





Common  
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) ...		lbs sq in	lbs sq in	lbs sq in		
Gas Compressors ...	31-3-48	1000	3000 ✓	1500 ✓	EMS	
„ Separators ...	16-4-48	1000	3000 ✓	1500 ✓	EMS	
„ Multiple Effect Receivers ...	✓	not fitted				
„ Condenser Coils ...	Stock listed 17-9-48	1000	3000 ✓	1500 ✓	EMS	
„ Evaporator Coils ...	20-9-48	1000	3000 ✓	1500 ✓	EMS	
„ Condenser Headers and Connections	19-4-48	1000	3000 ✓	1500 ✓	EMS	
„ Condenser Casings ...	26-4-48	10/15	30 ✓	—	EMS	
„ Evaporator Casings ...	4-6-48	10/15	30 ✓	—	EMS	
NH <sub>3</sub> Condenser, Evaporator and Air Cooler Coils after erection in place	1-10-48	✓	✓	✓	✓	
Brine Piping after erection in place...	18.1.49	25 lbs/p	50 lbs/p ✓	✓	✓	

Have important steel castings and forgings been tested in accordance with the Rules

Cooling Test. Has the refrigerating machinery been examined under full working conditions, and found satisfactory

Dates of test Density of Brine hydrometer

Temperatures (when the cargo chambers are cooled down to the required temperatures) of delivery and return air at direct expansion or brine cooled batteries

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:-

12 lub piston leathers 1-1/8" Co<sub>2</sub> valve 3 spare pins for do.  
12 " gland " 1 reg<sup>l</sup> valve spindle complete 12 safety discs  
1 set of 2 leather moulds 2 main bearing bolts & nuts  
2 springs water relief valve 2 conn rod bend do  
2 do Brine do 2 x head do 1 Co<sub>2</sub> gauge  
2 do Co<sub>2</sub> safety do 1 hand pump for pressure lub 12 thermos  
1 special NPL thermo 1 separator drain fitting 2 pro Co<sub>2</sub> pipe flanges  
1 box spare parts.  
For pumps, each size.  
1 spindle & impeller 1 set brushes for do

#### Electrical spares

1 Armature packed for storage } for each size  
1 Field coil }  
1 Interpole coil } motor  
For fans, each size  
1 motor  
1 spare fan motor

The foregoing is a correct description of the Refrigerating Machinery.

J. & E. HALL, LTD.

J. 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.
Frame No. (Fore Peak)	A									
Frame No.	F									
	A									
Frame No.	F									
	A									
Frame No.	F									
	A									
Frame No. (Boiler Room)	F									
	A									
Frame No. (Engine Room)	A									
Frame No.	F									
	A									
Frame No.	F									
	A									
Frame No. (After Peak)	F									
Sides ...										
Overheading ...										
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



**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..... Are the doors worked from.....  
**Cooling Pipes in Chambers, diameter**..... **Minimum thickness**..... **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 Vickers Armaments No 103  
 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 Society's Rules, regulations and the Secretary's letters. The scantlings and arrangements are in accordance with, or equivalent to, those shown on the approved plans. The materials and workmanship 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 listing have been satisfactorily completed, and the spare gear unused.

SEE NEWCASTLE REPORT N° 105923

**PARTICULARS TO BE ENTERED IN REGISTER BOOK.**

REFRIGERATING MACHINES.					System of (1) Refrigerating (2) Insulating the Chambers.	Ice melting capacity per 24 hours. Tons.	Is Refrigerating Machinery Electrically Driven?	INSULATED CARGO CHAMBERS.	
No. of Units.	No. of Compressors.	System.	Makers.	Date of Construction.				No.	Capacity. Cubic ft.
2	4	Carb Amby	J & E Hall	1948	Bone Air	87.8	Yes	7	96310

Fee £45 Fee applied for, 19.....  
 Travelling Expenses £ : : Received by me, 19.....

Surveyor to Lloyd's Register.

Committee's Minute

FEB 25 FEB 1949

Assigned

See minute in

NWC. 105923



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Foundation