLAND)

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Are thermometers fitted to the outflow and to each return brine pipe.....Where the tanks are closed are they ventilated as per Rule.....
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.....
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)		lbs sq in	lbs sq in	lbs sq in		
Gas Compressors	28-10-49	1000	3000	1500	EMS	
„ Separators	28-10-49	1000	3000	1500	EMS	
„ Multiple Effect Receivers 12.8.49-15.8.49	17.8.49	not fitted				
„ Condenser Coils 24.8.49-26.8.49-31.8.49	29.7.49	1000	3000	1500	EMS	
„ Evaporator Coils	10.8.49	1000	3000	1500	EMS	
„ Condenser Headers and Connections	11.13-7.49	1000	3000	1500	EMS	
„ Condenser Casings	26.9.49	15	30	—	EMS	
„ Evaporator Casings	12.9.49	15	50	—	EMS	
NH ₃ Condenser, Evaporator and Air Cooler Coils after erection in place	19.9.49					
Brine Piping after erection in place...						

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.....

Dates of test..... Density of Brine..... by..... 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..... &....., outflow and return brine..... &.....

atmosphere..... cooling water inlet and discharge..... &..... gas in condensers..... and evaporators.....

the average temperature of the refrigerated chambers..... and the rise of temperature in these chambers upon the expiration of..... hours
time after the machinery and cooling appliances have been shut off.....

SPARE GEAR.

Are the working parts of the machines, pumps and motors respectively, interchangeable. *yes* ✓

Has the spare gear required by the Rules been supplied. *yes* ✓

Additional Spare Gear Supplied:— 3 sets Comp^r rings, 12 sets rings for glands, 36 lub^t piston leathers
36 lub gland leathers, 1 set of 2 leather moulds, 6 pistons & rods for Comp^r, 2 sets Cu joints for Comp^r
1 set Cu joints for other joints, 2 regul valve spindles, 2 springs each for water relief, brine
relief & Co₂ safety valves, 1 main bearing complete, 1 crankpin bearing complete, 1 x head
bearing complete, 1 pump for press lub^t, 3 Co₂ gauges, 1 hydrometer, 12 thermos for
brine headers, 1 special drain plug with pip, 36 sv discs, 3 $\frac{1}{8}$ Co₂ valves 9 pipes for do

	For 160 BHP Comp motor	all other size pumps
Armature in cover	1	1
Set of field coils	1	1
Set of interpole do	1	1
Set of bearing replacements	1	1

For fans 1 Rotor for each size fan

The foregoing is a correct description of the Refrigerating Machinery.

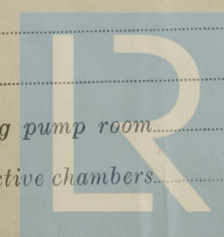
J & E. HALL, LTD

F. Wells

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.
BULKHEADS.	Frame No. (Fore Peak) A									
	Frame No. F									
	Frame No. A									
	Frame No. F									
	Frame No. A									
	Frame No. F									
	Frame No. (Boiler Room) A									
	Frame No. (Engine Room) A									
	Frame No. F									
	Frame No. A									
Frame No. F										
Frame No. A										
Frame No. F										
Frame No. A										
Frame No. F										
Frame No. A										
Frame No. F										
Sides										
Overheating										
Floors of Chambers										
Trunk Hatchways										
Thrust Recess, Sides and Top										
Tunnel Sides and Top										
Tunnel Recess, Front and Top										
Frames or Reverse Frames, Face.....										
Bulkhead Stiffeners, Top.....	Bottom.....	and Face.....								
Ribband on Top of Decks.....										
Side Stringers, Top.....	Bottom.....	and Face.....								
Web Frames, Sides.....	and Face.....									
Brackets, Top.....	Bottom.....	and Face.....								
Insulated Hatches, Main.....	Bilge.....	Manhole.....								
Hatchway Coamings, Main.....	Bilge.....									
Hold Pillars.....										
Masts.....	Ventilators.....									
Are insulated plugs fitted to provide easy access to bilge suction roses..... tank, air, and sounding pipes..... heels of pillars.....										
and manhole doors of tanks..... Are insulated plugs fitted to ventilators..... cargo ports..... and side lights.....										
Is the insulation of the lower hold floor and tunnel top in way of the hatchways protected..... if so, how.....										
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.....										
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.....										
Cargo Battens, Dimensions and spacing, sides..... floors..... tunnel top.....										
fixed or portable..... Are screens fitted over the brine grids at chamber sides..... hinged or permanently fixed.....										
Thermometer Tubes, No. and position in each chamber.....										
diameter..... are they fitted in accordance with Section 3, Clause 8.....										
Protection of Pipes. Are all pipes, including air and sounding pipes, which pass through or into insulated chambers, well insulated.....										
Draining Arrangements. What provision is made for draining the inside of the chambers.....										
Where sluices, scupper pipes, and drain pipes are fitted are means provided for blanking them off.....										
What provision is made for draining the refrigerating machinery room.....										
brine return room..... fan room..... 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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Sounding Pipes, No. and position in each chamber situated below the load water line.
 Diameter..... Are all sounding pipes in way of insulated chambers fitted in accordance with Section 3, Clause 11.....
 Are all wood linings tongued and grooved..... Are cement facings reinforced with expanded steel lattice.....
 How is the expanded metal secured in place.....
 How are the cork slabs secured to the steel structure of the vessel.....
Air Trunkways in Chambers. Are the arrangements satisfactory and in accordance with the approved plans.....
 Are they permanently fixed or collapsible, or portable.....
 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..... Where are the doors worked from.....
Cooling Pipes in Chambers, diameter. 1 1/4" Minimum thickness. 28 gauge Are they galvanised externally.....
 How are they arranged in the chambers.....
Thawing Off, what provision is made for removing the snow from the cooling pipes in the chambers......
 The foregoing is a correct description of the Insulation and Appliances.
 Builders.

Plans. Are approved Plans or Specifications forwarded herewith for the Refrigerating Machinery..... and Insulation.....
 (If not, state date of approval)
 Is the Refrigerating Machinery and Appliances duplicate of a previous case. *Yes* If so, state name of vessel *Cammell Jaud 1202*
 If the survey is not complete, state what arrangements have been made for its completion and what remains to be done.....

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The Refrigerating machinery and appliances of this vessel have been constructed under special survey in conformity with the Societys Rules, Regulations and the Secretarys letters. The scantlings and arrangements are in accordance with, or equivalent to, those shown on the approved plans. The materials and workmanships are good.
 In my opinion the Refrigerating machinery and appliances of this vessel will be eligible for the notation *LLOYDS RMC (with date) when the installation and testing have been satisfactorily carried out and the spare gear verified

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.
3	6	Carb Amby	J & E Hall	1949		Tons. 186	Yes		
Certificate to be sent to Fee <i>£58.6.8</i> <i>£116.13.4</i> } <i>£175.0.0</i> Fee applied for, 19. <i>Am. Lillies</i> Travelling Expenses £ : : Received by me, 19. Surveyor to Lloyd's Register.									

Committee's Minute.....

Assigned..... *see minute on*

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